Final Construction Completion Report

Lendrum Court

Presidio of San Francisco, California

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This report has been prepared for:

The Department of Toxic Substances Control

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ACRONYMS

AB	aggregate base
ADL	Aerially Deposited Lead (investigation area)
ADMMP	Air and Dust Monitoring and Mitigation Plan
ARAR	Applicable or Relevant and Appropriate Requirements
BAAQMD	Bay Area Air Quality Management District
BMP	best management practice
Caltrans	California Department of Transportation
CCR	Construction Completion Report
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CGP	Construction General Permit
CM	Construction Manager
COC	constituent of concern
CQA	Construction Quality Assurance
CQAP	Construction Quality Assurance Plan
CSAP	Confirmation Sampling and Analysis Plan
CUL	cleanup level
CY	cubic yard
Dig Permit	Trust Excavation Clearance Application
DTSC	Department of Toxic Substances Control
EDD	electronic data deliverable

EKI	Erler & Kalinowski, Inc.
ERRG	Engineering/Remediation Resources Group, Inc.
GPS	global positioning system
HASP	Health and Safety Plan
H.T. Harvey	H.T. Harvey & Associates
L/min	liters per minute
LBNL	Lawrence Berkeley National Laboratory
LUC	land use control
LUCMMR	Land Use Control Master Reference Report
M&H	McGuire & Hester
$\mu g/m^3$	micrograms per cubic meter
mg/kg	milligrams per kilogram
NIOSH	National Institute of Occupational Safety and Health
NOA	naturally occurring asbestos
O&M	operations and maintenance
OSHA	Occupational Safety and Health Administration
PAH	polycyclic aromatic hydrocarbon
PG&E	Pacific Gas & Electric Company
PM	particulate matter
PM_{10}	particulate matter with an aerodynamic diameter less than 10 microns
PPE	personal protective equipment
Presidio	Presidio of San Francisco, California
QA/QC	quality assurance/quality control
QAPP	Quality Assurance Project Plan
QSP	Qualified SWPPP Practitioner
RAO	remedial action objective
RAW	Removal Action Work Plan
RCRA	Resource Conservation and Recovery Act
RDIP	Remedial Design and Implementation Plan
RI	remedial investigation
RTC	Response to Comment
Site	Lendrum Court

SOP	standard operating procedure
SWPPP	Storm Water Pollution Prevention Plan
TCDD TEQ	Tetrachlorodibenzo-p-dioxin toxic equivalent
Towill	Towill, Inc. licensed surveyors
TPZ	tree protection zone
TRC	TRC Solutions, Inc.
Trust	Presidio Trust
TWA	time-weighted average
UCL	upper confidence limit
USA	Underground Service Alert
USEPA	United States Environmental Protection Agency
WWI	World War I

1.0 INTRODUCTION

TRC Solutions, Inc. (TRC), on behalf of the Presidio Trust (Trust), has prepared this *Construction Completion Report* (CCR), to document the processes and procedures used to implement remedial actions at Lendrum Court (Site), within the Presidio of San Francisco, California (Presidio) (***Figure 1***). Remediation of soil impacted by polycyclic aromatic hydrocarbons (PAHs), heavy metals, dioxins and furans was performed in accordance with the *Removal Action Work Plan* (RAW; TRC, 2015b) and *Final Remedial Design and Implementation Plan* (Revised RDIP; TRC, 2016a), which were approved by the lead oversight agency, the California Department of Toxic Substances Control (DTSC) on August 5, 2015 and June 2, 2016, respectively. A Draft Construction Completion Report was submitted to DTSC on July 26, 2018 and comments on the Draft were provided from DTSC on October 26, 2018. The Trust provided a Response to Comment (RTC) matrix to DTSC on January 4, 2019 and DTSC responded with a letter dated February 22, 2019 where the DTSC either accepted our RTC or accepted it with a change. All referenced RTC documents and letter have been included in ***Appendix M***.

1.1 BACKGROUND

The Site is located in the northwest corner of the Presidio, north of Doyle Drive, in the North Fort Scott residential area (***Figure 1***). Lendrum Court is surrounded by Buildings 1255, 1256, 1257, 1258, 1259, 1278, 1279, 1280, and 1282, which were built in 1970 and 1971 (***Figure 2***).

The Site history is described in detail in the *Additional Sampling Workplan for Lendrum Court,* prepared by Erler & Kalinowski, Inc. (EKI; EKI, 2014) and is included as Appendix A of the *Remedial Investigation* (RI) (EKI, 2015). Prior to 1936, the area was generally open space. The US Army operated an incinerator prior to 1936 just south of the Site, where the present day Doyle Drive is located. Debris and incinerator ash associated with this incinerator are present in subsurface soils at the Site. A chronology of land development activities at the Site and North Fort Scott area based on historic maps and photos is presented in the RI. The Site generally slopes to the northeast in a series of terraces, likely graded as building pads for the residential units and parking lot area constructed in 1970. The sloping areas between the terraces are landscaped with grass and shrubs. The northeastern slope, behind Buildings 1259, 1278, and 1279 is designated as Historic Forest, and contained large trees planted in orchard style with a thick understory of smaller statured trees and shrubs.

The constituents of concern (COCs) associated with the debris and ash include PAHs, metals, dioxins and furans. COCs associated with the area just outside the debris fill include lead, dioxins and furans. The approved and implemented remedy consists of consolidation, capping, clean closure, and establishment of a land use control (LUC) area. Cleanup levels (CULs) for COCs identified in the RAW are based on continued residential and recreational land use and restoration of the historic forest.

The remedial actions implemented at the incinerator area within the Doyle Drive alignment, including construction of the selected remedy and the summary of remedy implementation are described in the RAW. Additionally, Appendix A of the RAW includes detailed documentation of the investigation and

implementation of the remedy by the California Department of Transportation (Caltrans) as part of Presidio Parkway construction. The Site and the incinerator area will be handled as two separate addendums to the Presidio Trust Land Use Control Master Reference Report (LUCMRR; Trust, 2009), due to different access and reporting mechanisms associated with the incinerator area falling within the Caltrans Highway easement deed.

Planning and pre-construction activities began in 2015. Remedial activities began in February 2016 and were completed in July 2017.

1.2 PROJECT TEAM

Lendrum Court is located within Area B of the Presidio where the Trust has cleanup authority and administrative jurisdiction. Below describes the members and roles of the project team.

Firm/Organization	Duties
California DTSC	Lead regulatory agency during remedial activities.
Presidio Trust	Owner and project manager. Also provided forest, cultural and natural resource input to the project.
TRC	Represented the Trust as supporting project manager and design engineer, and also provided construction management and construction quality assurance (CQA) during field activities.
Engineering/ Remediation Resources Group, Inc. (ERRG)	Contracted by the Trust to implement the remedial action at Lendrum Court.
McGuire & Hester (M&H)	Contracted by the Trust to implement the hardscape features of the remedial cap at Lendrum Court and served as the irrigation and landscape contractor.
Hanford ARC	Contracted by the Trust to screen and haul soil sourced from Lawrence Berkeley National Laboratory (LBNL) to the Presidio to construct the 18 inches clean soil cover
Towill, Inc.	Subcontracted by TRC to perform the topographical surveying

2.0 REMEDIAL ACTION SUMMARY

This section summarizes the Site's remedial action objectives (RAOs), COCs, and CULs. The RAOs and CULs were used to determine and implement the remedial approach for the Site.

2.1 REMEDIAL ACTION OBJECTIVES

The RAOs for the Site, as established in the RAW, are listed below:

- Protection of human health and the environment consistent with the intended future land use.
- Cost-effective implementation of the proposed remedy at the Site.
- Compliance with Applicable or Relevant and Appropriate Requirements (ARARs).

Section 16, Summary and Conclusions states how the RAOs were met through implementation of the selected remedy.

2.2 CONSTITUENTS OF CONCERN AND SITE-SPECIFIC CLEANUP LEVELS

The following compounds were identified as COCs in soil at the Site:

- Debris Fill Area
  - Metals – Arsenic, barium, copper, lead and zinc
  - PAHs – benzo(a)pyrene, benzo(a)pyrene equivalents and dibenzo(a,h)anthracene
  - Dioxins and Furans –expressed as tetrachlorodibenzo-p-dioxin toxic equivalent (TCDD TEQ)
- Outside Debris Fill Area
  - Metals – Lead
  - Dioxins and Furans - TCDD TEQ

Dioxins and furans were conservatively retained as COCs outside of the debris fill at the Site since they were not sampled for as part of the RI.

Site-specific CULs for the COCs were developed based on the applicable CULs that were developed in the *Development of Presidio-Wide Cleanup Levels for Soil, Sediment, Groundwater, and Surface Water, Presidio of San Francisco, California* (EKI, 2002; with updates through 2013), *Human Health Soil Preliminary Remediation Goals and Toxic Equivalency Values for Dioxins and Furans* (MACTEC, 2007), and the RAW. Site COCs and their corresponding Site-specific CULs are summarized in ***Table 1***.

3.0 PRE-CONSTRUCTION ACTIVITIES

Pre-construction activities included coordinating with project stakeholders, reaching out to Lendrum Court residents and the public, obtaining regulatory approvals, procuring permits, and preparing Site planning documents and construction submittals.

3.1 STAKEHOLDER COORDINATION

The Trust developed the project remedy in conjunction with project stakeholders. Stakeholders were engaged early and often to solicit comments, confirm acceptable approaches, and coordinate schedules. The primary stakeholders and their coordination included:

- DTSC (Lead Regulatory Agency)
  - DTSC has been involved since the establishment of the Site and has been kept informed through monthly and quarterly meetings, periodic review of working, draft, and final documents, participation in public meetings, and email updates throughout construction.
- United States Army
  - The United States Army has been involved since the establishment of the Site and has been kept informed through quarterly meetings, review of draft and final documents, and email updates throughout construction.
- Trust Planning, Forestry, and Cultural Resource Departments

- Working meetings were held throughout the investigation, design, and construction phases of the work.
- The remedy integrated the planned landscape improvements into the design; therefore, the Trust's Planning Department provided detailed review of remedial design drawings and construction.
- Due to the remedy including the removal of an estimated 71 trees within the historic forest, the Trust's Forestry Department participated in the design of the remedy by performing tree health assessments, conducting wind studies associated with tree falls, and developing a reforestation plan.
- Several historic World War I (WWI)-era training trenches were discovered within the historic forest. A portion of these trenches extended into the Site. The Trust's Cultural Resources Department was notified and provided direction on documentation and mitigation of impacts to the resources during construction.
- Once construction began, various divisions of the Trust were invited to the weekly construction meetings to provide comments and participate, as necessary.

3.2 PUBLIC OUTREACH

On behalf of the Trust, TRC prepared a *Community Relations Plan for Lendrum Court* (TRC, 2015a) as a supplement to the Presidio's 2001 *Community Relations Plan* (Trust, 2001b), Presidio of San Francisco, California. The *Community Relations Plan for Lendrum Court* described the communication plan for exchanging information between the Trust and the public, including neighborhood groups and the greater Presidio community, during the remedial construction. The *Community Relations Plan for Lendrum Court* included measures to encourage community involvement, including the following:

- Notification via email to neighbors of the North Fort Scott, Lendrum Court, and Pilots Row neighborhoods regarding Trust and DTSC activities relative to Site cleanup.
- Periodic community meetings and presentations updating the public on the status of Site remediation activities.
- Posting of key regulatory communications, reports, and public meeting minutes on the Trust's website.
- Maintenance of a publicly accessible website to keep the public informed about Lendrum Court.

Community meetings for Lendrum Court were held beginning when the Site's environmental impacts were discovered in 2013 and continued during the design phase and prior to construction. During the public comment period for the Lendrum Court Draft RAW, a meeting was held in cooperation with the DTSC in June 2015. Construction initiation meetings were held in January and May 2016, and the Construction Notice was distributed on May 23, 2016. In addition, targeted email updates and notifications, signage, and flyers detailing project purpose, closure areas, detour routes, and alternative parking areas were utilized to further communicate project activities to the public.

3.3 REGULATORY APPROVALS

On behalf of the Trust, TRC prepared the RAW, which was approved by DTSC on August 5, 2015. In the RAW, TRC proposed completing Site remediation activities in two phases, Phase 1 and Phase 2. A Phase

1 Remedial Design Implementation Plan (Phase 1 RDIP; TRC, 2015c) was approved by DTSC on August 12, 2015. However, due to various factors, the Phase 1 mobilization was postponed, and the Phase 1 and Phase 2 activities were combined into a single mobilization. TRC prepared the Revised RDIP to include both phases of the work. The Revised RDIP was approved by DTSC on June 2, 2016.

In addition to the RAW and Revised RDIP, TRC, on behalf of the Trust, requested and received approval of the following items/activities:

- Import soil from LBNL.
  - DTSC approved this import soil in a letter dated July 14, 2015 (DTSC, 2015).
- Modification of the air monitoring program to cease sampling for metals, PAHs, dioxins and furans, and naturally occurring asbestos (NOA) (unless serpentinite bedrock is visible).
  - DTSC provided this approval by email on August 5, 2016 (DTSC, 2016a).
- Approval of the design change to install subdrains in sections of the historic forest key trenches affected by seep water.
  - DTSC provided this approval by email dated September 13, 2016 (DTSC, 2016b).
- Concurrence with clean closure confirmation sampling within areas northeast of 1279 and northeast of 1278.
  - DTSC provided this approval by email dated March 28, 2017 (DTSC, 2017a).
- Approval of excavation and backfill plan for the additional clean closure area behind Buildings 1255 and 1256.
  - DTSC provided this approval by email dated May 24, 2017 (DTSC, 2017b).

3.4 PLANNING DOCUMENTS, PERMITS, AND CONSTRUCTION SUBMITTALS

In addition to the the Revised RDIP and RAW, supporting documentation was prepared during the project that addressed required permits, health and safety, storm water, and air and dust monitoring and mitigation.

3.4.1 Key Planning Documents

The Revised RDIP was the primary planning document for the remedial action implementation. The Revised RDIP included a detailed description of the project planning and remedial construction activity implementation. Additionally, appendices to the Revised RDIP included design drawings and technical provisions, design support documentation, plans for safe and effective implementation of construction activities, and various construction monitoring plans.

Prior to construction activities, the contractor prepared and sent construction submittals for TRC's review. TRC confirmed that all submittals were in compliance with the technical provisions prior to approval. A copy of the contractor's Construction Management Plan is included in ***Appendix A***.

3.4.2 Permit Submittals

Permits and notifications applicable to the project were obtained from the appropriate agencies prior to the start of constructions. These permits consisted of the following:

- Trust Excavation Clearance Application (Dig Permit);

- Underground Service Alert (USA) Dig Ticket; and
- As part of the construction of the irrigation system M&H submitted an application to the Trust utilities department and received approval for installing a meter and running power to the irrigation *controllers.*

Both the Dig Permit and the USA ticket were obtained by both ERRG and M&H, and both contractors renewed these permits as necessary throughout the project.

3.4.3 Health and Safety Plan

As part of the Revised RDIP, TRC prepared a site-specific Health and Safety Plan (HASP) for Site remedial construction activities and confirmation sampling. Contractors working on the Site also prepared a site-specific HASP specific to their construction activities. The HASP documents were kept on-site and visitors were required to review and sign the HASP. During construction and sampling activities, daily tailgate meetings were held to discuss project scope, identify job-specific hazards, and review emergency response information and procedures. Attendees of the tailgate meetings were recorded each day.

TRC's construction inspector provided day-to-day oversight of construction activities, including monitoring for safety hazards and the contractor's use of safe work practices. The contractor established the following work zones to confine work elements and to buffer the surrounding environment for potential chemical and physical hazards: Exclusion Zone, Contaminant Reduction Zone, and Support Zone.

For the initial three (3) days of excavation activities, ERRG required staff to wear Level C personal protective equipment (PPE), including half-face respirators. Selected staff were equipped with personal air monitors and air samples were collected each of the initial days. The personal air samples were analyzed for airborne dust that may include Site COCs (PAHs, metals, dioxin and furans). Following the receipt and interpretation of the analytical data, it was determined that there was not an exposure risk. Therefore, ERRG downgraded the PPE requirement to Level D for the remainder of the project.

3.4.4 Storm Water Pollution Prevention Plan

As part of the Revised RDIP, TRC prepared a Storm Water Pollution Prevention Plan (SWPPP) to prevent erosion and protect storm water discharges from potential construction-related impacts at the Site. Because remedial actions were being performed by a federal agency under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), a Notice of Intent was not submitted for coverage under the State Water Resources Control Board Construction General Permit (CGP). However, erosion control and storm water management measures implemented at the Site were performed in substantial conformance of the CGP.

As part of the contractor's primary submittals, ERRG took ownership of the SWPPP and made appropriate modifications to match their construction approach. In addition, addendums to the SWPPP were prepared for the two soil stockpile staging areas at the Nike site and adjacent to Building 1347 within the Presidio. The contractor implemented best management practices (BMPs) and performed appropriate inspections and as needed repairs to the BMPs.

After the completion of tree removal activities in the historic forest area (see **Section 4.1**) in early April 2016, wood mulch from the chipped trees was spread across the Site's exposed soil and straw wattles were installed perpendicular to the direction of sheet flow to prevent erosion.

Prior to remedial construction in June 2016, BMPs were implemented around the Site, as prescribed in the SWPPP. Initial BMPs included:

- Silt fence along the base of the historic forest;
- Drain inlet filters;
- Gravel bag check dams along the length of the concrete drainage swale on Lendrum Court;
- Rumble strips at the entrance to the Site;
- Daily application of Posi-Cube® soil stabilizer; and
- Street sweeping.

In October 2016, as the work progressed into the wet weather season and shifted from the east side of the Site to the west side, additional BMPs were installed, as summarized below:

- Final erosion controls were installed in the historic forest.
    - A layer of straw was spread across the entire slope.
    - Slope was covered with erosion control blanket.
    - Straw wattles were installed perpendicular to flow.
- Straw wattles were installed along the base of the west side slope.
- Corrugated plastic pipe was attached to the base of the building gutter downspouts to re-direct water away from the Site.
- Plastic sheeting was placed over slopes prior to rain events as necessary.
- Gravel bags and straw wattles were placed in areas of high flow.

BMPs were added or adjusted throughout the duration of the project to reflect updated Site conditions and changing weather patterns (see **Section 9.8**). At the completion of construction activities, final erosion control measures were implemented at the Site (See **Section 13.3**).

The contractor performed weekly visual inspections of BMPs for the duration of construction to identify deficiencies. The weekly inspections were performed by a Qualified SWPPP Practitioner (QSP). Additionally, in accordance with standard CGP protocols, visual monitoring and inspections were conducted when triggered by a qualifying rain event, which is defined as 0.5-inches or greater of precipitation in a 24-hour period. The storm event inspections were performed within 48 hours of each qualifying storm event. Inspection forms were maintained on-site with the SWPPP for the duration of construction. Copies of the inspection forms are included as ***Appendix B***.

3.4.5 Air and Dust Monitoring and Mitigation

As part of the Revised RDIP, TRC prepared an *Air and Dust Monitoring and Mitigation Plan* (ADMMP), which was included as Appendix E of the Revised RDIP. The purpose of the ADMMP was to mitigate fugitive emissions of particulate matter (PM) generated during construction activities, and to protect workers and the public from potential airborne PM. Because remedial actions were being performed by a

federal agency under CERCLA, air permits were not required from the Bay Area Air Quality Management District (BAAQMD). However, project controls, BMPs, and monitoring were implemented to meet the substantive aspects of BAAQMD air quality requirements.

During earthwork, the contractor implemented the following BMPs to mitigate dust emissions and prevent transport of fugitive dusts:

- Taping windows and doors of residences located adjacent to the construction area (within 20 feet of any earthwork activity or haul route);
- Pre-wetting excavation areas when necessary to prevent visible emissions;
- Excavating single areas of the Site at one time and wetting disturbed surface areas as needed;
- Regularly spraying Posi-Cube® all-natural and biodegradable dust control product;
- Placing plastic liners on top of soil stockpiles;
- Installing gravel pads and rumble strips as a track-out measure for exiting vehicles;
- Limiting vehicle speed to 15 miles per hour on unpaved surfaces;
- Requiring haul vehicles to cover soil loads with tarps; and
- Placing post-grading erosion control BMPs on the finished Site, as summarized in **Section 13.3**.

Target compounds for air monitoring based on the Site COCs consisted of PAHs, metals, dioxins and furans. Because earthwork was performed in areas with shallow serpentinite bedrock, NOA was also included as a target compound for air monitoring. Action levels for the target compounds, as well as PM with an aerodynamic diameter less than 10 microns in diameter (PM_{10}) were developed for the Site. A summary of the action levels is included with air monitoring documentation in ***Appendix C***.

In July 2015, prior to the start of construction, a baseline air monitoring event was conducted to characterize baseline concentrations of the PM_{10}, PAHs, metals, dioxins and furans. Results from the three sampling locations set up for baseline air sampling indicated that none of the COC action levels were exceeded.

Throughout earthwork activities at the Site PM_{10} was monitored in real-time using Thermo Scientific PDR 1500 sampling devices. Initially, the dust monitors were placed at three locations around the Site: one upwind and two downwind, with one of the downwind monitors utilized as a rover and taken on a perimeter and interior loop three times daily for additional coverage. On July 20, 2016 an additional downwind monitoring location was established, and the rover unit stationary location was relocated to be within the work area and between active work and the closest residence. The stationary dust monitors were configured to sounds an alarm if readings exceeding the dust action level, set at 110 micrograms per cubic meter ($\mu g/m^3$) for an 8-hour time-weighted average (TWA). Average particulate concentrations during air monitoring events did not exceed dust action levels.

In addition to continuous dust monitoring, TRC conducted stationary sampling for PAHs, lead, dioxins and furans on a weekly basis (one sample for each of these COCs was collected each week) in June and July 2016. High volume air samplers were used to collect air samples over an 8-hour work day at a flow rate of 250 liters per minute (L/min). At the end of each sampling work day, the filter cassettes were labeled, capped, and shipped to the analytical laboratory for analysis. Results indicated that

concentrations of the COC target compound did not exceed the risk-based concentrations developed for the COCs.

TRC also conducted monitoring for NOA on a daily basis during earthwork activities in areas where serpentinite bedrock was expected to be encountered or had been observed in the past. Sample collection locations were established specific to the area where work was performed with one upwind and two downwind locations. NOA samples were collected over a 24-hour period using a sampling train consisting of a pump, a flow regulator/dampener, a lockable air flow adjustment valve, tygon tubing, and a filter cassette assembly. The filter cassettes were mounted at an elevation of approximately 4 feet above ground surface. NOA cassettes were analyzed by TEM Laboratories, Inc. Based on the results of the NOA sampling, there were three detections of asbestos over the laboratory detection limits for the duration of the project; however, none of the detections exceeded the trigger levels.

Finally, ERRG conducted work zone monitoring adjacent to work areas, between soil disturbing activities and the homes of Site residents. Work zone monitoring was performed using Gillian BDX II sample pumps, and samples were analyzed for metals and asbestos according to National Institute of Occupational Safety and Health (NIOSH) methods 7300 and 7400, respectively. Reported lead, arsenic, and NOA concentrations from the work zone sampling were all below laboratory reporting limits or Occupational Safety and Health Administration (OSHA) worker exposure limits.

Because sampling results indicated that target compounds were below applicable screening levels, TRC recommended ceasing air sampling for metals, PAHs, dioxins and furans, and NOA in a letter to the Trust dated July 29, 2016 (TRC, 2016b). The letter was subsequently submitted to the DTSC who provided approval in an email on August 5, 2016. Tabulated air sampling results are included in ***Appendix C***, along with figures showing the sampling locations.

4.0 PROTECTION OF NATURAL AND CULTURAL RESOURCES

Throughout the project, TRC worked with the Trust to protect natural and cultural resources from potential impacts caused by construction.

4.1 PROTECTION OF NATURAL RESOURCES

A reconnaissance-level survey of natural resources was performed by H.T. Harvey & Associates (H.T. Harvey) on April 2 and 3, 2015. The survey did not identify any special-status plants with potential to be present at the Site. One special-status animal species, the olive-sided flycatcher, was identified that could potentially use the Site for breeding; however, it was determined that remedial activities would not have a substantial adverse effect on regional populations. Additionally, the Site is located along the Pacific Flyway for birds; therefore, migratory birds have the potential to be present at the Site.

H.T. Harvey performed a survey of the trees within the landscaped residential area around buildings 1257, 1258 and west of 1259, 1278 & 1279 that would be impacted by remediation on April 8, 2015, during which the species, trunk diameter, and coordinate data were recorded. H.T. Harvey then performed a nesting bird survey on April 16, 2015, which detected no active nests in the area. All trees in the landscaped residential area were removed by Trust Forestry crew with assistance from Professional Tree

Care on July 29, 2015, with the exception of the tree located within the traffic island at the north end of Lendrum Court. On November 19, 2015, HortScience, Inc. conducted an additional tree survey to observe the health of trees in the historic forest remediation area (east of 1259, 1278 & 1279). H.T. Harvey performed a similar survey on the native understory shrubs on November 23, 2015. Based on the results of these two surveys, HortScience and H.T. Harvey provided recommendations for the preservation of several healthy trees and shrubs during remedial construction. These recommendations were presented in the *Memorandum on Tree Preservation,* which was included as Appendix I of the Revised RDIP.

In accordance with the *Memorandum of Tree Preservation,* Site clearing activities in the historic forest began on February 22, 2016. During the removal, vegetation within the proposed grading area was removed, with the exception of three trees and three toyons identified for preservation. These trees and shrubs were then protected throughout the duration of remedial construction by tree protection zones (TPZs), which extended 20 feet radially from the trunk of the trees and 10 feet radially from the shrubs/understory trees.

Prior to the start of construction HortScience prepared a *Tree Protection Plan* dated June 1, 2016 (HortScience, 2016) which detailed the trees to be protected and provided guidance for maintaining these protections through the course of construction.

4.2 PROTECTION OF CULTURAL RESOURCES

Through consultation with the Trust's cultural resources team, a series of historic WWI training trenches was identified north-northeast of Building 1278 and 1279, partially within the historic forest. While initially thought to be drainage channels, the features were confirmed as historical trenches through a review of historical aerial photographs and other documents. As a result, the Trust requested that the general contours of the historic trenches be maintained during and after remedial activities.

Prior to the start of construction, the trenches were surveyed and documented. With the Trust's approval, the final Site grades were designed to preserve a topographic resemblance to the historical trenches while still adhering to the standard specifications for soil cap design and slope stability. During construction activities, outlines of the trenches were delineated with stakes to minimize secondary construction impacts, such as from equipment traffic. The final extent and grading of the trenches is shown in ***Figure 3***.

5.0 SITE PREPARATION

Site preparation activities included a utility evaluation, implementation of temporary Site facilities and Site security, clearing and grubbing of the Site, performance of a topographic survey, and demolition of existing Site features. Due to the limited access at this site the work was performed in phases, which also limited construction impacts to just the areas with active construction.

5.1 UTILITY EVALUATION

Prior to the start of construction, a Dig Permit was obtained from the Trust Permitting Department. On-site utilities were located and marked by both the Trust and a private utility location service, Cruz

Brothers. A USA ticket was opened before digging occurred and was renewed throughout construction. Utilities were remarked when necessary throughout the project to account for new work areas, disturbed markings, etc.

Additionally, when M&H initiated their portion of construction at the Site, they procured their own dig permit and performed their own utility locating.

Prior to earthwork in a given area, the contractor manually potholed to field locate utilities and ensure their protection. Once identified, actual alignments were marked with spray paint and, if necessary, hand excavation was conducted to protect exposed utility lines. All excavation adjacent to power poles was conducted utilizing hand tools.

Through the course of construction several unexpected occurrences were encountered:

- While grading in front of Buildings 1278 and 1279, a saturated patch of soil was discovered. Upon investigation, it was determined that an approximately 3-inch transite water pipe was present and leaking. Trust utilities were contacted and mobilized to the Site to repair the leaking pipe.
- The storm drain manhole located east of Buildings 1278 and 1279 within the historic forest was determined to have a top elevation just below final grade. As a result, risers were added to elevate the top of manhole approximately 1 foot above final grade.
- While evaluating the stability of a power pole within the landscape area west of Building 1278, it was determined through consultation with the Trust utility department that the pole was unstable and would require repair. The contractor mobilized a pole truck to stabilize the pole while excavation activities occurred. Electrical and communication lines were adjusted to ensure appropriate tension and pole stability.
- While potholing to identify the presence of a natural gas line, the contractor hit and cracked the line. Trust Utilities and Pacific Gas and Electric Company (PG&E) were immediately notified, and the gas line was shut down. Repairs were performed the following day and service was re-established.

5.2 FENCING, TEMPORARY FACILITIES, AND SITE SECURITY

Prior to the start of remedial activities, orange construction fencing or temporary chain link panel fencing (Type CL-6) was erected around all exclusion zones at the Site, including the residential and historic forest areas. Deep excavations and other hazardous areas were protected with locked metal panel fencing, as needed. The temporary Type CL-6 fencing was anchored with sandbags to prevent displacement. Exclusion Zone fencing was adjusted throughout the project to accommodate the phased work approach.

Locked metal panel fencing was erected around the Lendrum and Lincoln staging area and around the TRC Conex box along Armistead Road for the duration of the project. The Lendrum and Lincoln staging area acted as the primary contractor staging area for the project and contained a contractor office, bathroom facilities, areas for equipment storage, material stockpiling, and debris bin storage. The TRC Conex box along Armistead Road was utilized as the TRC Construction Manager (CM) office and stored air monitoring equipment and a compaction testing equipment.

The contractor also mobilized a bathroom and hand wash station to the landscaped area west of Building 1259.

At the 951 stockpiling area (north of 951 Hoffman Street), fencing was erected as necessary when soils were stockpiled prior to disposal. The fence was taken down when the area was not in use for stockpiling.

At the Building 1347 stockpile location (corner of Kobbe Avenue and Greenough Avenue), fencing and SWPPP BMPs were erected around the stockpile areas for the duration of the project. Fencing was removed upon completion of the remedial construction activities.

The Nike soil mixing and stockpile site on Battery Caulfield Road already had established permanent fencing and no additional fencing was needed.

5.3 CLEARING, GRUBBING, AND TREE REMOVAL

Clearing and grubbing of vegetation and trees took place in the historic forest area over the course of several weeks, from February 22, 2016 to April 6, 2016. During the removal, all vegetation within the proposed grading area was removed, with the exception of three trees and three toyons agreed upon with the Trust for retention. The locations of the trees and toyons left in place are shown on ***Figure 3***. Tree removal activities were phased to minimize exposure of open soil. As the trees were removed, they were staged and chipped, then the chipped mulch was spread over the newly exposed soil to prevent erosion. The wood chips were left in place for approximately 3 months, until excavation activities began in the historic forest area. At that time, chips were removed from the Site and disposed off-site.

Remaining vegetation within the landscaped residential area of the Site was removed starting the last week of June 2016 and continued in phases as construction moved across the Site.

A total of 295 tons of green waste generated during clearing and grubbing was disposed as green waste at the Recology Hay Road Landfill in Vacaville and Ox Mountain Landfill in Half Moon Bay, California.

5.4 TOPOGRAPHIC SURVEY

After clearing, grubbing, and tree removal activities were complete, the contractor subcontracted with Towill, Inc. licensed surveyors (Towill) to establish local survey control points. Following establishment of survey control, the contractor's on-site civil engineer conducted an existing condition Site survey utilizing a Trimble SCS900 and established control points. The contractor also performed a rough grade survey as each area of the Site was graded to the pre-cap construction grade (rough grade). The rough grade survey also indicated the total depth of excavation within the clean closed areas. Once the final cap surface was constructed in each area of the Site, the contractor performed a final as-built survey. Given the phased nature of the work, these surveys were performed as areas were completed, once the surveys were finalized they were incorporated into the as-built drawings, shown in ***Appendix D***.

5.5 DEMOLITION

Prior to remedial excavation in the fronts of the Site buildings, the concrete patios were demolished, broken into manageable chunks, and removed from the Site for recycling. Patios were demolished from the following buildings:

- 1257 – 2 patios
- 1258 – 2 patios
- 1259 – 2 patios
- 1278 – 4 patios
- 1279 – 4 patios
- 1280 – 1 patio

In addition to patio demolitions, the concrete staircase and asphalt path located on the westernmost side of the Site were demolished prior to grading in these areas. The staircase and path were removed utilizing an excavator and broken into manageable chunks, then removed from the Site for recycling.

Disposal documents are included in ***Appendix E***.

6.0 REMEDIAL EXCAVATION

Remedial action at the Site consisted of excavation, consolidation, and grading of Site soils, as well as construction of a clean soil cap, hardscape elements, and establishment of a LUC. Excavation activities followed specific approaches for different areas of the Site as follows:

- In landscaped areas, the top 6 inches of organic material was generally removed and stockpiled for off-site disposal.
- Soil cap areas were graded to develop uniform slopes, allow 1.5 feet of vertical space for the soil cap installation, and consolidate excess soil in areas where the final elevations could be established above existing grade.
- In hardscape cap areas, the top 6 inches of organic material was generally removed and stockpiled for off-Site disposal. The surface was then graded to allow for the full hardscape section to be installed to match surrounding grades and Site features.
- In clean closure areas, impacted soils were excavated to the depth and extent of clean confirmation samples, where possible soil was consolidated within areas designated for capping.

This section describes the methods and sequencing for these remedial activities. Photographs of in-progress remedial excavation activities are included in ***Appendix F***.

6.1 LAYOUT OF WORK AREAS

The active work area and exclusion zone at the Site evolved as phased excavation and grading occurred, but generally consisted of the landscaped areas around Buildings 1259, 1278, 1279, 1257 and 1258 and the historic forest area east of Buildings 1259, 1278, and 1279. These areas are depicted on ***Figure 3***.

The work area in the historic forest was accessible to vehicles and equipment via a gravel entry road installed between Buildings 1259 and 1278. The gravel road also acted as the contaminant reduction zone for vehicles and personnel departing the exclusion zone. The landscaped areas around Buildings 1259, 1278, and 1279 were primarily accessed through the same gravel road or temporary construction entrances built for the less accessible areas in front of the buildings. The landscaped areas around Buildings 1257 and 1258 were primarily accessed through a ramp cut into the slope west of Lendrum Court and between the two buildings. Rumble strips were installed at the entrances and exits of work areas utilized by heavy equipment and haul trucks.

Prior to construction, support and staging areas were delineated and prepared. These areas included:

- Conex storage box south of 1257 and 1258 along Armistead Road,
- Corner of Lendrum Court and Lincoln Boulevard, and
- North of Building 951.

The two remote stockpiling locations, the Nike site and the area near Building 1347, were established prior to the start of soil mixing and hauling operations. Existing roadways were also used to access both of these stockpile sites.

6.2 EXCAVATION, CONSOLIDATION AND GRADING METHODS

Excavation and grading activities took place from June 2016 to December 2016. Excavation activities were accomplished using manual methods, front-end loaders, bulldozers, excavators, and backhoes, based on the Site grades, excavation area access, and equipment restriction zones (TPZs and areas in close proximity to buildings). Generally, excavation, consolidation, and grading occurred in a phased approach as follows:

1. Historic Forest;
2. Landscape areas around Buildings 1259, 1278, and 1279; then
3. Landscape areas around Buildings 1257, 1258, and 1280.
4. Landscape areas around Buildings 1255 and 1256.

In landscape and forest areas, the top 6 inches of soil (typically organic topsoil) were removed using a mini-excavator, bulldozer, and skid steer. The depth of this surface excavation was determined in consultation with the project geotechnical engineer and using professional judgment to determine when material unsuitable for reuse was removed. The materials were loaded into dump trucks with a capacity of 5 cubic yards (CY) and transported to the soil staging area on Lincoln Boulevard. When feasible, haul trucks were loaded directly for transport to Potrero Hills Landfill in Suisun City, California, or Buttonwillow Landfill in Buttonwillow, California.

In TPZs, no more than 6 to 8 inches of surface soils were excavated using hand tools or small track-mounted equipment set outside the TPZ.

Following the removal of the initial 6 inches of un-usable material in clean closure areas, soils were excavated to depths established through confirmation sampling (see **Section 7.0**). That is, the final depths were achieved when the analytical results were below the remedial goals for clean closure. Where

possible, soils excavated from the clean closure areas were transferred to areas where consolidation under the soil cap was feasible.

Excavation activities adjacent to buildings were performed by hand and extended to the designed rough grades, which were as follows:

- 1.5 feet for soil cap areas;
- 1.0 feet for aggregate base (AB) pad areas; and
- 1.0 to 1.5 feet for concrete patio areas, depending on the final surface elevation of the patio.

Rough grading was performed using a bulldozer, mini-excavator, and a tracked skid-steer. The depths of cutting and filling to develop rough grades ranged from approximately 0.3 to 5.0 feet. During the rough grading, cut materials from the historic forest and areas in front of Buildings 1259, 1278, and 1279 were transported to major fill areas, primarily the area east of Buildings 1257 and 1258.

Rough grading approaches varied for each of the Site areas, as described below:

- Historic forest:
  - Grading in the historic forest consisted of limited cut and fill to create more uniform slopes, which were typically sloped at a grade of approximately 3 to 1. Some limited areas were graded as steep as 2 to 1 and 1.5 to 1 to match adjacent existing slopes, such as in the historic WWI training trenches.
  - Prior to placing material on slopes, key trenches were excavated at the base of the embankments and at historic grade breaks, as shown on ***Figure 4***.
  - At several locations, key trench sub-drains were constructed due to water seepage that caused the trenches to fill with water. A 4-inch-diameter perforated pipe was installed along the bottom of the key trenches where water seepage was observed. The perforated pipe was then connected to a 4-inch-diameter solid PVC pipe that conveyed seep water downslope, ultimately discharging into exposed crushed rock at the heavily vegetated bottom of the work area slope. See ***Figure 4*** for location of the installed seep water drains. The design for the key trench sub-drains was reviewed and approved by the DTSC on September 13, 2016.
- Landscaped areas in front of buildings:
  - Due to vertical constraints of surrounding hardscape elements such as sidewalks, patios, and doorways, the entirety of the landscaped areas in front of the buildings had to be cut approximately 1.5 feet to establish rough grade.
  - The only exception being where the cap consisted of new concrete hardscape elements (sidewalk and patios) or AB pads, where a minimum of only 1 foot was cut.
- West Side sloped area behind (east of) Buildings 1257 and 1258:
  - This was the primary location of consolidation.
  - As excess material was generated on the east side of Lendrum Court, it was stockpiled behind Building 1257.
  - During initial grade checks, it was identified that the design contour at the curb was between 0.5 feet and 1.25 feet above actual grade.

        - TRC revised the design to maintain slopes at 2.5 to 1, with the exception of the location of the box steps, which was sloped 3 to 1.
        - Top-of-slope elevations were increased by a maximum of 3 feet to accommodate consolidation of the additional cut material.
    - The southeast corner of the slope contained an area of exposed and partially exposed bedrock.
        - Exposed bedrock was left in-place as is.
        - Partially exposed bedrock was scraped and washed of all residual soil. The rinsed soil was segregated for off-site disposal due to the potential presence of NOA. The resulting exposed bedrock was partially covered by the clean cap, and loose clean soil was allowed to collect on the bedrock to promote future vegetation growth.

Rough grades elevations were monitored and confirmed using a Trimble Total Station connected to the operated bulldozer (see **Section 6.4**) and checked by the contractor's civil engineer using established local control points.

6.3 SOIL STOCKPILE MANAGEMENT

Soils were stockpiled and managed in five locations over the duration of the project:

- On-site, the area within the cap east of Building 1257 was used to temporarily hold excess soil. Prior to stockpiling soils, the top 6 inches of organic material was removed from the stockpile location and disposed of off-site. A flat area was developed to accept excess soil from the east side of Lendrum Court that was suitable for consolidation on the west side. The stockpile was sprayed with Posi-Cube® when not in use for dust, erosion, and sedimentation control.
- The paved parking area north of Building 951, located at 951 Hoffman Street, was used for stockpiling of clean imported mixed soils intended for backfill of clean closed areas or cap construction, of consolidation soils to be reused under the cap, and of impacted non-Resource Conservation and Recovery Act (non-RCRA) California Class I hazardous and Class II non-hazardous materials awaiting off-site transportation and disposal. Each type of soil was segregated in its own stockpile and labeled accordingly. Fencing was erected around the staging area whenever soil stockpiles were present.
- The staging area on Lincoln Boulevard (just south of the intersection with Lendrum Court) was used to stage debris bins, clean mixed soil, AB, and gravel in preparation for placement and grading. This area was enclosed by locked panel fencing for the duration of the project.
- The Nike site, located on Battery Caulfield Road, was used for the mixing of clean soils intended for use as the cap construction material. Soils were mixed to meet the Trust's horticultural specifications using a pug mill before being transported to the Lincoln Boulevard staging area, Building 1347 staging area, or directly to the Site for placement.
- The area near Building 1347 was used for stockpiling of clean soils, intended for backfill or cap construction, for consolidation soils to be reused under the cap, and for impacted non-RCRA California Class I hazardous and Class II non-hazardous materials awaiting transportation and off-site disposal. Each type of soil was segregated in its own stockpile and labeled accordingly.

With the exception of the stockpile behind Building 1257, the soil stockpiles were covered with plastic sheeting (Visqueen®) anchored with sandbags to prevent wind and water erosion. Because the consolidation soil stockpile behind Building 1257 was placed on top of material to be capped, it was not lined with plastic but instead sprayed with Posi-Cube® when not in use. The stockpiles were covered outside of working hours and on days when the stockpile was not in use. Stockpiles of impacted materials located outside the excavation area (that is, all areas with the exception of near Building 1257 and 1258) were placed on thick plastic sheeting to prevent cross-contamination of pavements or existing soils.

BMPs runoff control measures, such as fiber rolls, gravel bag berms, K-rail, and inlet protection, were implemented as described in the SWPPP (see **Section 3.4.4**). Stockpiles were constructed in accordance with the *Construction Quality Assurance Plan* (CQAP), which was included as Appendix F of the Revised RDIP.

6.4 ROUGH GRADE SURVEY AND ROUGH GRADING PLAN REVISIONS

During grading activities, ERRG utilized a Trimble Total Station connected to the operated bulldozer to confirm that rough grade elevations were consistent with the project specifications. Additionally, elevations were checked by the contractor's civil engineer using a portable total station and locally established control points.

Rough grades were designed to maximize consolidation of soils and minimize the amount of soils generated for off-site disposal. During the rough grade survey process, several deviations from the construction drawings occurred, including:

- When shallow bedrock was encountered, excavation was stopped, and the surrounding design grades were adjusted to maintain consistent slopes. Unanticipated shallow bedrock was discovered northeast of Building 1259 and in several areas of the historic forest.
- At the edges of on-site structures, including residential buildings and storage units, subsurface foundations were discovered that extended horizontally between 4 inches and 14 inches. In these areas, soil excavation stopped at the concrete foundation edge. Concrete foundations are considered part of the Site cap.
- As described in **Section 6.2**, the design elevation at the curb on the west side of Lendrum Court was between 0.5 feet and 1.25 feet above actual grade. The grades in this area were adjusted to correct the discrepancy.

7.0 SOIL CONFIRMATION SAMPLING

Seven major areas were designated as "clean closure areas" during remedial construction:

1. The area northeast of Building 1278;
2. The area north of Building 1279;
3. The area south of Building 1259;
4. The area east of Building 1259;
5. The area west of Building 1258;
6. The sloped area south of Lendrum Court; and
7. The area northwest of Buildings 1255-1256.

Refer to ***Figure 3*** for these locations. The seventh clean closure area was not presented in the RDIP, but was identified when the impacted area northwest of Building 1257 was discovered to extend to the backsides of Buildings 1255 and 1256 and the adjacent forest. The addition of this clean closure area is described in **Section 7.4**. The COCs for each clean closure area varied depending on the findings of the RI, and are summarized in ***Table 1***.

The remedial action for the clean closure areas was excavation of COC-impacted soils to extents confirmed through confirmation sampling. When feasible, soil excavated from the clean closure areas was consolidated as fill material underneath the engineered cap area.

The horizontal and vertical extents of each clean closed area was determined through confirmation sampling of COCs relevant to the area. The COCs for specific areas of the site were selected based on the presence or absence of debris. The extent of debris observed during investigation and construction, as well as the boundaries of applicable screening levels are detailed in ***Figure 14***. Initial confirmation sampling was conducted prior to the start of excavation activities with additional confirmation sampling performed as needed throughout the project to establish or confirm the extents of clean closure. The following sections describes the methods, timeline, and results of the confirmation sampling activities. Confirmation sampling results for each area are tabulated in ***Tables 2a*** through ***8***. Final confirmation results are shown on ***Figures 5*** through ***11***. The data validation, analytical laboratory reports, and chains-of-custody are provided in ***Appendix G***.

7.1 SAMPLING METHOD, ANALYTICAL PROGRAM, DATA VALIDATION, AND DATABASE REPORTING

Confirmation soil samples were collected in accordance with the Trust Standard Operating Procedures (SOPs) of the Presidio's 2001 *Quality Assurance Project Plan* (QAPP; Trust, 2001a). Samples were collected either through the use of a slide hammer lined with a stainless steel tube, by pushing a stainless steel sampling tube directly into the bucket of a hand auger until the tube was full, or by filling a laboratory provided glass jar. The sample tubes or jars were capped with Teflon-lined lids, labeled, and placed in Ziploc® bags, then stored in a cooler with ice pending delivery to the approved analytical laboratory. The samples were labeled, packed, stored, handled, and delivered to the laboratory in accordance with the QAPP.

Samples were labeled and documented in accordance with the procedures set forth in the Confirmation Sampling and Analysis Plan (CSAP), which was included in the Revised RDIP as Appendix G. Samples were given unique samples identifications based on the nearest building/Site designation, sample type and location number, and depth. All sample locations and IDs were documented on field notes during confirmation sampling activities. In accordance with the QAPP, a minimum of 10% quality assurance/quality control (QA/QC) duplicate samples were collected throughout sampling activities.

All reusable sampling equipment, including the slide hammer, hand tools, and hand augers, were decontaminated at the beginning of each work day and in between collection of samples. The tools were decontaminated using a non-phosphate soap solution followed by a deionized water rinse. A QA/QC "equipment blank" sample consisting of deionized water poured over the decontaminated equipment was collected each day during confirmation sampling to confirm the effectiveness of decontamination

activities. The remaining rinsate was contained and transported to the Presidio's Central Magazine area to await pick up and disposal.

Analytical data results were submitted to TRC in the form of electronic data deliverables (EDDs) and PDFs. TRC tabulated and assessed the analytical results to determine the need for additional step-out or step-down samples.

7.2 PRE-EXCAVATION SOIL CONFIRMATION SAMPLING

Initial confirmation sampling activities were conducted from June 3 to June 7, 2016. Prior to the start of sampling, the contractor staked all proposed sampling locations at the Site using a Trimble Global Positioning System (GPS) system to ensure sampling locations were consistent with those used for Site grading plans and presented in the CSAP. Samples were collected at all the locations and depths proposed in the CSAP, with the exception of some depth samples, which could not be collected due to the presence of shallow bedrock.

Samples collected during pre-excavation sampling (with the exception of step-out samples collected near Building 1258) were submitted for laboratory analysis of COCs applicable to that sample location, as proposed in the CSAP. Results were tabulated and compared to the site-specific CULs (***Table 1***) to determine whether clean closure objectives had been achieved. For locations at which excavation bottom and/or perimeter sample results exceeded the CULs, additional step-down or step-out sampling was conducted during construction as necessary to establish final excavation extents.

7.3 EXCAVATION CONFIRMATION SAMPLING

Typically, step-out samples were collected 5 to 10 feet from the initial sample location, away from the proposed boundary of the clean closure/excavation area. Step-down samples were typically collected at intervals of 6 inches below the initial sample depths. When possible, the step-out and step-down samples were collected prior to the start of additional excavation activities in each area.

Site excavation boundaries and grading plans were revised accordingly throughout the project to reflect the extent of COC-impacted soils, as determined through confirmation sampling. Please refer to ***Tables 2a through 8*** for tabulated sampling results, and ***Figures 5*** through ***11*** showing the final extents of each clean closure area.

Areas which contained confirmation samples which exceeded the applicable screening levels that remain in place area discussed further in the following sections. The DTSC was provided with confirmation sample result data periodically during the project as described below:

- Clean closure confirmation sampling within areas Northeast of 1279 and Northeast of 1278.
    - DTSC provided this approval by email dated March 28, 2017.
- Confirmation sampling and excavation and backfill plan for the additional clean closure area behind Buildings 1255 and 1256.
    - DTSC provided this approval by email dated May 24, 2017.

7.4 WEST OF BUILDING 1258

While delineating the extent of contamination to the west of Building 1258, a sidewall sample was collected beneath the sidewalk. The lead concentration in this sample exceeded the cleanup goal and additional removal was determined to not be feasible. Therefore, the hardscape CAP was extended to include this hardscape area, this was a deviation from the identified remedial approach.

7.5 SOUTH OF LENDRUM COURT

Several perimeter samples in the western section of the clean closure area south of Lendrum Court contained detections of lead in exceedance of the applicable screening level as shown on Figure 10. All excavation bottom confirmation samples did not contain COCs above the applicable screening levels and therefore the only area the remains of concern is the heavily vegetated sloped area to the south and west of this clean closure area, since debris was not observed in this area and lead is the only chemical that was detected above screening levels, this slope is considered part of the interim control area associated with the Incinerator/ Aerially Deposited Lead (ADL) Area and not part of the Lendrum Court Remedial Action. A post and cable fence are currently present as an additional protection to access to this area.

7.6 BUILDING 1255/1256 EXPANDED AREA

While TRC performed confirmation sampling for the clean closure area to the northwest of Building 1257, it was discovered that soils with elevated concentrations of lead in this area extended south toward the back sides of Buildings 1255 and 1256 and west into the forested area. Additional step-out and step-down samples were collected to delineate the extents of contamination, which are shown on ***Figure 11***. To confirm the extents of contamination in the low vegetation area near Building 1255 and 1256, TRC utilized a 95% upper confidence limit (UCL) model approach. The 95% UCL for lead concentrations in excavation confirmation sampling locations was calculated as 69.84 mg/kg, below the residential screening level of 80 mg/kg.

TRC evaluated the ecological receptors that would potentially be exposed to the detected levels of lead present within the highly vegetated forest area. The ecological receptors would primarily include terrestrial plants and invertebrates as well as various wildlife such as birds and mammals that forage on plants and/or invertebrates.

The concentrations of lead within two sample locations collected within the forest area exceed the Special Status CUL of 160 mg/kg, which based on protection of plants (EKI, 2002; with updates through 2013), as well as the United States Environmental Protection Agency's (USEPA) ecological soil screening level of 120 mg/kg, which is established for terrestrial vegetation (USEPA, 2005) and published post-CUL development. However, due to the small exposure area as well as the existing presence of a highly vegetated forest environment that provides valuable ecological habitat, the risk to plants is considered negligible. Risks to terrestrial invertebrates are also considered negligible as the maximum detected lead concentration within the forest area is well below the USEPA's ecological soil screening level of 1,700 mg/kg established for terrestrial invertebrates (USEPA, 2005).

Although various birds and mammals may also inhabit the highly vegetated forest area, the small size of this forested area likely precludes significant exposure by these receptors. The American robin was identified as the most sensitive receptor for lead exposure. The estimated home range of the robin is 0.4 hectare or approximately 1.0 acre (EKI, 2002; with updates through 2013) while the approximate extent of the highly vegetated forest area is approximately 0.025 acres. Given the small size of the forest vegetation area relative to the home ranges of potential wildlife receptors, the risks to wildlife that forage within this area is likely to be very low.

The results of the investigation and 95% UCL calculation were presented in a May 17, 2017 letter to the Trust (TRC, 2017). The Trust received approval of the extents of contamination in an email from DTSC dated May 24, 2017 (DTSC, 2017b). The highly vegetated forest area north of Building 1255 and 1256 (North 1255/1256 Forest Area) was determined to be inaccessible, as well as a natural resource to the area. Therefore, this area was identified as a future LUC area (using the recreational/eco special status screening level of 160 milligrams per kilogram [mg/kg]), with the existing vegetated cover acting as a natural barrier to exposure. The limits of the future LUC area are shown on ***Figure 11***. Additionally, the Trust planted blackberry seedlings in the gap between Buildings 1255 and 1256 and the North 1255/1256 Forest Area LUC area to limit access to the area. Documents associated with expanded excavation and proposed LUC area are included in ***Appendix H***.

8.0 WASTE MANAGEMENT AND DISPOSAL

The contractor collected in-situ samples of soils slated for removal prior to the start of excavation activities to pre-characterize them for disposal. Initially, the Site soils were divided into six source areas, each less than 500 CY, for characterization. The composite samples were analyzed for Title 22 California Code of Regulations requirements. Based on the initial results, soils from the west side of the Site were characterized as non-RCRA California hazardous waste. In an effort to limit the volume of soil classified as non-RCRA California hazardous waste, the contractor further subdivided the west side into four areas and collected composite samples from each of the subareas. Additional profiling samples were collected to determine disposal requirements for soil associated with the expanded clean closure excavation area behind Buildings 1255 and 1256. Additional details regarding the contractor's sample locations, laboratory data, and waste profiles are included in Appendix E.

An approximate total of 3,023 tons of soil were disposed off-site with 1,934 tons as non-RCRA California hazardous waste, and 1,089 tons as California non-hazardous waste. Soils were disposed at the following facilities, based on waste classification:

- Non-RCRA California hazardous waste was disposed at Clean Harbors Buttonwillow Class I Landfill in Buttonwillow, California.
- California non-hazardous waste was disposed at Potrero Hills Class II Landfill in Suisun City, California.

In addition to soil, the following materials were managed and disposed of over the course of the project:

- Concrete and asphalt were generated during demolition of concrete patios, stairs, and the asphalt path, in addition to any debris discovered during excavation. This material was rinsed within a future cap area and transferred to the Nike stockpile area where it was segregated, crushed, and

staged for off-haul to a recycling facility. Approximately 20 CY of concrete and asphalt were recycled at Brisbane Recycling Co. in Brisbane, California.

- Green waste was generated during clearing and grubbing across the Site, primarily from the historic forest. Green waste was placed in either end dump trucks, 10- or 20-CY bins which were hauled off site for composting. Approximately 130 CY of green waste was composted at Recology Hay Road Landfill in Vacaville, and 165 CY of green waste was composted at Ox Mountain in Half Moon Bay.
- Miscellaneous construction debris and trash were placed in 20-CY debris bins within the staging area along Lincoln Boulevard. Debris included but was not limited to:
    - Plastic sheeting from soil stockpiles;
    - Degraded erosion control materials; and
    - General trash.

  The debris bins were off hauled to Recology Hay Road Landfill in Vacaville once they were filled, approximately 100 CY of debris was disposed of through the course of the project.

Please refer to ***Appendix E*** for copies of all waste profiles, manifests, and disposal logs.

9.0 BACKFILL AND GRADING

Upon completion of rough grading excavations and confirmation sampling, backfilling of excavations were conducted as described in the following sections.

9.1 IMPORT FILL

Import fill for construction of the cap was sourced from LBNL in Berkeley, California. The material consisted of native soils classified as gravelly loam. TRC, on behalf of the Trust, prepared a letter dated July 10, 2015 summarizing the environmental sampling performed on the soil and requesting approval for use at the Lendrum site from DTSC. DTSC responded with a letter dated July 14, 2015, approving the use of the soil. Following the approval of this material, the Trust performed geotechnical and horticultural sampling to identify if any amendments were required. The Trust prepared a memorandum describing the planned soil amendments with applicable backup and submitted it to DTSC on June 13, 2016 (Trust, 2016). Documents relating to approval of the import fill are provided in ***Appendix I***.

The Trust's contractor, Hanford, screened the import soil through a 1-inch screen at the LBNL Richmond field station, where it had been stockpiled. The import soil was then hauled to the Presidio Nike soil stockpile area. ERRG mobilized a horizontal pug mill to the Site and proceeded to mix the LBNL soil with Cathedral Hill sand, compost, and gypsum to meet horticultural suitability as described in the amendment memorandum to DTSC. Approximately 7,000 loose CY of soil was mixed and staged at the Nike area until it was needed for cap construction and backfill of clean closed areas.

9.2 ENGINEERED SOIL CAP CONSTRUCTION

As depicted on ***Figure 3***, the engineered soil cap extends across most of the project area. After rough grading activities were completed (see **Section 6.4**) gopher wire mesh (16 gauge, PVC-coated, galvanized steel mesh with 0.5-inch openings) was installed across areas designated for capping. The gopher mesh

was installed using biostakes and was attached to hardscape features such as sidewalks and foundations using metal pins for stability. Approximately 18 inches of import fill materials was then placed in 8-inch lifts and compacted in accordance with TRC's geotechnical specifications (see **Section 9.6**) until reaching final grade. Cross-sections depicting engineer soil cap construction are shown on ***Figure 12***.

Fill materials were typically placed on flat surfaces and benched into native materials. Where steep slopes were present, fill soils were overbuilt and cut back to achieve compaction. Compaction was performed utilizing the following methods depending on access and location:

- Tracked bulldozer;
- Loaded 5-CY dump truck;
- Tracked excavator;
- Walk behind compactor;
- Jumping jack compactor; and/or
- Vibratory plate compactor.

The vertical face of the native materials was a minimum of 6 inches high and a maximum of 12 inches high. As described in **Section 6.2**, key trenches were installed for stability, with dimensions approximately 3 feet wide and 2 feet deep below the toe excavation and at historic grade breaks.

At several locations, the construction of the soil cap was modified from the original design due to unexpected field conditions. These locations are summarized below:

- South of Building 1259, heavy organic and root content resulted in the removal of between 1.5 feet and 3.5 feet of soil to reach material that was competent for cap construction. Additionally, shallow bedrock was discovered in the clean closed area to the south, which necessitated a redesign of the grades. Once competent material was reached, the gopher wire was placed on top of the impacted material, and the necessary quantity (1.5 feet to 3.5 feet) of clean material was placed to reach final grade, resulting in a cap that was thicker than anticipated. An additional key trench was placed at the top of the bedrock slope so the new clean soil material would be keyed into existing materials.
- In the landscaped areas in the front of Buildings 1259 and 1278, between the patios and storage units as shown as "New Aggregate Base Cap" on Figure 3, the storage unit subsurface foundations were found to extend out approximately 1.5 feet from the face of the foundation wall toward the patios. The configuration left a small sliver of area to cap between the new patios and the foundation. The Trust Planning Department decided they did not want to plant anything in this small area, so the soil cap was replaced with an AB pad cap section, as designed for the non-vegetated areas behind the buildings. Due to the lack of vegetation, this cap section will be a more substantial barrier to future exposure and ended up being covered with an additional 2 inches of wood mulch, as well.
- Modifications were made to the final cap grades on the western side of Buildings 1259, 1278, 1279, and 1280 to ensure the water runoff in these areas would efficiently drain into the installed drainage systems.

During a rain event on December 23, 2016, a slump measuring approximately 10 feet wide by 15 feet tall occurred at the proposed location of the concrete stairs (at the time of the slump the stairs had not been constructed). Gopher wire remained in place and only the clean cap soil slumped. ERRG and TRC mobilized equipment to the area the next day and over excavated the area to remove saturated material and stabilize the surrounding slopes. The area was covered with plastic until the rain stopped, then was allowed to dry prior to performing the repairs, which included:

- Digging out the key trench and placing 6 inches of drain rock at the bottom;
- Importing new dry import fill and rebuilding the slope in 8-inch vertical lifts;
- Overbuilding the slope by approximately 1.5 feet to allow for compaction and then cut back to achieve final grade; and
- Installation of BMPs:
    - Posi-Cube®
    - Straw
    - Fabric blanket
    - Straw wattles

The cause of the slump was determined to be storm water discharge from a downspout at Building 1257 and surrounding runoff focused at the location of the slump. Minor grading was performed to better distribute flow across the slope, temporary corrugated pipe was attached to the downspout and redirected flow to the adjacent forest, and additional wattle and sandbags were installed to further slow storm water as it drained across the slope. Once vegetation was established around Building 1257 in the dry season additional drainage lines were installed in the front of the building to permanently address this issue.

9.3 CLEAN CLOSURE GRADING

In areas of clean closure, the excavated areas were backfilled with import fill to conform with surrounding grade to facilitate Site drainage without the addition of the engineered soil cap. As a result, no gopher wire was installed in these areas, with the exception of the boundaries between clean closure and cap areas, where the gopher wire extends approximately 5 feet into the clean closed areas. Most clean closure areas were located adjacent to edges of the engineered soil cap; therefore, these areas were graded to match the final elevations of the cap. Backfill of clean closure areas was performed in 8-inch lifts and compacted in accordance with TRC's geotechnical specifications (see **Section 9.6**) until reaching final grade. Most clean closed areas conformed with original grading plans with the following exceptions:

- The clean closure area in front of Building 1258 was expanded as shown on ***Figure 9*** to extend to clean confirmation samples. No gopher wire was placed prior to backfill and the area was graded to match existing grades.
- Clean closure grading design on the sloped area south of Building 1259 was adjusted due to the presence of shallow bedrock as shown on ***Figure 7***. Clean closure excavation did not extend deeper than bedrock. Because the bedrock was at a higher elevation than design grade and at a fairly steep slope of approximately 2.5 to 1, it was determined to leave the existing slope in this area instead of backfilling over the bedrock. Clean backfill for the flatter clean closure area was allowed to run down the slope during compaction and was left in place and covered with erosion control materials. This area has since re-vegetated itself naturally and no bedrock is currently visible.

9.4 DRAINS IN FRONT OF BUILDINGS

Drains were installed near the entrances to Buildings 1257, 1259, 1278, and 1279 to route storm water away from the buildings. The 4-inch drains route storm water runoff to sides of the building and daylight onto concrete drainage curbs, except for the one at Building 1257 which discharges into the storm drainage system. The concrete curbs were originally to be constructed adjacent to the buildings and empty the water onto the gravel pads at the back of the buildings. However, during construction, it was discovered that the concrete foundations for these buildings had between 4 inches and 14 inches of concrete overpour. As a result, the concrete drains were constructed to allow a gap between the drain and the building, and the gap was then filled with gravel. To facilitate maintenance of the drain system, a cleanout was placed at the corner of each building, where the drain line turns 90 degrees and daylights into the concrete drains along the building.

9.5 COMPACTION OBSERVATION

TRC performed compaction observation and testing for this project. The TRC CM maintained a nuclear density gauge on-site in a properly secured (three layers of lock) area. Prior to initiating work, TRC performed geotechnical testing on existing soils and the proposed import soils to attain appropriate compaction curves. Compaction was performed utilizing the following methods, depending on access and location:

- Tracked bulldozer;
- Loaded 5 yard dump truck;
- Tracked excavator;
- Walk behind compactor;
- Jumping jack compactor; and/or
- Vibratory plate compactor.

Compaction testing was performed in conformance with the *Geotechnical Evaluation* and CQAP, which were included as Appendices B and F of the Revised RDIP. Soils were compacted to the following specifications:

- Import fill within 18 inches of final grade = 85-90% relative compaction
- Import fill greater than 18 inches of final grade = a minimum of 90% relative compaction
- In-place soils = a minimum of 90% relative compaction

Compaction testing results are included in ***Appendix J***.

During construction, it was determined that some in-place native and fill soils differed in texture and moisture from those that were originally tested during the design phase. As a result, TRC collected additional geotechnical samples and sent them to TRC's geotechnical laboratory in Mountain View, California so that new compaction curves could be developed.

In several areas of the Site, the rough grade and the bottoms of key trenches were undisturbed bedrock. Once the TRC CM confirmed its unyielding nature, no additional compaction or testing was performed on the bedrock.

9.6 POST-CONSTRUCTION GRADING SURVEY

As final grading activities were completed in each construction area, ERRG's on-site civil engineer collected final survey surface points in the cap and clean closure areas. The survey points were used to develop a final surface and as-built condition for the Site and to confirm that the cap was constructed to the appropriate thickness. ERRG's as-built survey showing final surface grades are included in ***Appendix D*** and have been incorporated into the final as built drawings.

9.7 TOTAL SOIL VOLUME IMPORTED

In total, approximately 6,380 CY (loose) of mixed soil was imported to the Site and used to backfill clean closed areas and construct the clean soil cap. The total volume of mixed LBNL soil was determined through counts of 5 CY haul trucks that transported the material to the project Site later checked by comparing the rough and final grade surfaces (assuming a 30% loss due to compaction). In place compacted volume was estimated to be 5,010 CYs.

9.8 PLACEMENT OF INTERIM EROSION CONTROL MEASURES

Due to construction extending through the 2016 winter, additional interim erosion control measures were implemented on an on-going basis to control erosion and storm water discharge. Interim controls included the following:

- Additional gravel bags were placed around any area of focused drainage, such as:
  - Bottom of the concrete drains at Buildings 1259, 1278, and 1279;
  - Along the concrete swale along Lendrum Court; and
  - Along concrete walkways and patios leading to residences.
- Additional straw wattles were installed as necessary to slow flow from storm events.
- Corrugated plastic pipe was connected to all downspouts draining into the historic forest and west slope. The pipe re-routed storm water to the adjacent heavily vegetated forest areas.
- Plastic sheeting was used to temporarily cover incomplete areas on the west side of Lendrum during storm events.
- Water accumulated in open key trenches and patio excavations was pumped into mobile poly tanks and either later used for dust control on impacted soils or profiled and disposed of off-site. Disposal documents are provided in ***Appendix E***.

Interim controls described above, such as gravel bags, wattle, corrugated pipe, and remaining silt fence from initial erosion controls, were retained through the rainy season and were removed in the summer of 2017 at the completion of construction.

10.0 FINAL SURFACE COMPLETION

At the end of construction, TRC finalized surfaces at the Site with AB and hardscape elements, placed final erosion control measures, and implemented the irrigation and vegetation plan. Photographs of completed site restoration are included in ***Appendix F***.

10.1 AB AND HARDSCAPE FEATURES

In addition to the engineered soil cap, hardscape elements were constructed (or replaced) to serve as a cap. At completion, cap elements included the following:

New Cap Element	Location	Construction
Clean soil cap[1]	Site-wide	Minimum of 18 inches clean soil
Concrete Patios[1]	Buildings 1259, 1278, 1279, 1257, 1258	5 inches reinforced concrete over 4 inches AB (minimum 9 inch cap)
Concrete Drains[2]	Buildings 1259, 1278, 1279	5 inches reinforced concrete over 5 inches AB (minimum 10 inch cap)
AB Pads[1]	Buildings 1259, 1279 and behind Buildings 1259, 1278, and 1279	6 inches AB over 6 inches clean soil (minimum 12 inch cap)
AC Path[1]	Northwest of Building 1257	2.5 inches AC over 6 inches AB over 9.5 inches clean soil (minimum 18 inch cap)
Concrete Stairs[2]	Northwest of Building 1257	5 inches reinforced concrete over 4 inches of AB (minimum 9 inch cap)
Concrete Sidewalks[2]	Southwest of Building 1279	5 inches reinforced concrete over 4 inches of AB (minimum 9 inch cap)
Recycled Concrete AB Path[1]	North and east of 1257	6 inches recycled concrete AB over 12 inches of clean soil (minimum of 18 inch cap)
Recycled Concrete AB Box Stairs[1]	East of 1257 and 1258	4 inches recycled concrete AB and 6 inches permeable rock over 12 inches of clean soil (minimum of 18 inch cap)

[1] The soil cap, patios, AB pads, AC path, and recycled concrete AB path/stairs were underlain by 16-gauge galvanized steel gopher wire mesh with 0.5-inch opening and PVC coating.

[2] Concrete drains, the concrete staircase, and the concrete sidewalks had gopher wire folded into the form prior to pouring concrete for a clean fit.

The following existing hardscape element were also retained as part of the cap.

Existing Cap Element	Location	Construction
Existing Buildings and Foundations	Site-wide	Appear to be 2-feet thick concrete
Existing Sidewalks	Site-wide	5 inches reinforced concrete over 4 inches AB (minimum 9 inch cap)

Existing Streets	Site-wide	2.5 inches of AC over 6 inches of AB (minimum of 8.5 inch cap).

The extent of final hardscape elements is shown on ***Figure 3***. Cross-sections of the hardscape elements are included in ***Figure 12***.

10.2 PLACEMENT OF FINAL EROSION CONTROL MEASURES

When final grading was completed at each construction area, final erosion control measures were implemented. The final erosion control measures implements varied by construction area, as described below:

- Historic Forest:
  - Exposed soil received an application of Posi-Cube® product with sterile grass seed.
  - Loose straw was spread.
  - Erosion control blankets were laid out and staked in place.
  - Straw wattles were installed perpendicular to the direction of sheet flow.
- Remaining landscaped area around residential buildings and the slope on the west side of Lendrum Court:
  - Exposed soil received an application of Posi-Cube® product.
  - Loose straw was spread.
  - Erosion control blankets were laid out and staked in place.
  - Straw wattles were installed perpendicular to the direction of sheet flow.

Final erosion control measures are depicted on ***Figure 13***.

10.3 IRRIGATION AND VEGETATION PLAN

The Site has been replanted and reforested in accordance with TRC's original planting plan, and an irrigation system has been constructed to establish vegetation growth. In summary, planting consisted of the following in the various construction areas:

- Historic Forest:
  - The understory was planted with blackberry and toyon.
  - Trees included a variety of eucalyptus staggered by height, with shorter stature trees closer to residences and taller trees further into the forest area.
  - All plants were installed through erosion control fabric.
  - Toyon and eucalyptus trees within the capped areas had a hole measuring 1-foot by 1-foot cut in the gopher wire to allow deep rooting.
- Native plant landscape areas away from residences:
  - The understory was planted with 3-foot on center dwarf coyote brush and blackberry.
  - Trees included an assortment of ornamental trees.
  - All plants were installed through the installed erosion control fabric.
  - Trees within the capped areas had a hole measuring 1-foot by 1-foot cut in the gopher wire to allow deep rooting.

- Enhanced planting landscape areas adjacent to residences:
    - The area was planted with an assortment of turf and ornamental plants.
    - An assortment of ornamental trees was also planted.
    - These areas had the erosion control fabric removed prior to planting and most areas were covered with wood mulch after plants were installed.
    - Trees within the capped areas had a hole measuring 1-foot by 1-foot cut in the gopher wire to allow deep rooting.

The irrigation system consisted of electronic controllers, main water lines linked to the potable water system, laterals, spray head coverage over most areas, and drip rings around trees. All irrigation lines were installed within the clean soil Cap underlain by gopher wire.

11.0 DEMOBILIZATION

Following completion of construction activities, the Site and its associate facilities and support areas were demobilized in the following ways:

- Work areas were cleared of construct debris, fencing, temporary facilities, and construction SWPPP BMPs. Construction debris was placed in a bin and disposed of off-Site.
- **Lincoln Boulevard Staging Area** – Materials stored in the Lincoln Boulevard staging area (such as erosion control materials), debris bins, Conex boxes, and security fencing were removed, and the area was cleaned using hand tools and a street sweeper.
- **951 Staging Area** – Materials stored at the 951 staging area were removed, including excess soil, plastic liners, and fencing. A street sweeper cleaned the area to finalize demobilization activities.
- **Armistead Conex Box** – The Armistead Road Conex Box was demobilized from the Site and fencing was removed; however, the AB pad was left in place to support the scheduled ADL area work adjacent to Lendrum Court.
- **Nike Soil Mixing/Staging Area** – The pug mill used for soil mixing at the Nike site was cleaned and demobilized. Excess clean soil components (e.g., sand, compost materials, etc.) used for mixing were combined with other stockpiles or, if already mixed, staged separately. All stockpiles were covered with plastic sheeting anchored with sandbags and labeled. Contaminated soil stockpiles were off-hauled to appropriate disposal facilities.
- **1347 Staging Area** – K-rails and excess soil present at the 1347 Staging Area were removed, and plastic used for covering and ground liner was disposed of accordingly. The cleared area was then cleaned by a street sweeper.
- Contaminated soils stockpiled in the Nike and 1347 staging areas were disposed of at appropriate landfills, as described in **Section 8.0**.

12.0 SITE INSPECTIONS AND MEETINGS

Construction progress meetings were held on a weekly basis between the Trust, TRC, and the contractor. Members from other departments of the Trust joined the meetings as needed. Following the weekly meeting, TRC's design engineer would walk the Site and perform informal inspections. Periodically,

TRC's Engineer of Record and CQA officer, Warren Chamberlain, P.E., would tour the Site and perform a CQA inspection. Deficiencies noted during the inspection were immediately communicated with the contractor and addressed. CQA inspections were performed on the following dates:

- March 24, 2016
- July 8, 2016
- September 14, 2016
- October 19, 2016
- December 7, 2016
- January 18, 2017
- April 14, 2017
- June 26, 2017

TRC provided daily construction oversight for the duration of construction activities. TRC's construction inspectors recorded key information such as deviations from design and specifications, safety meeting notes, schedule updates, weather conditions, import and off-haul activities, condition of SWPPP BMPs, general notes and photographs, which were compiled into daily construction logs.

When rough grading and backfill activities were initiated, a TRC geotechnical technician performed inspections to confirm the contractor was complying with protocols outlined in the Geotechnical Evaluation and CQAP. Moreover, the TRC CM performed regular compaction testing throughout the project.

DTSC performed a Site inspection on September 16, 2016 and toured the project area with TRCs CQA officer.

13.0 POST-CONSTRUCTION ACTIVITIES

Following completion of construction activities, TRC and the contractor conducted final inspections, established as-built conditions, and conducted ongoing monitoring of erosion control measures.

13.1 PROJECT COMPLETION

After work was finished at each construction area, the design engineer performed an inspection to confirm that all construction activities had been completed according to the specifications, and that all scope items for that area had been addressed prior to authorizing demobilization from the area. The CQA inspection logs are included as ***Appendix K***.

13.2 ESTABLISHING AS-BUILT CONDITIONS

ERRG performed an as-built survey of the entire project area, including significant project elements such as:

- Clean closure boundaries;
- Cap boundaries;
- Hardscape features; and
- Topographic survey.

The as-built survey drawings are included in ***Appendix D***. Additionally, M&H developed an as-built drawing set for the irrigation system which was built within the cap. Subsurface key trenches, sub-drains,

and building drainage lines are shown on ***Figure 4*** and the drawings within ***Appendix D***. As-built drawings are included in ***Appendix D***.

13.3 EROSION CONTROL MONITORING

Following completion of construction, final erosion control measures and BMPs were implemented at the Site, as described in **Section 10.2** and depicted on ***Figure 13***. ERRG monitored the erosion controls thoroughly through 2017. In accordance with the SWPPP, inspections will occur monthly or following qualifying rain event. If deficiencies in the BMPs are noted, the Trust will be notified immediately, and the issues will be remedied.

14.0 LONG-TERM MONITORING PROGRAM

Long-term monitoring and maintenance of the cap system will be performed in accordance with the Operations and Maintenance Plan (O&M Plan). The O&M Plan has been prepared as a stand-alone document and is included as ***Appendix L***.

To verify that remedial measures implemented at the Site continue to meet the RAOs, the Trust will prepare a 5-year review report to document the long-term monitoring and maintenance of the cap and attain DTSC concurrence with the findings of the report.

The first 5-year review is scheduled for 2022.

15.0 LAND USE CONTROL

A majority of the Site will be designated as a LUC area. A Site-Specific addendum to the LUCMRR will be prepared to designate the Site as a LUC and will be submitted under separate cover. The LUCMMR Addendum will apply to areas where contamination remains above CULs, including:

- Soil cap;
- Hardscape and AB pad caps;
- Existing buildings; and
- Vegetated cover.

16.0 SUMMARY AND CONCLUSIONS

The remedial construction was performed in accordance with the DTSC-approved Revised RDIP and the RAW. The selected remedy for this Site included excavation, consolidation, capping, disposal, and establishment of a LUC. The RAOs were met as follows:

- The remedy is protective of human health and the environment due to the elimination of exposure pathways through removal of contaminated soil by excavation, off-site disposal, and confirmation sampling and though capping remaining contaminated soils in place and establishment of a LUC.
- This remedy included consolidation of impacted soils below the Site cap, which reduced excavation, handling, and off-haul disposal quantities. Additionally, landscape improvements and re-forestation were incorporated into the design to make a more durable cap.

- Compliance with ARARs was met through clean closure of designated areas, construction of a permanent cap, establishment of a LUC.

Remedial construction included the following:

- Excavation and off-site disposal of approximately 2,573 tons of soil;
- Consolidation under cap of approximately 1,120 in-place CY of impacted soil;
- Import soil for cap construction and excavation backfill of approximately 5,010 in-place CY;
- Cap construction consisting of imported soil, new pavement, and existing hardscape elements; and,
- Erosion control, re-vegetation, and irrigation system installation on soil cap.

TRC, on behalf of the Trust, request DTSC concurrence of the following:

1. All required removal and capping at the Site has been completed consistent with the approved RDIP and RAW, and is approved by DTSC; and
2. Except for the recording of the LUC and ongoing O&M, all requirements of the RAW and Revised RDIP have been completed and are approved, and the property is suitable for continued residential use.

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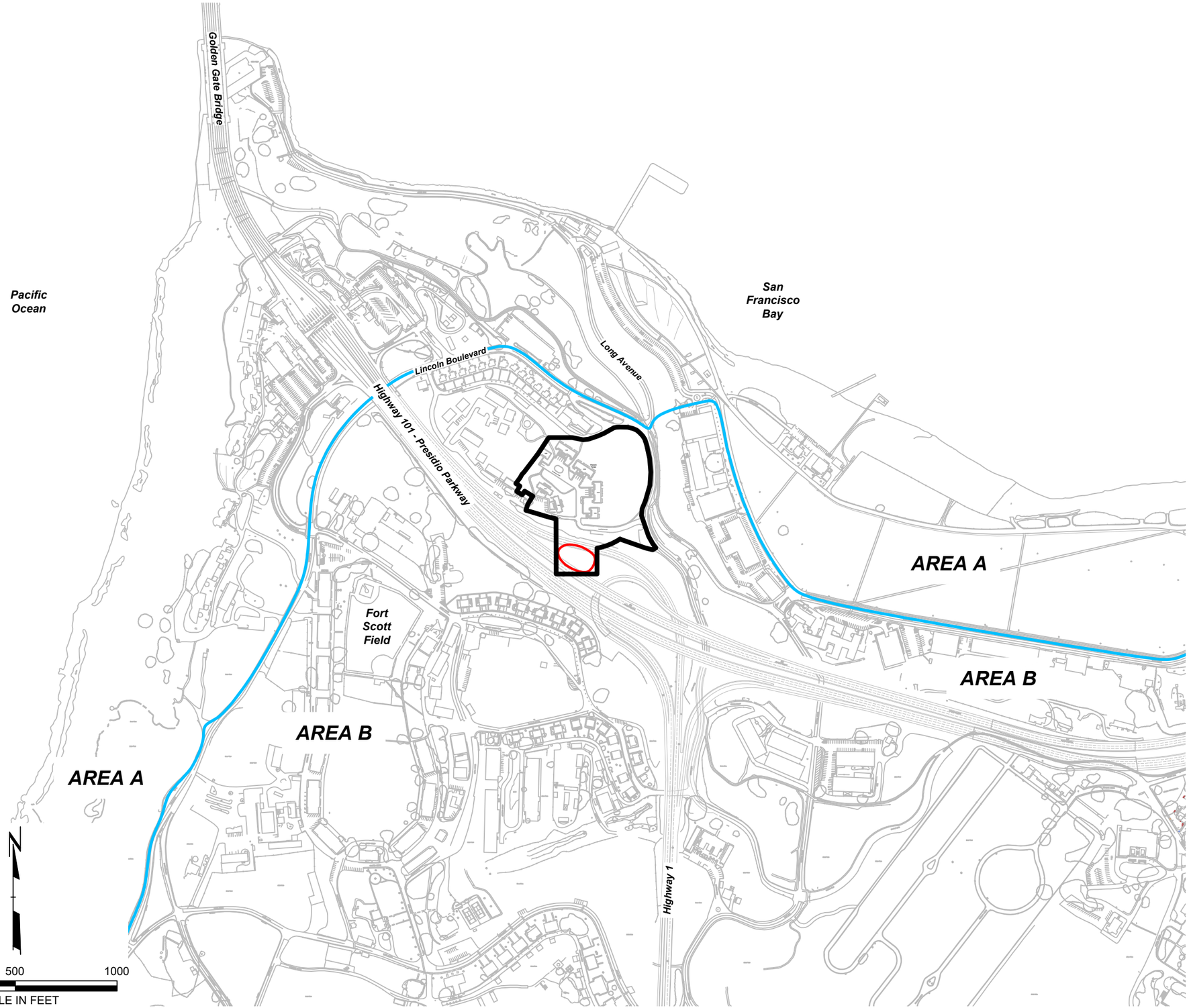
United States Environmental Protection Agency (USEPA). 2005. Ecological Soil Screening Levels for Lead. Interim Final. Office of Solid Waste and Emergency Response. OSWER Directive 9285.7-70. March.

FIGURES



LEGEND

- LENDRUM COURT AREA
- APPROXIMATE FORMER INCINERATOR AREA
- AREA A / B BOUNDARY

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
SITE LOCATION MAP

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		
APPROVED BY:	J. H-D		**FIGURE 1**
DATE:	APRIL 2019		

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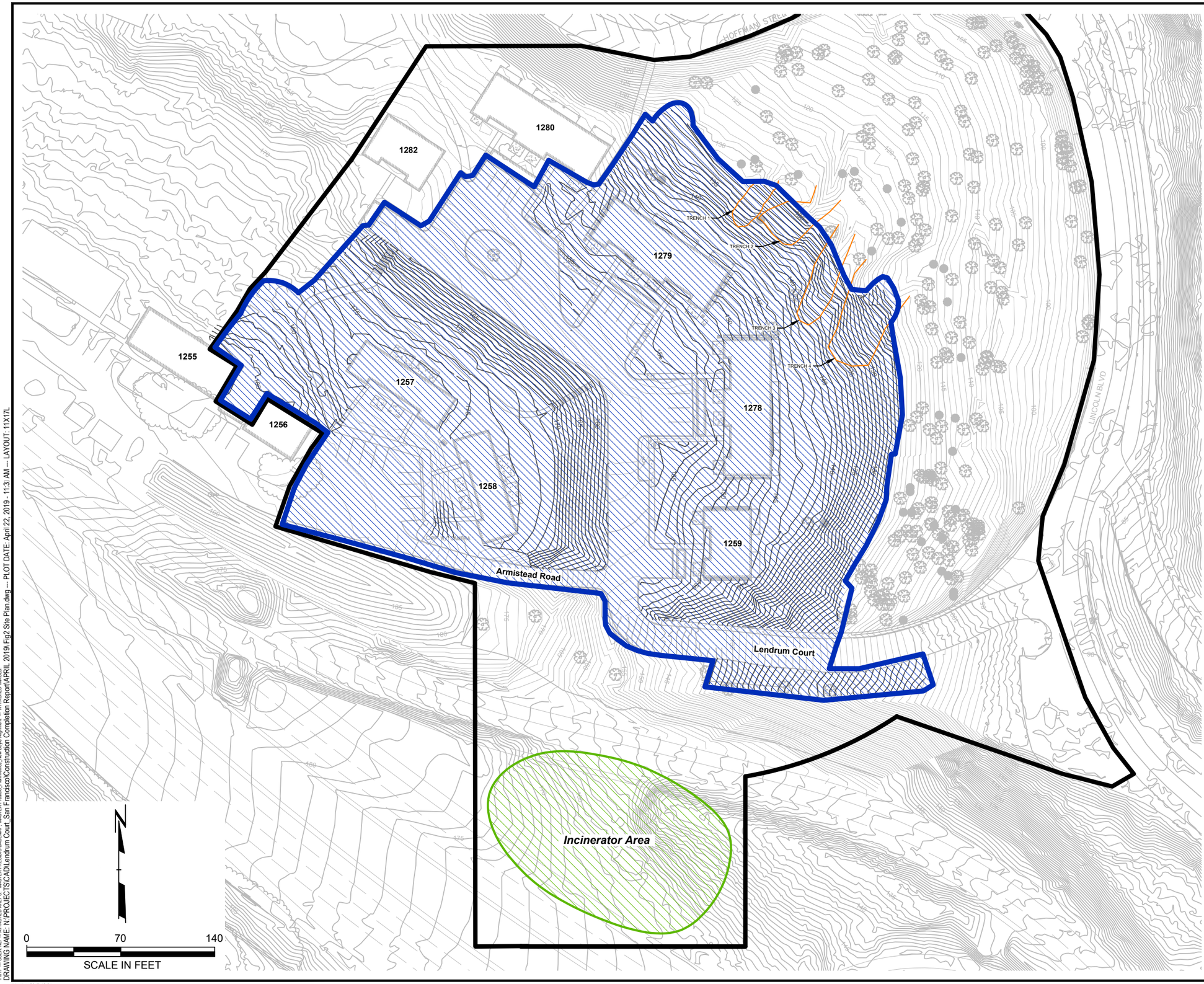
Phone: 415.434.2600

FILE NO.: Fig1 Site Location Map.dwg

11x17 -- USER: KLI -- ATTACHED XREFS: - MASTER Presidio_Plainmetrics_New Doyle Alignment -- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Construction Completion Report\APRIL 2019\ Fig1 Site Location Map.dwg --- PLOT DATE: April 18, 2019 - 1:15PM --- LAYOUT: 11X17L
Version: 2017-10-21



LEGEND

- APPROXIMATE SITE BOUNDARY
- APPROXIMATE LOCATION OF HISTORIC WORLD WAR I TRENCH
- APPROXIMATE EXTENT OF REMEDIAL ACTION AREA
- APPROXIMATE FORMER INCINERATOR AREA
- 140 — SURFACE CONTOURS (OUTSIDE PROJECT AREA)
- 140 — FINAL PROJECT SURFACE CONTOURS
- APPROXIMATE TREE LOCATION
- APPROXIMATE TOYON LOCATION

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
SITE PLAN

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		
APPROVED BY:	J. H-D		**FIGURE 2**
DATE:	APRIL 2019		

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FILE NO.: Fig2 Site Plan.dwg

11x17 -- USER: KLI -- ATTACHED XREFS: MASTER:PRESIDIO BASEMAP; MASTER:Presidio_Planimetrics_New Doyle Alignment -- ATTACHED IMAGES:
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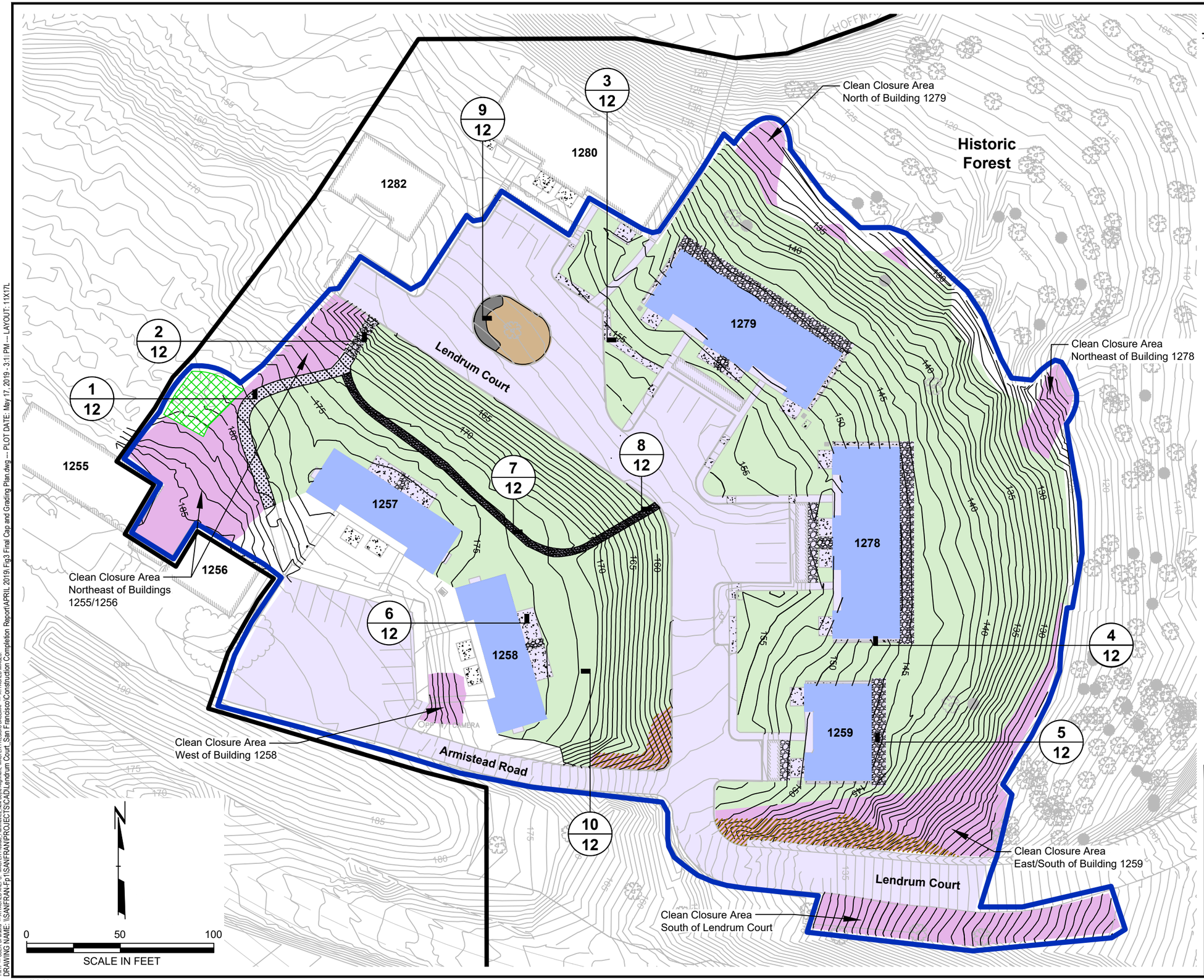
Version: 2017-10-21



LEGEND

- APPROXIMATE SITE BOUNDARY
- APPROXIMATE REMEDIAL ACTION AREA
- 140 — SURFACE CONTOURS (OUTSIDE PROJECT AREA)
- 140 — FINAL PROJECT SURFACE CONTOURS
- APPROXIMATE LIMITS OF VEGETATED SOIL CAP
- APPROXIMATE AREAS OF BUILDING THAT SERVE AS CAP
- AREAS OF ASPHALT, PAVEMENT, AB PADS, AND HARDSCAPE THAT SERVE AS CAP
- APPROXIMATE AREAS EXCAVATED AND CLEAN CLOSED
- APPROXIMATE AREAS EXCAVATED TO EXPOSED BEDROCK (CLEAN CLOSURE AREA)
- TREE ISLAND CAP COMPACTED AGGREGATE BASE
- TREE ISLAND CAP WOOD MULCH
- NEW CONCRETE PATIOS, SIDEWALKS AND STAIRS
- RECYCLED CONCRETE AGGREGATE BASE PATH AND BOX STEPS
- NEW ASPHALT PATH
- NEW AGGREGATE BASE CAP
- VEGETATED LUC (NORTH 1255/1256 FOREST AREA)
- APPROXIMATE TREE LOCATION
- APPROXIMATE TOYON LOCATION
- 1/12 — DETAIL NUMBER
- FIGURE NUMBER WHERE DETAIL CAN BE FOUND

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
FINAL CAP AND GRADING PLAN

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		**FIGURE 3**
APPROVED BY:	J. H-D		
DATE:	APRIL 2019		

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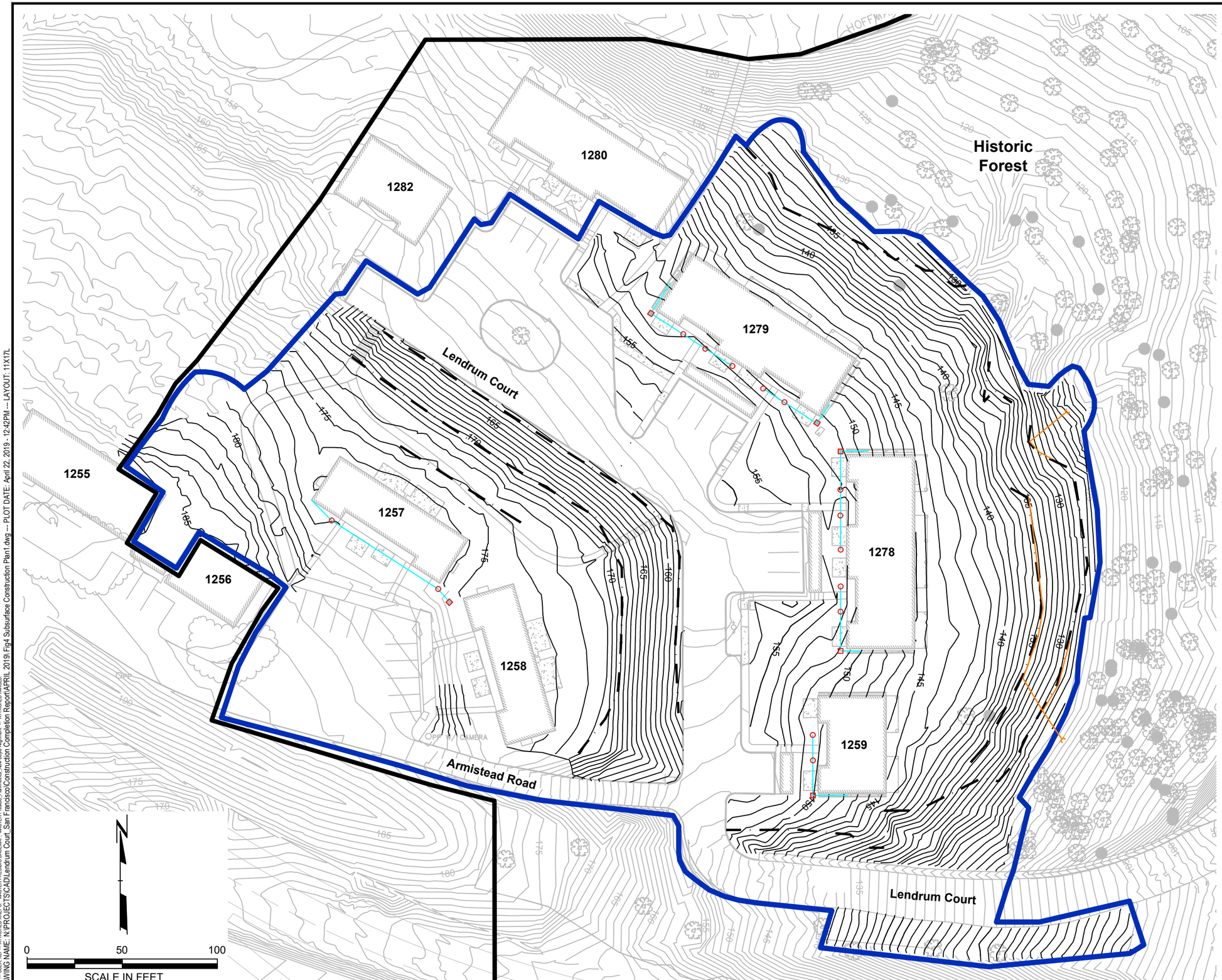
Phone: 415.434.2600

FILE NO.: Fig3 Final Ca□ and Grading Plan.dwg

11x17 -- USER: DPhoons -- ATTACHED XREFS: MASTER Presidio_Planimetrics_New Doyle Alignment; MASTER PRESIDIO BASEMAP -- ATTACHED IMAGES:
DRAWING NAME: I:\SANFRAN\Projects\CAD\Lendrum Court_San Francisco\Construction Completion Report\APRIL 2019\ Fig3 Final Cap and Grading Plan.dwg -- PLOT DATE: May 17, 2019 - 3:11 PM -- LAYOUT: 11X17L
Version: 2017-10-21



LEGEND

- APPROXIMATE SITE BOUNDARY
- APPROXIMATE REMEDIAL ACTION AREA
- 140 — SURFACE CONTOURS (OUTSIDE PROJECT AREA)
- 140 — FINAL PROJECT SURFACE CONTOURS
- KEY TRENCHES
- DRAINAGE LINES
- APPROXIMATE TREE LOCATION
- APPROXIMATE TOYON LOCATION
- DRAIN LINE CLEANOUT
- SURFACE DRAIN INLET
- APPROXIMATE KEY TRENCH SUBDRAIN AND DISCHARGE POINT LOCATIONS

NOTES

1. FIGURE DOES NOT SHOW IRRIGATION LINES.
2. ALL IRRIGATION LINES WERE CONSTRUCTED WITHIN CAP.

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
SUBSURFACE CONSTRUCTION PLAN

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		**FIGURE 4**
APPROVED BY:	J. H-D		
DATE:	APRIL 2019		

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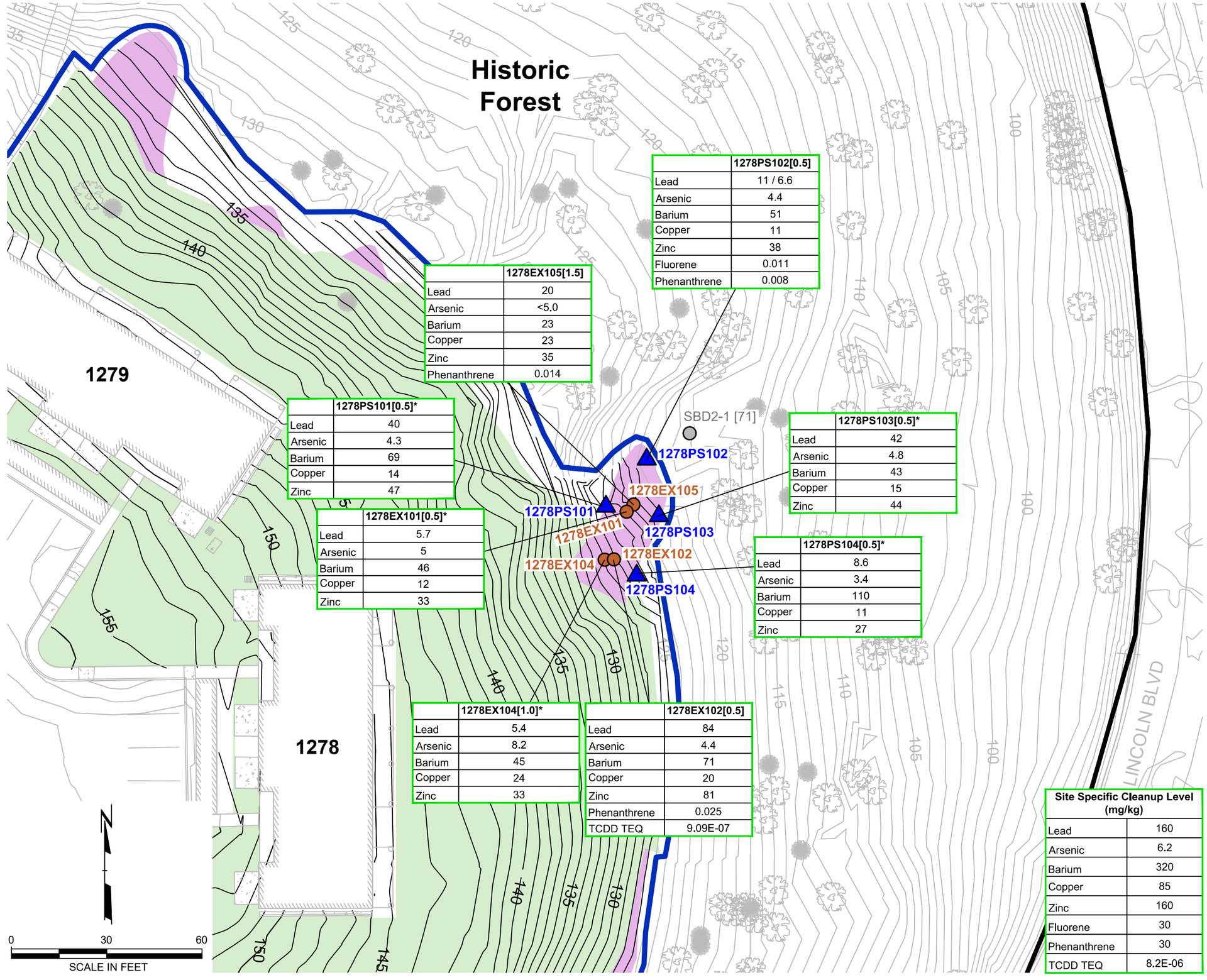
FILE NO.: Fig4 Subsurface Construction Plan1.dwg

11x17 -- USER: KLI -- ATTACHED XREFS: -- MASTER.PRESIDIO.BASEMAP- MASTER.Presidio_Planimetria_New Doyle Alignment -- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Construction Completion Report\APRIL 2019\ Fig4 Subsurface Construction Plan1.dwg -- PLOT DATE: April 22, 2019 - 12:42PM -- LAYOUT: 11X17L
Version: 2017-10-21



	1278EX105[1.5]
Lead	20
Arsenic	<5.0
Barium	23
Copper	23
Zinc	35
Phenanthrene	0.014

	1278PS102[0.5]
Lead	11 / 6.6
Arsenic	4.4
Barium	51
Copper	11
Zinc	38
Fluorene	0.011
Phenanthrene	0.008

	1278PS101[0.5]*
Lead	40
Arsenic	4.3
Barium	69
Copper	14
Zinc	47

	1278PS103[0.5]*
Lead	42
Arsenic	4.8
Barium	43
Copper	15
Zinc	44

	1278EX101[0.5]*
Lead	5.7
Arsenic	5
Barium	46
Copper	12
Zinc	33

	1278PS104[0.5]*
Lead	8.6
Arsenic	3.4
Barium	110
Copper	11
Zinc	27

	1278EX104[1.0]*
Lead	5.4
Arsenic	8.2
Barium	45
Copper	24
Zinc	33

	1278EX102[0.5]
Lead	84
Arsenic	4.4
Barium	71
Copper	20
Zinc	81
Phenanthrene	0.025
TCDD TEQ	9.09E-07

LEGEND

- APPROXIMATE SITE BOUNDARY
- APPROXIMATE REMEDIAL ACTION AREA
- 140 — SURFACE CONTOURS (OUTSIDE PROJECT AREA)
- 140 — FINAL PROJECT SURFACE CONTOURS
- APPROXIMATE LIMITS OF VEGETATED SOIL CAP
- APPROXIMATE AREAS EXCAVATED AND CLEAN CLOSED
- APPROXIMATE LOCATION OF HISTORIC POTHOLE
- [83] HISTORIC LEAD CONCENTRATION IN SURFACE SOIL (MILLIGRAMS PER KILOGRAM [MG/KG])
- PERIMETER CONFIRMATION SAMPLING LOCATION
- EXCAVATION CONFIRMATION SAMPLING LOCATION
- FOREST / RECREATION LEVELS (SEE TABLE BELOW FOR SITE SPECIFIC SCREENING LEVELS)

* Polynuclear Aromatic Hydrocarbons (PAHs) were non-detect in the sample.

	Sample ID
Inorganic	Concentration / Duplicate (mg/kg)

Site Specific Cleanup Level (mg/kg)	
Lead	160
Arsenic	6.2
Barium	320
Copper	85
Zinc	160
Fluorene	30
Phenanthrene	30
TCDD TEQ	8.2E-06

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
CONFIRMATION SAMPLING RESULTS - NORTHEAST OF BUILDING 1278

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		
APPROVED BY:	J. H-D		**FIGURE 5**
DATE:	APRIL 2019		

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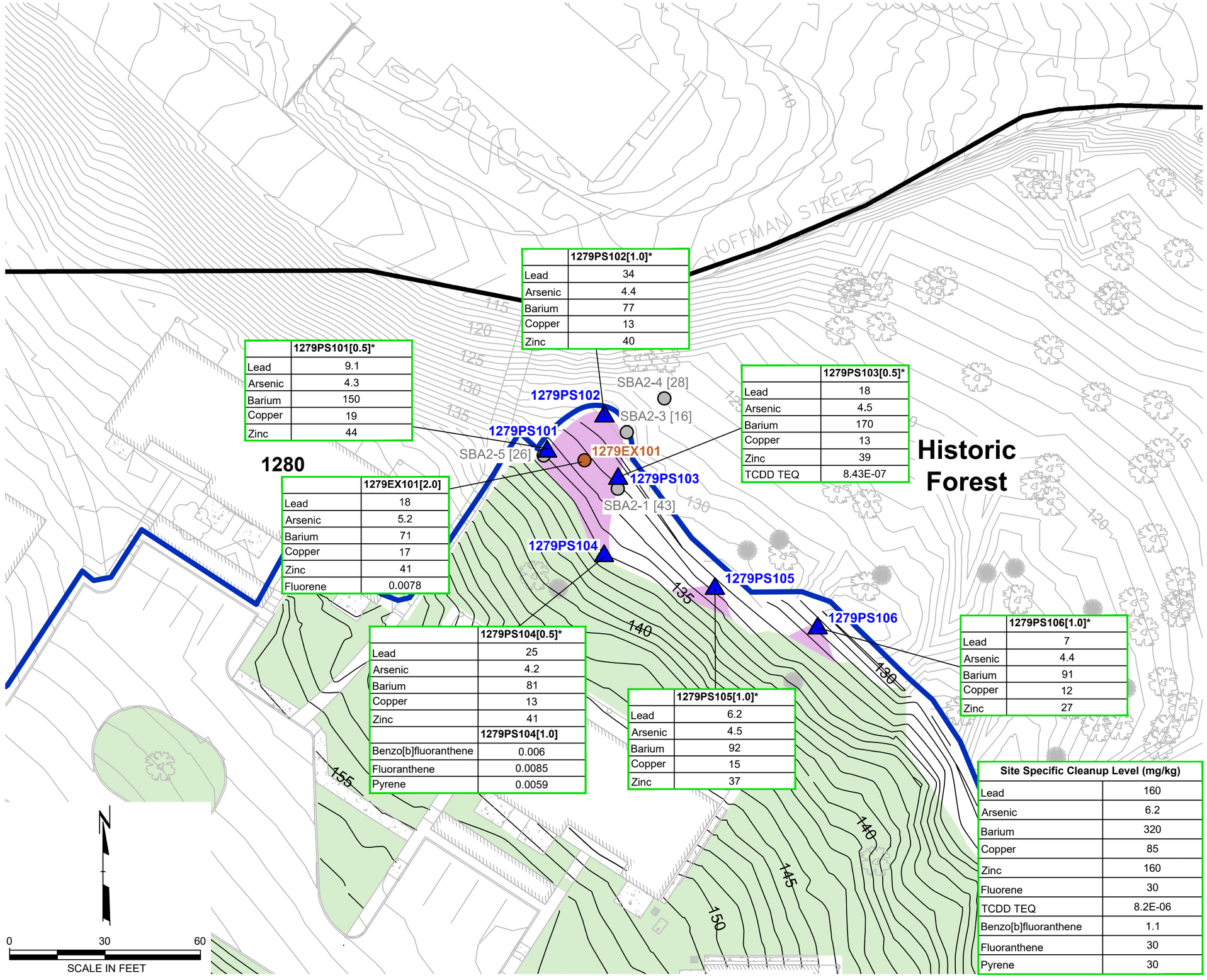
FILE NO.: Fig5 Confirmation Sampling Results - North of Building 1278.dwg

11x17 -- USER: KLI -- ATTACHED XREFS: MASTER PRESIDIO BASEMAP; MASTER Presidio_Planimetrics_New Doyle Alignment -- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Construction Completion Report\APRIL 2019\ Fig5 Confirmation Sampling Results - North of Building 1278.dwg -- PLOT DATE: April 23, 2019 - 4:39PM -- LAYOUT: 11X17L
Version: 2017-10-21



	1279PS102[1.0]*
Lead	34
Arsenic	4.4
Barium	77
Copper	13
Zinc	40

	1279PS101[0.5]*
Lead	9.1
Arsenic	4.3
Barium	150
Copper	19
Zinc	44

	1279PS103[0.5]*
Lead	18
Arsenic	4.5
Barium	170
Copper	13
Zinc	39
TCDD TEQ	8.43E-07

	1279EX101[2.0]
Lead	18
Arsenic	5.2
Barium	71
Copper	17
Zinc	41
Fluorene	0.0078

	1279PS104[0.5]*
Lead	25
Arsenic	4.2
Barium	81
Copper	13
Zinc	41
	1279PS104[1.0]
Benzo[b]fluoranthene	0.006
Fluoranthene	0.0085
Pyrene	0.0059

	1279PS105[1.0]*
Lead	6.2
Arsenic	4.5
Barium	92
Copper	15
Zinc	37

	1279PS106[1.0]*
Lead	7
Arsenic	4.4
Barium	91
Copper	12
Zinc	27

LEGEND

- APPROXIMATE SITE BOUNDARY
- APPROXIMATE REMEDIAL ACTION AREA
- 140 — SURFACE CONTOURS (OUTSIDE PROJECT AREA)
- 140 — FINAL PROJECT SURFACE CONTOURS
- APPROXIMATE LIMITS OF VEGETATED SOIL CAP
- APPROXIMATE AREAS EXCAVATED AND CLEAN CLOSED
- APPROXIMATE LOCATION OF HISTORIC POTHOLE
- [83] HISTORIC LEAD CONCENTRATION IN SURFACE SOIL (MILLIGRAMS PER KILOGRAM [MG/KG])
- PERIMETER CONFIRMATION SAMPLING LOCATION
- EXCAVATION CONFIRMATION SAMPLING LOCATION
- FOREST / RECREATION LEVELS (SEE TABLE BELOW FOR SITE SPECIFIC SCREENING LEVELS)

* Polynuclear Aromatic Hydrocarbons (PAHs) were non-detect in the sample.

	Sample ID
Inorganic	Concentration / Duplicate (mg/kg)

Site Specific Cleanup Level (mg/kg)	
Lead	160
Arsenic	6.2
Barium	320
Copper	85
Zinc	160
Fluorene	30
TCDD TEQ	8.2E-06
Benzo[b]fluoranthene	1.1
Fluoranthene	30
Pyrene	30

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
CONFIRMATION SAMPLING RESULTS - NORTH OF BUILDING 1279

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		
APPROVED BY:	J. H-D		**FIGURE 6**
DATE:	APRIL 2019		

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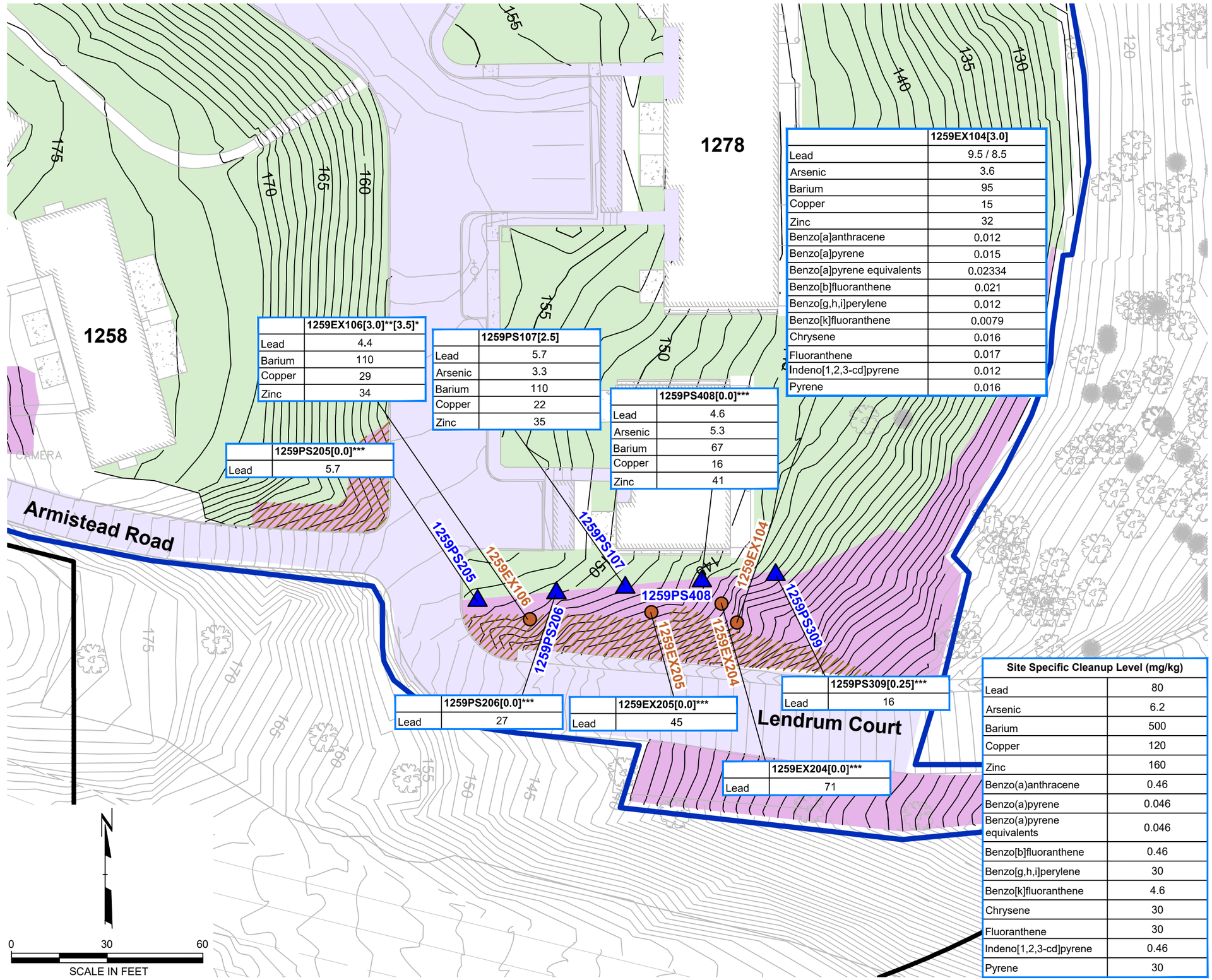
FILE NO.: Fig6 Confirmation Sampling Results - North of Building 1279.dwg

11x17 -- USER: KLI -- ATTACHED XREFS: MASTER PRESIDIO BASEMAP, MASTER Presidio_Planimetrics_New Doyle Alignment -- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Construction Completion Report\APRIL 2019\ Fig6 Confirmation Sampling Results - North of Building 1279.dwg -- PLOT DATE: April 23, 2019 - 4:37PM -- LAYOUT: 11X17L
Version: 2017-10-21



LEGEND

- APPROXIMATE SITE BOUNDARY
- APPROXIMATE REMEDIAL ACTION AREA
- 140 — SURFACE CONTOURS (OUTSIDE PROJECT AREA)
- 140 — FINAL PROJECT SURFACE CONTOURS
- APPROXIMATE LIMITS OF VEGETATED SOIL CAP
- AREAS OF ASPHALT, PAVEMENT, AB PADS, AND HARDSCAPE THAT SERVE AS CAP
- APPROXIMATE AREAS EXCAVATED AND CLEAN CLOSED
- APPROXIMATE AREAS EXCAVATED TO EXPOSED BEDROCK (CLEAN CLOSURE AREA)
- PERIMETER CONFIRMATION SAMPLING LOCATION
- EXCAVATION CONFIRMATION SAMPLING LOCATION
- LANDSCAPED / RESIDENTIAL LEVELS (SEE TABLE BELOW FOR SITE SPECIFIC SCREENING LEVELS)

* Depth of Potential Bedrock.
** Polynuclear Aromatic Hydrocarbons (PAHs) and Dioxin/Furans were non-detect in the sample.
*** Sample was taken from the final overexcavated surface, depth below original grade will be determined comparing rough grade survey map to original grade.

	Sample ID
Inorganic	Concentration / Duplicate (mg/kg)

Site Specific Cleanup Level (mg/kg)	
Lead	80
Arsenic	6.2
Barium	500
Copper	120
Zinc	160
Benzo(a)anthracene	0.46
Benzo(a)pyrene	0.046
Benzo(a)pyrene equivalents	0.046
Benzo[b]fluoranthene	0.46
Benzo[g,h,i]perylene	30
Benzo[k]fluoranthene	4.6
Chrysene	30
Fluoranthene	30
Indeno[1,2,3-cd]pyrene	0.46
Pyrene	30

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
CONFIRMATION SAMPLING RESULTS - SOUTH OF BUILDING 1259

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		
APPROVED BY:	J. H-D		**FIGURE 7**
DATE:	APRIL 2019		

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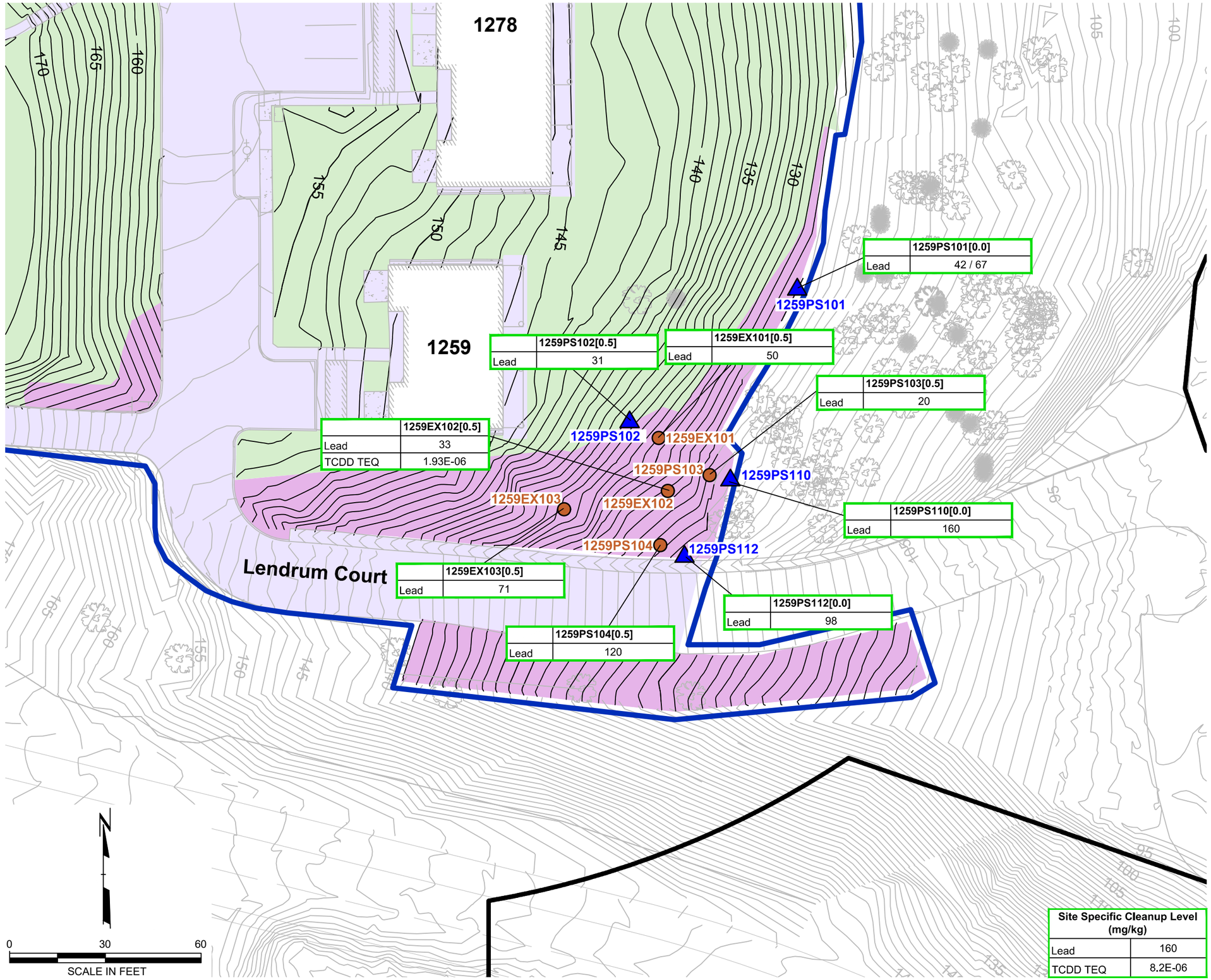
Phone: 415.434.2600

FILE NO.: Fig7 Confirmation Sampling Results - South of Building 1259.dwg

11x17 --- USER: KLI --- ATTACHED XREFS: MASTER PRESIDIO BASEMAP; MASTER Presidio_Parametrics_New Dovle Alignment --- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Construction Completion Report\APRIL 2019\ Fig7 Confirmation Sampling Results - South of Building 1259.dwg --- PLOT DATE: May 07, 2019 - 2:48PM --- LAYOUT: 11X17L
Version: 2017-10-21



LEGEND

- APPROXIMATE SITE BOUNDARY
- APPROXIMATE REMEDIAL ACTION AREA
- 140 — SURFACE CONTOURS (OUTSIDE PROJECT AREA)
- 140 — FINAL PROJECT SURFACE CONTOURS
- APPROXIMATE LIMITS OF VEGETATED SOIL CAP
- AREAS OF ASPHALT, PAVEMENT, AB PADS, AND HARDSCAPE THAT SERVE AS CAP
- APPROXIMATE AREAS EXCAVATED AND CLEAN CLOSED
- PERIMETER CONFIRMATION SAMPLING LOCATION
- EXCAVATION CONFIRMATION SAMPLING LOCATION
- FOREST / RECREATION LEVELS (SEE TABLE BELOW FOR SITE SPECIFIC SCREENING LEVELS)

	Sample ID
Inorganic	Concentration / Duplicate (mg/kg)

Site Specific Cleanup Level (mg/kg)	
Lead	160
TCDD TEQ	8.2E-06

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
CONFIRMATION SAMPLING RESULTS - EAST OF BUILDING 1259

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		
APPROVED BY:	J. H-D		**FIGURE 8**
DATE:	APRIL 2019		

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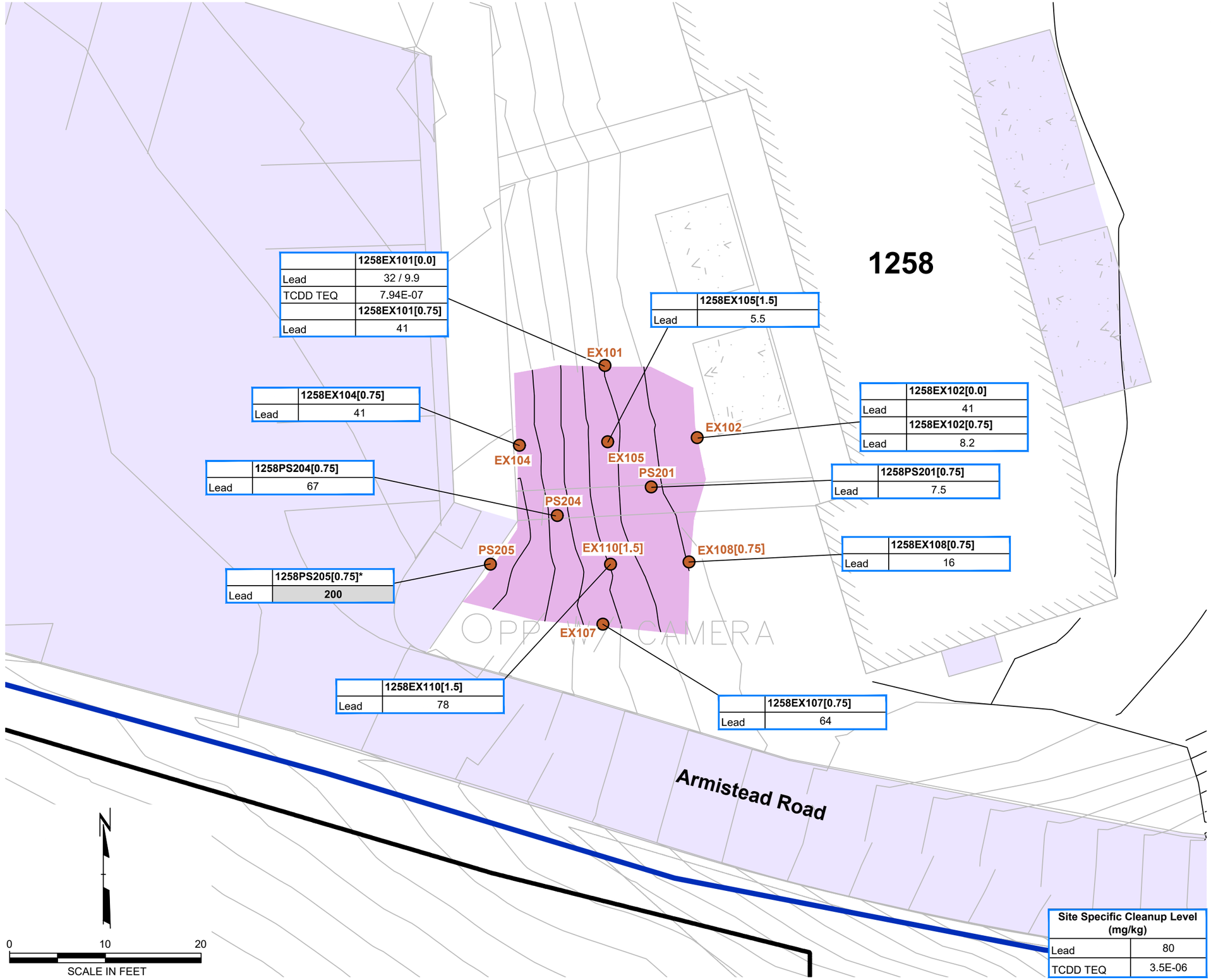
FILE NO.: Fig8 Confirmation Sampling Results - East of Building 1259.dwg

11x17 -- USER: KLI -- ATTACHED XREFS: MASTER PRESIDIO BASEMAP; MASTER Presidio_Planimetrics_New Doyle Agreement -- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court, San Francisco\Construction Completion Report\APRIL 2019\ Fig8 Confirmation Sampling Results - East of Building 1259.dwg -- PLOT DATE: April 23, 2019 - 10:40AM -- LAYOUT: 11X17L
Version: 2017-10-21



	1258EX101[0.0]
Lead	32 / 9.9
TCDD TEQ	7.94E-07
	1258EX101[0.75]
Lead	41

	1258EX105[1.5]
Lead	5.5

	1258EX104[0.75]
Lead	41

	1258EX102[0.0]
Lead	41
	1258EX102[0.75]
Lead	8.2

	1258PS204[0.75]
Lead	67

	1258PS201[0.75]
Lead	7.5

	1258EX108[0.75]
Lead	16

	1258PS205[0.75]*
Lead	**200**

	1258EX110[1.5]
Lead	78

	1258EX107[0.75]
Lead	64

LEGEND

- APPROXIMATE SITE BOUNDARY
- APPROXIMATE REMEDIAL ACTION AREA
- 140 — SURFACE CONTOURS (OUTSIDE PROJECT AREA)
- 140 — FINAL PROJECT SURFACE CONTOURS
- AREAS OF ASPHALT, PAVEMENT, AB PADS, AND HARDSCAPE THAT SERVE AS CAP
- APPROXIMATE AREAS EXCAVATED AND CLEAN CLOSED
- EXCAVATION CONFIRMATION SAMPLING LOCATION
- LANDSCAPED / RESIDENTIAL LEVELS (SEE TABLE BELOW FOR SITE SPECIFIC SCREENING LEVELS)

* The sample was collected as a sidewall, which was collected beneath the existing sidewalk. The hardscape will be managed by the trust with land use controls.

	Sample ID
Inorganic	Concentration / Duplicate (mg/kg)
	Concentration (mg/kg) exceeds applicable screening level

Site Specific Cleanup Level (mg/kg)	
Lead	80
TCDD TEQ	3.5E-06

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
CONFIRMATION SAMPLING RESULTS - WEST OF BUILDING 1258

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		**FIGURE 9**
APPROVED BY:	J. H-D		
DATE:	APRIL 2019		

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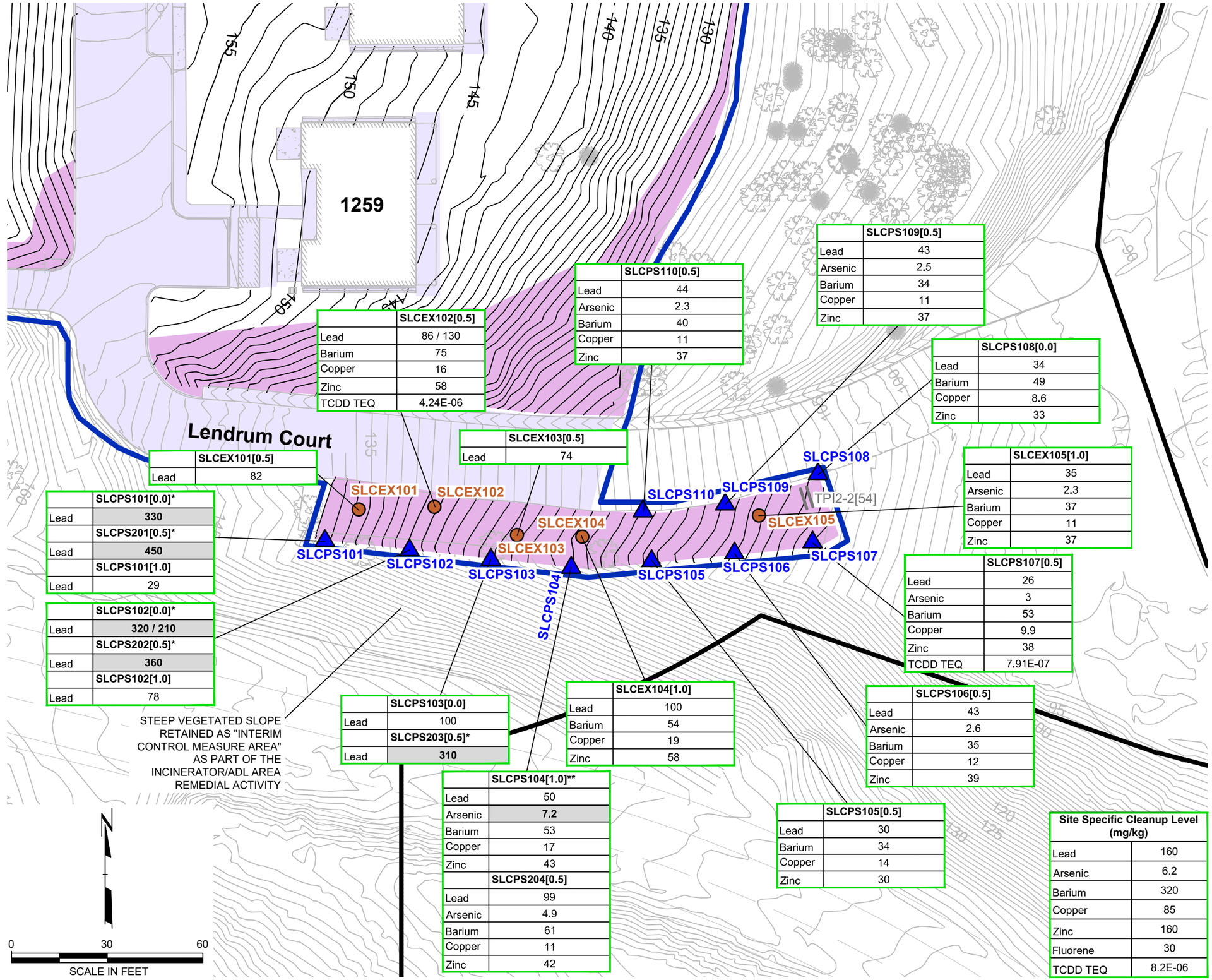
FILE NO.: Fig9 Confirmation Sampling Results - West of Building 1258.dwg

11x17 -- USER: KLI -- ATTACHED XREFS: \\MASTER\PRESIDIO BASEMAP_MASTER Presidio_Planimetrics_New Doyle Alignment -- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Construction Completion Report\APRIL 2019\ Fig9 Confirmation Sampling Results - West of Building 1258.dwg -- PLOT DATE: May 07, 2019 - 4:00PM -- LAYOUT: 11X17L
Version: 2017-10-21



	SLCEX102[0.5]
Lead	86 / 130
Barium	75
Copper	16
Zinc	58
TCDD TEQ	4.24E-06

	SLCEX103[0.5]
Lead	74

	SLCEX101[0.5]
Lead	82

	SLCPS110[0.5]
Lead	44
Arsenic	2.3
Barium	40
Copper	11
Zinc	37

	SLCPS109[0.5]
Lead	43
Arsenic	2.5
Barium	34
Copper	11
Zinc	37

	SLCPS108[0.0]
Lead	34
Barium	49
Copper	8.6
Zinc	33

	SLCEX105[1.0]
Lead	35
Arsenic	2.3
Barium	37
Copper	11
Zinc	37

	SLCPS101[0.0]*
Lead	**330**
	SLCPS201[0.5]*
Lead	**450**
	SLCPS101[1.0]
Lead	29

	SLCPS102[0.0]*
Lead	**320 / 210**
	SLCPS202[0.5]*
Lead	**360**
	SLCPS102[1.0]
Lead	78

	SLCPS107[0.5]
Lead	26
Arsenic	3
Barium	53
Copper	9.9
Zinc	38
TCDD TEQ	7.91E-07

	SLCPS103[0.0]
Lead	100
	SLCPS203[0.5]*
Lead	**310**

	SLCEX104[1.0]
Lead	100
Barium	54
Copper	19
Zinc	58

	SLCPS106[0.5]
Lead	43
Arsenic	2.6
Barium	35
Copper	12
Zinc	39

	SLCPS104[1.0]**
Lead	50
Arsenic	**7.2**
Barium	53
Copper	17
Zinc	43
	SLCPS204[0.5]
Lead	99
Arsenic	4.9
Barium	61
Copper	11
Zinc	42

	SLCPS105[0.5]
Lead	30
Barium	34
Copper	14
Zinc	30

Site Specific Cleanup Level (mg/kg)	
Lead	160
Arsenic	6.2
Barium	320
Copper	85
Zinc	160
Fluorene	30
TCDD TEQ	8.2E-06

LEGEND

- APPROXIMATE SITE BOUNDARY
- APPROXIMATE REMEDIAL ACTION AREA
- 140 — SURFACE CONTOURS (OUTSIDE PROJECT AREA)
- 140 — FINAL PROJECT SURFACE CONTOURS
- AREAS OF ASPHALT, PAVEMENT, AB PADS, AND HARDSCAPE THAT SERVE AS CAP
- APPROXIMATE AREAS EXCAVATED AND CLEAN CLOSED
- [83] HISTORIC LEAD CONCENTRATION IN SURFACE SOIL (MILLIGRAMS PER KILOGRAM [MG/KG])
- PERIMETER CONFIRMATION SAMPLING LOCATION
- EXCAVATION CONFIRMATION SAMPLING LOCATION
- FOREST / RECREATION LEVELS (SEE TABLE BELOW FOR SITE SPECIFIC SCREENING LEVELS)

* The confirmation samples with lead concentrations exceeding the cleanup goal are located along the steep vegetated slope of the southern boundary that is retained as an "Interim Control Measure Area" as part of the incinerator/aerially deposited lead area remedial activities.

** A 95% Upper Confidence Limit (UCL) was calculated for area excavated. The 95 UCL for arsenic in this area is 4.15 mg/kg, which is below the CUL of 6.2 mg/kg.

	Sample ID
Inorganic	Concentration / Duplicate (mg/kg)
	Concentration (mg/kg) exceeds applicable screening level

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
CONFIRMATION SAMPLING RESULTS - SOUTH OF LENDRUM COURT

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		
APPROVED BY:	J. H-D		**FIGURE 10**
DATE:	APRIL 2019		

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505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: Fig10 Confirmation Sampling Results - South of Lendrum Court.dwg

11x17 --- USER: KLI --- ATTACHED XREFS: MASTER PRESIDIO BASEMAP - MASTER Presidio_Planimetrics_New Doyle Alignment --- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Construction Completion Report\APRIL 2019\ Fig10 Confirmation Sampling Results - South of Lendrum Court.dwg --- PLOT DATE: April 23, 2019 - 4:25PM --- LAYOUT: 11X17L
Version: 2017-10-21

11x17 -- USER: DPaonora -- ATTACHED XREFS: MASTER PRESIDIO BASEMAP - MASTER Presidio_Planimetrics_New Doyle Alignment -- ATTACHED IMAGES:
DRAWING NAME: I:\SANFRAN\P1\SANFRAN\PROJECTS\CAD\Lendrum Court, San Francisco\Construction Completion Report\APRIL 2019\ Fig11 Confirmation Sampling Results - Northeast of Buildings 1255 & 1256.dwg -- PLOT DATE: May 17, 2019 - 4:45PM -- LAYOUT: 11X17L

	1255SB107[0.75]
Lead	100

	1257PS111[0.0]
Lead	180
	1257PS111[0.5]
Lead	390
	1257PS111[1.0]
Lead	500

	1255SB108[0.25]
Lead	260
	1255SB108[0.75]
Lead	200
	1255SB108[1.5]
Lead	8.1

	1257PS104[0.0]
Lead	50

	1257PS105[0.0]
Lead	17

	1257PS107[0.0]
Lead	10

	1257PS106[0.0]
Lead	20

	1257EX101[0.5]
Lead	62

	1257PS205[0.25]
Lead	36

	1257EX102[0.5]
Lead	11

	1255SB102[1.5]
Lead	52

	1255SB109[0.75]
Lead	34 / 110

B	1255SB101[2.0]
Lead	25

S	1255SB106[0.75]
Lead	96

S	1255SB105[0.75]
Lead	39

	1257PS204[0.25]
Lead	160

	1257EX103[0.5]
Lead	22

	1257PS203[2.0]
Lead	36

	1257PS101[0.5]
Lead	4.4

S	1255SB104[0.75]
Lead	13

B/S	1255SB100[2.0]
Lead	15

B	1255SB118[1.5]
Lead	8.5

S 1255SS05(0.75)/10

S 1255SS13(0.75)/6.0

	1257PS102[0.0]
Lead	74
TCDD TEQ	6.07E-07

B	1255SB116[3.5]
Lead	11 / 6.5

	1255SB121[1.0]
Lead	82
S	1255SB121[2.0]
Lead	130

B/S	1255SB117[1.5]
Lead	78

1282 1255 1256 1257 1258

Lendrum Court

1255SB101 1255SB107 1255SB102 1255SB109 1255SB108 1255SB106 1255SB105 1255SB104 1255SB100 1255SB118 1255SB117 1255SB116 1255SB121

1257PS111 1257PS104 1257PS105 1257PS101 1257PS106 1257PS205 1257PS204 1257PS203 1257PS102

1257EX101 1257EX102 1257EX103

170 175 180 185 165 175

OPP OPP W/ CAMERA

0 30 60

SCALE IN FEET

LEGEND

- APPROXIMATE SITE BOUNDARY
- APPROXIMATE REMEDIAL ACTION AREA
- 140 — SURFACE CONTOURS (OUTSIDE PROJECT AREA)
- 140 — FINAL PROJECT SURFACE CONTOURS
- APPROXIMATE LIMITS OF VEGETATED SOIL CAP
- APPROXIMATE AREAS OF BUILDING THAT SERVE AS CAP
- AREAS OF ASPHALT, PAVEMENT, AB PADS, AND HARDSCAPE THAT SERVE AS CAP
- APPROXIMATE AREAS EXCAVATED AND CLEAN CLOSED
- APPROXIMATE AREAS EXCAVATED AND CLEAN CLOSED USING 95% UPPER CONFIDENCE LIMIT
- VEGETATED LUC (NORTH 1255/1256 FOREST AREA) THAT IS DENSELY VEGETATED AND DETERMINED INACCESSIBLE
- PERIMETER CONFIRMATION SAMPLING LOCATION (2016)
- EXCAVATION CONFIRMATION SAMPLING LOCATION
- LANDSCAPED / RESIDENTIAL LEVELS (80 MG/KG)
- FOREST / RECREATION LEVELS (160 MG/KG)
- PERIMETER CONFIRMATION SAMPLING LOCATION (2017)
- EXCAVATION CONFIRMATION SAMPLING LOCATION (2017)
- HALEY & ALDRICH SAMPLE (2011)
- 1256SS04(0.25)/89 — SAMPLE IDENTIFICATION(DEPTH IN FEET BGS)/LEAD CONCENTRATION IN MG/KG
- S — SIDEWALL SAMPLE
- B — BOTTOM SAMPLE

	Sample ID
Inorganic	Concentration / Duplicate (mg/kg)
	Concentration (mg/kg) exceeds applicable screening level

Site Specific Cleanup Level (mg/kg)	
Lead	160
Lead	80
TCDD TEQ	3.5E-06

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
CONFIRMATION SAMPLING RESULTS - NORTHEAST OF BUILDINGS 1255/1256

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		
APPROVED BY:	J. H-D		**FIGURE 11**
DATE:	APRIL 2019		

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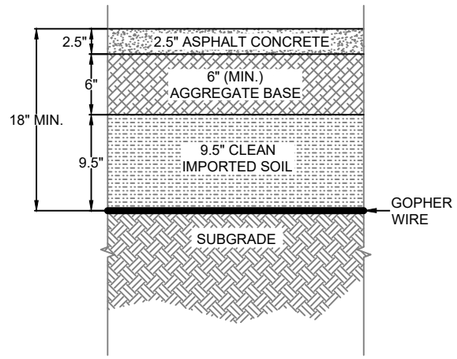
Phone: 415.434.2600

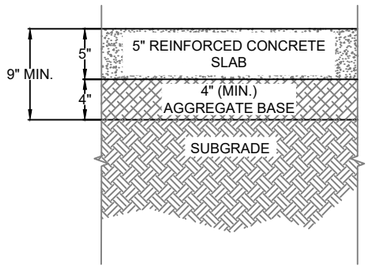
FILE No. Fig11 Confirmation Sampling Results - Northeast of Buildings 1255 & 1256.dwg

Version: 2017-10-21



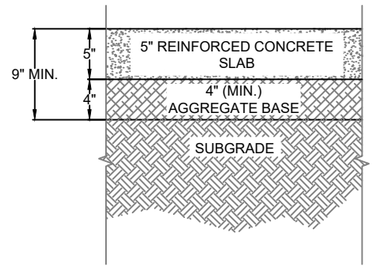
1/12 SECTION

ASPHALT CONCRETE PATH



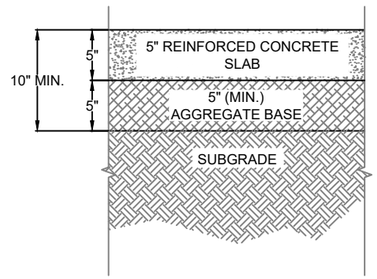
2/12 SECTION

CONCRETE STAIRS



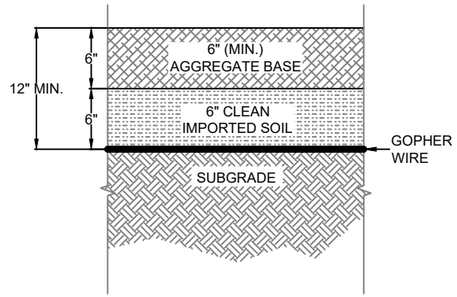
3/12 SECTION

CONCRETE SIDEWALK



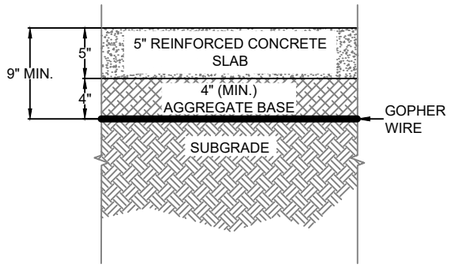
4/12 SECTION

CONCRETE DRAIN



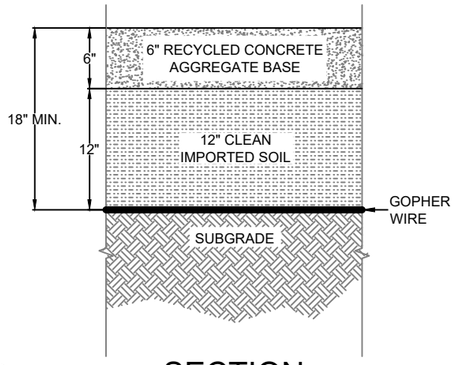
5/12 SECTION

AGGREGATE BASE PAD



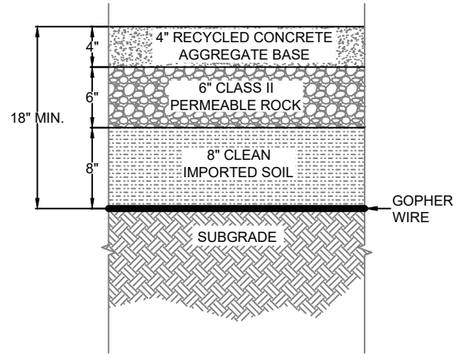
6/12 SECTION

CONCRETE PATIO



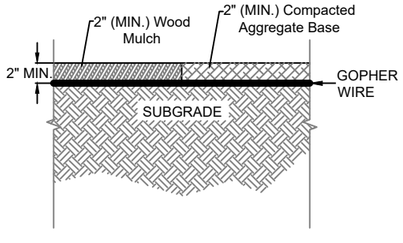
7/12 SECTION

RECYCLED CONCRETE
AGGREGATE BASE PATH



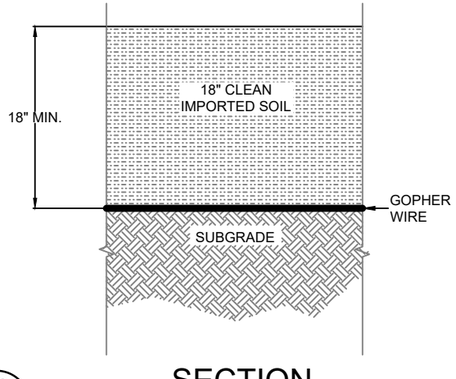
8/12 SECTION

RECYCLED CONCRETE
AGGREGATE BASE STAIRS



9/12 SECTION

TREE ISLAND CAP



10/12 SECTION

VEGETATED SOIL CAP

LEGEND

1/12 DETAIL NUMBER

FIGURE NUMBER WHERE DETAIL CAN BE FOUND

PROJECT:

THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:

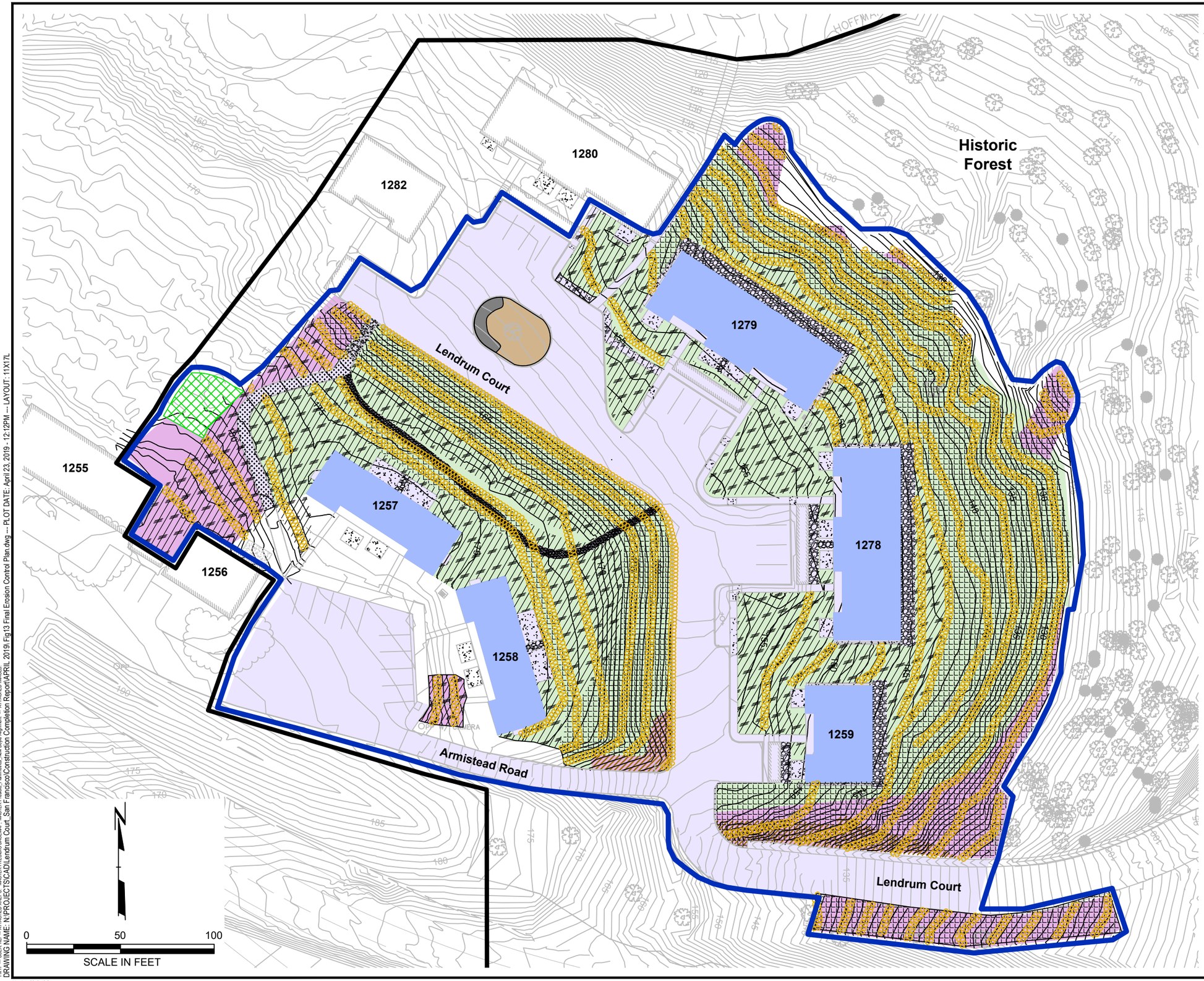
CAP CROSS-SECTIONS

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		
APPROVED BY:	J. H-D		**FIGURE 12**
DATE:	APRIL 2018		

505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: Fig12 Cap Cross-Sections.dwg

11x17 -- USER: IPhoons -- ATTACHED XREFS: Fig12 Cap Cross Sections -- ATTACHED IMAGES: TRC_Reversed Out Blue Logo
DRAWING NAME: I:\SANFRAN\Fp1\SANFRAN\PROJECTS\CAD\Lendrum Court_San Francisco\Construction Completion Report\APRIL 2019\ Fig12 Cap Cross-Sections.dwg --- PLOT DATE: June 06, 2019 - 2:26PM --- LAYOUT: 11X17L
Version: 2017-10-21



LEGEND

- APPROXIMATE SITE BOUNDARY
- APPROXIMATE REMEDIAL ACTION AREA
- 140 — SURFACE CONTOURS (OUTSIDE PROJECT AREA)
- 140 — FINAL PROJECT SURFACE CONTOURS
- APPROXIMATE LIMITS OF VEGETATED SOIL CAP
- APPROXIMATE AREAS OF BUILDING THAT SERVE AS CAP
- AREAS OF ASPHALT, PAVEMENT, AB PADS, AND HARDSCAPE THAT SERVE AS CAP
- APPROXIMATE AREAS EXCAVATED AND CLEAN CLOSED
- APPROXIMATE AREA EXCAVATED TO EXPOSED BEDROCK (CLEAN CLOSURE AREA)
- TREE ISLAND CAP COMPACTED AGGREGATE BASE
- TREE ISLAND CAP WOOD MULCH
- NEW CONCRETE PATIOS, SIDEWALKS AND STAIRS
- RECYCLED CONCRETE AGGREGATE BASE PATH AND BOX STEPS
- NEW ASPHALT PATH
- NEW AGGREGATE BASE CAP
- VEGETATED LUC (NORTH 1255/1256 FOREST AREA)
- ECTC TYPE 4 EROSION CONTROL BLANKET ANCHORING PATTERN A, SEE DETAIL 2, C-119 (AS-BUILT)
- ECTC TYPE 4 EROSION CONTROL BLANKET ANCHORING PATTERN B, SEE DETAIL 2, C-119 (AS-BUILT)
- FIBER ROLL (STRAW WATTLE)
- APPROXIMATE TREE LOCATION
- APPROXIMATE TOYON LOCATION

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

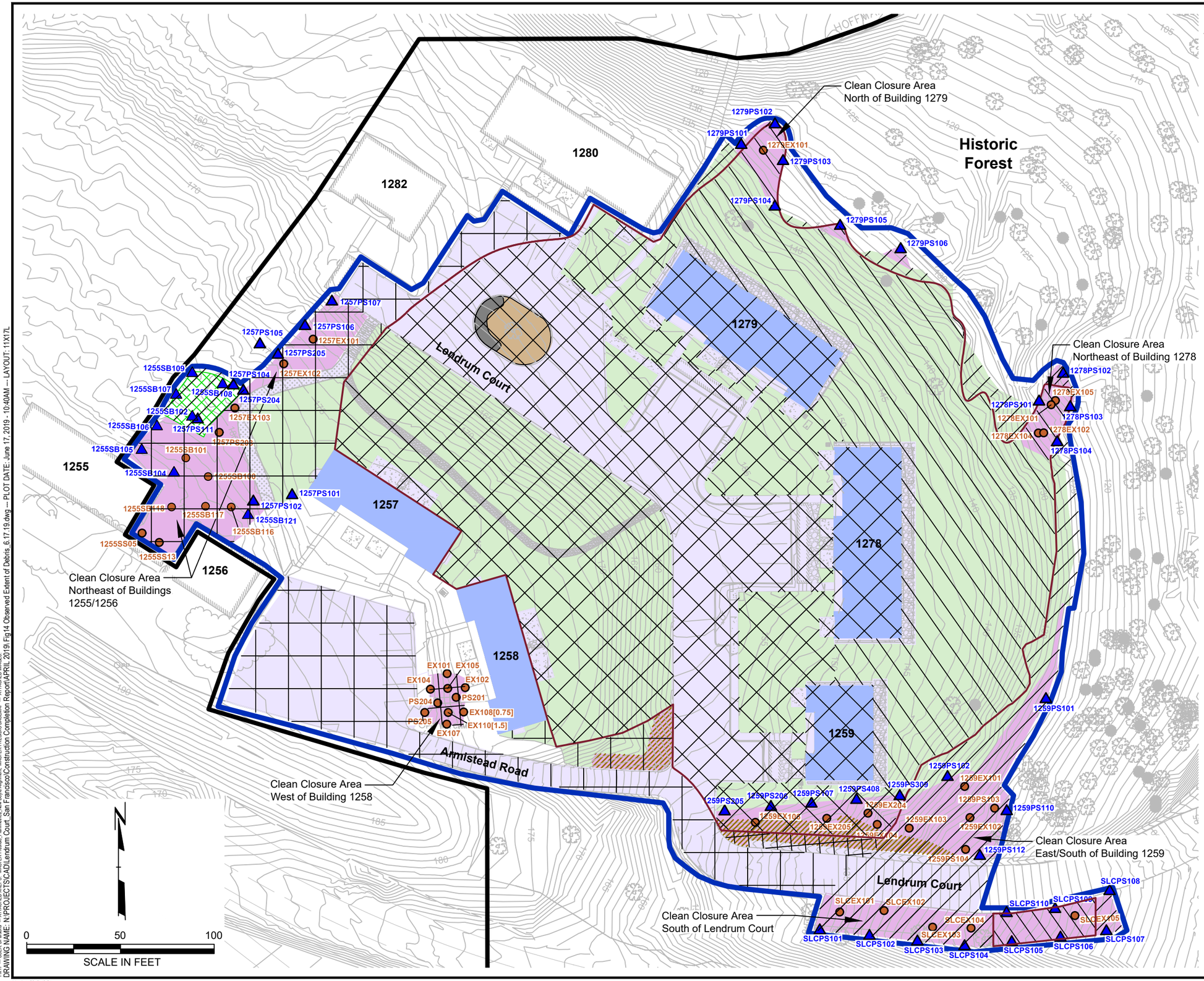
TITLE:
FINAL EROSION CONTROL PLAN

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		**FIGURE 13**
APPROVED BY:	J. H-D		
DATE:	APRIL 2019		

TRC
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: Fig13 Final Erosion Control Plan.dwg

11x17 -- USER: KLI -- ATTACHED XREFS: - MASTER PRESIDIO BASEMAP - MASTER Presidio_Planimetrix_New Doyle Alignment -- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Construction Completion Report\APRIL 2019\ Fig13 Final Erosion Control Plan.dwg -- PLOT DATE: April 23, 2019 - 12:12PM -- LAYOUT: 11X17L
Version: 2017-10-21



LEGEND

- APPROXIMATE SITE BOUNDARY
- APPROXIMATE REMEDIAL ACTION AREA
- APPROXIMATE EXTENT OF DEBRIS
- 140 — FINAL PROJECT SURFACE CONTOURS
- APPROXIMATE LIMITS OF VEGETATED SOIL CAP
- APPROXIMATE AREAS OF BUILDING THAT SERVE AS CAP
- AREAS OF ASPHALT, PAVEMENT, AB PADS, AND HARDSCAPE THAT SERVE AS CAP
- APPROXIMATE AREAS EXCAVATED AND CLEAN CLOSED
- APPROXIMATE AREAS EXCAVATED TO EXPOSED BEDROCK (CLEAN CLOSURE AREA)
- VEGETATED LUC (NORTH 1255/1256 FOREST AREA)
- ZONE 1A (LANDSCAPED / RESIDENTIAL AREA W/ DEBRIS)
- ZONE 1B (LANDSCAPED / RESIDENTIAL AREA W/OUT DEBRIS
- ZONE 2A (FOREST / RECREATION AREA W/ DEBRIS)
- ZONE 2B (FOREST / RECREATION AREA W/OUT DEBRIS
- PERIMETER CONFIRMATION SAMPLING LOCATION
- EXCAVATION CONFIRMATION SAMPLING LOCATION

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
OBSERVED EXTENT OF DEBRIS AND APPLICABLE SCREENING LEVELS

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	J. H-D		
APPROVED BY:	J. H-D		**FIGURE 14**
DATE:	MAY 2019		

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505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: Fig14 Observed Extent of Debris_6.17.19.dwg

11x17 -- USER: DPersons -- ATTACHED XREFS: MASTER Presidio_Planimetrics_New Doyle Alignment, MASTER PRESIDIO BASEMAP -- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Construction Completion Report\APRIL 2019\ Fig14 Observed Extent of Debris_6.17.19.dwg -- PLOT DATE: June 17, 2019 - 10:40AM -- LAYOUT: 11X17L
Version: 2017-10-21

TABLES

TABLE 1
SOIL CLEANUP LEVELS FOR CHEMICALS OF CONCERN
Lendrum Court
Presidio of San Francisco, California

Chemicals of Concern	Chemical of Concern for Landscaped / Residential Area? [a]	Chemical of Concern for Historic Forest / Recreational Area? [b]	Applicable Cleanup Levels [c]						Regional Background / Ambient Levels [d]	Site-Specific Cleanup Levels	
			Human Health		Ecological		Background Level				
			Residential	Recreational	Buffer Zone	Special-Status	Serpentinite Lithology	Colma Formation		Landscaped / Residential Area [e]	Historic Forest / Recreational Area [f]
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Metals											
Arsenic	Yes	No	0.36	0.88	64	10	5.4	6.2	11	6.2	6.2
Barium	Yes	No	5,000	12,000	500	320	230	180	1,500	500	320
Copper	Yes	No	--	--	120	30	85	49	76	120	85
Lead	Yes	Yes	80	180	300	160	66	7.5	48	80	160
Zinc	Yes	No	22,000	52,000	50	4	160	79	150	160	160
Polycyclic Aromatic Hydrocarbons (PAHs)											
Benzo(a)pyrene	Yes	No	0.046	0.11	40	30	--	--	0.9 to 1.5	0.046	0.11
Benzo(a)pyrene equivalent	Yes	No	0.046	0.11	40	30	--	--	0.9 to 1.5	0.046	0.11
Dibenzo(a)anthracene	Yes	No	0.046	0.11	40	30	--	--	0.9 to 1.5	0.046	0.11
Dioxin and Furans (values are in pg/g)											
TCDD TEQ	Yes	Yes	3.5	8.2	--	--	--	--	7 to 20	3.5	8.2

Abbreviations:
-- = not available / applicable
mg/kg = milligrams per kilogram
pg/g = picograms per gram
TCDD TEQ = 2,3,7,8-tetrachlorodibenzo-p-dioxin toxic equivalency

Footnotes:

[a] Chemicals of Concern as listed in EKI's Table 6A provided in Appendix B of TRC's July 30, 2015 *Final Removal Action Work Plan, Lendrum Court, Presidio of San Francisco, California* approved by Department of Toxic Substances Control on August 5, 2015.

[b] Chemicals of Concern as listed in EKI's Table 6B provided in Appendix B of TRC's July 30, 2015 *Final Removal Action Work Plan, Lendrum Court, Presidio of San Francisco, California* approved by Department of Toxic Substances Control on August 5, 2015.

[c] Applicable cleanup levels from the following sources:
Table 7-2 of EKI's 2002 (with updates through 2013) *Development of Presidio-Wide Cleanup Levels for Soil, Sediment, Groundwater, and Surface Water* . Presidio of San Francisco
Lead Residential: Office of Environmental Health Hazard Assessment's (OEHHA) September 2009 *Revised California Human Health Screening Levels for Lead* .
Lead Recreational: March 18, 2015 Personal Communication between Eileen Fanelli, TRC, and Department of Toxic Substances Control.
TCDD TEQ Human Health Soil PRGs: MACTEC's 2007 *Technical Memorandum, Human Health Soil Preliminary Remediation Goals and Toxic Equivalency Values for Dioxins and Furans Presidio of San Francisco, California.*

[d] Regional background and ambient levels from the following sources:
Arsenic: D.J. Duverge's 2011 *Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region,* Master of Science in Geosciences.
Metals: Upper Estimate Regional Background from Table 4-Comparison of Background Values to Other Background Estimates from Lawrence Berkeley National Laboratory (LBNL) 2009 *Analysis of Background Distributions of Metals in the Soil at Lawrence Berkeley National Laboratory*
PAHs: ENVIRON et. al. 2002 *Background Levels of Polycyclic Aromatic Hydrocarbons in Northern California Surface Soil* . D. Diamond, D. Baskin, D. Brown, L. Lund, J. Najita, and I Javandel, June 2002 Revised April 2009
TCDD TEQ: California Department of Food and Agriculture (CDFA) 2004 *Evaluation of Heavy Metals and Dioxin in Inorganic Commercial Fertilizers.*

[e] The cleanup levels for the landscaped/residential areas are the lower of the residential and ecological buffer zone. If the applicable residential human health or ecological buffer-zone cleanup level is less than the background level, the greater of the two background threshold levels was selected as the cleanup level.

[f] The cleanup levels for the Historic Forest/recreational area are the lower of the recreational and ecological special status. If the applicable recreational human health or ecological special-status cleanup level is less than the background level, the greater of the two background threshold levels was selected as the cleanup level.

Table 2a. Clean Closure Confirmation Sampling Results - Metals
Area Northeast of Building 1278
Presidio Lendrum Court
Presidio, San Francisco, CA

Sample ID	Date	Inorganics				
		Lead	Arsenic	Barium	Copper	Zinc
Northeast of Building 1278						
1278EX101[0.5]	6/6/2016	5.7	5	46	12	33
1278EX102[0.5]	6/6/2016	84	4.4	71	20	81
1278EX105[1.5]	9/15/2016	20	<5.0	23	23	35
1278EX104[1.0]	9/8/2016	5.4	8.2	45	24	33
1278PS101[0.5]	6/6/2016	40	4.3	69	14	47
1278PS102[0.5]	6/6/2016	11	4.4	51	11	38
DUP060616-1		6.6	--	--	--	--
1278PS103[0.5]	6/6/2016	42	4.8	43	15	44
1278PS104[0.5]	6/6/2016	8.6	3.4	110	11	27
Site Specific Cleanup Level [a]		160	6.2	320	85	160

Notes:
All data shown is in milligrams per kilogram (mg/kg)
Duplicate sample results are listed directly below the sample from which the duplicate was collected.

Abbreviations:
-- indicates that sample is not analyzed for these analyte.

Footnotes:
[a] As presented in the approved 2015 Removal Action Work Plan and 2016 Remedial Design Implementation Plan the cleanup levels for the Historic Forest/Recreational areas are the lowest value of recreational receptor, ecological buffer zone, and ecological special status from EKI's October 2002 (with updates through 2013) *Development of Presidio-Wide Cleanup Levels for Soil, Sediment, Groundwater, and Surface Water* and TRC's April 6, 2015 *Recreational Soil Cleanup Level for Lead, Presidio of San Francisco, California* . If the applicable recreational human health, ecological buffer zone, or ecological special status cleanup level is less than the background level, the greater of the Colma and Serpentinite background threshold levels was selected as the cleanup level.

Table 2b. Clean Closure Confirmation Sampling Results - PAHs
Area Northeast of Building 1278
Presidio Lendrum Court
Presidio, San Francisco, CA

Sample ID	Date	Polynuclear Aromatic Hydrocarbons (PAHs)																
		Acenapthene	Acenapthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(a) pyrene equivalents	Benzo[b] fluoranthene	Benzo[g,h,i] perylene	Benzo[k] fluoranthene	Chrysene	Dibez(a,h) anthracene	Fluoranthene	Fluorene	Indeno [1,2,3-cd] pyrene	Napthalene	Phenanthrene	Pyrene
Northeast of Building 1278																		
1278EX101[0.5]	6/6/2016	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	0.0088	<0.0059	<0.0059	<0.0059	<0.0059
1278EX102[0.5]	6/6/2016	<0.0082	<0.0082	<0.0082	0.023	0.035	0.047	0.045	0.015	0.014	0.035	<0.0082	0.039	0.017	0.017	<0.0082	0.025	0.041
1278EX104[1.0]	9/8/2016	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064
1278EX105[1.5]	9/15/2016	<0.0087	<0.0087	<0.0087	<0.0087	<0.0087	<0.0087	<0.0087	<0.0087	<0.0087	<0.0087	<0.0087	<0.0087	<0.0087	<0.0087	<0.0087	0.014	<0.0087
1278PS101[0.5]	6/6/2016	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068
1278PS102[0.5]	6/6/2016	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	0.011	<0.0068	<0.0068	0.008	<0.0068
DUP060616-1		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1278PS103[0.5]	6/6/2016	<0.0069	<0.0069	<0.0069	<0.0069	<0.0069	<0.0069	<0.0069	<0.0069	<0.0069	<0.0069	<0.0069	<0.0069	<0.0069	<0.0069	<0.0069	<0.0069	<0.0069
1278PS104[0.5]	6/6/2016	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059
Site Specific Cleanup Level[a]		30	30	30	1.1	0.11	0.11	1.1	30	11	30	0.11	30	30	1.1	30	30	30

Notes:
All data shown is in milligrams per kilogram (mg/kg)
Duplicate sample results are listed directly below the sample from which the duplicate was collected.

Abbreviations:
-- indicates that sample is not analyzed for these analyte.

Footnotes:
[a] As presented in the approved 2015 Removal Action Work Plan and 2016 Remedial Design Implementation Plan the cleanup levels for the Historic Forest/Recreational areas are the lowest value of recreational receptor, ecological buffer zone, and ecological special status from EKI's October 2002 (with updates through 2013) *Development of Presidio-Wide Cleanup Levels for Soil, Sediment, Groundwater, and Surface Water.*

Table 2c. Clean Closure Confirmation Sampling Results - Dioxins and Furans
Area Northeast of Building 1278
Presidio Lendrum Court
Presidio, San Francisco, CA

Dioxin / Furan	1278EX101[0.5] 6/6/2016	1278EX102[0.5] 6/6/2016	1278EX104[1.0] 9/8/2016	1278EX105[1.5] 9/15/2016	1278PS101[0.5] 6/6/2016	1278PS102[0.5] 6/6/2016	DUP060616-1 6/6/2016	1278PS103[0.5] 6/6/2016	1278PS104[0.5] 6/6/2016	Site Specific Cleanup Level [a]
2,3,7,8-TCDD	--	<1.50E-06	--	--	--	--	--	--	--	--
2,3,7,8-TCDF	--	<1.50E-06	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDD	--	<7.70E-06	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDF	--	<7.70E-06	--	--	--	--	--	--	--	--
2,3,4,7,8-PeCDF	--	<7.70E-06	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDD	--	<7.70E-06	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDD	--	<7.70E-06	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDD	--	<7.70E-06	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDF	--	<7.70E-06	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDF	--	<7.70E-06	--	--	--	--	--	--	--	--
2,3,4,6,7,8-HxCDF	--	<7.70E-06	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDF	--	<7.70E-06	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-HpCDD	--	<7.70E-06	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-HpCDF	--	<7.70E-06	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-HpCDF	--	<7.70E-06	--	--	--	--	--	--	--	--
OCDD	--	1.50E-05	--	--	--	--	--	--	--	--
OCDF	--	<1.50E-05	--	--	--	--	--	--	--	--
Total TCDD	--	<1.50E-06	--	--	--	--	--	--	--	--
Total TCDF	--	<1.50E-06	--	--	--	--	--	--	--	--
Total PeCDD	--	<7.70E-06	--	--	--	--	--	--	--	--
Total PeCDF	--	<7.70E-06	--	--	--	--	--	--	--	--
Total HxCDD	--	<7.70E-06	--	--	--	--	--	--	--	--
Total HxCDF	--	<7.70E-06	--	--	--	--	--	--	--	--
Total HpCDD	--	<7.70E-06	--	--	--	--	--	--	--	--
Total HpCDF	--	<7.70E-06	--	--	--	--	--	--	--	--
TCDD TEQ	--	9.09E-07	--	--	--	--	--	--	--	8.20E-06

Notes:
All data shown is in milligrams per kilogram (mg/kg)
Duplicate sample results are listed directly next to the sample from which the duplicate was collected.
Laboratory reported dioxin/furans in picograms per gram (pg/g). Values converted by multipling by a conversion factor of 0.000001 or 1E-06.

Abbreviations:
-- indicates that sample is not analyzed for these analyte.

Footnotes:
[a] As presented in the approved 2015 Removal Action Work Plan and 2016 Remedial Design Implementation Plan the cleanup levels for the Historic Forest/Recreational areas is from MACTEC's March 2007 *Technical Memorandum, Human Health Soil Preliminary Remediation Goals and Toxic Equivalency Values for Dioxins and Furans Presidio of San Francisco, California.*

Table 3a. Clean Closure Confirmation Sampling Results - Metals
Area North of Building 1279
Presidio Lendrum Court
Presidio, San Francisco, CA

Sample ID	Date	Inorganics				
		Lead	Arsenic	Barium	Copper	Zinc
North of Building 1279						
1279EX101[2.0]	6/3/2016	18	5.2	71	17	41
1279PS101[0.5]	6/6/2016	9.1	4.3	150	19	44
1279PS102[1.0]	6/6/2016	34	4.4	77	13	40
1279PS103[0.5]	6/6/2016	18	4.5	170	13	39
1279PS104[0.5]	6/6/2016	25	4.2	81	13	41
1279PS105[1.0]	6/6/2016	6.2	4.5	92	15	37
1279PS106[1.0]	6/6/2016	7.0	4.4	91	12	27
Site Specific Cleanup Level [a]		160	6.2	320	85	160

Notes:
All data shown is in milligrams per kilogram (mg/kg)

Abbreviations:
-- indicates that sample is not analyzed for these analyte.

Footnotes:
[a] As presented in the approved 2015 Removal Action Work Plan and 2016 Remedial Design Implementation Plan the cleanup levels for the Historic Forest/Recreational areas are the lowest value of recreational receptor, ecological buffer zone, and ecological special status from EKI's October 2002 (with updates through 2013) *Development of Presidio-Wide Cleanup Levels for Soil, Sediment, Groundwater, and Surface Water* and TRC's April 6, 2015 *Recreational Soil Cleanup Level for Lead, Presidio of San Francisco, California* . If the applicable recreational human health, ecological buffer zone, or ecological special status cleanup level is less than the background level, the greater of the Colma and Serpentinite background threshold levels was selected as the cleanup level.

Table 3b. Clean Closure Confirmation Sampling Results - PAHs
Area North of Building 1279
Presidio Lendrum Court
Presidio, San Francisco, CA

Sample ID	Date	Polynuclear Aromatic Hydrocarbons (PAHs)																
		Acenapthene	Acenapthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(a) pyrene equivalents	Benzo[b] fluoranthene	Benzo[g,h,i] perylene	Benzo[k] fluoranthene	Chrysene	Dibez(a,h) anthracene	Fluoranthene	Fluorene	Indeno [1,2,3-cd] pyrene	Napthalene	Phenanthrene	Pyrene
North of Building 1279																		
1279EX101[2.0]	6/3/2016	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	0.0078	<0.0049	<0.0049	<0.0049	<0.0049
1279PS101[0.5]	6/6/2016	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062
1279PS102[1.0]	6/6/2016	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058
1279PS103[0.5]	6/6/2016	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064
1279PS104[0.5]	6/6/2016	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062
1279PS104[1.0]	6/6/2016	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	0.006	<0.0057	<0.0057	<0.0057	<0.0057	0.0085	<0.0057	<0.0057	<0.0057	<0.0057	0.0059
1279PS105[1.0]	6/6/2016	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062
1279PS106[1.0]	6/6/2016	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061
1279PS106[2.0]	6/6/2016	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057
Site Specific Cleanup Level [a]		30	30	30	1.1	0.11	0.11	1.1	30	11	30	0.11	30	30	1.1	30	30	30

Notes:
All data shown is in milligrams per kilogram (mg/kg)

Footnotes:
[a] As presented in the approved 2015 Removal Action Work Plan and 2016 Remedial Design Implementation Plan the cleanup levels for the Historic Forest/Recreational areas are the lowest value of recreational receptor, ecological buffer zone, and ecological special status from EKI's October 2002 (with updates through 2013) *Development of Presidio-Wide Cleanup Levels for Soil, Sediment, Groundwater, and Surface Water*.

Table 3c. Clean Closure Confirmation Sampling Results - Dioxins and Furans
Area North of Building 1279
Presidio Lendrum Court
Presidio, San Francisco, CA

Dioxin / Furan	1279EX101[2.0] 6/3/2016	1279PS101[0.5] 6/6/2016	1279PS102[1.0] 6/6/2016	1279PS103[0.5] 6/6/2016	1279PS104[0.5] 6/6/2016	1279PS105[1.0] 6/6/2016	1279PS106[1.0] 6/6/2016	Site Specific Cleanup Level [a]
2,3,7,8-TCDD	--	--	--	<1.20E-06	--	--	--	--
2,3,7,8-TCDF	--	--	--	<1.20E-06	--	--	--	--
1,2,3,7,8-PeCDD	--	--	--	<5.90E-06	--	--	--	--
1,2,3,7,8-PeCDF	--	--	--	<5.90E-06	--	--	--	--
2,3,4,7,8-PeCDF	--	--	--	<5.90E-06	--	--	--	--
1,2,3,4,7,8-HxCDD	--	--	--	<5.90E-06	--	--	--	--
1,2,3,6,7,8-HxCDD	--	--	--	<5.90E-06	--	--	--	--
1,2,3,7,8,9-HxCDD	--	--	--	<5.90E-06	--	--	--	--
1,2,3,4,7,8-HxCDF	--	--	--	<5.90E-06	--	--	--	--
1,2,3,6,7,8-HxCDF	--	--	--	<5.90E-06	--	--	--	--
2,3,4,6,7,8-HxCDF	--	--	--	<5.90E-06	--	--	--	--
1,2,3,7,8,9-HxCDF	--	--	--	<5.90E-06	--	--	--	--
1,2,3,4,6,7,8-HpCDD	--	--	--	1.20E-05	--	--	--	--
1,2,3,4,6,7,8-HpCDF	--	--	--	<5.90E-06	--	--	--	--
1,2,3,4,7,8,9-HpCDF	--	--	--	<5.90E-06	--	--	--	--
OCDD	--	--	--	1.00E-04	--	--	--	--
OCDF	--	--	--	1.20E-05	--	--	--	--
Total TCDD	--	--	--	<1.20E-06	--	--	--	--
Total TCDF	--	--	--	3.70E-06	--	--	--	--
Total PeCDD	--	--	--	<5.90E-06	--	--	--	--
Total PeCDF	--	--	--	<5.90E-06	--	--	--	--
Total HxCDD	--	--	--	<5.90E-06	--	--	--	--
Total HxCDF	--	--	--	<5.90E-06	--	--	--	--
Total HpCDD	--	--	--	1.90E-05	--	--	--	--
Total HpCDF	--	--	--	<5.90E-06	--	--	--	--
TCDD TEQ	--	--	--	8.43E-07	--	--	--	8.20E-06

Notes:
All data shown is in milligrams per kilogram (mg/kg)
Laboratory reported dioxin/furans in picograms per gram (pg/g). Values converted by multipling by a conversion factor of 0.000001 or 1E-06.

Abbreviations:
-- indicates that sample is not analyzed for these analyte.

Footnotes:
[a] As presented in the approved 2015 Removal Action Work Plan and 2016 Remedial Design Implementation Plan the cleanup levels for the Historic Forest/Recreational areas is from MACTEC's March 2007 *Technical Memorandum, Human Health Soil Preliminary Remediation Goals and Toxic Equivalency Values for Dioxins and Furans Presidio of San Francisco, California.*

Table 4a. Clean Closure Confirmation Sampling Results - Metals
Area South of Building 1259
Presidio Lendrum Court
Presidio, San Francisco, CA

Sample ID	Date	Inorganics				
		Lead	Arsenic	Barium	Copper	Zinc
South of Building 1259						
1259EX104[3.0]	6/7/2016	9.5	3.6	95	15	32
DUP060716-1	6/7/2016	8.5	--	--	--	--
1259EX204[0.0]	7/26/2016	71	--	--	--	--
1259EX205[0.0]	7/26/2016	45	--	--	--	--
1259EX106[3.0]	6/7/2016	4.4	<2.8	110	29	34
1259PS205[0.0]	7/26/2016	5.7	--	--	--	--
1259PS206[0.0]	7/26/2016	27	--	--	--	--
1259PS107[2.5]	6/7/2016	5.7	3.3	110	22	35
1259PS408[0.0]	8/25/2016	4.6	5.3	67	16	41
1259PS309[0.25]	8/22/2016	16	--	--	--	--
Site Specific Cleanup Level [a]		80	6.2	500	120	160

Notes:
All data shown is in milligrams per kilogram (mg/kg)
Duplicate sample results are listed directly below the sample from which the duplicate was collected.

Abbreviations:
-- indicates that sample is not analyzed for these analyte.

Footnotes:
[a] As presented in the approved 2015 Removal Action Work Plan and 2016 Remedial Design Implementation Plan the cleanup levels for the Landscaped/Residential areas are the lowest value of residential receptor and ecological buffer zone from EKI's October 2002 (with updates through 2013) *Development of Presidio-Wide Cleanup Levels for Soil, Sediment, Groundwater, and Surface Water* . If the applicable residential human health or ecological buffer-zone cleanup level is less than the background level, the greater of the Colma and Serpentinite background threshold levels was selected as the cleanup level.

Table 4b. Clean Closure Confirmation Sampling Results - PAHs
Area South of Building 1259
Presidio Lendrum Court
Presidio, San Francisco, CA

Sample ID	Date	Polynuclear Aromatic Hydrocarbons (PAHs)																
		Acenapthene	Acenapthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(a) pyrene equivalents	Benzo[b] fluoranthene	Benzo[g,h,i] perylene	Benzo[k] fluoranthene	Chrysene	Dibenz(a,h) anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd] pyrene	Napthalene	Phenanthrene	Pyrene
South of Building 1259																		
1259EX104[3.0]	6/7/2016	<0.0067	<0.0067	<0.0067	0.012	0.015	0.02334	0.021	0.012	0.0079	0.016	<0.0067	0.017	<0.0067	0.012	<0.0067	<0.0067	0.016
DUP060716-1	6/7/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1259EX204[0.0]	7/26/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1259EX205[0.0]	7/26/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1259EX106[3.0]	6/7/2016	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074
1259PS205[0.0]	7/26/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1259PS206[0.0]	7/26/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1259PS107[2.5]	6/7/2016	<0.059	<0.059	<0.059	<0.059	<0.059	<0.059	<0.059	<0.059	<0.059	<0.059	<0.059	<0.059	<0.059	<0.059	<0.059	<0.059	<0.059
1259PS408[0.0]	8/25/2016	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081	<0.0081
1259PS309[0.25]	8/22/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Site Specific Cleanup Level [a]		40	40	40	0.46	0.046	0.046	0.46	40	4.6	40	0.046	40	40	0.46	40	40	40

Notes:
All data shown is in milligrams per kilogram (mg/kg)
Duplicate sample results are listed directly below the sample from which the duplicate was collected.

Abbreviations:
-- indicates that sample is not analyzed for these analyte.

Footnotes:
[a] As presented in the approved 2015 Removal Action Work Plan and 2016 Remedial Design Implementation Plan the cleanup levels for the Landscaped/Residential areas are the lowest value of residential receptor and ecological buffer zone from EKI's October 2002 (with updates through 2013) *Development of Presidio-Wide Cleanup Levels for Soil, Sediment, Groundwater, and Surface Water*.

Table 4c. Clean Closure Confirmation Sampling Results - Dioxins/Furans
Area South of Building 1259
Presidio Lendrum Court
Presidio, San Francisco, CA

Dioxin / Furan	1259EX104[3.0] 6/7/2016	DUP060716-1 6/7/2016	1259EX204[0.0] 7/26/2016	1259EX205[0.0] 7/26/2016	1259EX106[3.0] 6/7/2016	1259PS205[0.0] 7/26/2016	1259PS206[0.0] 7/26/2016	1259PS107[2.5] 6/7/2016	1259PS408[0.0] 8/25/2016	1259PS309[0.25] 8/22/2016	Site Specific Cleanup Level [a]
2,3,7,8-TCDD	--	--	--	--	<1.40E-06	--	--	--	--	--	--
2,3,7,8-TCDF	--	--	--	--	<1.40E-06	--	--	--	--	--	--
1,2,3,7,8-PeCDD	--	--	--	--	<6.90E-06	--	--	--	--	--	--
1,2,3,7,8-PeCDF	--	--	--	--	<6.90E-06	--	--	--	--	--	--
2,3,4,7,8-PeCDF	--	--	--	--	<6.90E-06	--	--	--	--	--	--
1,2,3,4,7,8-HxCDD	--	--	--	--	<6.90E-06	--	--	--	--	--	--
1,2,3,6,7,8-HxCDD	--	--	--	--	<6.90E-06	--	--	--	--	--	--
1,2,3,7,8,9-HxCDD	--	--	--	--	<6.90E-06	--	--	--	--	--	--
1,2,3,4,7,8-HxCDF	--	--	--	--	<6.90E-06	--	--	--	--	--	--
1,2,3,6,7,8-HxCDF	--	--	--	--	<6.90E-06	--	--	--	--	--	--
2,3,4,6,7,8-HxCDF	--	--	--	--	<6.90E-06	--	--	--	--	--	--
1,2,3,7,8,9-HxCDF	--	--	--	--	<6.90E-06	--	--	--	--	--	--
1,2,3,4,6,7,8-HpCDD	--	--	--	--	<6.90E-06	--	--	--	--	--	--
1,2,3,4,6,7,8-HpCDF	--	--	--	--	<6.90E-06	--	--	--	--	--	--
1,2,3,4,7,8,9-HpCDF	--	--	--	--	<6.90E-06	--	--	--	--	--	--
OCDD	--	--	--	--	<1.40E-05	--	--	--	--	--	--
OCDF	--	--	--	--	<1.40E-05	--	--	--	--	--	--
Total TCDD	--	--	--	--	<1.40E-06	--	--	--	--	--	--
Total TCDF	--	--	--	--	<1.40E-06	--	--	--	--	--	--
Total PeCDD	--	--	--	--	<6.90E-06	--	--	--	--	--	--
Total PeCDF	--	--	--	--	<6.90E-06	--	--	--	--	--	--
Total HxCDD	--	--	--	--	<6.90E-06	--	--	--	--	--	--
Total HxCDF	--	--	--	--	<6.90E-06	--	--	--	--	--	--
Total HpCDD	--	--	--	--	<6.90E-06	--	--	--	--	--	--
Total HpCDF	--	--	--	--	<6.90E-06	--	--	--	--	--	--
TCDD TEQ	--	--	--	--	<1.40E-06	--	--	--	--	--	3.50E-06

Notes:
All data shown is in milligrams per kilogram (mg/kg)
Bold indicates sample anaylsis exceeds lowest applicable cleanup level. All soil associated with sample results exceeding the applicable cleanup level has been removed.
Duplicate sample results are listed directly next to the sample from which the duplicate was collected.
Laboratory reported dioxin/furans in picograms per gram (pg/g). Values converted by multipling by a conversion factor of 0.000001 or 1E-06.

Abbreviations:
-- indicates that sample is not analyzed for these analyte.

Footnotes:
[a] As presented in the approved 2015 Removal Action Work Plan and 2016 Remedial Design Implementation Plan the cleanup levels for the Historic Forest/Recreational areas is from MACTEC's March 2007 *Technical Memorandum, Human Health Soil Preliminary Remediation Goals and Toxic Equivalency Values for Dioxins and Furans Presidio of San Francisco, California.*

Table 5a. Clean Closure Confirmation Sampling Results - Lead
East of Building 1259
Presidio Lendrum Court
Presidio, San Francisco, CA

Sample ID	Date	Inorganics
		Lead
East of Building 1259		
1259EX101[0.5]	6/7/2016	50
1259EX102[0.5]	6/7/2016	33
1259EX103[0.5]	6/7/2016	71
1259PS101[0.0]	6/6/2016	42
DUP060616-2 [0.0]		67
1259PS102[0.5]	6/6/2016	31
1259PS103[0.5]	6/6/2016	20
1259PS104[0.5]	6/6/2016	120
1259PS110[0.0]	6/24/2016	160
1259PS112[0.0]	9/15/2016	98
Site Specific Cleanup Level [a]		160

Notes:
All data shown is in milligrams per kilogram (mg/kg)
Duplicate sample results are listed directly below the sample from which the duplicate was collected.

Abbreviations:
-- indicates that sample is not analyzed for these analyte.

Footnotes:
[a] As presented in the approved 2015 Removal Action Work Plan and 2016 Remedial Design Implementation Plan the cleanup levels for the Historic Forest/Recreational areas are the lowest value of recreational receptor, ecological buffer zone, and ecological special status from EKI's October 2002 (with updates through 2013) *Development of Presidio-Wide Cleanup Levels for Soil, Sediment, Groundwater, and Surface Water* and TRC's April 6, 2015 *Recreational Soil Cleanup Level for Lead, Presidio of San Francisco, California.*

Table 5b. Clean Closure Confirmation Sampling Results - Dioxins and Furans
East of Building 1259
Presidio Lendrum Court
Presidio, San Francisco, CA

Dioxin / Furan	1259EX101[0.5] 6/7/2016	1259EX102[0.5] 6/7/2016	1259EX103[0.5] 6/7/2016	1259PS101[0.0] 6/6/2016	DUP060616-2 [0.0] 6/6/2016	1259PS102[0.5] 6/6/2016	1259PS103[0.5] 6/6/2016	1259PS104[0.5] 6/6/2016	1259PS110[0.0] 6/24/2016	1259PS112[0.0] 9/15/2016	Site Specific Cleanup Level [a]
2,3,7,8-TCDD	--	1.80E-06	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDF	--	<1.20E-06	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDD	--	<6.10E-06	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDF	--	<6.10E-06	--	--	--	--	--	--	--	--	--
2,3,4,7,8-PeCDF	--	<6.10E-06	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDD	--	<6.10E-06	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDD	--	<6.10E-06	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDD	--	<6.10E-06	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDF	--	<6.10E-06	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDF	--	<6.10E-06	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-HxCDF	--	<6.10E-06	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDF	--	<6.10E-06	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-HpCDD	--	<6.10E-06	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-HpCDF	--	<6.10E-06	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-HpCDF	--	<6.10E-06	--	--	--	--	--	--	--	--	--
OCDD	--	3.10E-05	--	--	--	--	--	--	--	--	--
OCDF	--	<1.20E-05	--	--	--	--	--	--	--	--	--
Total TCDD	--	1.50E-05	--	--	--	--	--	--	--	--	--
Total TCDF	--	1.10E-05	--	--	--	--	--	--	--	--	--
Total PeCDD	--	<6.10E-06	--	--	--	--	--	--	--	--	--
Total PeCDF	--	8.80E-06	--	--	--	--	--	--	--	--	--
Total HxCDD	--	<6.10E-06	--	--	--	--	--	--	--	--	--
Total HxCDF	--	<6.10E-06	--	--	--	--	--	--	--	--	--
Total HpCDD	--	8.30E-06	--	--	--	--	--	--	--	--	--
Total HpCDF	--	<6.10E-06	--	--	--	--	--	--	--	--	--
TCDD TEQ	--	1.93E-06	--	--	--	--	--	--	--	--	8.20E-06

Notes:
All data shown is in milligrams per kilogram (mg/kg)
Bold indicates sample anaylsis exceeds lowest applicable cleanup level. All soil associated with sample results exceeding the applicable cleanup level has been removed.
Duplicate sample results are listed directly next to the sample from which the duplicate was collected.
Laboratory reported dioxin/furans in picograms per gram (pg/g). Values converted by multipling by a conversion factor of 0.000001 or 1E-06.

Abbreviations:
-- indicates that sample is not analyzed for these analyte.

Footnotes:
[a] As presented in the approved 2015 Removal Action Work Plan and 2016 Remedial Design Implementation Plan the cleanup levels for the Historic Forest/Recreational areas is from MACTEC's March 2007 *Technical Memorandum, Human Health Soil Preliminary Remediation Goals and Toxic Equivalency Values for Dioxins and Furans Presidio of San Francisco, California.*

Table 6a. Clean Closure Confirmation Sampling Results - Lead
Excavation West of Building 1258
Presidio - Lendrum Court
Presidio, San Francisco, California

Sample ID	Date	Inorganics
		Lead
Excavation West of Building 1258		
1258EX101[0.0]	6/7/2016	32
DUP060716-2	6/7/2016	9.9
1258EX101[0.75]	8/22/2016	41
1258EX102[0.0]	6/7/2016	41
1258EX102[0.75]	8/22/2016	8.2
1258EX104[0.75]	8/22/2016	41
1258EX105[1.5]	6/7/2016	5.5
1258EX107[0.75]	8/25/2016	64
1258EX108[0.75]	9/26/2016	16
1258EX110[1.5]	9/26/2016	78
1258PS201[0.75]	10/10/2016	7.5
1258PS204[0.75]	11/2/2016	67
1258PS205[0.75][a]	11/2/2016	**200**
Site Specific Cleanup Level [b]		80

Notes:
All data shown is in milligrams per kilogram (mg/kg)
Bold indicates sample anaylsis exceeds lowest applicable cleanup level.
Duplicate sample results are listed directly below the sample from which the duplicate was collected.

Abbreviations:
-- indicates that sample is not analyzed for these analyte.

Footnotes:
[a] 1258PS205[0.75] sidewall sample was collected at the edge of sidewalk and excavation could not be extended, therefore the adjacent sidewalk and Armistead street have been incorporated into the formal LUC, see Figures 3 and 8.
[a] As presented in the approved 2015 Removal Action Work Plan and 2016 Remedial Design Implementation Plan the cleanup levels for the Landscaped/Residential areas are the lowest value of residential receptor and ecological buffer zone from EKI's October 2002 (with updates through 2013) *Development of Presidio-Wide Cleanup Levels for Soil, Sediment, Groundwater, and Surface Water*.

Table 6b. Clean Closure Confirmation Sampling Results - Dioxins and Furans
West of Building 1259
Presidio Lendrum Court
Presidio, San Francisco, CA

Dioxin / Furan	1258EX101[0.0] 6/7/2016	DUP060716-2 6/7/2016	1258EX101[0.75] 8/22/2016	1258EX102[0.0] 6/7/2016	1258EX102[0.75] 8/22/2016	1258EX104[0.75] 8/22/2016	1258EX105[1.5] 6/7/2016	1258EX107[0.75] 8/25/2016	1258EX108[0.75] 9/26/2016	1258EX110[1.5] 9/26/2016	1258PS201[0.75] 10/10/2016	1258PS204[0.75] 11/2/2016	1258PS205[0.75]a 11/2/2016	Site Specific Cleanup Level [a]
2,3,7,8-TCDD	<1.30E-06	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDF	<1.30E-06	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDD	<6.70E-06	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDF	<6.70E-06	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-PeCDF	<6.70E-06	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDD	<6.70E-06	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDD	<6.70E-06	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDD	<6.70E-06	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDF	<6.70E-06	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDF	<6.70E-06	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-HxCDF	<6.70E-06	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDF	<6.70E-06	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-HpCDD	<6.70E-06	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-HpCDF	<6.70E-06	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-HpCDF	<6.70E-06	--	--	--	--	--	--	--	--	--	--	--	--	--
OCDD	3.40E-05	--	--	--	--	--	--	--	--	--	--	--	--	--
OCDF	<1.30E-05	--	--	--	--	--	--	--	--	--	--	--	--	--
Total TCDD	<1.30E-06	--	--	--	--	--	--	--	--	--	--	--	--	--
Total TCDF	1.30E-06	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PeCDD	<6.70E-06	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PeCDF	<6.70E-06	--	--	--	--	--	--	--	--	--	--	--	--	--
Total HxCDD	<6.70E-06	--	--	--	--	--	--	--	--	--	--	--	--	--
Total HxCDF	<6.70E-06	--	--	--	--	--	--	--	--	--	--	--	--	--
Total HpCDD	8.20E-06	--	--	--	--	--	--	--	--	--	--	--	--	--
Total HpCDF	<6.70E-06	--	--	--	--	--	--	--	--	--	--	--	--	--
TCDD TEQ	7.94E-07	--	--	--	--	--	--	--	--	--	--	--	--	3.50E-06

Notes:
All data shown is in milligrams per kilogram (mg/kg)
Bold indicates sample anaylsis exceeds lowest applicable cleanup level. All soil associated with sample results exceeding the applicable cleanup level has been removed.
Duplicate sample results are listed directly next to the sample from which the duplicate was collected.
Laboratory reported dioxin/furans in picograms per gram (pg/g). Values converted by multipling by a conversion factor of 0.000001 or 1E-06.

Abbreviations:
-- indicates that sample is not analyzed for these analyte.

Footnotes:
[a] 1258PS205[0.75] sidewall sample was collected at the edge of sidewalk and excavation could not be extended, therefore the adjacent sidewalk and Armistead street have been incorporated into the formal LUC, see Figures 3 and 8.
[b] As presented in the approved 2015 Removal Action Work Plan and 2016 Remedial Design Implementation Plan the cleanup levels for the Historic Forest/Recreational areas is from MACTEC's March 2007 Technical Memorandum, *Human Health Soil Preliminary Remediation Goals and Toxic Equivalency Values for Dioxins and Furans Presidio of San Francisco, California.*

Table 7a. Clean Closure Confirmation Sampling Results - Metals
South of Lendrum Court - West Side
Presidio - Lendrum Court
Presidio, San Francisco, California

Sample ID	Date	Inorganics				
		Lead	Arsenic	Barium	Copper	Zinc
South of Lendrum Court (West)						
SLCEX101[0.5]	6/7/2016	82	--	--	--	--
SLCEX102[0.5]	6/7/2016	86	<2.5	75	16	58
DUP060716-6		130	--	--	--	--
SLCEX103[0.5]	6/7/2016	74	--	--	--	--
SLCPS101[0.0][a]	6/7/2016	**330**	--	--	--	--
SLCPS201[0.5][a]	8/25/2016	**450**	--	--	--	--
SLCPS101[1.0]	6/7/2016	29	--	--	--	--
SLCPS102[0.0][a]	6/7/2016	**320**	--	--	--	--
DUP060716-5 [a]		**210**	--	--	--	--
SLCPS202[0.5][a]	8/25/2016	**360**	--	--	--	--
SLCPS102[1.0]	6/7/2016	78	--	--	--	--
SLCPS103[0.0]	6/7/2016	100	--	--	--	--
SLCPS203[0.5][a]	8/25/2016	**310**	--	--	--	--
Site Specific Cleanup Level [b]		160	6.2	320	85	160

Notes:
All data shown is in milligrams per kilogram (mg/kg)
Bold indicates sample anaylsis exceeds lowest applicable cleanup level.
Duplicate sample results are listed directly below the sample from which the duplicate was collected.

Abbreviations:
-- indicates that sample is not analyzed for these analyte.

Footnotes:
[a] All samples with detected concentrations of lead in exceedance of the forest/recreational screening level of 160 mg/kg were located on the southern boundary of the clean closure area and at the base of a very steep and heavily vegetated slope that is inaccessible. Contaminated soils on the slope could not be removed due to slope stability concerns, the area has been identified as an interim control area that is further described in the Incinerator/ADL Area letter report.
[b] As presented in the approved 2015 Removal Action Work Plan and 2016 Remedial Design Implementation Plan the cleanup levels for the Historic Forest/Recreational areas are the lowest value of recreational receptor, ecological buffer zone, and ecological special status from EKI's October 2002 (with updates through 2013) *Development of Presidio-Wide Cleanup Levels for Soil, Sediment, Groundwater, and Surface Water* , TRC's April 6, 2015 *Recreational Soil Cleanup Level for Lead, Presidio of San Francisco, California* . If the applicable recreational human health, ecological buffer zone, or ecological special status cleanup level is less than the background level, the greater of the Colma and Serpentinite background threshold levels was selected as the cleanup level.

Table 7b. Clean Closure Confirmation Sampling Results - Dioxin and Furans
South of Lendrum Court - West Side
Presidio - Lendrum Court
Presidio, San Francisco, California

Dioxin / Furan	SLCEX101[0.5] 6/7/2016	SLCEX102[0.5] 6/7/2016	DUP060716-6 6/7/2016	SLCEX103[0.5] 6/7/2016	SLCPS101[0.0] 6/7/2016	SLCPS201[0.5] 8/25/2016	SLCPS101[1.0] 6/7/2016	SLCPS102[0.0] 6/7/2016	DUP060716-5 6/7/2016	SLCPS202[0.5] 8/25/2016	SLCPS102[1.0] 6/7/2016	SLCPS103[0.0] 6/7/2016	SLCPS203[0.5] 8/25/2016	Site Specific Cleanup Level [a]
2,3,7,8-TCDD	--	3.50E-06	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDF	--	2.60E-06	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDD	--	<5.90E-06	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDF	--	<5.90E-06	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-PeCDF	--	<5.90E-06	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDD	--	<5.90E-06	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDD	--	<5.90E-06	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDD	--	<5.90E-06	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDF	--	<5.90E-06	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDF	--	<5.90E-06	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-HxCDF	--	<5.90E-06	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDF	--	<5.90E-06	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-HpCDD	--	3.30E-05	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-HpCDF	--	7.30E-06	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-HpCDF	--	<5.90E-06	--	--	--	--	--	--	--	--	--	--	--	--
OCDD	--	2.30E-04	--	--	--	--	--	--	--	--	--	--	--	--
OCDF	--	1.40E-05	--	--	--	--	--	--	--	--	--	--	--	--
Total TCDD	--	1.20E-05	--	--	--	--	--	--	--	--	--	--	--	--
Total TCDF	--	3.20E-05	--	--	--	--	--	--	--	--	--	--	--	--
Total PeCDD	--	1.20E-05	--	--	--	--	--	--	--	--	--	--	--	--
Total PeCDF	--	4.10E-05	--	--	--	--	--	--	--	--	--	--	--	--
Total HxCDD	--	2.40E-05	--	--	--	--	--	--	--	--	--	--	--	--
Total HxCDF	--	3.00E-05	--	--	--	--	--	--	--	--	--	--	--	--
Total HpCDD	--	6.00E-05	--	--	--	--	--	--	--	--	--	--	--	--
Total HpCDF	--	1.60E-05	--	--	--	--	--	--	--	--	--	--	--	--
TCDD TEQ	--	4.24E-06	--	--	--	--	--	--	--	--	--	--	--	8.20E-06

Notes:
All data shown is in milligrams per kilogram (mg/kg)
Bold indicates sample anaylsis exceeds lowest applicable cleanup level. All soil associated with sample results exceeding the applicable cleanup level has been removed.
Duplicate sample results are listed directly next to the sample from which the duplicate was collected.
Laboratory reported dioxin/furans in picograms per gram (pg/g). Values converted by multipling by a conversion factor of 0.000001 or 1E-06.

Abbreviations:
-- indicates that sample is not analyzed for these analyte.

Footnotes:
[a] As presented in the approved 2015 Removal Action Work Plan and 2016 Remedial Design Implementation Plan the cleanup levels for the Historic Forest/Recreational areas is from MACTEC's March 2007 *Technical Memorandum, Human Health Soil Preliminary Remediation Goals and Toxic Equivalency Values for Dioxins and Furans Presidio of San Francisco, California.*

Table 7c. Clean Closure Confirmation Sampling Results - Metals
South of Lendrum Court - East Side
Presidio - Lendrum Court
Presidio, San Francisco, California

Sample ID	Date	Inorganics				
		Lead	Arsenic [a]	Barium	Copper	Zinc
South of Lendrum Court (East)						
SLCEX104[1.0]	6/7/2016	100	<2.3	54	19	58
DUP060716-4		130	--	--	--	--
SLCEX105[1.0]	6/7/2016	35	2.3	37	11	37
SLCPS104[1.0]	6/7/2016	50	**7.2**	53	17	43
SLCPS204[0.5]	8/25/2016	99	4.9	61	11	42
SLCPS105[0.5]	6/7/2016	30	<2.2	34	14	30
SLCPS106[0.5]	6/7/2016	43	2.6	35	12	39
SLCPS107[0.5]	6/7/2016	26	3.0	53	9.9	38
SLCPS108[0.0]	6/7/2016	34	<2.1	49	8.6	33
SLCPS109[0.5]	6/7/2016	43	2.5	34	11	37
DUP060716-3		42	--	--	--	--
SLCPS110[0.5]	6/7/2016	44	2.3	40	11	37
Site Specific Cleanup Level [b]		160	6.2	320	85	160

Notes:
All data shown is in milligrams per kilogram (mg/kg)
Bold indicates sample anaylsis exceeds lowest applicable cleanup level.
Duplicate sample results are listed directly below the sample from which the duplicate was collected.

Abbreviations:
<# not detected above reporting limit

Footnotes:
[a] A 95% upper confidence limit was calculated for the arsenic concentrations in order to meet clean closure. See Section 7.4.6 and Figure 10 for further discussion.
[b] As presented in the approved 2015 Removal Action Work Plan and 2016 Remedial Design Implementation Plan the cleanup levels for the Historic Forest/Recreational areas are the lowest value of recreational receptor, ecological buffer zone, and ecological special status from EKI's October 2002 (with updates through 2013) *Development of Presidio-Wide Cleanup Levels for Soil, Sediment, Groundwater, and Surface Water* , TRC's April 6, 2015 *Recreational Soil Cleanup Level for Lead, Presidio of San Francisco, California* . If the applicable recreational human health, ecological buffer zone, or ecological special status cleanup level is less than the background level, the greater of the Colma and Serpentinite background threshold levels was selected as the cleanup level.

Table 7d. Clean Closure Confirmation Sampling Results - Metals

South of Lendrum Court - East Side

Presidio - Lendrum Court

Presidio, San Francisco, California

Sample ID	Date	Polynuclear Aromatic Hydrocarbons (PAHs)																
		Acenapthene	Acenapthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(a)pyrene equivalents	Benzo[b] fluoranthene	Benzo[g,h,i] perylene	Benzo[k] fluoranthene	Chrysene	Dibez(a,h) anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd] pyrene	Napthalene	Phenanthrene	Pyrene
South of Lendrum Court (East)																		
SLCEX104[1.0]	6/7/2016	<0.063	<0.063	<0.063	<0.063	<0.063	<0.063	<0.063	<0.063	<0.063	<0.063	<0.063	<0.063	<0.063	<0.063	<0.063	<0.063	<0.063
DUP060716-4		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SLCEX105[1.0]	6/7/2016	<0.097	<0.097	<0.097	<0.097	<0.097	<0.097	<0.097	<0.097	<0.097	<0.097	<0.097	<0.097	<0.097	<0.097	<0.097	<0.097	<0.097
SLCPS104[1.0]	6/7/2016	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058	<0.058
SLCPS204[0.5]	8/25/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SLCPS105[0.5]	6/7/2016	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120
SLCPS106[0.5]	6/7/2016	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
SLCPS107[0.5]	6/7/2016	<0.110	<0.110	<0.110	<0.110	<0.110	<0.110	<0.110	<0.110	<0.110	<0.110	<0.110	<0.110	<0.110	<0.110	<0.110	<0.110	<0.110
SLCPS108[0.0]	6/7/2016	<0.052	<0.052	<0.052	<0.052	<0.052	<0.052	<0.052	<0.052	<0.052	<0.052	<0.052	<0.052	<0.052	<0.052	<0.052	<0.052	<0.052
SLCPS109[0.5]	6/7/2016	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
DUP060716-3		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SLCPS110[0.5]	6/7/2016	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048
Site Specific Cleanup Level [a]		30	30	30	1.1	0.11	0.11	1.1	30	11	30	0.11	30	30	1.1	30	30	

Notes:

All data shown is in milligrams per kilogram (mg/kg)

Bold indicates sample anaylsis exceeds lowest applicable cleanup level.

Duplicate sample results are listed directly below the sample from which the duplicate was collected.

Abbreviations:

-- indicates that sample is not analyzed for these analyte.

Footnotes:

[a] As presented in the approved 2015 Removal Action Work Plan and 2016 Remedial Design Implementation Plan the cleanup levels for the Historic Forest/Recreational areas are the lowest value of recreational receptor, ecological buffer zone, and ecological special status from EKI's October 2002 (with updates through 2013) *Development of Presidio-Wide Cleanup Levels for Soil, Sediment, Groundwater, and Surface Water,* TRC's April 6, 2015 *Recreational Soil Cleanup Level for Lead, Presidio of San Francisco, California* .

Table 7e. Clean Closure Confirmation Sampling Results - Dioxin and Furans
South of Lendrum Court - East Side
Presidio - Lendrum Court
Presidio, San Francisco, California

Dioxin / Furan	SLCEX104[1.0] 6/7/2016	DUP060716-4 6/7/2016	SLCEX105[1.0] 6/7/2016	SLCPS104[1.0] 6/7/2016	SLCPS204[0.5] 8/25/2016	SLCPS105[0.5] 6/7/2016	SLCPS106[0.5] 6/7/2016	SLCPS107[0.5] 6/7/2016	SLCPS108[0.0] 6/7/2016	SLCPS109[0.5] 6/7/2016	DUP060716-3 6/7/2016	SLCPS110[0.5] 6/7/2016	Site Specific Cleanup Level [a]
2,3,7,8-TCDD	--	--	--	--	--	--	--	<1.10E-06	--	--	--	--	--
2,3,7,8-TCDF	--	--	--	--	--	--	--	<1.10E-06	--	--	--	--	--
1,2,3,7,8-PeCDD	--	--	--	--	--	--	--	<5.60E-06	--	--	--	--	--
1,2,3,7,8-PeCDF	--	--	--	--	--	--	--	<5.60E-06	--	--	--	--	--
2,3,4,7,8-PeCDF	--	--	--	--	--	--	--	<5.60E-06	--	--	--	--	--
1,2,3,4,7,8-HxCDD	--	--	--	--	--	--	--	<5.60E-06	--	--	--	--	--
1,2,3,6,7,8-HxCDD	--	--	--	--	--	--	--	<5.60E-06	--	--	--	--	--
1,2,3,7,8,9-HxCDD	--	--	--	--	--	--	--	<5.60E-06	--	--	--	--	--
1,2,3,4,7,8-HxCDF	--	--	--	--	--	--	--	<5.60E-06	--	--	--	--	--
1,2,3,6,7,8-HxCDF	--	--	--	--	--	--	--	<5.60E-06	--	--	--	--	--
2,3,4,6,7,8-HxCDF	--	--	--	--	--	--	--	<5.60E-06	--	--	--	--	--
1,2,3,7,8,9-HxCDF	--	--	--	--	--	--	--	<5.60E-06	--	--	--	--	--
1,2,3,4,6,7,8-HpCDD	--	--	--	--	--	--	--	1.20E-05	--	--	--	--	--
1,2,3,4,6,7,8-HpCDF	--	--	--	--	--	--	--	<5.60E-06	--	--	--	--	--
1,2,3,4,7,8,9-HpCDF	--	--	--	--	--	--	--	<5.60E-06	--	--	--	--	--
OCDD	--	--	--	--	--	--	--	1.20E-04	--	--	--	--	--
OCDF	--	--	--	--	--	--	--	<1.10E-05	--	--	--	--	--
Total TCDD	--	--	--	--	--	--	--	<1.10E-06	--	--	--	--	--
Total TCDF	--	--	--	--	--	--	--	5.30E-06	--	--	--	--	--
Total PeCDD	--	--	--	--	--	--	--	<5.60E-06	--	--	--	--	--
Total PeCDF	--	--	--	--	--	--	--	1.10E-05	--	--	--	--	--
Total HxCDD	--	--	--	--	--	--	--	<5.60E-06	--	--	--	--	--
Total HxCDF	--	--	--	--	--	--	--	8.60E-06	--	--	--	--	--
Total HpCDD	--	--	--	--	--	--	--	2.00E-05	--	--	--	--	--
Total HpCDF	--	--	--	--	--	--	--	7.90E-06	--	--	--	--	--
TCDD TEQ	--	--	--	--	--	--	--	7.91E-07	--	--	--	--	8.20E-06

Notes:
All data shown is in milligrams per kilogram (mg/kg)
Bold indicates sample anaylsis exceeds lowest applicable cleanup level.
Duplicate sample results are listed directly next to the sample from which the duplicate was collected.
Laboratory reported dioxin/furans in picograms per gram (pg/g). Values converted by multipling by a conversion factor of 0.000001 or 1E-06.

Abbreviations:
-- indicates that sample is not analyzed for these analyte.

Footnotes:
[a] As presented in the approved 2015 Removal Action Work Plan and 2016 Remedial Design Implementation Plan the cleanup levels for the Historic Forest/Recreational areas is from MACTEC's March 2007 *Technical Memorandum, Human Health Soil Preliminary Remediation Goals and Toxic Equivalency Values for Dioxins and Furans Presidio of San Francisco, California.*

Table 8a. Clean Closure Confirmation Sampling Results
Northeast of Buildings 1255/1256
Presidio - Lendrum Court
Presidio, San Francisco, California

Sample ID	Date	Inorganics [a]
		Lead
Northeast of Buildings 1255/1256		
1257EX101[0.5]	6/3/2016	62
1257EX102[0.5]	6/3/2016	11
1257EX103[0.5]	6/3/2016	22
1257PS101[0.5]	6/3/2016	4.4
1257PS102[0.0]	6/3/2016	74
1257PS203[2.0]	9/15/2016	36
1257PS205[0.25]	10/10/2016	36
1257PS106[0.0]	6/3/2016	20
1257PS107[0.0]	6/3/2016	10
1255SB100[2.0]	3/28/2017	15
1255SB101[2.0]	3/28/2017	25
1255SB104[0.75]	3/28/2017	13
1255SB105[0.75]	3/28/2017	39
1255SB106[0.75]	3/28/2017	**96**
1255SB116[3.5]	4/26/2017	11
DUP-042617-01[3.5]	4/26/2017	7.6
1255SB117[1.5]	3/28/2017	78
1255SB118[1.5]	3/28/2017	8.5
1255SB121[1.0]	4/26/2017	**82**
1255SB121[2.0]	4/26/2017	**130**
1255SS05[0.25][b]	2011	**94**
DUP041411-11[0.25][b]	2011	76
1255SS05[0.75][b]	2011	10
1255SS13[0.25][b]	2011	**87**
1255SS13[0.75][b]	2011	6.0
Presidio-Wide Residential Screening Level [c]		80

Sample ID	Date	Inorganics [d]
		Lead
Forested Area Northeast of Buildings 1255/1256		
1257PS104[0.0]	6/3/2016	50
1257PS105[0.0]	6/3/2016	17
1257PS111[0.0]	9/15/2016	**180**
1257PS111[0.5]	9/15/2016	**390**
1257PS111[1.0]	9/15/2016	**500**
1257PS204[0.25]	10/10/2016	160
1255SB102[1.5]	3/28/2017	52
1255SB107[0.75]	3/28/2017	100
1255SB108[0.25]	3/28/2017	**260**
1255SB108[0.75]	3/28/2017	**200**
1255SB108[1.5]	3/28/2017	8.1
1255SB109[0.75]	3/28/2017	34
DUP-03282017-01[0.75]	3/28/2017	110
Historic Forest/Recreational Level [e]		160

Notes:

All data shown is in milligrams per kilogram (mg/kg)

Bold indicates sample anaylsis exceeds lowest applicable cleanup level.

Duplicate sample results are listed directly below the sample from which the duplicate was collected.

Footnotes:

[a] A 95% upper confidence limit was calculated for the residual lead concentrations in order to meet clean closure. See Section 7.4.7 and Figure 11 for further discussion.

[b] Samples from lead-base paint investigation conducted by Haely & Aldrich in 2011 and retained as excavation boundary conditions.

[c] Presidio-wide residential screening levels are from EKI's October 2002 with updates through 2015 *Development of Presidio-Wide Cleanup Levels for Soil, Sediment, Groundwater, and Surface Water, Presidio of San Francisco.*

[d] Area is densely vegetated and is determined inaccesible. See Section 7.4.7 for further discussion.

[e] As presented in the approved 2015 Removal Action Work Plan and 2016 Remedial Design Implementation Plan the cleanup levels for the Historic Forest/Recreational areas are the lowest value of recreational receptor, ecological buffer zone, and ecological special status from EKI's October 2002 (with updates through 2013) *Development of Presidio-Wide Cleanup Levels for Soil, Sediment, Groundwater, and Surface Water Presidio of San Francisco* and TRC's April 6, 2015 *Recreational Soil Cleanup Level for Lead, Presidio of San Francisco, California* .

Table 8b. Clean Closure Confirmation Sampling Results - Dioxins and Furans
Northeast of Buildings 1255/1256
Presidio Lendrum Court
Presidio, San Francisco, CA

Dioxin / Furan	1257PS102[0.0] 6/3/2016	Site Specific Cleanup Level [a]
2,3,7,8-TCDD	<1.00E-06	--
2,3,7,8-TCDF	<1.00E-06	--
1,2,3,7,8-PeCDD	<5.00E-06	--
1,2,3,7,8-PeCDF	<5.00E-06	--
2,3,4,7,8-PeCDF	<5.00E-06	--
1,2,3,4,7,8-HxCDD	<5.00E-06	--
1,2,3,6,7,8-HxCDD	<5.00E-06	--
1,2,3,7,8,9-HxCDD	<5.00E-06	--
1,2,3,4,7,8-HxCDF	<5.00E-06	--
1,2,3,6,7,8-HxCDF	<5.00E-06	--
2,3,4,6,7,8-HxCDF	<5.00E-06	--
1,2,3,7,8,9-HxCDF	<5.00E-06	--
1,2,3,4,6,7,8-HpCDD	<5.00E-06	--
1,2,3,4,6,7,8-HpCDF	<5.00E-06	--
1,2,3,4,7,8,9-HpCDF	<5.00E-06	--
OCDD	1.70E-05	--
OCDF	<1.00E-05	--
Total TCDD	1.20E-06	--
Total TCDF	<1.00E-06	--
Total PeCDD	<5.00E-06	--
Total PeCDF	<5.00E-06	--
Total HxCDD	<5.00E-06	--
Total HxCDF	<5.00E-06	--
Total HpCDD	<5.00E-06	--
Total HpCDF	<5.00E-06	--
TCDD TEQ	6.07E-07	3.50E-06

Notes:
All data shown is in milligrams per kilogram (mg/kg)
Laboratory reported dioxin/furans in picograms per gram (pg/g). Values converted by multipling by a conversion factor of 0.000001 or 1E-06.
No other samples were analyzed for Dioxin/Furans.

Abbreviations:
-- indicates that sample is not analyzed for these analyte.

Footnotes:
[a] As presented in the approved 2015 Removal Action Work Plan and 2016 Remedial Design Implementation Plan the cleanup levels for the Historic Forest/Recreational areas is from MACTEC's March 2007 Technical Memorandum, *Human Health Soil Preliminary Remediation Goals and Toxic Equivalency Values for Dioxins and Furans Presidio of San Francisco, California.*

APPENDIX A

CONTRACTOR CONSTRUCTION MANAGEMENT PLAN

Remedial Construction Management Plan
Lendrum Court
The Presidio Trust of San Francisco
San Francisco, California

July 2016

ERRG Project No. 2015-063

Prepared for:

The Presidio Trust of San Francisco
67 Martinez Street
San Francisco, California 94129

Prepared by:

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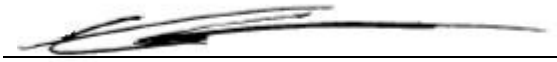
(415) 395-9974

Remedial Construction Management Plan
Lendrum Court
The Presidio of San Francisco
San Francisco, California

Submitted by:
Engineering/Remediation Resources Group, Inc.



Signature	June 10, 2016 Date
Tyson Appel Name	ERRG Program Manager Title

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Abbreviations and Acronyms

BMPs	best management practices
CMP	Construction Management Plan
CRZ	Contaminant Reduction Zone
DOT	U.S. Department of Transportation
EKI	Erler & Kalinowski, Inc.
EPA	U.S. Environmental Protection Agency
EPP	Environmental Protection Plan
ERRG	Engineering/Remediation Resources Group, Inc.
EZ	Exclusion Zone
HASP	Health and Safety Plan
M&H	McGuire and Hester
MUTCD	Manual on Uniform Traffic Control Devices
PPE	personal protective equipment
QSD	qualified SWPPP developer
QSP	qualified SWPPP practitioner
RCRA	Resource Conservation and Recovery Act
SWPPP	stormwater pollution prevention plan
SZ	Support Zone
TCLP	toxic characteristic leaching procedure
TRC	TRC Companies, Inc.
Trust	The Presidio Trust of San Francisco
USA	Underground Service Alert
WET	waste extraction test
WMRP	Waste Management and Recycling Plan

Section 1. Introduction

Engineering/Remediation Resources Group, Inc. (ERRG) has prepared this Remedial Construction Management Plan (CMP) on behalf of The Presidio Trust of San Francisco (Trust) in support of remediation activities at Lendrum Court. Table 1 details the required preconstruction submittals contained in this document and lists the sections in which they are located.

The objective of this CMP is to describe construction and environmental activities that will take place during the removal of impacted soil from Lendrum Court. All construction activities were developed by TRC Companies, Inc. (TRC) and are detailed in the "Revised Design and Implementation Plan" (TRC, 2016a).

1.1. SITE DESCRIPTION AND BACKGROUND

The Presidio of San Francisco is located at the northern tip of the San Francisco peninsula and is bound by the San Francisco Bay on the north and the Pacific Ocean on the west (Figure 1). The Presidio occupies approximately 1,491 acres. Densely populated residential areas of San Francisco border the Presidio to the south and east. The Presidio was a U.S. Army installation from 1848 through 1994, serving as a mobilization and embarkation point during several overseas conflicts, a medical debarkation center, and a coastal defense for the San Francisco Bay area. Former industrial operations included maintenance and repair of vehicles, aircraft, and base facilities.

Lendrum Court is located within the Presidio on the eastern hillside above Crissy Field (Figure 1). The site is bounded by Lincoln Boulevard to the east and Armistead Road to the west. Lincoln Boulevard will serve as the main access road to the site (Figure 2). The vicinity of Lendrum Court housed an incinerator in the area of Doyle Drive up until the middle to late 1920s. Later, the site was used for residential purposes and the areas surrounding the site were developed for motorways during the construction of the Golden Gate Bridge and Highway 101. After 1946, further construction in the area was limited. Currently, the site consists of apartments, driveways, and grassy and wooded areas.

1.2. REMEDIATION OBJECTIVE AND PURPOSE

Incinerator activities at the site, along with previously used lead based paint, as well as the nearby highway contributed to the existing contamination at the site. This contamination includes polycyclic aromatic hydrocarbons, lead, dioxins and furans, as well as naturally occurring asbestos. Naturally occurring asbestos is ubiquitous to the San Francisco Bay Area and occurs all over the Presidio and surrounding area. Previous investigations include a Remedial Investigation conducted by Erler & Kalinowski, Inc. (EKI)

(EKI, 2015). That report details the nature and extent of the contamination at Lendrum Court. The objective of this remediation will be to remove the surface layer of contamination; excavate, consolidate, and dispose of contaminated soils; and install clean fill as a cap over the remaining contamination. Existing buildings and driveways on site will serve as a cap as well. In this way the landscaping between the apartments and the driveways will be the focus of the remediation activities.

1.3. PROJECT ACTIVITIES

Based on the remedial actions described in the Remedial Design and Implementation Plan (TRC, 2016), ERRG will implement the following construction activities for this project:

1. Utility identification and clearance
2. Mobilization and site preparation
3. Soil characterization sampling
4. Clearing and grubbing
5. Demolition
6. Remedial (i.e., soil) excavation and rough grading
7. Waste management and transportation
8. Placement and compaction of clean backfill soil and protective gopher wire mesh
9. Irrigation system and hardscape installation
10. Erosion and sediment controls installation
11. Site restoration and demobilization

ERRG will conduct this project starting June 13, 2016 and continuing until October 2016. This strategy will reduce the inconvenience to the building tenants and allow ERRG to fully secure the area prior to the rainy season. ERRG will use industry-standard construction methods and materials throughout the duration of the remediation activities. Onsite ERRG personnel will be equipped with mobile phones for communication during site activities. All remediation work will be conducted in a manner that minimizes visible dust from leaving the site and prevents dust, soil, or mud from being tracked onto highways or roads. Protective measures will be put in place to minimize exposure and disturbances to local residences, such as taping of windows within 20 feet of earthmoving activities, temporary fencing of open excavations that could pose a hazard to residents, and application of dust suppressants in areas that won't be worked for extended periods of time. ERRG will document site activities in field logbooks and on field forms (Appendix A). All ERRG personnel will be briefed in the site-specific health and safety prior to the start of work. All precautions, practices, and personal protective equipment (PPE) to mitigate hazards are specified in the site-specific Health and Safety Plan (HASP) (ERRG, 2015).

Section 2. Preconstruction and Site Preparation Activities

This section describes the following tasks that will be performed prior to construction:

- Utility identification and clearance
- Mobilization and site preparation

2.1. UTILITY IDENTIFICATION AND CLEARANCE

ERRG will notify Northern California Dig Alert (Underground Service Alert [USA]) of proposed excavation activities at least 48 hours prior to the start of soil-disturbing activities, as required. ERRG will provide USA with the following location information: area bound by Armistead Road to the west, Lendrum Court to the south, and Lincoln Boulevard to the east. Figure 2 will be provided to show the specific location of excavation and work areas.

In addition to USA notifications, ERRG's private utility locating service (Cruz Brothers) will survey the site for underground utilities prior to soil-disturbing activities. All utilities will be clearly marked on the ground surface and will be surveyed by ERRG using a Trimble SCS900 or similar.

2.2. MOBILIZATION AND SITE PREPARATION

ERRG will mobilize all necessary equipment and supplies to the site to begin remediation activities. An empty bay between Buildings 1205 and 1206 on Ralston Avenue, located south of the site off of Lincoln Boulevard, will be used for personnel parking and staging. A conex box will be placed at this location for the storage of equipment and supplies. The Trust-issued encroachment permit for use of this space, along with a diagram of the staging area, are included as Appendix B. All materials and equipment will be available prior to beginning work at the site. The following materials and equipment will be mobilized to the site:

- Temporary construction fence
- Portable toilet(s) and other sanitation facilities
- Earthmoving equipment (e.g., Caterpillar 308 excavator, John Deere 35 mini excavator, John Deere 544 loader, two Caterpillar 249 skidsteer loaders, Caterpillar D5 bulldozer, two dump trucks, etc.)
- Street sweeper

- 500-gallon water trailer
- Hand-held tools for manual excavations and equipment maintenance
- Hand-operated power tools
- Traffic controls (flags, barrier tape, traffic cones)
- PPE
- Decontamination supplies
- Safety equipment (e.g., eyewash, first-aid kit, dust monitor, photoionization detector/multi-gas meter)
- Digital cameras and field logbooks

ERRG will mobilize additional materials, supplies, or equipment to the site, as needed.

Site preparation will include delineating work zones, such as setup of a decontamination facility and the soil staging area and installation of temporary personal hygiene facilities (including hand wash station), and first-aid station. Additionally, temporary Type CL-6 fence will be installed around construction areas and orange construction fence will be installed around existing items to be protected for the duration of the project (Figure 2). The fences will be adjusted as the project progresses to enclose active work areas. The fences will be anchored with sandbags to prevent displacement during high wind events.

The following subsections describe the delineation of work zones and installation of temporary facilities at the site.

2.2.1. Work Zone Delineation

The following work zones will be established for each stage of construction over the course of the project: an Exclusion Zone (EZ), Contaminant Reduction Zone (CRZ), and Support Zone (SZ). The EZ is where active construction work will be occurring, and the CRZ will be used for decontamination of personnel and equipment. The SZ will include sanitation facilities, a storage box, and equipment fueling and maintenance area. In additional, an equipment staging area, truck staging area, and stockpile area will be established at the site SZ. Figure 2 shows the location of the work zones and other support areas.

The work zones will confine different work elements to specific areas and will buffer the surrounding environment from potential chemical and physical hazards. The boundaries of the work zones will be used to regulate entry into the zones and facilitate communication and emergency response between work activities and management support. The CRZ and SZ will be moved as the location of work changes during the course of the project. The entry point to each work zone will be monitored to prevent unauthorized access to the work zone and ensure that all equipment has been properly decontaminated prior to exiting the zone. The work zones will be demarcated with barricades or caution tape that will be adjusted to accommodate construction.

Only authorized personnel will be allowed on site; unauthorized personnel will not be allowed in controlled areas of the site, and all visitors must read and acknowledge the HASP (ERRG, 2015). If work zones change over the course of the project, all personnel will be informed of the current work zones through tailgate safety meetings and onsite demarcation.

The following subsections describe each of the work zones.

2.2.1.1. Exclusion Zone

The EZ is where all construction activities will occur, including portions of staging areas where contaminated soils will be stockpiled prior to periodic off haul. Only authorized and necessary personnel and equipment will be allowed in this zone. One portable field support station will be established near active work areas on a daily basis to stage support supplies, including eyewash and first-aid supplies. Personnel in the EZ will be required to wear appropriate PPE, as described in the HASP (ERRG, 2015). At the beginning of work all workers entering the EZ will wear Level C PPE. This includes a full or half face respirator, Tyvek (or similar) coveralls, hard hat, hard toe safety boots, nitrile gloves, long sleeve work shirt, log pants, and safety glasses. Following personal air sampling, described in the HASP (ERRG, 2015), the Site Safety and Health Officer in conjunction with the Corporate Health and Safety Manager will downgrade the PPE requirements to level D.

2.2.1.2. Contaminant Reduction Zone

The CRZs will be set up prior to the start of excavation activities. Zones will be located outside the area where contaminated soil is excavated and stockpiled. As excavation activities move through the project area, the CRZs will be moved to where work is being conducted. Construction personnel will be informed of the location of the CRZs during the daily tailgate safety meeting. Ingress and egress to and from the CRZ will be directed through one primary entry and exit point.

Personnel and subcontractors are required to wear Level D PPE within the CRZ. PPE downgrades from Level C to Level D will be performed within the CRZ when applicable. Non-disposable PPE will be decontaminated as necessary and at the end of each workday using a solution of Alconox detergent and water. Disposable PPE (such as Tyvek and nitrile gloves) will be properly removed and disposed of in double-plastic bags. Any decontamination water generated will be collected for proper disposal.

All equipment, including trucks and vehicles used on the site, will be cleaned within the CRZ before leaving the site. Potential contaminants will be removed by scraping and dry brushing soil from the equipment while it is within the EZ. During the project and prior to leaving the site, heavy equipment will be decontaminated using the same procedures as used for small equipment. Trucks leaving the site will exit onto Lincoln Boulevard via the gate on the east side of the site, after driving through the CRZ and the stabilized construction entrance and exit (Figure 2).

2.2.1.3. Support Zone

The project SZ will be established in an area adjacent to Lincoln Boulevard and the stockpile area, as well as along Lendrum Court (Figure 2). The SZ will have provisions to accommodate personnel, vehicles, and sanitation facilities. Cones, signs, and caution tape will be used as needed to delineate the restricted work areas. This zone includes the equipment fueling and maintenance area (Figure 2) located just outside the EZ and equipment staging area. All fueling and maintenance activities will be conducted in accordance with the HASP (ERRG, 2015).

2.2.1.4. Equipment Staging Area

The equipment staging area is where all construction-related vehicles and heavy equipment will be staged prior to and during construction activities. Only authorized and necessary personnel and equipment will be allowed in this zone. This zone will also provide an area where personnel can conduct daily equipment and vehicle checks prior to use. Personnel and subcontractors must be wearing Level D PPE.

2.2.1.5. Truck Staging Area

The truck staging area is located along Lincoln Boulevard. This area is positioned so the stockpile area can be accessed and the site can be easily entered and exited. Personnel and subcontractors must be wearing Level D PPE when working in this area per the ERRG HASP (ERRG, 2015).

2.2.1.6. Stockpile Area

The stockpile area is located along Lincoln Boulevard near Crissy Field Avenue. This area will be used to stockpile and temporarily store excavated soil until it can be sampled and profiled and subsequently transported off site for disposal. Personnel and subcontractors must be wearing Level D PPE when working in this area per the ERRG HASP (ERRG, 2015).

2.2.2. Installation of Temporary Personal Hygiene and First-Aid Facilities

ERRG will establish temporary personal hygiene and first-aid facilities, such as potable water, hand-washing stations, and sanitary facilities, at the site throughout the duration of the project. The facilities will be contained within the SZ.

Section 3. Construction Activities

This section describes the principal tasks that will be performed and the construction sequencing for excavation and backfill activities, including:

- Soil characterization sampling
- Clearing and grubbing
- Demolition
- Remedial excavation and rough grading
- Waste management and transportation
- Placement and compaction of backfill
- Irrigation system installation
- Hardscape construction
- Erosion and sediment control installation
- Site restoration and demobilization

All construction activities will be performed in accordance with the Environmental Protection Plan (Section 7) and the Stormwater Pollution Prevention Plan (SWPPP) (Appendix C).

3.1. SOIL PRE-CHARACTERIZATION SAMPLING

To streamline the project schedule, ERRG will collect in-situ soil samples within the excavation boundary to pre-characterize the material for offsite disposal, prior to any earthwork activities. ERRG will pothole and collect composite soil samples from specific locations within the area designated for excavation. The minimum sample frequency will be one composite sample per 500 cubic yards of in-situ soil. The composite samples will be analyzed for Title 22 California Code of Regulations requirements and other analyses required by the specific disposal facility. Based on the results of the metals analyses, California waste extraction test (WET) and toxic characteristic leaching procedure (TCLP) analyses may be required for selected chemicals to meet the disposal facility requirements. In general, if a chemical concentration is 10 times greater than the soluble threshold limit concentration, a WET will be performed for that chemical. If the chemical concentration exceeds criteria for the WET, then the TCLP will be performed. Also, a TCLP will be performed if a chemical concentration is 20 times greater than the federal limit for Resource Conservation and Recovery Act (RCRA) hazardous waste.

It is anticipated that the landfill will require the following soil analyses:

- Title 22 metals by U.S. Environmental Protection Agency (EPA) Methods 6010 and 7470/7471 (mercury only)
- Volatile organic compounds, including benzene, toluene, ethylbenzene, and xylene by EPA Method 8260
- Semivolatile organic compounds by EPA Method 8270
- Total petroleum hydrocarbons as gasoline-, diesel-, and motor oil-range organics by EPA Method 8015
- Polycyclic aromatic hydrocarbons by EPA Method 8310
- Dioxins and furans by EPA Method 8290
- Asbestos by polarized light microscopy
- Pesticides by EPA Method 8081
- Herbicides by EPA Method 8185

3.2. CLEARING AND GRUBBING

Prior to rough grading activities, ERRG will clear and grub the area designated for excavation (Figure 2). Clearing and grubbing will include removal and disposal of designated shrubs, weeds, roots, scrap wood, wood chips, metal debris, general trash, and other objectionable materials from the site. The areas to be landscaped in front of buildings 1280 and 1282 will also be cleared and grubbed. At this time, ERRG's subcontractor will also remove approximately 47 tree stumps using a stump grinder. Additional clearing and grubbing will be performed during construction activities if necessary. Any areas that require over-excavation during the removal of buried debris will be backfilled with suitable material (see Section 5.3). Dust control measures will be implemented throughout the project to ensure that no nuisance dust is generated.

3.3. DEMOLITION

Demolition activities are to be conducted concurrently with the remedial excavation. Designated patios, asphalt walkways, concrete v-ditch near Building 1280, and other hardscapes will all be removed (Figure 3) and disposed of. All concrete and asphalt will be recycled as is practical. The Recycling facility will be preapproved by the Trust.

3.4. REMEDIAL EXCAVATION AND ROUGH GRADING

Remedial excavation will consist of removing the top 0.5 foot of soil from all areas to be worked on as well as the construction of key trenches.

Figure 3 shows the grading area, which will be excavated to a depth ranging between 0.3 to 2.5 feet below ground surface. As soil is excavated, a field technician will remain in direct line of sight with the excavator operator to guide operations. Field technicians will be trained to perform the required work for the project. ERRG will periodically conduct grade checks using a Trimble SCS900 or similar device.

Cut-and-fill activities will begin as a part of the rough grading operation. Material removed from the large cut areas in front of Buildings 1259, 1278, and 1279 will be transported to the large fill areas in front of Buildings 1257 and 1258. The fill material will be compacted in accordance with the project specifications.

In several areas across the site, the full extents of contaminated material are to be excavated until clean underlying soils are reached, instead of capped. The excavation areas designated for clean closure are shown on Figure 3. Where possible, during rough grading activities excavated material will be consolidated within the areas to be capped. Soils not suitable for reuse will be stockpiled for off-site disposal.

Additional information on the grading methods and sequencing of cut-and-fill activities is provided in Section 5, Grading and Demolition Plan. Dust control measures during these activities are discussed in Section 5.1.

3.5. WASTE MANAGEMENT AND TRANSPORTATION

Excavated soil containing chemicals of concern will have been pre-characterized for disposal, as described in Section 3.1. Following receipt of acceptable characterization results and approval from the landfill where soil will be disposed of, loaders or similar equipment will transfer soil from the stockpile area to trucks for transport and disposal. Stockpiling procedures are discussed in Section 5, Grading and Demolition Plan. Section 6, Waste Management and Recycling Plan (WMRP), describes stockpile management, waste transportation, and disposal procedures.

3.6. PLACEMENT AND COMPACTION OF BACKFILL

Following rough grading and cut and fill, gopher mesh will be laid down over the entire excavation area. The mesh will consist of 0.5-inch square polyvinyl chloride-coated welded wire. The mesh will be secured using biodegradable stakes. Following installation of the mesh, clean import material will be backfilled in the excavation areas. Backfill will be placed and compacted in accordance with the specifications and Figure 4.

Section 5, Grading and Demolition Plan, provides additional information on the backfilling and compactions methods and sequencing. Following backfill and compaction, the areas surrounding the rough grading area will be final graded to make a smooth transition between the existing slopes and the grading areas and to prevent water collecting at a single location.

3.7. IRRIGATION SYSTEM AND HARDSCAPE INSTALLATION

Following installation of gopher mesh and final grading activities, McGuire and Hester (M&H) will begin installation of irrigation and hardscape materials, including new patios, drains, v-ditches, walkways, piping, sprinklers, electrical conduit, and electronic controls. All piping, conduit, and other materials will be laid above the gopher mesh but below the final grade.

3.8. EROSION AND SEDIMENT CONTROLS INSTALLATION

Erosion and sediment controls will be installed at the beginning of fieldwork, maintained through the life of the project, and include final stabilization at the completion of the project. Initial BMPs will include silt fence, weed-free straw wattle, gravel bags, drain inlet protections, stabilized entrances and exits, fencing, soil stockpile covers, and street sweeping. These controls will be maintained throughout the project and in accordance with the procedures described in Section 7.

Final stabilization at project completion will be conducted following the procedures detailed in Section 7 and will include installation of soil tackifier, weed-free straw wattle, weed-free straw mulch, jute netting, and drain inlet protections.

3.9. SITE RESTORATION AND DEMOBILIZATION

At the completion of all earthwork activities (October 2016), ERRG will install all final post-construction erosion and sediment controls, Sections 3.7 and 7, and demobilize all materials and equipment from the site. ERRG will also remove any temporary fencing or barricades and all construction-related debris, which will be properly disposed of off site. The site will be left in a clean and well-ordered condition. At this time, M&H will complete installation of the planting and irrigation system, as discussed in Section 3.6. All planting will be conducted in accordance with the Presidio Trust and National Park Service Vegetation Management Plan, 2001.

Section 4. Traffic Control Plan

This Traffic Control Plan has been written and approved by a Civil Engineer in accordance with the project specifications (Trust, 2015). Figures 5, 6, 7, and 8 show the haul routes for the site and how trucks will travel to and from the site. ERRG has developed this Traffic Control Plan to meet the requirements of the U.S. Department of Transportation (DOT) Federal Highway Association's Manual on Uniform Traffic Control Devices (MUTCD) (DOT, 2014) to move vehicles, pedestrians, cyclists, and trucks safely through temporary traffic control zones, while protecting site workers and equipment. In addition, traffic control will be performed in a way that causes the least possible obstruction and inconvenience to the public and adjacent property owners.

ERRG will provide traffic control devices in accordance with the standards of the MUTCD and in sufficient quantity and types as required to provide safe and adequate traffic controls (DOT, 2014).

4.1. HAUL ROUTES

Six established haul routes will be utilized during the course of operation at Lendrum Court.

Two haul routes will be within and close to the vicinity of the site (see Figure 5). One haul route will direct dump trucks moving soil from the work area to the staging area along Lincoln Boulevard directly adjacent to Lendrum Court. Another haul route will direct dump trucks moving soil from the work area to the staging area along Lincoln Boulevard north of the Lendrum Court intersection, adjacent to Building 951. Trucks moving soil to and from the historic forest will access the area between Buildings 1278 and 1259. Drain rock will be installed along this access route for stability and dust control. Rumble strips will also be placed adjacent to the sidewalk at the access point to prevent soil track-out. A parking spot along Lendrum Court in front of the entrance point between Buildings 1278 and 1259 will be blocked off to facilitate truck access to this area.

A third haul route will be used by haul trucks transporting waste material from the staging area along Lincoln Boulevard to the Trust-approved offsite disposal facilities (see Figure 6).

A fourth haul route will be used by haul trucks staged on Lendrum Court and loaded with waste material directly from the south side of the eastern excavation area, directing the trucks to the Trust-approved offsite disposal facility (see Figure 6).

A fifth haul route will be used by dump trucks moving soil from the work area to a staging area at Building 1347, located at the intersection of Greenough Avenue and Kobbe Ave south of Lendrum Court. Haul trucks transporting waste material from the Building 1347 staging area to the Trust-approved offsite disposal facility will also use a portion of this route to enter and exit the staging area (see Figure 7).

The sixth haul route has two optional routes, one of which will be determined by the Trust prior to the beginning of hauling operations. These routes will bring mixed soil from 1540 Battery Caulfield Road to Lendrum Court by one of two possible routes (see Figure 8). These routes will run from Battery Caulfield Road to Washington Boulevard and turn right or left. A right turn will lead to a left on Park Boulevard, followed by another left onto Lincoln Boulevard. This route ends with a last turn onto Lendrum Court. The second option turns left from Battery Caulfield onto Washington Boulevard. Washington Boulevard becomes Lincoln and from Lincoln the route ends with a right turn onto Lendrum Court.

4.2. SIGNAGE

As shown on Figures 5, 6, 7, and 8, the following signs will be erected on site to notify the public of construction activities and site restrictions for Lendrum Court.

- "Trucks Entering Roadway": Two of these signs will be along Lincoln Boulevard. One will be placed 200 feet north of the intersection of Lincoln Boulevard and Lendrum Court, and the second will be placed 200 feet south of the intersection of Landrum Court and Lincoln (Figure 5).
- "Work Zone Ahead": One of these signs will be located at the intersection of Armistead Road and Lendrum Court, while the second sign will be located east of the jobsite just before Lendrum Court at the intersection with Lincoln Boulevard (Figure 5).
- "Flagger Ahead". Two of these signs will be along Lincoln Boulevard. One will be placed 155 feet north of the intersection of Lincoln Boulevard and Lendrum Court, and the second will be placed 155 feet south of the intersection of Landrum Court and Lincoln Blvd. A third sign will be placed at the top of Armistead Road 150 feet west of the intersection of Armistead Road and Lendrum Court if necessary (Figure 5).

4.3. TRAFFIC CONTROL PERSONNEL

At Lendrum Court ERRG will deploy flag personnel at the entrance to Lendrum Court along Lincoln Boulevard. A third traffic control person will be placed near the intersection of Armistead Road and Lendrum Court depending on traffic conditions. At Building 1347 traffic control personnel will be deployed on both sides of the staging area entrance, along Kobbe Avenue, as necessary. At Battery Caulfield Rd a traffic control person will be deployed at the entrance of the mixing area (1450 Battery Caulfield Rd) as necessary. The flag personnel will be trained and perform traffic control in accordance with MUTCD requirements for hand-signaling control[1]. The purpose of the flag person will be to direct project-related vehicles and equipment into and out of the site access points, which are located at the

[1] Available online at < http://www.osha.gov/doc/highway_workzones/mutcd/6e_handsignaling.html>

intersection of Lendrum Court and Lincoln Boulevard, along Kobbe Avenue west of the Greenough Avenue intersection, and at the entrance to 1450 Battery Caulfield Rd (Figures 5, 6, 7, and 8). The flag personnel will prevent traffic collisions and related issues between project vehicles, public vehicle traffic, and bicycle traffic, particularly during hauling activities. ERRG may also deploy crossing guards if it is deemed necessary.

During transport of backfill material from staging areas to the site, a flag person will also be staged at the entrance to Lendrum Court (Figure 5). The flag person will help direct haul trucks entering and exiting the area, in addition to helping direct public traffic and pedestrians along Lincoln Boulevard.

4.4. PEDESTRIAN AND PUBLIC TRAFFIC ACCESS

ERRG will install temporary fencing to prevent resident, pedestrian, and public traffic access to the site. ERRG will also minimize impacts of pedestrian and vehicular traffic by implementing the following controls:

- Immediately vacating any public streets, rights–of-way, or sidewalks when use is no longer necessary for construction work
- Minimizing traffic lane closures to 5 minutes or less
- Allowing all accumulated traffic to pass after each traffic lane closure through the affected area before another closure is permitted; temporary lane closures will be removed when they are no longer in use
- Providing flaggers and/or traffic crossing guards whenever pedestrian traffic is affected by construction activities
- Providing for movement of emergency vehicles during all site activities

	June 1, 2016
Signature	Date
John Sourial, PE, CQE	Senior Engineer
Name	Title

Section 5. Grading and Demolition Plan

This section describes the methods and sequencing for remedial excavation, rough grading, backfilling, and compaction activities. A pre-grading survey will be performed and provided to the Trust prior to any earthmoving activities.

5.1. REMEDIAL EXCAVATION, DEMOLITION, ROUGH GRADING AND CUT AND FILL

Remedial excavation, rough grading, demolition, and cut-and-fill actives will be conducted between June 2016 and September 2016. Excavation and rough grading work will begin in the east area of the site below buildings 1259, 1278, and 1279. Once that area is completed, rough grading work will progress to the areas surrounding buildings 1257 and 1258. Cut and fill will then be conducted in both areas.

Best Management Practices (BMPs) will be installed as needed. ERRG will use a hydroseed trailer to apply Posi-Cube dust suppressant to exposed soil surfaces that are not currently being worked on to minimize erosion and the generation of dust by wind. Any building windows within 20 feet of work areas will be sealed at the seams with tape. If the seams are not accessible due to the presence of a window screen, plastic will be taped to cover the entire window. Water will also be applied to work areas as needed to suppress dust, including along truck haul routes. These measures will reduce the impact of dust on tenants, and minimize the migration of dust off site.

Dust control and air monitoring will be conducted as outlined in the Dust Control Plan and Air Monitoring Plan provided in the HASP (ERRG, 2015). During all activities project personnel will wear the appropriate PPE, as outlined in the HASP (ERRG, 2015).

5.1.1. Remedial Excavation

Remedial excavation will consist of removing the top 0 to 6 inches of soil using a mini-excavator, bull-dozer, and skidsteer. These materials will be removed and staged either separately or with similar materials prior to transportation and disposal at an offsite landfill, which will be selected based on the soil disposal results. All excavated soil will be directly loaded into 5-cubic-yard trucks for transport to the soil staging area along Lincoln Boulevard. When feasible, haul trucks may also be loaded directly from the staging area on Lendrum Court for transport to the disposal facility. See Section 6 for details on Waste Management. .

5.1.2. Demolition

Demolition activities are to be conducted concurrently with the remedial excavation. Designated patios, asphalt walkways, concrete stairs, cubs, a concrete path near Building 1280, and other hardscape will all be removed (Figure 3) and disposed of. All concrete and asphalt will be recycled as is practical. The Recycling facility will be preapproved by the Trust. Concrete and asphalt materials will be staged along Lincoln Blvd with like materials. This material will be covered prior to removal to a Trust approved recycling facility.

5.1.3. Rough Grading and Cut and Fill

Rough grading activities will be performed using a mini-excavator, a tracked bobcat, and a tracked skidsteer. The depth of rough grading will not exceed 0.3 to 2.5 feet in most areas. Rough grading activities will be continuously monitored using a Trimble Total Station connected to the operated bull-dozer. This will ensure that design specifications are achieved. Rough grading will be periodically measured using a Trimble SCS900 or similar.

Cut-and-fill activities will begin as a part of the rough grading operation. Material removed from the large cut areas in front of Buildings 1259, 1278, and 1279 will be transported to the large fill areas behind Buildings 1257 and 1258. ERRG will begin cut-and-fill activities in front of Building 1279 and fill operations behind Building 1258.

Initially, grading will begin in front of Building 1279 and continue to the rear of that building (Figure 3). Cement patios, drains, and walkways around Buildings 1279 and 1258 will also be demolished and disposed of off site. Material cut from in front of and around Building 1279 will be placed as fill behind Building 1258. Approximately 40 yards of lead-contaminated soil will be removed within one area west of Building 1258.

Grading and cut-and-fill activities will continue from in front of and around Buildings 1278 and 1259. Material cut from these areas will be used as fill behind Building 1257 and between Buildings 1257 and 1258 (Figure 3).

Following grading and cut-and-fill activities, relocated existing soil will be compacted, as necessary, in accordance with specifications (TRC, 2016). The surfaces to receive import fill will be scarified to a minimum depth of 8 inches, or as directed by the Trust, and mechanically compacted to 90% relative compaction at optimum moisture content. The compaction moisture content will be within -2% to +3% of the optimum moisture content. Compaction will be performed using a bulldozer or a hydraulic compactor drum attachment on a skidsteer. Key trenches will be compacted using a walk-behind tamper. A minimum of one field density test per lift of backfill will be performed in accordance with ASTM International Method D2922 and recorded in a Soil Testing Nuclear Density/Moisture Gauge Field Test Report (Appendix A).

5.2. GOPHER WIRE MESH

Following grading activities, ERRG will install gopher wire mesh in all disturbed areas prior to placement of clean backfill. The gopher mesh will be installed using biostakes and will be overlapped in accordance with the manufacturer's instructions. Gopher mesh will also be attached to hardscape features per project specifications.

5.3. BACKFILL AND FINAL GRADING

ERRG will use a Trust-provided source of import fill material for use as backfill. The import material will be geotechnically suitable and compatible to allow for grading operations and acceptable compaction. Figure 4 shows the final grading and backfill plan for the site.

Backfill and grading operations will be performed using a tracked skidsteer, bull-dozer, mini-excavator, and a tracked bobcat. Backfill and compaction will bring import fill up to the design grade (TRC, 2016).

Fill will be placed on flat surfaces that are benched into existing native material. The vertical face that is cut into the existing native material resulting from the benching operation will be a minimum of 6 inches in height and a maximum of 12 inches in height. A key way will also be excavated into the slope at the toe of the fill, with dimensions of approximately 3 feet wide and 2 feet deep below the toe elevation.

5.4. COMPACTION

The backfilled material will be compacted, as necessary, in accordance with specifications (TRC, 2016) and summarized in Table 2. Compaction will be performed using a bulldozer or a hydraulic compactor drum attachment on a skidsteer. ERRG will place fill and backfill material in moisture-conditioned 8-inch loose lifts and achieve compaction requirements for different areas as shown in Table 2. A minimum of one field density test per lift of backfill will be performed in accordance with ASTM International Method D2922 and recorded in a Soil Testing Nuclear Density/Moisture Gauge Field Test Report (Appendix A). Because most excavation depths will not exceed 6 inches, only a single lift will be performed in most areas. On steep slopes, the slopes need to be overbuilt and cut back to achieve compaction on the slope edge. If possible, the bottom of the 2-feet-deep key trenches will be backfilled and compacted with impacted material suitable for reuse, to up to 1.5 feet below final grade. The gopher mesh will be installed at this intermediate grade, followed by the placement and compaction of clean material to achieve final grade.

Following compaction, previously removed patios at Buildings 1257, 1258, 1259, 1278, and 1279 will be replaced. Asphalt walkways will also be replaced following grading and final compaction (Figure 4). The restoration of all hardscape features, as listed in the project specifications, will be conducted by M&H.

Section 6. Waste Management and Recycling Plan

This WMRP discusses waste management activities and the procedures that will be followed for proper storage, characterization, and disposal of liquid and solid waste generated during field activities. The Project Technical Lead will act as the transportation and disposal coordinator.

6.1. SOLID WASTE

The following approximate disposal volumes are anticipated, pending additional analytical results:

- Approximately 1,200 tons of Class II waste soil
- Approximately 500 tons of Cal HAZ waste soil
- Approximately 145 cubic feet of concrete and asphalt debris to be recycled (if possible)
- Approximately 25 cubic yards of miscellaneous debris will be generated by decontamination, PPE, and general municipal waste

All green waste generated from clearing and grubbing operations and miscellaneous debris will be disposed of as separate waste streams at a facility approved by the Trust. Concrete and asphalt will be recycled at Inner City Recycling in Oakland, California, or Recology San Francisco in San Francisco, California.

6.2. STOCK PILE MANAGEMENT

Excavated soil will be removed from the active construction area and placed in stockpile areas located within the staging areas along Lincoln Boulevard, next to Building 951, and next to Building 1347 (Figures 5 and 7). Trucks will be loaded with excavated soil in the stockpile area. Each load of waste will be manifested based on the waste characterization results. See Section 3.1 for characterization methods. Soil will be stockpiled on site, excavated soil will be placed in a designated area lined with 20-mil plastic sheeting (e.g., chemically resistant geomembrane liner, free of holes and other damage) along Lincoln Boulevard. Wattle (greater than 6 inches in height) will be placed around the pile to act as a berm and prevent any soil or water from traveling outside the soil stockpile area. The plastic sheeting will be anchored to the ground to prevent it from being removed or damaged by wind. Following daily activities, the soil stockpile area will be covered with 10-mil plastic sheeting and anchor weighted. Segregation measures will be instituted between differing materials at the site (e.g., soil versus debris) to prohibit cross contamination of materials. As described in Section 2.2.1.2, heavy equipment entering and exiting the site will be inspected and decontaminated to ensure that no soil is tracked onto public roadways around the entrance and exit gates of the site. On days where the trucking operation is greater than 30 truck trips per day, a designated truck manager will oversee transport and disposal. Heavily soiled disposable PPE or

decontamination rags will be treated as contaminated waste and disposed of with contaminated soil. Waste storage areas will be set up in the EZ during the workday. All waste containers will be properly labeled and stored in accordance with applicable regulatory requirements.

6.3. WASTE TRANSPORTATION AND DISPOSAL

ERRG will arrange for the proper disposal of all anticipated waste in accordance with specification requirements. In no case will waste be allowed to accumulate for more than 90 days from the date that the accumulation started. All loads will be covered before leaving the site and will be free of loose debris. All waste will be disposed of in compliance with federal, state, and local requirements for solid waste disposal and will be transported by Eighteen Trucking, Inc.

Class II nonhazardous wastes will be trucked to a Trust-approved Class II facility. Appendix D includes the list of Trust-approved landfills. Table 3 provides EPA identification numbers, names, locations, and telephone numbers of treatment, storage, and disposal facilities and transporters for this project. ERRG will provide the following items and documents to the Trust prior to transportation of waste off site:

- List of proposed disposal and recycling facilities for waste materials
- Laboratory analytical results from the soil waste profile sampling
- Waste characterization and profile documentation

ERRG will also provide to the Trust a disposal log and all copies of manifests and bills of lading periodically during and following the completion of all waste transportation.

Section 7. Environmental Protection Plan

This Environmental Protection Plan (EPP) was prepared to supplement the SWPPP prepared for the site, and provided in Appendix C, for grading and construction activities at the site that may potentially impact surface water drainage. The SWPPP and this EPP describe the procedures and BMPs for controlling sediment erosion, non-stormwater discharges, and spills and for preventing surface water runoff to prevent pollution. Additionally, this EPP discusses how cultural resources will be protected during construction.

It is anticipated that construction activities will be conducted during relatively dry weather; however, an unseasonal storm may occur. To mitigate the potential impacts of site activities on stormwater runoff, the SWPPP (1) identifies and evaluates all pollution sources (including sediment) associated with construction activities that may affect the quality of surface water leaving the site; (2) identifies site-specific BMPs that will prevent construction pollutants from contacting stormwater and migrating off site; and (3) establishes ways to eliminate or reduce non-stormwater discharges to storm sewer systems and other waters. The following subsections describe how the project SWPPP will be implemented and maintained. The following subsections also further discuss potential pollutant sources, BMPs to be used, and inspection and reporting protocols for stormwater and erosion pollution prevention, spill prevention and control measures, and protection of site cultural resources.

7.1. STORMWATER POLLUTION PREVENTION PLAN

The SWPPP is provided in Appendix C, will be readily available on site for the duration of the project, and will be made available upon request to federal, state, or municipal inspectors. The SWPPP will be implemented concurrently with the start of ground-disturbing activities. An ERRG Qualified SWPPP Practitioner (QSP) will oversee implementation of the site BMPs and their inspection. Table 4 lists the project site personnel, including the Project Manager, Technical Lead, Site Superintendent, QSP, and Qualified SWPPP Developer (QSD), who will be responsible for SWPPP activities

The QSD will amend the SWPPP when:

- there is a reduction or increase in total disturbed acreage;
- BMPs do not meet the objectives of reducing or eliminating pollutants in stormwater discharges;
- there is a change in construction or operations that may affect the discharge of pollutants to surface waters, groundwater, or a separate municipal storm sewer system;
- there is a change in the project duration that changes the project's risk level; and
- as deemed necessary by the QSD or implementers.

The following items will be included in each amendment:

- who requested the amendment;
- the location of the proposed change;
- the reason for the change;
- the original BMP proposed, if any; and
- the new BMP proposed.

Amendments will be logged in Table 5 and added to the front of the site copy of the SWPPP. The SWPPP text will be revised, replaced, and/or hand annotated as necessary to properly convey the amendment. QSD and/or QSP acknowledgment of SWPPP amendments, if required, will be documented in Table 5.

7.1.1. Potential Pollutant Sources

The following activities may result in a pollutant source:

- Removal of clean and waste soil
- Soil stockpiling and truck hauling
- Final grading operations
- Equipment washing and decontamination activities
- Equipment fueling and maintenance

In addition, the following wastes generated by construction activities may become a source of pollution when in contact with stormwater runoff:

- Construction debris
- Municipal solid wastes generated by onsite workers
- Fuels, oils, fluids, lubricants, and grease used by various construction equipment
- Sanitary and septic waste generated by onsite workers

7.1.2. Erosion and Sediment Control

Erosion controls consist of source control measures that are designed to prevent soil particles from detaching and becoming transported in stormwater runoff. BMPs to control erosion protect the soil surface by covering or binding the soil particles. Sediment controls trap particles after they have been dislodged and moved by wind or water. BMPs to control sediment work by filtering or settling soil particles out of the water or wind that is transporting them.

The greatest potential source for offsite migration of contaminated soil and stormwater pollution are:

- Grading areas exposed to wind and water erosion
- Soil and debris stockpiles
- Trucks tracking soil off site

BMPs to reduce erosion and control sediment include covering soil stockpiles, installing a decontamination area with runoff controls, and following good housekeeping practices. BMPs may be added or modified throughout construction to account for changing field conditions.

The BMPs are discussed in detail below.

7.1.2.1. Preconstruction BMPs for Erosion and Sediment

Preconstruction erosion controls will be implemented during preparation of the site to reduce erosion and sediment and other pollutant discharges. A soil stockpile and equipment staging area will be established at the site (Figure 9). An equipment decontamination area will be established, and a stabilized construction entrance and exit will be installed.

Erosion control features (e.g., straw wattles and silt fence) will be installed along the perimeter of the site and proposed excavation areas, as appropriate (Figure 9). Storm drain inlets will be protected on the drop inlets within and adjacent to the site (drop inlets to be protected are shown on Figure 9). Inlet protection will consist of filter fabric set beneath the drop inlet (in streets) or straw wattle around the drop inlet (set in curbs or in unpaved areas) or similarly effective method.

7.1.2.2. BMPs for Water Erosion

A soil stockpile area will be established with controls to protect stockpiles from erosion. Stockpiles will be constructed with 20-mil plastic sheeting underneath the stockpile and covered with 10-mil plastic sheeting. The perimeter of each stockpile will be bermed with straw wattles placed under the plastic sheeting. Stockpiles will be covered daily with plastic sheeting that will be anchored to the ground with sandbags. If a washout occurs, washed out soil will be placed back on the stockpile and the cover will be adjusted as appropriate. Exposed soil areas will have straw wattles that may be used to help slow the velocity of surface water moving across the site, thus preventing potential soil erosion. If a lengthy, significant rain event is expected, straw wattle will be placed across the slope in unpaved areas.

7.1.2.3. BMPs for Wind Erosion

BMPs to control dust and wind erosion will be implemented throughout the duration of the project. Water will be sprayed to suppress dust during all grading, backfill, and compaction activities and during placement and movement of stockpiles. Water will be sprayed on the active face of stockpiles, as necessary, to

minimize blowing dust. Over-watering, which could result in excessive runoff, will be avoided. Stockpiles will be covered at the end of each workday and anchored to the ground by sandbags.

Posi-Cube dust suppressant will be sprayed to exposed soil surfaces not actively being worked.

Soil transport and disposal activities will be monitored for visible dust, and activities will be ceased if dust cannot be controlled. Haul trucks transporting soil off site will be covered prior to leaving the site. Asphalt-covered roadways within 100 feet of the entrance and exit points will be swept daily during active operations at the site to minimize the potential for dust generation.

7.1.2.4. BMPs for Sediment Trackout

The primary access to the site is via Lincoln Boulevard and Armistead Drive. Trucks and equipment will be decontaminated in the CRZ prior to leaving the site and will exit by driving over the stabilized construction entrance/exit to reduce sediment trackout (Figure 9). During active operations, trucks leaving the site will be inspected for soil adhered onto their tires to prevent tracking of soil onto public roads. If soil is present, the tires will be dry-brushed prior to the vehicle leaving the site. Any soil that is tracked into the street will be swept, collected, and returned to the site. Additionally, asphalt-covered roadways within 100 feet of the gates will be swept at the end of each workday.

7.1.2.5. Post-Construction BMPs for Erosion and Sediment

After final grading of the site has been completed, post-construction BMPs will be implemented to stabilize the soil until vegetation is established. Figure 10 shows the details of the final site BMPs. Erosion control blankets will be installed across the final excavated slope, and straw wattles will be installed every 15 vertical feet. Straw will be spread beneath erosion control blankets prior to installation. Additionally, Posi-Cube spray will be applied to all exposed areas following backfill activities but prior to irrigation system installation.

7.1.3. Non-Stormwater Controls and Waste Management

Controls will be implemented to reduce the potential for pollution associated with equipment operation, material use and storage, and waste management. The following subsections describe the BMPs applicable for non-stormwater discharges and waste and materials management.

7.1.3.1. BMPs for Equipment and Vehicle Use

Heavy equipment will be fueled only in designated fueling areas in staging areas, away from surface waters and storm drains (Figure 9). Light-duty vehicles will not be fueled at the site. Only staff trained in proper fueling and cleanup procedures will fuel equipment, and fueling operations will be monitored closely to reduce the potential for a spill. Spill kits containing absorbent spill containment materials will be readily available during all fueling operations.

Onsite heavy equipment will be inspected daily for leaking oil and fluids. Any obvious leaks from transport trucks will be immediately reported to the driver. If leaking oil or fluids are observed, they will immediately be contained with absorbent pads. Spills will be addressed by implementing the BMPs discussed in Section 7.1.5.

Light-duty vehicles will be stored in a designated parking area away from the work areas. Light-duty vehicles and construction equipment will be maintained and regularly inspected for leaks. Minor repairs will be conducted at the site. Major repairs will require that the vehicle be taken out of service and repaired off site.

7.1.3.2. BMPs for Construction Materials

Construction materials will be delivered and stored at the site within the equipment and stockpile staging area, as appropriate. Materials will be replenished on an as-needed basis to minimize the amount of materials stored on the site. Good housekeeping practices will be followed to prevent contact with stormwater, wind dispersion of loose materials, or accidental discharge to the storm drain system.

7.1.3.3. BMPs for Hazardous Materials

The use of any hazardous materials, except fuels, oil, and grease that will be closely managed, is not anticipated at the site. Fuels will be stored in secured tanks on support vehicles or in secondarily contained drums or tanks only in designated areas, located at least 50 feet away from surface waters and storm drains. Hazardous materials spill kits will be maintained on the site at all times.

7.1.3.4. Waste Materials Management

Solid and liquid wastes will be managed as described in the WMRP (Section 6). Waste materials will be managed in accordance with applicable federal, state, and local regulations.

7.1.4. Maintenance, Inspection, Repair, and Reporting

Throughout the duration of construction activities, daily inspections will be conducted to ensure that erosion controls are in place and working effectively. ERRG will conduct routine inspections and maintenance procedures to ensure that:

- Erosion and excessive displacement of the soil stockpiles has not occurred
- Surface water is not ponding on the site
- Site access is secure
- Site entrance and exit routes are clean and free of soil

Detailed inspections will be conducted prior to storm events, as soon as possible following significant storm events, and every 24 hours during extended storm events. Precipitation equal to or in excess of 0.5 inch is

considered a significant storm event. An extended storm event is any precipitation lasting longer than 24 hours. Following an extended storm event, the site will be inspected to ensure that the integrity of soil covers and wattle berms is maintained, gates are locked, sediment is not running off the site, and all BMPs are functioning properly.

BMPs will be used to ensure that soil remains in the work areas in case of washouts. If washouts occur, the soil will be replaced and the area will be covered appropriately. In cases where anchored plastic sheeting is present, sheeting with visible rips longer than 6 inches and wider than 0.25 inch will be replaced.

The following daily field logs and other logs (Appendix A) will be prepared to document implementation of the BMPs:

- BMP Inspection Report
- Daily Field Tracking Log
- Daily Field Log
- Water Management Log
- Materials Management Record
- Soil Disposal Tracking
- Sample Tracking (for soil characterization sampling)
- Dust Monitoring Log

The field logs will summarize the BMPs implemented, the results of the site inspections, and any response actions undertaken to manage the site.

7.1.5. Spill Prevention and Control

Controls will be implemented to reduce the potential for spills and handle spills appropriately. The following subsections describe the BMPs applicable for spill prevention and control and response procedures for potential sanitary sewer spills.

7.1.5.1. Spill Response Materials

Hazardous materials spill kits will be kept on the site at all times. The spill kits will be equipped with spill response materials consisting of containers, adsorbent pads or booms, shovels, and the appropriate PPE. Spill response materials will be of the appropriate type to handle spills of contaminated soil, fuels and oils, wastewater, and other potential contaminants at the site.

7.1.5.2. BMPs for Spill Response

The following BMPs will be implemented for spill prevention and control:

- Site personnel, including subcontractors, will be trained in proper spill response procedures.
- If it is safe to do so, personnel will stop the source of a spill immediately.
- Spills of hazardous materials that cannot be cleaned up or result in a release will be immediately reported to the Trust and to ERRG's Project Manager, who will immediately report the release to the appropriate authorities as required by local, state, and federal law.

7.2. PROTECTION OF CULTURAL RESOURCES

ERRG will implement procedures to ensure the protection of cultural resource deposits that may be present in the work area. The excavation is located within the area of known historic World War I-era trenches. The Trust's Cultural Monitors may observe grading activities to identify potential cultural resources. The Cultural Monitors will have the authority to temporarily stop earthwork activities in areas where cultural resources are found. ERRG will ensure that all employees and subcontractors are trained in the protocol for stopping work if cultural resources are discovered.

ERRG will coordinate all soil-disturbing activities with the Cultural Monitors. If potential human remains or cultural resources are discovered, earthwork in the vicinity of the discovery will be halted until a Cultural Monitor has investigated the find and the Trust has removed the remains, as appropriate. If human remains or cultural resources are discovered, ERRG will shift work activities to another area until the Cultural Monitor has determined that earthwork can begin.

Section 8. References

Erler & Kalinowski, Inc. (EKI), 2015. "Lendrum Court Remedial Investigation Summary Report and Screening Risk Evaluation, Presidio of San Francisco, California." March.

Engineering/Remediation Resources Group, Inc. (ERRG), 2015. "Site-Specific Health and Safety Plan, Lendrum Court, The Presidio Trust of San Francisco, San Francisco, California." July.

Presidio Trust and National Park Service, 2001. "Vegetation Management Plan and Environmental Assessment for the Presidio of San Francisco." May.

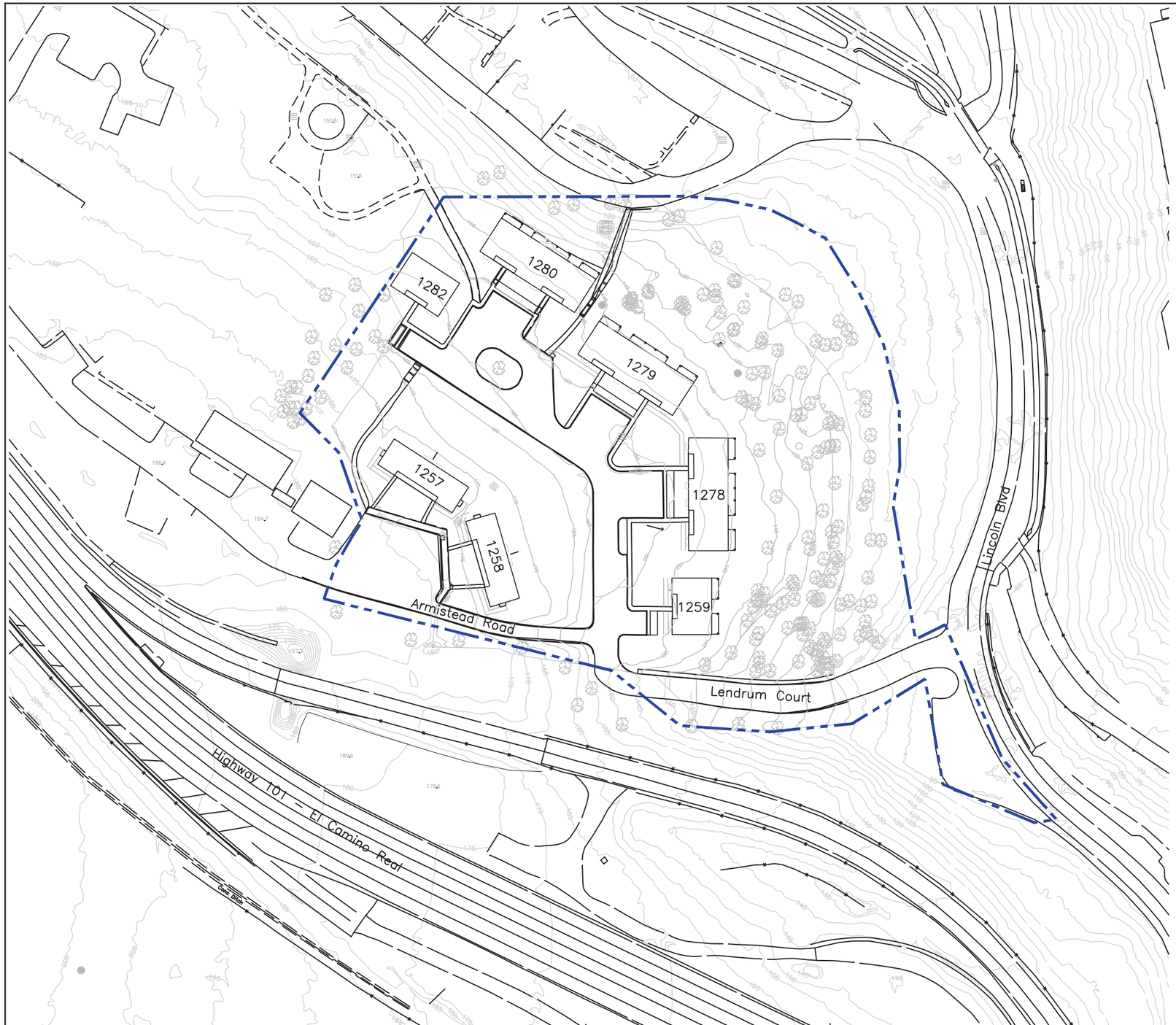
TRC Companies, Inc. (TRC), 2016. "Revised Remedial Design Implementation Plan Lendrum Court, Presidio of San Francisco, California." May 2016.

TRC, 2015. "Draft Removal Action Work Plan, Lendrum Court, Presidio of San Francisco, California." May 29.

Presidio Trust (Trust), 2015. "Technical Provisions Presidio Trust Remediation." June 2015.

U.S. Department of Transportation, 2009. "Manual on Uniform Traffic Control Devices for Streets and Highways." 2009 Edition, Including Revision 1 dated May 2012 and Revision 2 dated May 2012. Federal Highway Association. Available Online at: <http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/mutcd2009r1r2edition.pdf>.

Figures



VICINITY MAP
NOT TO SCALE

LEGEND:

SITE BOUNDARY

NOTES:

1. SITE FEATURES AND TOPOGRAPHY PROVIDED BY PRESIDIO TRUST AS PERFORMED BY PLS SURVEYS, INC. UNDER SUBCONTRACT TO EKI, INC. ON OCTOBER 2014.
2. ALL COORDINATES ARE REPORTED IN U.S. SURVEY FEET.
3. HORIZONTAL COORDINATES ARE REFERENCED TO THE NAD83, CALIFORNIA COORDINATE SYSTEM ZONE 3, (2007.0).
4. ELEVATIONS ARE BASED ON NAVD88. PROJECT BENCHMARK IS NGS MONUMENT N813, ELEVATION = 11.09 FEET.

N

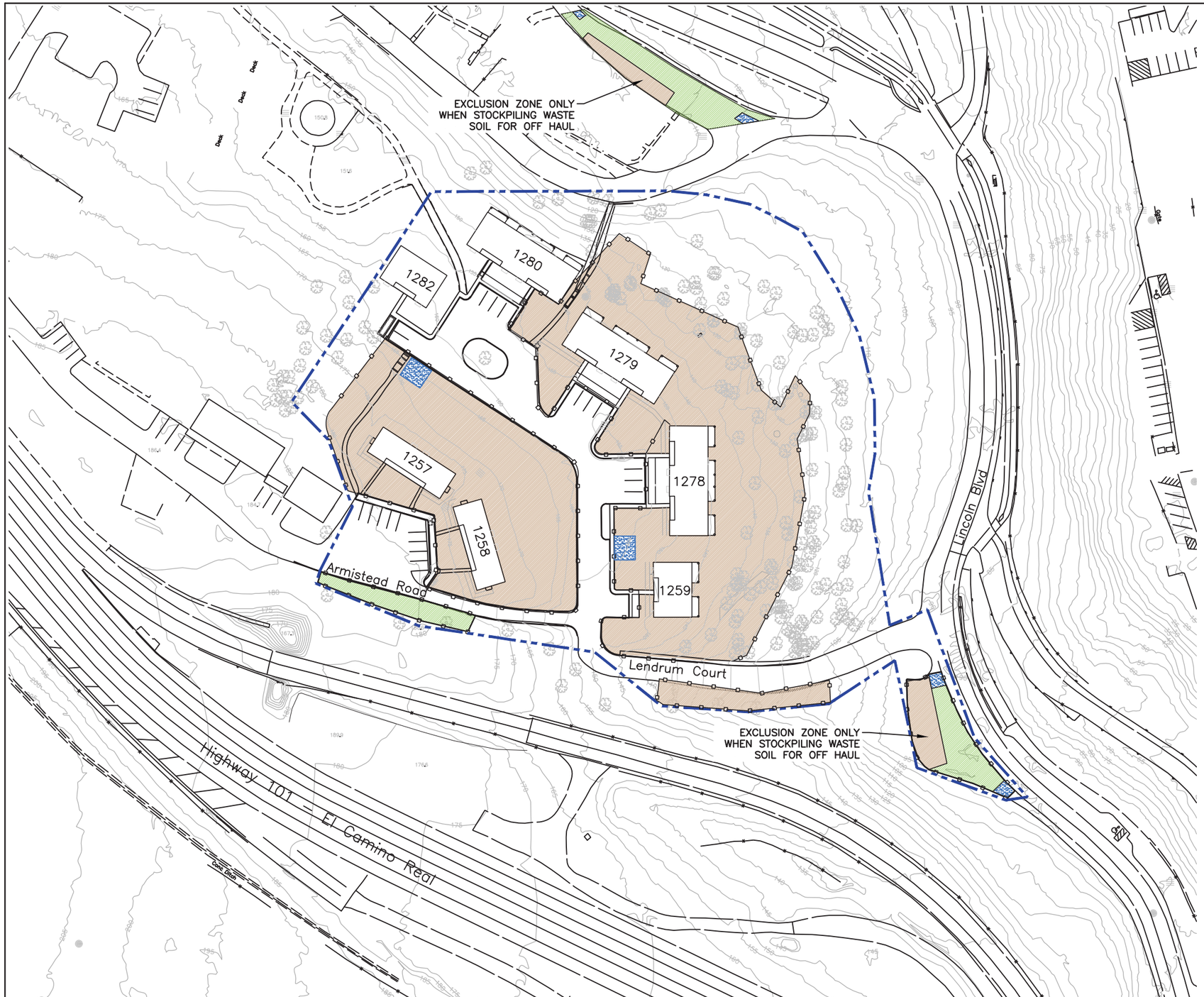
0' 80'

SCALE: 1"= 80'

SOURCE: DESIGN DRAWINGS PROVIDED BY TRC INC., JULY 2015.

FILE NAME: N:\Graphics\2015\2015-063\plans\Fig1.dwg LAYOUT NAME: 1 PLOTTED: Monday, June 27, 2016 - 1:14pm

ERRG Engineering/Remediation Resources Group, Inc. 115 Sansome St., Suite 200 San Francisco, California 94104 (415) 395-9974	CLIENT: PRESIDIO TRUST	SITE LOCATION AND VICINITY MAP			
	LOCATION: LENDRUM CT. AND LINCOLN BLVD. SAN FRANCISCO, CA 94129	DRAWN BY: SC 06/28/16	CHECKED BY: TA 06/28/16	PROJECT NO. 2015-063	FIG NO. 1



LEGEND:

- SITE BOUNDARY
- EXCLUSION ZONE
- CONTAMINANT REDUCTION ZONE
- SUPPORT ZONE
- TEMPORARY FENCE
- x EXISTING FENCE
- 20 PRE-CONSTRUCTION CONTOUR LINE

NOTE:

1. TEMPORARY TYPE CL-6 FENCE TO BE PLACED AROUND ACTIVE CONSTRUCTION AREA.

N

0' 80'

SCALE: 1"= 80'

SOURCE: DESIGN DRAWINGS PROVIDED BY TRC INC., JULY 2015.

FILE NAME: N:\Graphics\2015\2015-063\plans\Fig2.dwg LAYOUT NAME: 2 PLOTTED: Tuesday, July 05, 2016 - 11:50am

ERRG Engineering/Remediation Resources Group, Inc.
115 Sansome St., Suite 200
San Francisco, California 94104
(415) 395-9974

CLIENT: PRESIDIO TRUST	SITE MAP			
LOCATION: LENDRUM CT. AND LINCOLN BLVD. SAN FRANCISCO, CA 94129	DRAWN BY: SC 06/28/16	CHECKED BY: TA 06/28/16	PROJECT NO. 2015-063	FIG NO. 2

CONTRACTOR TO REMOVE LOOSE ORGANIC MATERIAL PRIOR TO CONSTRUCTING CAP (TYP)

APPROXIMATE AREA TO BE CONSOLIDATED AND CLEAN CLOSED, AS DIRECTED BY ENGINEER (TYP)

CONCRETE PATIO (E) PROTECT IN PLACE

RESIDENTIAL STRUCTURE (E) PROTECT IN PLACE

APPROXIMATE AREA TO BE CONSOLIDATED AND CLEAN CLOSED, AS DIRECTED BY ENGINEER

ESTIMATED AREA WHERE SERPENTINITE BEDROCK IS LESS THAN 6 INCHES BELOW EXISTING GROUND SURFACE. ACTUAL AREA TO BE VERIFIED IN THE FIELD AND CAP DESIGN TO BE ADJUSTED TO CONFORM TO BEDROCK OUTCROP

UPSTAIRS BALCONY SUPPORT COLUMN (E) PROTECT IN PLACE (TYP.)

DECOMPOSED GRANITE PATHWAY TO BE REMOVED (TYP)

CONCRETE PATHWAY/SIDEWALK/CURB (E) PROTECT IN PLACE (TYP)

1280 1282 1279 1257 1258 1278 1259

Armistead Road

Lendrum Court

LEGEND:

- PAVEMENT TO BE DEMOLISHED AND REMOVED FROM THE SITE
- SITE BOUNDARY
- TREE PROTECTION ZONE
- EXISTING TREE
- TREE OR STUMP TO BE REMOVED
- 160 REMEDIAL GRADE TOPOGRAPHIC CONTOUR LINE
- 160 EXISTING TOPOGRAPHIC CONTOUR LINE
- x FENCE LINE

NOTE:

1. REMOVE THE TOP 4 TO 6 INCHES (OR AS DIRECTED BY THE ENGINEER) OF SOIL UNSUITABLE FOR REUSE AND DG PATHWAY MATERIAL IN ALL GRADING AREAS AND STOCKPILE FOR DISPOSAL, EXCEPT WITHIN TREE PROTECTION ZONES.

N

0' 50'

SCALE: 1"= 50'

SOURCE: DESIGN DRAWINGS PROVIDED BY TRC INC., JULY 2015.

ERRG Engineering/Remediation Resources Group, Inc.
115 Sansome St., Suite 200
San Francisco, California 94104
(415) 395-9974

CLIENT:	PRESIDIO TRUST	GRADING AND DEMOLITION PLAN			
LOCATION:	LENDRUM CT. AND LINCOLN BLVD. SAN FRANCISCO, CA 94129	DRAWN BY: SC 06/28/16	CHECKED BY: TA 06/28/16	PROJECT NO. 2015-063	FIG NO. 3

FILE NAME: N:\Graphics\2015\2015-063\plans\Fig3.dwg LAYOUT NAME: 3 PLOTTED: Monday, July 25, 2016 - 2:14pm

SEE RHAA CONSTRUCTION AND PLANTING DRAWINGS FOR AREAS OUTSIDE OF CONSTRUCTED CAP

CONCRETE DRAINAGE CHANNEL (N)

CONCRETE SIDEWALK (N)

STORAGE STRUCTURE PROTECT IN PLACE (TYP.)

FEATHER FINAL GRADE TO MATCH EXISTING (TYP.)

CONCRETE STEPS (N)

DECOMPOSED GRANITE PATH (N)

RAISED PLANTER BOXES (N) CONSTRUCTED BY OTHERS

APPROXIMATE LOCATION OF ASPHALT TRAIL (N)

CONCRETE PATIO (N)

SEE RHAA CONSTRUCTION AND PLANTING DRAWINGS FOR AREAS OUTSIDE OF CONSTRUCTED CAP

DECOMPOSED GRANITE BOX STEPS

CONCRETE CURB (N)

CONCRETE WALKWAY (E) PROTECT IN PLACE (TYP.)

RESIDENTIAL STRUCTURE (E) PROTECT IN PLACE (TYP.)

CONSTRUCT (N) AGGREGATE BASE CAP (TYP.)

BACKFILL TO MATCH EXISTING GRADE

FEATHER FINAL GRADE TO MATCH EXISTING (TYP.)

ESTIMATED AREA WHERE SERPENTINITE BEDROCK IS LESS THAN 6 INCHES BELOW EXISTING GROUND SURFACE; ACTUAL AREA TO BE VERIFIED IN THE FIELD AND CAP DESIGN TO BE ADJUSTED TO CONFORM TO BEDROCK OUTCROP

1280 1282 1279 1278 1257 1258 1259

Armistead Road

Lendrum Court

LEGEND:

- EDGE OF CAP
- SITE BOUNDARY
- TREE PROTECTION ZONE
- EXISTING TREE
- 140 FINAL GRADE TOPOGRAPHIC CONTOUR LINE
- NEW CONCRETE PATIO/SIDEWALK/STAIRS
- NEW DECOMPOSED GRANITE PATH
- NEW ASPHALT PATH
- 160 EXISTING TOPOGRAPHIC CONTOUR LINE

NOTES:

1. THE UPPERMOST 18 INCHES WILL BE COMPACTED TO 85–90% RELATIVE COMPACTION IN ALL AREAS TO BE PLANTED. ALL OTHER AREAS AND FILLS DEEPER THAN 18 INCHES WILL BE COMPACTED TO A MINIMUM OF 90%.
2. ALL GRADING AND COMPACTION WILL BE PERFORMED IN ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS, AND RECOMMENDATIONS IN THE GEOTECHNICAL EVALUATION.
3. COMPACTION WITHIN 3 FEET OF EXISTING BUILDINGS WILL BE PERFORMED USING SMALL EQUIPMENT SUCH AS A JUMPING JACK OR VIBRO PLATE TO PROTECT THE STRUCTURE AND FOUNDATIONS.
4. AT PROPOSED NEW TREE LOCATIONS CONTRACTOR WILL OVER–EXCAVATE IN A 2 FT. X 2 FT. X 3 FT. DEEP AREA AND BACKFILL WITH CLEAN SOIL, NO GOPHER WIRE WILL BE PLACED WITHIN THESE CLEARED AREAS.

N

0' 50'

SCALE: 1"= 50'

SOURCE: DESIGN DRAWINGS PROVIDED BY TRC INC., JULY 2015.

ERRG Engineering/Remediation Resources Group, Inc.
115 Sansome St., Suite 200
San Francisco, California 94104
(415) 395-9974

CLIENT:	PRESIDIO TRUST	BACKFILL AND FINAL GRADING PLAN			
LOCATION:	LENDRUM CT. AND LINCOLN BLVD. SAN FRANCISCO, CA 94129	DRAWN BY: SC 06/28/16	CHECKED BY: TA 06/28/16	PROJECT NO. 2015–063	FIG NO. 4

FILE NAME: N:\Graphics\2015\2015-063\plans\Fig4.dwg LAYOUT NAME: 4 PLOTTED: Tuesday, July 05, 2016 - 12:49pm

EXCLUSION ZONE ONLY WHEN STOCKPILING WASTE SOIL FOR OFF HAUL

TRUCK ENTERING ROADWAY

FLAGGER AHEAD

200'

155'

Lincoln Blvd

CAUTION

1280

1282

1279

1257

1278

1258

1259

CONTRACTOR TO MAINTAIN (E) CURB PARKING ACCESS FOR RESIDENTS

FLAGGER AHEAD

OPTIONAL FLAGGER HERE

ENTRY/ EXIT GATE

STORAGE AREA

Armistead Road

WORK ZONE AHEAD

Lendrum Court

PLACE GEOTEXTILE FABRIC AND GRAVEL PRIOR TO USE AS STORAGE AREA

NO EQUIPMENT TO BE STORED WITHIN 20 FEET OF (E) TREES

EXCLUSION ZONE ONLY WHEN STOCKPILING WASTE SOIL FOR OFF HAUL

CAUTION

155'

200'

FLAGGER AHEAD

TRUCK ENTERING ROADWAY

N

0' 100'

SCALE: 1"= 100'

SOURCE: DESIGN DRAWINGS PROVIDED BY TRC INC., JULY 2015.

LEGEND:

- SITE BOUNDARY
- EXCLUSION ZONE
- CONTAMINANT REDUCTION ZONE
- STAGING AREA
- DRAIN ROCK
- RUMBLE STRIPS
- FLAGGER
- TRUCK ROUTE FOR SOIL STAGING
- TRUCK ROUTE FOR SOIL STAGING
- TEMPORARY FENCE
- SIGN
- 20 PRE-CONSTRUCTION TOPOGRAPHIC CONTOUR LINE

NOTES:

1. INSTALL TEMPORARY CONSTRUCTION AREA PERIMETER PANEL FENCING ALONG THE PERIMETER OF THE ACTIVE WORK ZONES AT THE SITE.
2. TRAFFIC CONTROLS WILL BE IMPLEMENTED AS NEEDED PER CONSTRUCTION ACTIVITY PHASING.
3. TRAFFIC CONTROL SIGNS WILL BE INSTALLED PER SPECIFICATIONS PRIOR TO START OF CONSTRUCTION.

ERRG Engineering/Remediation Resources Group, Inc.
115 Sansome St., Suite 200
San Francisco, California 94104
(415) 395-9974

CLIENT:	PRESIDIO TRUST	SOIL STAGING HAUL ROUTES			
LOCATION:	LENDRUM CT. AND LINCOLN BLVD. SAN FRANCISCO, CA 94129	DRAWN BY: SC 06/28/16	CHECKED BY: TA 06/28/16	PROJECT NO. 2015-063	FIG NO. 5

FILE NAME: N:\Graphics\2015\2015-063\plans\Fig5.dwg LAYOUT NAME: 5 PLOTTED: Thursday, June 30, 2016 - 12:03pm

1278

1259

WORK ZONE AHEAD

CAUTION

Lincoln Blvd

Lendrum Court

CAUTION

LEGEND:

- SITE BOUNDARY
- EXCLUSION ZONE
- CONTAMINANT REDUCTION ZONE
- STAGING AREA
- RUMBLE STRIPS
- TRUCK LOADING AREA
- FLAGGER
- MATERIAL OFF HAUL AND IMPORT TRUCK ROUTE 1
- MATERIAL OFF HAUL AND IMPORT TRUCK ROUTE 2
- SIGN
- TEMPORARY FENCE
- 20 PRE-CONSTRUCTION TOPOGRAPHIC CONTOUR LINE

NOTES:

1. INSTALL TEMPORARY CONSTRUCTION AREA PERIMETER PANEL FENCING ALONG THE PERIMETER OF THE ACTIVE WORK ZONES AT THE SITE.
2. TRAFFIC CONTROLS WILL BE IMPLEMENTED AS NEEDED PER CONSTRUCTION ACTIVITY PHASING.
3. TRAFFIC CONTROL SIGNS WILL BE INSTALLED PER SPECIFICATIONS PRIOR TO START OF CONSTRUCTION.

N

0' 40'

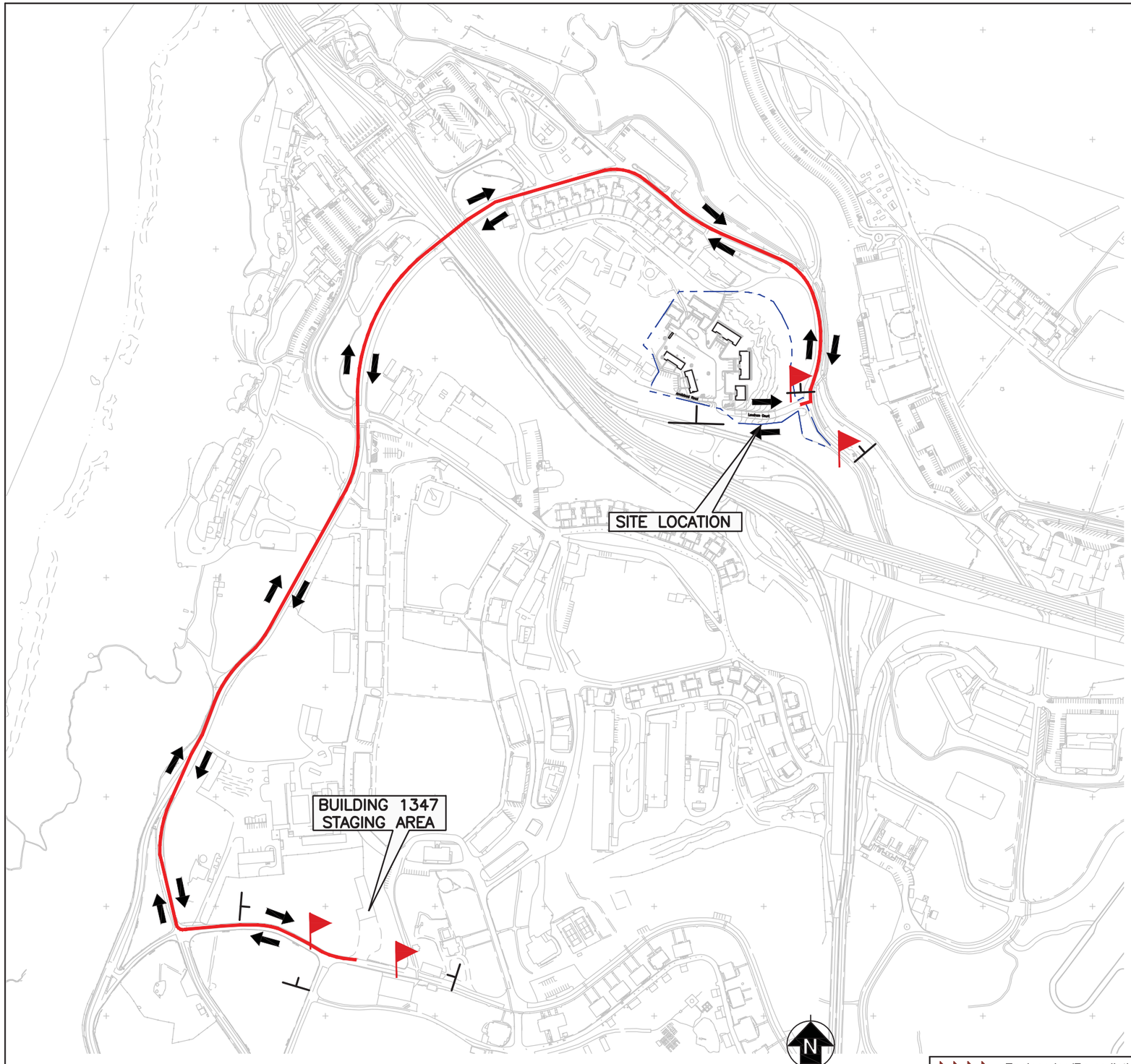
SCALE: 1"= 40'

SOURCE: DESIGN DRAWINGS PROVIDED BY TRC INC., JULY 2015.

ERRG Engineering/Remediation Resources Group, Inc.
115 Sansome St., Suite 200
San Francisco, California 94104
(415) 395-9974

CLIENT: PRESIDIO TRUST	OFF HAUL TRUCK ROUTES			
LOCATION: LENDRUM CT. AND LINCOLN BLVD. SAN FRANCISCO, CA 94129	DRAWN BY: SC 06/28/16	CHECKED BY: TA 06/28/16	PROJECT NO. 2015-063	FIG NO. 6

FILE NAME: N:\Graphics\2015\2015-063\plans\Fig6.dwg LAYOUT NAME: 6 PLOTTED: Thursday, June 30, 2016 - 1:24pm



LEGEND:

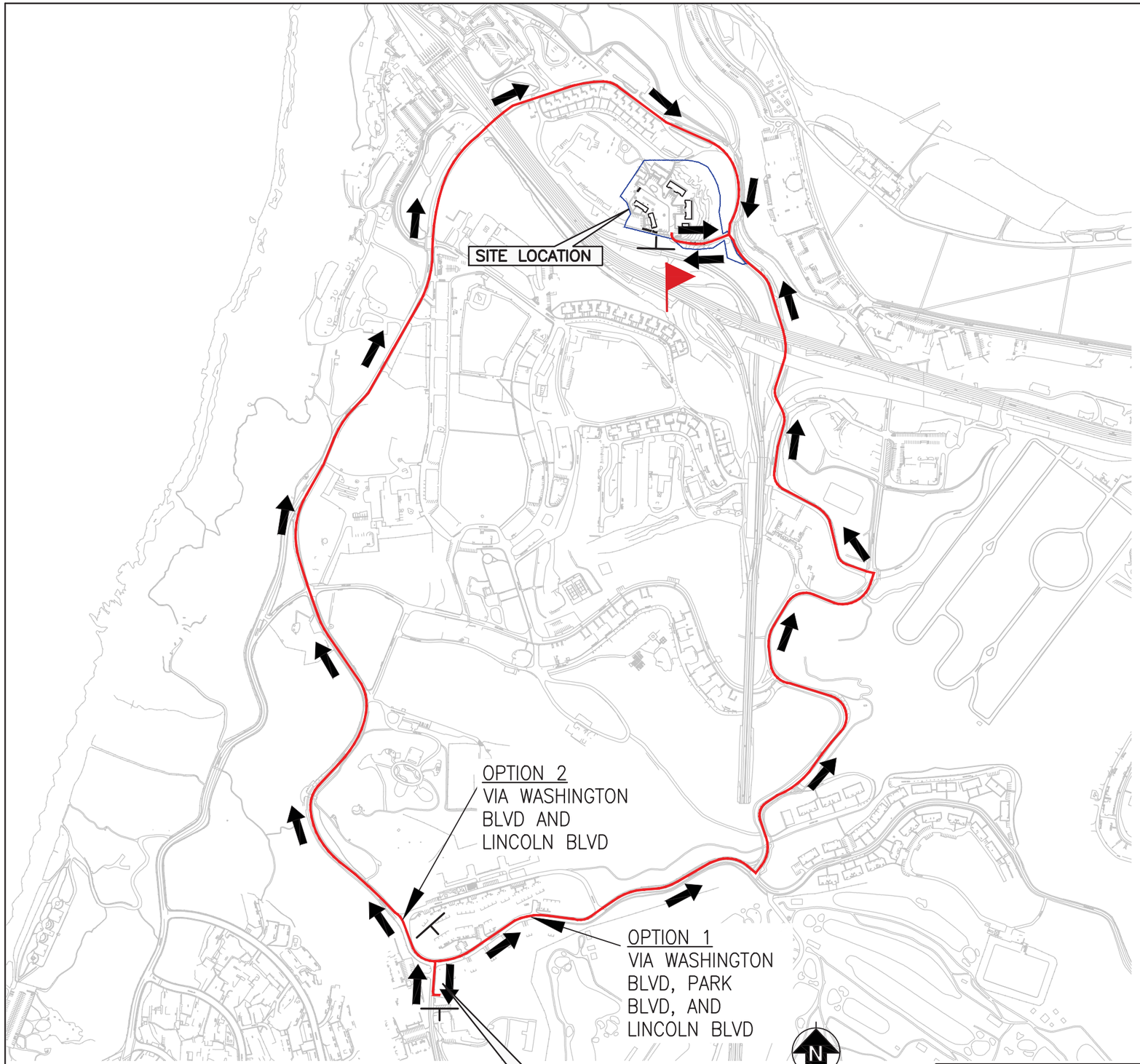
- SITE BOUNDARY
- TRAFFIC ROUTE
- TRUCK ENTERING ROADWAY SIGN
- FLAGGER

SOURCE: DESIGN DRAWINGS PROVIDED BY TRC INC., JULY 2015.

ERRG Engineering/Remediation Resources Group, Inc.
115 Sansome St., Suite 200
San Francisco, California 94104
(415) 395-9974

CLIENT:	PRESIDIO TRUST	BUILDING 1347 HAUL ROUTE			
LOCATION:	LENDRUM CT. AND LINCOLN BLVD. SAN FRANCISCO, CA 94129	DRAWN BY: SC 06/28/16	CHECKED BY: TA 06/28/16	PROJECT NO. 2015-063	FIG NO. 7

FILE NAME: N:\Graphics\2015\2015-063\plans\Fig7.dwg LAYOUT NAME: 7 PLOTTED: Thursday, June 30, 2016 - 12:17pm



LEGEND:

- SITE BOUNDARY
- TRAFFIC ROUTE
- TRUCK ENTERING ROADWAY SIGN
- FLAGGER

SOURCE: DESIGN DRAWINGS PROVIDED BY TRC INC., JULY 2015.

ERRG Engineering/Remediation Resources Group, Inc.
115 Sansome St., Suite 200
San Francisco, California 94104
(415) 395-9974

CLIENT: PRESIDIO TRUST		NIKE HAUL ROUTE			
LOCATION: LENDRUM CT. AND LINCOLN BLVD. SAN FRANCISCO, CA 94129	DRAWN BY: SC 06/28/16	CHECKED BY: TA 06/28/16	PROJECT NO. 2015-063	FIG NO. 8	

FILE NAME: N:\Graphics\2015\2015-063\plans\Fig8.dwg LAYOUT NAME: 8 PLOTTED: Tuesday, June 28, 2016 - 10:29am

LEGEND:

- SITE BOUNDARY
- SILT FENCE
- TREE PROTECTION ZONE
- APPROXIMATE LIMITS OF LENDRUM COURT DISTURBED SOIL DUE TO REMEDIAL ACTIVITY
- CONTAMINANT REDUCTION ZONE
- STAGING AREA
- FIBER ROLL (STRAW WATTLE)
- STORM DRAIN INLET PROTECTION
- GRAVEL SPREAD BELOW ROOF GUTTER DOWNSPOUTS
- EXISTING TREE

NOTE:

1. TEMPORARY TYPE CL-6 FENCE WILL BE INSTALLED AROUND SITE. LOCKABLE GATES FOR INGRESS AND EGRESS WILL BE PROVIDED. FINAL FENCE ALIGNMENT AND QUANTITY MAY CHANGE.
2. ADEQUATE EQUIPMENT STORAGE, REFUELING, TRAILER, AND SANITARY FACILITY LOCATIONS ONSITE WILL BE LOCATED IN STAGING AREA.
3. SUITABLE CONTROLS FOR STAGING AND STOCKPILE AREA (STRAW WATTLE, PLASTIC GROUND COVER, AND TARP) WILL BE INSTALLED.
4. GRAVEL WILL BE PLACED ON THE GROUND UNDERNEATH BUILDING STORM DRAINS TO LIMIT EROSION FROM CONCENTRATED FALLING WATER GENERATED BY STORM DRAINS. LOCATIONS ARE APPROXIMATE.

N

0' 50'

SCALE: 1"= 50'

SOURCE: DESIGN DRAWINGS PROVIDED BY TRC INC., JULY 2015.

FILE NAME: N:\Graphics\2015\2015-063\plans\Fig9.dwg LAYOUT NAME: 9 PLOTTED: Thursday, July 07, 2016 - 11:31am

ERRG Engineering/Remediation Resources Group, Inc.
115 Sansome St., Suite 200
San Francisco, California 94104
(415) 395-9974

CLIENT: PRESIDIO TRUST	INTERIM EROSION AND SEDIMENT CONTROL PLAN			
LOCATION: LENDRUM CT. AND LINCOLN BLVD. SAN FRANCISCO, CA 94129	DRAWN BY: SC 06/28/16	CHECKED BY: TA 06/28/16	PROJECT NO. 2015-063	FIG NO. 9

LEGEND:

- SITE BOUNDARY
- TREE PROTECTION ZONE
- ECTC TYPE 4 EROSION CONTROL BLANKET ANCHORING PATTERN A
- ECTC TYPE 4 EROSION CONTROL BLANKET ANCHORING PATTERN B
- FIBER ROLL (STRAW WATTLE)
- EXISTING TREE

NOTES:

1. EROSION CONTROL IMPROVEMENTS WILL BE CONSTRUCTED IMMEDIATELY FOLLOWING COMPLETION OF GRADING AND WILL REMAIN AS IMPROVEMENTS.
2. INSTALL STRAW MULCH BELOW EROSION CONTROL BLANKETS AND NETTING ACROSS THE ENTIRE REMOVAL AREA PRIOR TO INSTALLATION.
3. EROSION CONTROL BLANKET PATTERNS PER SPECIFICATIONS.

SOURCE: DESIGN DRAWINGS PROVIDED BY TRC INC., JULY 2015.

ERRG Engineering/Remediation Resources Group, Inc.
115 Sansome St., Suite 200
San Francisco, California 94104
(415) 395-9974

CLIENT:	PRESIDIO TRUST	POST–CONSTRUCTION EROSION AND SEDIMENT CONTROL PLAN			
LOCATION:	LENDRUM CT. AND LINCOLN BLVD. SAN FRANCISCO, CA 94129	DRAWN BY: SC 06/28/16	CHECKED BY: TA 06/28/16	PROJECT NO. 2015–063	FIG NO. 10

FILE NAME: N:\Graphics\2015\2015-063\plans\Fig10.dwg LAYOUT NAME: 10 PLOTTED: Monday, July 11, 2016 - 3:13pm

Tables

Table 1. ERRG Preconstruction Submittals

Preconstruction Required Submittal	Document	Section
1. Construction Schedule	Standalone document (submitted separately)	N/A
2. Site Safety and Health Plan	Standalone document (submitted separately)	N/A
a. Dust and Odor Control Plan	HASP (submitted separately)	Section 5
3. Environmental Protection Plan/SWPPP	CMP	Section 7
4. Traffic Control Plan	CMP	Section 4
5. Solids Materials Management Plan	CMP	Section 6
6. Pre-Construction Survey Drawing	Standalone drawing (submitted separately)	N/A
7. Waste Management and Recycling Plan	CMP	Section 6
a. List of TSD Facilities and Transporter	CMP	Table 3
8. Grading Plan/Grading Plan	CMP	Section 5
9. Resumes of Independent Surveying Firm	Standalone document (submitted separately)	N/A
10. Notification Letter to Business/Residences	Standalone document (submitted separately)	N/A

Notes:
CMP = Construction Management Plan
ERRG = Engineering/Remediation Resources Group, Inc.
HASP = Health and Safety Plan
N/A = not applicable
SWPPP = Stormwater Pollution Prevention Plan
TSD = treatment, storage, and disposal
WMP = Waste Management and Recycling Plan

Table 2. Backfill Requirements

Area	Loose Lift Placement	Soil Type	Compaction Criteria
Parking lots and maintenance roads	8-inch	Approved fill material	Below 1 foot of finished grade 90% Within 1 foot of finished grade 95%
Non-planting areas	8-inch	Approved fill material	90% in accordance with ASTM D1557
Planting areas	8-inch	Approved fill material	85-90% in accordance with ASTM D1557
Deeper than 16 inches	8-inch	Approved fill material	90% minimum, 1 test for each 8-inch loose lift, 5,000 square feet (ASTM D155 and ASTM D6938)

Notes: From Section 3.2.2.1 of the Removal Action Work Plan (TRC Companies, Inc., 2016)
ASTM = ASTM International

Table 3. TSD Facilities and Transporters

Facility or Transporter	EPA ID Number	Location	Telephone Number
Clean Harbors Buttonwillow	CAD980675276	2500 West Lokern Road, McKittrick, CA	(661) 762-6200
Potrero Hills Landfill	CAR000089466	3675 Potrero Hills Lane, Suisun City, CA	(707) 429-9600
Eighteen Trucking, Inc.	CAR000184788	96 Pier, San Francisco, CA	(415) 552-1818

Notes:

EPA = U.S. Environmental Protection Agency

TSD = treatment, storage, and disposal

Table 4. ERRG Project Staff and Responsibilities

Name	Role and Responsibility	Contact Number
Tyson Appel	Project Manager	(925) 250-4056
Joe Corrick	Technical Lead	(415) 933-0264
James Nores	Site Superintendent	(510) 461-3422
Brad Lunasco	Back-up Site Superintendent	(415) 729-6007
John Sourial, P.E., QSD	Qualified SWPPP Developer	(415) 559-8232
Patrick Bratton, QSP	Qualified SWPPP Practitioner	(415) 505-8872

Notes:
SWPPP = Stormwater Pollution Prevention Plan

Table 5. ERRG SWPPP Approval and Amendment Signatures

SWPPP Version[1]	Name	Role and Responsibility	Signature	Date
Initial	John Sourial, P.E.	Qualified SWPPP Developer, Certificate No. 20388		
	Spencer Johnson	Qualified SWPPP Practitioner, Certificate No. 25062		
Amendment 1				
Amendment 2				
Amendment 3				

Notes:

1 = If more than three amendments are made to the SWPPP, this table will be amended for additional Qualified SWPPP developer and Practitioner signatures

SWPPP = Stormwater Pollution Prevention Plan

Appendix A. Field Forms

DAILY FIELD ACTIVITY LOG

Prepared by: _____ Client: _____
Day: _____ Date: _____
Project Name: _____ Project No.: _____
Weather: _____ Page: _____ of _____
Site Visitors: _____

Description of Field Activities:

Signed: _____ Date: _____

ERRG

DAILY FIELD TRACKING LOG

Prepared by: _____ Client: _____

Day: _____ Date: _____

Project Name: _____ Project No.: _____

Description of Work: _____

ERRG

LABOR

Name	Occupation	Labor Code	start	stop	Straight Time Hours	Straight Time Rate	Straight Time Amount	Overtime Hours	Overtime Rate	Overtime Amount	Total Amount
										Subtotal	

EQUIPMENT

Equipment No.	Description	Rental Rate Unit	Rental Rate Rate	Rental Rate Amount				Total Amount
							Subtotal	

SUPPLIES AND MATERIALS

Supplier	Description	Quantity	Unit Rate	Amount				Total Amount
							Subtotal	

SUBCONTRACTORS

Name	Description	Quantity Unit	Quantity Rate	Quantity Amount	Straight Time Hours	Straight Time Rate	Straight Time Amount	Overtime Hours	Overtime Rate	Overtime Amount	Total Amount

Name of Preparer : Pritnt Name : Title : Date :

Accepted By: Print Name : Title : Date :

ERRG

WEEKLY HEAVY EQUIPMENT INSPECTION CHECKLIST

Equipment Type: _____ Identification Number: _____

Project Number / Name: _____ Rental ☐ ERRG ☐

Name of Inspector / Date:														
Daily Hours:														
	OK	defect	N/A	OK	defect	N/A	OK	defect	N/A	OK	defect	N/A	OK	defect	N/A	Defect(s):
Tires and rims damage, sliced	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Tracks	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Steps and handgrips	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Guards on moving part	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Engine belts and hoses	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Fluid levels acceptable	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Loading/lifting capacity marked	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Seat belt operative	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Fire extinguisher present	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Windows and mirrors unbroken	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Gauges operative	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Battery charged	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Windshield wipers operative	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Horn operative	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Back up alarm operative	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Lights and signals operative	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Steering and other controls	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Brakes	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Check and Record Fuel Level, Cap Condition	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Inspect Hydraulic Lines for visible wear	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Fitting Greased	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	

Explain any equipment defect or damage and corrective actions taken. _____

_____

_____

HAZARDOUS MATERIALS MANAGEMENT RECORD SHEET

Prepared by: _____ Client: _____
Project Name: _____ Project No.: _____
Site Location: _____ Page: _____ of _____

Description of Waste	Quantity of Waste	Date Material Brought On-Site	Date Waste Generated	Date of Disposal	Disposal Method	Receiving Facility/ Transporter

WASTE DISPOSAL RECORD

Prepared by: _____ Client: _____
Project Name: _____ Project No.: _____
Site Location: _____ Page: _____ of _____

Ship Date	Daily Shipment #	Truck ID	Description	Manifest# or Shipping Paper#	Receiving Facility	Weight Ticket#	Weight (Tons)
total	0					Total	

ERRG

Engineering / Remediation Resources Group, Inc.

Phone:
Fax: :

Lab No. _____
Address _____

Page ____ of ____

Project Contact (Hardcopy or PDF To):		**California EDF Report?** **Navy EDD Report?**	**Chain-of-Custody Record and Analysis Request**
Laboratory:		**Electronic Deliverables To (Email Address):**	**Analysis Request**
Phone No.:	**Fax No.:**	**Sampler :**	
Project Number:	**Phase # / Task #**		
Project Name:		**Project Address:**	

| **Project Manager:** | **Sampling** | | **Container** | | | | | **Matrix** | | | | |

PHOTOGRAPH LOG

Photographer:_____

Picture Number	Date	Time	Direction Facing	Description

Appendix B. Encroachment Permit and Staging Diagram

THE PRESIDIO TRUST

ENCROACHMENT, ROAD/LANE CLOSURE or STAGING REQUEST

REQUEST BY (PRESIDIO TRUST REPRESENTATIVE): Nina Larssen DATE: 6-15-16

PROJECT NUMBER – WORK ORDER NUMBER #: LENDRUM COURT-S, LENDRUM.CONS.01
(Required for Presidio Trust projects only)

SECTION I: APPLICANT INFORMATION

APPLICANT NAME: Christine Wang

COMPANY: ERRG

ADDRESS: 4585 Pacheco Blvd.

CITY: Martinez STATE: CA ZIP: 94553

PHONE NUMBER: 9252860529 CELLULAR: 925-250-4056

PHONE NUMBER: 9252860529 E-MAIL: christine.wang@errg.com

CONTRACTOR LICENSE #: 743750 STATE: California

LIABILITY INSURANCE POLICY #: GLO91335720 CARRIER: Zurich American Ins.

WORKERS COMPENSATION POLICY #: WC9133894 CARRIER: Zurich American Ins. EXPIR: 7/1/2017

SECTION II: REQUEST DETAILS

DESCRIPTION: Request for contractor parking and storage of conex box in bay between 1205 and 1206 from 6/20/16 to 11/1/16. Additional parking along curb behind buildings

LOCATION: See attached map

TRAFFIC CONTROL PLAN ATTACHED: ☐ Yes ☒ No SITE MAP ATTACHED: ☒ Yes ☐ No

SECTION III: PRESIDIO TRUST ADDITIONAL CONDITIONS - SEE PAGE 2 FOR STANDARD CONDITIONS

DESCRIPTION:

APPROVED BY Greg Sychoff DATE: June 17, 2016 REQUEST #: 0193

Ralston Ave
View Parking
Additional personnel vehicle parking where allowed, as needed
Staging area for conex box and personnel vehicles
Additional personnel vehicle parking where allowed, as needed
1205 Ralston Ave
Presidio Graduate Sc

Appendix C. Stormwater Pollution Prevention Plan

Storm Water Pollution Prevention Plan

for Site Remediation at

PROJECT SITE

Lendrum Court, San Francisco, California

July 2016

Presidio Trust Contract No. PT-2015-051
ERRG Project No. 2015-0363

Prepared for:

San Francisco Water Power Sewer
Services of the San Francisco Public Utilities Commission

OWNER
San Francisco Public Utilities Commission
525 Golden Gate Avenue, 9th Floor
San Francisco, California 94102

Prepared by:

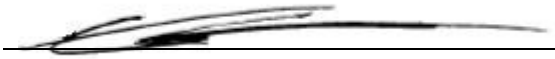
ERRG

REMEDIATION CONTRACTOR
Engineering/Remediation Resources Group, Inc.
115 Sansome Street, Suite 200
San Francisco, CA 94104
(415) 395-9974

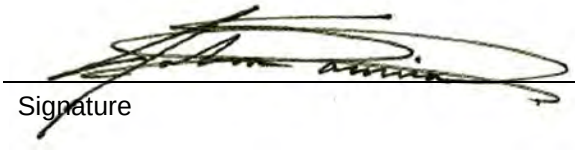
ESTIMATED SWPPP PROJECT DATES
Start of Work: June 2016
Completion of Work: November 2016

RISK LEVEL 1
Storm Water Pollution Prevention Plan
for Site Remediation at
520 John Muir Drive, San Francisco, California

Prepared by:
Engineering/Remediation Resources Group, Inc.



Signature	June 10, 2016
	Date
Tyson Appel	Program Manager
Name	Title



Signature	June 10, 2016
	Date
John Sourial, PE, CQE, QSD	Qualified SWPPP Developer
Name	Title

Qualified SWPPP Developer Certification

Approval and Certification of the Storm Water Pollution Prevention Plan

Project Name: Site Remediation at 520 John Muir Drive, San Francisco, California

Project Number/ID: SFPUC WD-2750

"This Storm Water Pollution Prevention Plan and Attachments were prepared under my direction to meet the requirements of the California Construction general Permit (SWRCB Order No. 2009-009-DWQ, as amended by Orders 2010-0014-DWQ and 2012-0006-DWQ). I certify that I am a Qualified SWPPP Developer in good standing as of the date signed below."

	June 10, 2016
QSD Signature	Date
John Sourial, P.E.	20388
QSD Name	QSD Certificate Number
P.E. and Contractor's QSD	(415) 559-8232
Title and Affiliation	Telephone Number
john.sourial@errg.com	(415) 848-7103
Email Address	Alternate Telephone Number

Legally Responsible Person

Approval and Certification of the Storm Water Pollution Prevention Plan:

Project Name: Site Remediation at Lendrum Court, San Francisco, California

"I certify under penalty of law that this document and all Attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Legally Responsible Person, Company, and Title

Signature of Legally Responsible Person or Approved Signatory

Date

Signature of Legally Responsible Person or Approved Signatory

Telephone Number

Authorization of Approved Signatories

Name of Personnel	Project Role	Company	Signature	Date

LRP's Signature

Date

Amendment Log

Project Name: Site Remediation at Lendrum Court, San Francisco, California

Presidio Trust Project Number/ID: PT-2015-051

Amendment No.[1]	Date	Brief Description of Amendment (include section and page number)	Prepared and Approved By	QSD Certificate Number

[1] LRP or Approved Signatory Certification of each amendment recorded in this table will be signed and kept in Appendix C, SWPPP Amendments.

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Acronyms and Abbreviations

amsl	above mean seal level
BAT	Best Available Technology
BCT	Best Conventional Pollution Control Technology
BMP	best management practice
CASQA	California Stormwater Quality Association
CFR	Code of Federal Regulations
cfs	cubic feet per second
COC	Chain-of-custody
CSMP	Construction Site Monitoring Program
EPA	United States Environmental Protection Agency
in/hr	inches per hour
LCS	Laboratory Control Spike
LCSD	Laboratory Control Spike Duplicate
LRP	Legally Responsible Person
MB	Method Blank
mL	milliliter
MS/MSD	Matrix Spike/Matrix Spike Duplicate
MSL	mean sea level
NAL	Numeric Action Level
NOAA	National Ocean and Atmospheric Administration
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
PRDs	Permit Registration Documents
PRGC	Pacific Rod and Gun Club
QA/QC	Quality Assurance/Quality Control
QSD	Qualified SWPPP Developer
QSP	Qualified SWPPP Practitioner

Acronyms and Abbreviations *(continued)*

RPD	Relative Percent Difference
RUSLE	Revised Universal Soil Loss Equation
RWQCB	Regional Water Quality Control Board
SFPUC	San Francisco Public Utilities Commission
SMARTS	Stormwater Multi-Application and Report Tracking System
SWAMP	Surface Water Ambient Monitoring Program
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
WDID	Waste Discharger Identification Number

Section 1. SWPPP Requirements

1.1. INTRODUCTION

This Construction Storm Water Pollution Prevention Plan (SWPPP) has been prepared at the direction of the Presidio Trust (Trust). This SWPPP is for the planned remediation project at the Lendrum Court Site (Site), Nike mixing area, and Building 1347 staging area located at the Presidio in San Francisco, California (Presidio), as presented in Figures B-1, B-2, and B-3. The SWPPP is in compliance with the National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) for Storm Water Discharges Associated with Construction Activity, Order No. 2009-0009-DWQ, NPDES No. CAS000002 as amended by 2010-0014-DWQ and 2012-006-DWQ. This CGP, enforced by the State Water Resources Control Board (SWRCB), regulates pollutants in discharges of storm water associated with construction activity to surface waters. A copy of the CGP is located in Appendix C-1.

Uncontrolled runoff from construction sites is a water quality concern because of the adverse effects that sedimentation, and the pollutants that attach to it, can have on local water bodies. Numerous studies have shown that the amount of sediment transported by storm water runoff from construction sites with no controls is significantly greater than from sites with controls. In addition to sediment, construction activities can yield pollutants such as pesticides, petroleum products, construction chemicals, solvents, asphalts, and acids that can contaminate storm water runoff. During storms, construction sites can be the source of sediment-laden runoff, which has been shown to result in the loss of habitat for fish and other aquatic species, such as those that exist in the San Francisco Bay.

This SWPPP is designed to be a working document and will be modified as appropriate and as necessary during the life of the project to address changes in construction or operations that affect the discharge of pollutants from the Site. Therefore, the objectives of this SWPPP, along with its Appendices covering project-specific storm water pollution prevention practices, are as follows:

- Identify all pollutants, pollutant sources, including sources of sediment that can affect the quality of storm water discharges associated with construction activity (storm water discharges) from the construction Site and ensure they are controlled;
- Where not otherwise required to be under a Regional Water Quality Control Board (RWQCB) permit, identify and either eliminate, control, or treat all non-storm water discharges;
- Select Site Best Management Practices (BMPs). BMPs are effective and result in the reduction or elimination of pollutants in storm water discharges and authorized non-stormwater discharges from construction activity to the Best Available Technology/Best Control Technology standard;

- Develop a maintenance schedule for sediment and erosion control BMPs installed during construction, designed to reduce or eliminate pollutants after construction is completed (postconstruction BMPs);
- Present calculations and design details as well as BMP controls for Site run-on;
- Identify stabilization BMPs installed to reduce or eliminate pollutants after construction is completed;
- Identify and provide methods to implement BMP inspection, visual monitoring and Construction Site Monitoring Program (CSMP) requirements to comply with the CGP; and
- Identify a sampling and analysis strategy, and sampling schedule for discharges that have been discovered through visual observations to be potentially contaminated by pollutants not visually detectable in the runoff.

Although NPDES permit coverage is not required for this project due to authorization under Comprehensive Environmental Response Compensation and Liability Act (CERCLA), the SWPPP was prepared to substantially comply with California's General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (General Permit) Order No. 2009-0009- DWQ (NPDES No. CAS000002) as amended by Orders 2010-0014-DWQ and 2012-006-DWQ issued by the SWRCB. The Contractor will perform construction in accordance with the SWPPP and Erosion Control Plan; however, as a federal agency implementing a remedial action under CERCLA, the Trust will not submit a Notice of Intent (NOI) for coverage under the State of California's General Permit for construction storm water management.

In addition to, and as part of this SWPPP, contractors will comply with applicable regulations in effect or placed into effect during the term of the contract between all contractors and the Trust, being either the laws of a municipal government within a state, state law, federal statutes, as any and all of them apply. As such, all contractors working at the Site will be held to the requirements and stipulations of this SWPPP. The level of sediment and receiving water risks are calculated [as described in the Construction General Permit (CGP)] to determine the overall Risk Level for a project. The overall Risk Level determines the frequency of inspections, reporting and sampling. This SWPPP is prepared in accordance with the Risk Level 1 requirements of the CGP.

1.2. PERMIT REGISTRATION DOCUMENTS

A NOI will not be submitted prior to the start of construction activity due to authorization under CERCLA.

1.3. SWPPP AVAILABILITY AND IMPLEMENTATION

The SWPPP shall be available at the construction Site during working hours. Upon request of the Water Board or agency inspectors, the SWPPP will be made available for review.

The SWPPP is to remain on-site during construction activities. Should there be a stop in construction activity between major phases of the project, the SWPPP and all applicable storm water documents will remain at the Legally Responsible Person's (LRP's) office, located a short distance from the Site at 67 Martinez St., San Francisco CA 94129.

The SWPPP shall be implemented concurrently with the start of ground disturbing activities.

1.4. AMENDMENTS

The SWPPP will be amended by the Qualified SWPPP Developer (QSD) when the following conditions are encountered:

- BMPs do not meet the objectives of reducing or eliminating pollutants in storm water discharges;
- There is a change in construction or operations, which may affect the discharge of pollutants to surface water, groundwater, or a municipal separate storm sewer system;
- Upon request by the California Regional Water Quality Control Board, San Francisco Bay Region (Regional Water Board) to amend this SWPPP; or
- As deemed necessary by the QSD.

All amendments to the SWPPP must be documented. When amended or revised, the SWPPP will include a listing of the date of initial preparation, the date of each amendment and be signed by a QSD. All amendments will be dated and remain in the SWPPP. Blank amendment forms and the Amendment Log are located in Appendix C-3.

The following items will be included in all amendments:

- Who requested the amendment;
- The location of the proposed change;
- The reason for change;
- The original BMP, if any; and
- The new proposed or revised BMP.

1.5. RETENTION OF RECORDS

All SWPPP related documents will remain with the SWPPP. This includes annual reports, inspection reports, sampling records and all correspondence on this project regarding the SWPPP. The Trust will maintain a paper or electronic copy of all required records for three years from the date of project acceptance. These records will be available at the Site until construction is completed.

The Trust or their designee will manage all storm water documentation related to this project as described under the SWPPP until such a time that the owner notifies the SWRCB of a change in this process. The permittee shall furnish the RWQCB, SWRCB, or U.S. Environmental Protection Agency (EPA), within a reasonable time, any requested information to determine compliance with the CGP. The RWQCB may require records to be retained for longer periods.

In addition, the SWPPP will remain on Site while the Site is under construction during working hours, commencing with the initial construction activity and ending with termination of coverage under the CGP. All storm water correspondence related to this project will be kept in the applicable Appendices of this SWPPP.

1.6. NON-COMPLIANCE REPORTING

Reportable discharges or other violations of the CGP will be properly documented. Reportable discharges and violations include the following:

- Violations identified by the RWQCB during inspections; and
- Discharges which contain a hazardous substance in excess of reportable quantities established in 40 CFR §§ 117.3 and 302.4.

Paper copies of any Non-Compliance Reporting will be included as Appendix C-4 of the SWPPP as applicable.

If a non-authorized discharge or other violation occurs, the site superintendent will immediately notify the QSD and the Trust. The Regional Water Board will be notified within seven days and a written violation report will be prepared and submitted to the Regional Water Board within 30 days of identifying the noncompliance issue. Once observed, corrective measures will be implemented immediately following the observed discharge or non-compliance. Corrective actions will be documented and retained in Appendix C-4.

The non-compliance report to the Regional Water Board will contain the following items:

- The date, time, location, nature of operation and type of unauthorized discharge.
- The cause or nature of the non-compliance.
- The control measures or BMPs deployed before the discharge event, or prior to receiving notice of the non-compliance.
- The date of deployment and type of control measures (BMPs) deployed after the discharge event, or after receiving the notice or order, including additional measures installed or planned to reduce or prevent re-occurrence.

1.7. SUMMARY REPORT

To ensure Site personnel are aware of the required data collection and reporting elements, a summary report will be prepared no later than September 1st each year. The summary reports will be certified in accordance with the Special Provisions in the CGP. The summary report will include the following information:

1. A summary and evaluation of all sampling and analysis results, including original laboratory reports;
2. The analytical method(s), method reporting unit(s), and Method Detection Limits (MDLs) of each analytical parameter (analytical results that are less than the MDL must be reported as "less than the MDL" or "<MDL");
3. A summary of all corrective actions taken during the project;
4. Identification of any compliance activities or corrective actions that were not implemented;
5. A summary of all violations of the CGP;
6. The individual(s) who performed facility inspections, sampling, visual observation (inspections), and/or measurements;
7. The date, place, time of facility inspections, sampling, visual observation (inspections),and/or measurements, including precipitation; and
8. The visual observations and sample collection exception records and reports.

1.8. CHANGES TO PROJECT COVERAGE

The CGP allows a permittee to reduce or increase the total acreage covered under the WDID# when a portion of the project is complete and/or conditions for termination of coverage have been met; when ownership of a portion of the project is sold to a different entity; or when new acreage is added to the project.

Any changes to the permit acreage will be documented by the permittee and include modifications to PRDs (i.e., Site maps, SWPPP revisions as appropriate, and certifications) in accordance with requirements of the CGP within 30 days of a reduction or increase in total disturbed area. Updates to PRDs will be included as Appendix C-4 of this SWPPP.

1.9. FINAL STABILIZATION

When all conditions on-site meet those described in Section II.D.1 of the Construction CGP, the owner will consider elements identified in this SWPPP complete.

Site "final stabilization" is defined as the state at which the Site will not pose any additional sediment discharge risk than it did prior to the commencement of Construction activity. These conditions include:

- No potential for construction related storm water related pollutants to be discharged into Site runoff;
- Final stabilization has been achieved;
- Construction materials and wastes have been properly removed;
- Compliance with Post-Construction Standards in Section XIII of the CGP has been demonstrated;
- Post-construction storm water management measures have been installed, and a long term maintenance plan has been established; and
- All construction related equipment, materials, and any temporary BMPs no longer required are removed from the Site.

Stabilization will be demonstrated through the following methods:

- Photographs showing 70% final cover method (no computational proof required); or Custom method (discharger demonstrates that Site complies with final stabilization)

Section 2. Project Information

This SWPPP is provided as an appendix to the Remedial Design Implementation Plan (RDIP), which describes processes and procedures to be implemented by the Presidio Trust (Trust) to remediate the area.

2.1. PROJECT AND SITE DESCRIPTION

2.1.1. Site Description

The Lendrum Court remediation area is located in the northwest corner of the Presidio, north of Doyle Drive, in the North Fort Scott Area (Figure B-1). The Site currently consists of parking lots, residential buildings, and open space that is vegetated with native and non-native plants. The Nike mixing area is a non-contiguous area located along Battery Caulfield Road in the northwest of the Presidio, just south of Washington Boulevard (Figure B-2). The site is currently a mostly-paved soil staging and storage area for the Presidio. The Nike area will be used as a soil staging and mixing area for clean soil to be used as backfill at Lendrum Court. The Building 1347 staging area is a non-contiguous area located at the intersection of Greenough Avenue and Kobbe Avenue, in the southern portion of the North Fort Scott Area (Figure B-3). The site is currently a paved parking area adjacent to Building 1347. The Building 1347 staging area will be used as a stockpile area for contaminated soil prior to transport and disposal and for clean soil transported from the Nike area prior to placement at Lendrum Court.

Lendrum Court contains army-era debris and incinerator ash are present in subsurface soils in the area of Buildings 1257, 1258, 1259, 1278, 1279, 1280, and 1282, which surround Lendrum Court (EKI, 2015; TRC, 2015b). Polycyclic aromatic hydrocarbons (PAHs), metals, and dioxin/furans, related to former incinerator debris and ash, are the constituents of concern (COCs) considered to drive remediation at the Site (TRC, 2015b). Cleanup levels for COCs at the Site were developed in the Cleanup Level Document (EKI, 2002; with updates through 2013), Recreational Soil Cleanup Level for Lead (TRC, 2015a), Human Health Soil Preliminary Remediation Goals and Toxic Equivalency Values for Dioxins and Furans (MACTEC, 2007), and the RAW (TRC, 2015b).

2.1.2. Remedial Construction Activities

Remedial construction activities in the Phase 1 area of the Site include excavation and disposal of organic topsoil, re-grading and compaction of contaminated soils, and capping in place. Construction activities, including excavating, stockpiling, grading, loading and transporting contaminated debris and clean imported soils, have the potential to affect the quality of storm water discharges. After remedial construction is completed at the Site, soil on disturbed and backfilled areas will be stabilized and new soil slopes will be revegetated consistent with the Vegetation Management Plan (VMP, 2001).

2.1.3. Existing Drainage

The majority of the Lendrum Court site generally slopes to the northeast (with a moderate to steep drop in elevation) in a series of terraces, likely graded as building pads for the residential units and parking lot area. Lendrum Court and parking lots are sloped to the northeast towards storm drain inlets, which connect to a storm drain that discharges into the San Francisco Bay. Rainfall on the sloped area adjacent to buildings 1259, 1278 and 1279 currently flows northeast down the slope of the Historic Forest and towards Lincoln Boulevard, where active storm drains are present (Figures B-4 and B-5).

Storm drain inlets are located within the staging area (located near the junction of Lendrum court and Lincoln Boulevard). The storage area located off Armistead Road slopes gently to the northeast, where accumulated rainfall drains either to the storm drain located in the parking lot in front of Buildings 1257 and 1258 or down Armistead Road, into the concrete drainage swale on the north side of Lendrum Court, and, ultimately, to a drainage inlet on the west side of Lincoln Boulevard. Discharges that enter the storm drain system ultimately flow into the San Francisco Bay.

The Nike mixing area generally slopes from the north to the south with open fields to the east and south. The majority of the site is paved with two drain inlets just to the north of the work area. Rainfall on the Nike area currently flows south towards the open field (Figure B-6).

The Building 1347 staging area generally slopes from the northwest to the southeast. There are no drain inlets in the vicinity of this staging area (Figure B-7).

2.1.4. Geology and Groundwater

According to the Geologic Map of the San Francisco Bay Region, (United States Geological Society [USGS], 2006), Lendrum Court is underlain primarily by alluvial fill material, i.e., Quaternary hillslope deposits, and by serpentinite rock. Quaternary slope debris is also shown as the surficial deposit at the Site on Figure 6-1 of the Development of Presidio-Wide Cleanup Levels for Soil, Sediment, Groundwater and Surface Water ("Cleanup Level Document"; EKI, 2002). Based on a cut and fill map prepared by the Trust representing elevation changes from 1871 to 2000, cuts were made in native material at the Lendrum Court area to accommodate construction of roadways and building pads.

At Lendrum Court, four general layers have been identified in the shallow subsurface. These layers are listed below in stratigraphic order from the ground surface; however, not all layers are present in all locations.

Overburden:

- Found at depths between 0.5 and 2.5 feet below ground surface (bgs).
- Consists of yellow-brown silty sand, most likely of the Colma formation.

- Generally does not contain debris, although glass has been found in surface soil, often in the spoils pile by gopher holes (EKI, 2015).

Debris layer:

- Generally first encountered at depths of approximately 0.5 to 2.5 feet bgs below the overburden layer.
- Occasionally visible at the surface.
- Varies in thickness from 3 inches to 5 feet.
- Consists of a brown silty sand.
- Contains abundant glass fragments, melted glass, bottles, ceramics, and terra cotta, as well as lesser quantities of brick, charcoal, wire, metal, small animal bones, and burned wood (EKI, 2015).

Bottom layer:

- Consists of a yellow-brown to brown silty sand with no debris.
- Most likely represents Quaternary hillslope deposits as identified on the USGS map (USGS, 2006).
- Could be in-place hillslope deposits or re-worked material.

Bedrock:

- Consists of a weathered serpentinite with an outcrop southeast of Building 1258 adjacent to Armistead Road.

Groundwater and surface water have not been encountered during investigation activities at the Site. No excavation will be conducted at the Nike area.

2.1.5. Annual Precipitation

Over 80 percent of San Francisco's seasonal rain falls between November and March, occurring over about 10 days per month. The occurrence of rainfall during the early spring and fall is infrequent. While most storms during these periods produce light precipitation, the occasional coupling of polar and subtropical air masses can produce heavy rainfall events.

Rainfall from May through September is relatively rare, with an aggregate of less than an inch, or only about five percent of the yearly average total of approximately 21.5 inches. Off-season rains, which do occur, are usually the result of weak early or late season occluded fronts, or surges of subtropical moisture from the south that result in brief showers or thundershowers spreading into the area. Considerable moisture is due to drizzle when the marine layer deepens sufficiently. This is seldom enough to measure (i.e., less than .01 inch) on any given day, except along the immediate coast.

2.1.6. Developed Condition and Construction Site Estimates

Both pre- and post-construction drainage conditions will be approximately the same. Construction Site estimates for the impervious area occurring before and after the construction areas described below:

Construction Site area	3.64 acres
Percentage impervious area before construction	61%
Runoff coefficient before construction	0.70
Percentage impervious area after construction	61%
Runoff coefficient after construction	0.70

2.2. STORM WATER RUN-ON FROM OFF-SITE AREAS

Run-on flow from upslope areas of both staging areas is anticipated. Appropriate BMPs will be installed to address run-on as applicable. Storm water run-on from upslope areas of the project excavation area could occur between buildings 1257 and 1258 and to the west of building 1257. Straw waddle would be placed along the outer edge of the excavation area to divert storm water away from the excavation area and/or prevent erosion of excavated soil by dissipating the velocity of run-on flows.

2.3. FINDINGS OF THE CONSTRUCTION SITE SEDIMENT AND RECEIVING WATER RISK DETERMINATION

The Site Risk Level was evaluated and it was determined that the Site is a Risk Level 1. Overall predicted sediment loss is approximately 3.8 tons per acre. The result of the overall calculated Site Risk Level, based on the risk determination worksheet, is "low for level 1". Storm water does not discharge to a 303(d)-listed water body impaired by sediment. Therefore, the receiving water risk is "low for level 1". The Risk Determination Worksheet is included in Appendix C-2.

2.4. CONSTRUCTION SCHEDULE

The estimated construction activities are scheduled to be performed from June 2016 to October 2016. A detailed schedule is included in Appendix C-5.

2.5. POTENTIAL CONSTRUCTION ACTIVITY AND POLLUTANT SOURCES

Based on the presence and concentrations of COCs in Site soil, the Lendrum Court Remedial Unit consists of soil over an approximate 2.4 acre area to depths of 5 feet that contains COCs at concentrations that pose potential risks to human health and the environment and requires remediation.

Construction activity in all phases of the project has the potential to generate pollutants. BMPs will be implemented to control potential pollutants on-site, as described in Section 3. Materials that potentially cause pollutants, pollutant type, and visual cues for pollutant identification are listed in Appendix C-6.

2.6. IDENTIFICATION OF NON-STORM WATER DISCHARGES

Non-storm water discharges consist of discharges which do not originate from precipitation events. They can include, but are not limited to discharges of process water, air conditioner condensate, non-contact cooling water, vehicle wash water, sanitary wastes, concrete washout water, pain wash water, irrigation water, or pipe testing water. The CGP provides allowances for specified non-storm water discharges that do not cause erosion or carry other pollutants.

Non-storm water discharges into storm drainage systems or waterways, which are not authorized under the CGP and listed in the SWPPP, or authorized under a separate NPDES permit, are prohibited.

The following is a list of activities that may generate non-storm water discharges at the Site. BMPs for these activities are described in Section 3:

- vehicle and equipment maintenance
- material delivery and storage
- soil stockpiling
- solid waste generation
- sanitary / septic waste generation

In addition, on-site soil remediation activities are being performed to excavate soil that contains the following chemicals of potential concern:

Soil Description Polycyclic Aromatic	Hydrocarbons (PAHs)	Metals	Dioxins/Furans
Debris Filled Area	Benzo[a]pyrene Benzo[a]pyrene Equivalents Dibenzo[a,h]anthracene	Arsenic Barium Copper Lead Zinc	TCDD TEQ
Outside Debris Fill Area	None	Lead	TCDD TEQ

2.7. REQUIRED SITE MAP INFORMATION

The site maps (Figures B-1, B-2, and B-3) show the project and support zone locations, surface water boundaries, geographic features, construction site perimeter, direction of storm water flow during construction activities, and preliminary and minimum requirements for temporary BMPs to be installed during construction activities. Figure B-4 shows BMPs to be installed for all construction-related activities, including site stabilization, landscape, and erosion control activities at Lendrum Court. Figure B-5 shows all Lendrum Court post-construction BMPs that will be installed at the conclusion of work. Nike area BMPs are shown on Figure B-6. Building 1347 BMPs are shown on Figure B-7. BMPs will be added or removed from the SWPPP Maps, as necessary, throughout the life of the project.

Section 3. Best Management Practices

3.1. SCHEDULE FOR BMP IMPLEMENTATION

The following summarizes the phasing for implementing BMPs during construction at the Site and the BMPs that may be implemented. BMPs will be implemented, modified, and maintained to reflect the phase of construction and the weather conditions. All BMP details are located in Appendix C-7.

Phase of Construction	Best Management Practices	BMP Detail Numbers (Appendix C-7)
Pre-Construction	▪ Install perimeter controls in remedial excavation and staging locations ▪ Locate Spill Kit on-site ▪ Store materials properly ▪ Stockpile BMPs necessary for the duration of the remediation phase of the project ▪ Install Trackout BMPs at staging and storage area entrances ▪ Provide SWPPP training to the appropriate staff ▪ Place portable sanitation facilities a significant distance away from concentrated flow lines and discharge locations ▪ Install BMPs at discharge locations of the project ▪ Install BMPs at the four drain inlets on Lendrum Court and within the staging area off of Lincoln Boulevard	EC-1 NS-6 NS-9 NS-10 SE-1 SE-5 SE-7 SE-10 TC-1 TC-2 WE-1 WM-1 WM-2 WM-4 WM-5 WM-9
Soil Excavation and Removal from Site	▪ Implement dust management BMPs ▪ Perform sweeping of the Site's impervious areas ▪ Perform maintenance on installed BMPs ▪ All spills will be immediately cleaned ▪ Solid waste to be routinely picked up and placed in the trash bins ▪ Perform scheduled inspections ▪ Manage soil stockpiles	EC-1 EC-5 EC-15 NS-6 NS-8 NS-9 NS-10 SE-1 SE-5 SE-7 SE-8 SE-10 SE-11 TC-1 TC-2 WE-1 WM-1 WM-2 WM-3 WM-4 WM-5 WM-6 WM-7 WM-9

Phase of Construction	Best Management Practices	BMP Detail Numbers (Appendix C-7)
Backfilling and Grading	▪ Implement dust management BMPs ▪ Perform sweeping of the Site's impervious areas ▪ Perform maintenance on installed BMPs ▪ All spills will be immediately cleaned ▪ Solid waste to be routinely picked up and placed in the trash bins ▪ Perform scheduled inspections ▪ Manage soil stockpiles	EC-1 NS-2 NS-6 NS-8 NS-9 NS-10 SE-1 SE-5 SE-7 SE-10 TC-1 TC-2 WE-1 WM-1 WM-2 WM-3 WM-4 WM-5 WM-6 WM-7 WM-9
Post-Construction Stabilization	▪ Install erosion control stabilization ▪ Implement dust management BMPs ▪ Perform sweeping of the Site's impervious areas ▪ Perform maintenance on installed BMPs ▪ Perform scheduled inspections ▪ Maintain good housekeeping throughout the Site	EC-6 EC-7 EC-15 NS-1 NS-8 NS-9 SE-1 SE-5 SE-7 SE-10 TC-1 TC-2 WE-1 WM-1 WM-2 WM-5 WM-9

3.2. EROSION AND SEDIMENT CONTROL

Erosion control, also referred to as soil stabilization, consists of source control measures that are designed to prevent soil particles from detaching and becoming transported in storm water runoff. Soil stabilization BMPs protect the soil surface by covering and or binding soil particles. This project will incorporate both temporary and permanent stabilization practices.

Sediment controls trap particles after they have been dislodged and moved by wind or water. Sediment controls are generally passive systems that rely on filtering or settling soil particles out of water or wind that is transporting them. Sediment controls treat soil as a waste product and work to remove it from storm water runoff. Sediment control materials will be retained on-site throughout the duration of the project to allow for implementation of sediment controls in the event of predicted rain, or for rapid response to failure or emergencies.

The following erosion and sediment control BMPs will be incorporated into the project as described in Figures B-3 through B-5 and as conditions dictate.

3.2.1. Erosion Control BMPs

This construction project will implement the following practices to provide effective temporary and final erosion control during construction:

1. Preserve existing vegetation where required and when feasible.
2. The area of soil disturbing operations shall be controlled such that the Contractor is able to implement erosion control BMPs quickly and effectively.
3. Stabilize non-active areas within 14 days of cessation of construction activities or sooner if stipulated by local requirements.
4. Prior to the completion of construction, apply permanent erosion control to remaining disturbed soil areas.
5. All materials that will remain on site shall be all natural, bio-degradable, sterile, and weed- free.

Sufficient erosion control materials shall be maintained on-site to allow implementation in conformance with this SWPPP. Erosions controls are to be all natural materials as defined in the project specifications, where applicable.

Fact Sheets for erosion control BMPs are provided in Appendix C-7. If there is a conflict between documents, the Site map will prevail over narrative in the body of the SWPPP or guidance in the BMP Fact Sheets. Site-specific details in the Site map prevail over standard details included in the Fact Sheets. The narrative in the body of the SWPPP prevails over guidance in the BMP Fact Sheets.

Scheduling (EC-1): The schedule for this project is from June 2016 to October 2016.

Straw Mulch (EC-6): Dispersing temporary coverage with straw mulch and tackifier can stabilize open disturbed areas awaiting permanent vegetation or development. Straw mulch is anticipated to be utilized without tackifier; if the contractor determines that tackifier is necessary then the Trust will be notified.

Temporary Stabilization: Dispersing temporary mulch and erosion control mats can stabilize open disturbed areas awaiting permanent vegetation or development. If the undeveloped portions of the Site are

not landscaped immediately, portions of the Site may need to be temporarily stabilized due to topographic characteristics. Applying straw mulch at a rate of at least 2,000 pounds per acre is to be used as a temporary type of stabilization if needed.

Permanent Stabilization: Once an area of the project is complete, permanent vegetation should be installed per the VMP. This could include landscaping using native plants including grasses, shrubs, brush, and ground cover.

Soil Preparation/Roughening (EC-15): This BMP can be used to minimize the flow of water at the Site to promote infiltration of barren soil.

3.2.2. Sediment Control

Sediment controls are temporary or permanent structural measures that are intended to complement the selected erosion control measures and reduce sediment discharges from active construction areas. Sediment controls are designed to intercept and settle out soil particles that have been detached and transported by the force of water. Sediment controls are to be all natural materials as defined in the project specifications.

The following sediment controls shall be implemented:

Silt Fence (SE-1): A silt fence is composed of a woven material and installed for the purpose of temporarily retaining water and trapping sediment. Silt fence may be used during excavation activities.

Fiber Rolls (SE-5): Fiber rolls, or equivalent approved by the Engineer (e.g., straw waddle), Aare composed of biodegradable natural fibers stuffed into biodegradable open-weave netting and are designed to reduce sediment runoff. Fiber rolls are porous and allow water to filter through the fibers to trap sediment, thereby slowing runoff and reducing sheet and rill erosion. The fiber rolls will be manufactured of only natural fibers and be placed as necessary, to reduce runoff potential down slope of the staging area and at the base of soil stockpiles.

Gravel Bag Berm (SE-6): Gravel bag berms may be used as a sediment control device for the soil stockpiles or to divert storm water at the Site.

Street Sweeping (SE-7): Sweeping will occur on a daily basis and within 48 hours of a predicted rain event at the ingress and egress of vehicular areas, as needed. In addition, if soil is tracked anywhere else on the property or on City streets, a sweeper will be used in those locations.

Sandbag Barrier (SE-8): Sandbag barrier berms may be used as a sediment control device for the soil stockpiles or to divert storm water at the Site. As a temporary basis to hold small volumes of storm water, sandbags with visqueen positioned together can also be used to construct a temporary holding pond at the Site to collect storm water.

Storm Drain Inlet Protection (SE-10): Storm drain inlet protection will be applied to storm drains receiving runoff from the construction Site area on Merchant Road.

Stabilized Construction Entrance (TC-1): Installation of a shaker plate, located at points where vehicles leave a construction Site, provides a buffer area where vehicles can drop their mud and sediment to avoid transporting it onto public roads, to control erosion from surface runoff, and to help control dust. A shaker plate will be located near the exit of the Site.

Stabilized Construction Roadway (TC-2): Existing pavement will remain in the staging area during the project. Vehicles traveling through the staging area can drive on the existing pavement and drop sediment from tires before driving over the Stabilized Construction Entrance.

Wind Erosion Control (WE-1): Dust is easily transported off-site during the dry season, and with its close proximity to the San Francisco Bay, this project has a high potential for wind erosion. Water trucks and fire hoses will be used, as necessary, to prevent visible dust emissions from stockpiles, roadways, and soil disturbing activities (demolition activities, excavating, and backfilling).

Additional information for the BMPs described above is available in fact sheets from the California Stormwater Quality Association's (CASQA's) Construction Handbook 2003 and are included in Appendix C-7 of the SWPPP.

3.3. NON-STORM WATER CONTROLS AND WASTE AND MATERIALS MANAGEMENT

3.3.1. Non-Storm Water Controls

Non-storm water discharges into storm drainage systems or waterways, which are not authorized under the CGP, are prohibited. Non-storm water discharges for which a separate NPDES permit is required by the local Regional Water Board are prohibited. The selection of non-storm water BMPs is based on the list of construction activities with a potential for non-storm water discharges identified in Section 2.7 of this SWPPP.

Non-storm water BMPs shall be implemented in conformance with the following guidelines and in accordance with the BMP Fact Sheets provided in Appendix C-7.

Water Conservation Practices (NS-1): Conserve water usage at the Site and when it will be applied in an area where the water will not discharge off-site.

Illicit Connection- Illegal Discharge Connection (NS-6): The Site will be locked when not attended and the construction Site will be inspected for illicit dumping or discharges prior to and during construction activities.

Vehicle and Equipment Cleaning (NS-8): Onsite cleaning of vehicles is prohibited except to the extent necessary for decontamination (biological and/or chemical) and safety purposes. Equipment brought to the site will be free of all soil and deleterious material, if equipment arrives in other than a clean condition it

shall be rejected and not allowed on the site. Any water used during cleaning of vehicles and equipment will be contained and properly disposed per BMP Fact Sheet NS-8.

Vehicle and Equipment Fueling (NS-9): Equipment that must be refueled on-site will be done so by portable tanks away from storm water conveyances (i.e. storm drains, sidewalks, etc.). Spill response materials will be on hand in order to clean up any incidental fuel spills, if they were to occur.

Vehicle and Equipment Maintenance (NS-10): Major maintenance is to be performed off-site. Minor maintenance of vehicles may occur on-site. To prevent drips, leaks, or spills of any fluids, drip pans will be used if necessary to catch any discovered leaks until repairs can be made. Exposed soil shall be covered under the maintenance area of the vehicle to eliminate any contact with the soil. All used maintenance materials are to be properly removed from the Site as quickly as possible.

3.3.1.1. Decontamination of Construction Equipment

All vehicles, equipment, and personnel will be decontaminated prior to exiting established exclusion zones. Contaminants such as accumulated soil, dust, and other contamination from equipment will be removed at the decontamination station(s). Onsite management and off-site disposal of decontamination wastes, such as wash water and contaminated protective equipment used by onsite personnel, will be described in the Contractor HASP. A Decontamination Plan will be prepared by the Contractor for the proposed soil removal activities as part of submittals and will describe specific procedures to be used during soil removal activities to reduce the potential for contaminants to be transported off-site. Rumble strips or a tire washing facility would be established to ensure that vehicles leaving the site and staging areas do not carry soil onto public roads. In addition, all equipment and tools used at the site will be cleaned of all soil, plant parts, and other potentially harmful materials prior to being brought onto the site.

3.3.2. Materials and Waste Management

Materials management control practices consist of implementing procedural and structural BMPs for handling, storing, and using construction materials to prevent the release of those materials into storm water discharges. The amount and type of construction materials to be utilized at the Site will depend upon the type of construction and the length of the construction period. The materials may be used continuously, such as fuel for vehicles and equipment, or the materials may be used for a discrete period, such as soil binders for temporary stabilization.

Waste management consists of implementing procedural and structural BMPs for handling, storing, and ensuring proper disposal of wastes to prevent the release of those wastes into storm water discharges.

Materials and waste management pollution control BMPs shall be implemented to minimize storm water contact with construction materials, wastes, and service areas and to prevent materials and wastes from being discharged off-site. The primary mechanisms for storm water contacting potential pollutants include:

- Direct contact with precipitation
- Contact with storm water run-on and runoff
- Wind dispersion of loose materials
- Direct discharge to the storm drain system through spills or dumping
- Extended contact with some materials and wastes, such as asphalt cold mix and treated wood products, which can leach pollutants into storm water.

Material Delivery and Storage (WM-1): BMPs will be installed to prevent storm water from contacting the stored material on-site. All materials are to be stored in designated locations.

Material Use (WM-2): Any materials used on-site will be used appropriately so as not to cause potential impacts to storm water runoff.

Stockpile Management (WM-3): Contaminated soil is anticipated to be present on-site during excavation. A sediment control measure or berm to prevent soil from eroding will be installed at the perimeter of the stockpile. Additionally, non-contaminated soil stockpiles will be managed by covering with visqueen, as appropriate, to reduce contact with storm water.

Spill Prevention and Control (WM-4): BMPs are to be implemented to reduce and eliminate potential spills throughout the project. Materials, liquids, and equipment will be stored and handled away from storm drains and storm water conveyances. At least one prominently marked spill kit will be stored at the Site in order to clean up any spills as soon as possible. Spills will be properly addressed and remediated as soon as possible. All appropriate agencies are to be notified if the quantity of materials spilled exceeds the allowable limit.

Solid Waste Management (WM-5): Trash bins and waste receptacles will be on-site. All trash containers must contain lids and remain closed at the end of each day and during rain events.

Hazardous Waste Management (WM-6): Prevent or reduce the discharge of pollutants to storm water from hazardous waste through proper material use, waste disposal, and training of employees.

Contaminated Soil Management (WM-7): Contaminated soil will be excavated, transported, and stored in the designated areas with BMPs, including sweeping and stockpile management, implemented to protect storm water discharges from contacting contaminated soil.

Sanitary/Septic Waste Management (WM-9): Portable toilets will be on-site. They are to be placed away from discharge locations and areas of concentrated flow during rain events. Regularly scheduled cleanouts of the toilets will reduce the potential for pollutants flowing off-site.

3.3.3. Contaminated Soil Management

A RAW and RDIP were prepared for the remediation phase to describe how remediation activities will take place on-site. Appropriate BMPs will be implemented based on the specific remediation details in these documents.

As presented in the RDIP, specific areas are identified as requiring remediation of specific COCs. The areas containing these COCs in soil will be excavated and the soil either placed in the stockpile area or loaded directly onto trucks for off-site removal. If necessary, excavated soils will be placed on top of visqueen and covered with visqueen to contain exposure to storm water, and until transported off-site. Berms and sediment barriers may be installed on the down slope side of the stockpile areas to retain sediment.

Excavation will be completed in cells (50 feet by 50 feet) or in groups of cells and will generally begin at the ends of the excavation area working towards the center access road to reduce tracking contaminated soil over the previously cleared areas. Up to 5 feet of soil will be removed as the excavation proceeds. Water generated from significant rainfall events may accumulate in excavated areas throughout the site. Ponded runoff will evaporate or will infiltrate into existing soils. Any additional accumulation may have to be treated prior to disposal.

3.4. POST-CONSTRUCTION STORM WATER MANAGEMENT

The CGP requires post-construction runoff reduction. Post-construction BMPs consist of permanent features designed to minimize pollutant discharges, including sediment, from the Site after construction has been completed. These BMPs will be implemented by the contractor. Potential post-construction BMPs may include the following:

- Minimization of land disturbance;
- Minimization of impervious surfaces;
- Treatment of storm water runoff using infiltration, detention/retention, biofilter BMPs; and
- Appropriately designed and constructed energy dissipation devices.

Following excavation and site grading, erosion control blankets underlain by straw mulch will be installed in conjunction with fiber rolls as shown in Appendix C-13.

Seedlings will be planted across the disturbed areas, after the completion of earthmoving operations in accordance with the VMP.

Post-construction BMPs:

Post-Construction BMP	Responsible Party

Section 4. BMP Inspection and Maintenance

The project includes a program to inspect and maintain all BMPs as identified in the SWPPP throughout the duration of the project based on the risk level requirements of the CGP. Inspections of the construction Site will be performed:

- Prior to an anticipated storm events to ensure that BMPs are properly installed and maintained;
- Every 24 hours during extended storm events to evaluate BMPs for adequacy, proper implementation and whether additional BMPs are required; and
- After storm events to identify areas contributing to a discharge of storm water associated with construction activity and to assure that the BMPs have functioned adequately.

Note: An inspection is triggered by a 50% chance of rain per the National Oceanographic and Atmospheric Administration (http://www.weather.gov/).

Routine inspections will be conducted weekly for the duration of the project. Inspections will be performed by the Qualified SWPPP Practitioner (QSP). For each inspection required above, the QSP will complete an inspection report. Blank inspection reports are located in Appendix C-8.

Corrective maintenance to BMPs will begin within 72 hours after being identified in the inspection report and completed within seven days of identifying the item, prior to the next rain event and as soon as feasible if conditions warrant. The QSP is to initial and date each item when complete as indicated in the inspection report. All completed inspection reports are to be retained in the SWPPP under Appendix C-8.

Non-storm water discharges will be monitored during weekly inspections. Therefore, the requirement for performing a quarterly non-storm water inspection will be met.

4.1. RAIN EVENT ACTION PLANS

This project is categorized as a Risk Level 1. Therefore, a Rain Event Action Plan is not required for the Site at this time.

Section 5. Training

An employee awareness-training program will be implemented to inform Site personnel at all levels of responsibility of the components and goals of this SWPPP. The purpose of the training program is to ensure that the necessary information is disseminated to all parties responsible for implementing the SWPPP. Section VII of the CGP requires that all elements of the SWPPP be developed by a QSD and implemented by a QSP. The training qualifications of the QSD and QSP will be provided in Appendix C-9. The QSP may delegate tasks to trained employees provided adequate supervision and oversight is provided. All training qualifications and activities will be retained in Appendix C-9 and be submitted in the Annual Report.

Personnel at the Site shall receive training appropriate for individual roles and responsibilities on the project. Training will:

- Address how to implement each component of the SWPPP, including how and why tasks are to be implemented;
- Include inspections, spill prevention and response, good housekeeping, material management practices, implementation of BMPs, and record keeping procedures;
- Be both formal and informal, occur on an ongoing basis when it is appropriate and convenient, and will include training/workshops offered by the SWRCB, RWQCB, or other locally recognized agencies or professional organizations; and
- Be documented by having attendees sign an attendance sheet.

Appendix C-11 identifies personnel responsible for implementing specific items in the SWPPP for the project. Identified personnel shall be responsible for providing training information and subsequently completing the training logs shown in Appendix C-9, which identifies the site-specific storm water topics covered as well as the names of Site personnel who attended the meeting.

Section 6. Responsible Parties and Operators

The authorized representatives assigned to this project are identified in Appendix C-10, including project Site personnel who will be responsible for SWPPP activities (QSD and QSP). This list includes the names of the individuals granted authority to sign permit-related documents.

Copies of the written authorizations for duly authorized representatives are included in Appendix C-10. A table is also included that includes the names, contact information for the individual and their role on the project. Date of training and date of recorded entry as well as a copy of training certificates or other verification of training as applicable are included in Appendix C-9.

The QSP shall have primary responsibility and significant authority for the implementation, maintenance and inspection/monitoring of SWPPP requirements. The QSP will be available at all times throughout the duration of the project. Responsibilities of the QSP include:

- Implementing all elements of the SWPPP, including but not limited to:
  - Ensuring all BMPs are implemented, inspected, and properly maintained;
  - Performing non-storm water and storm water visual observations and inspections;
  - Performing non-storm water and storm sampling and analysis, if required;
  - Performing routine visual inspections and observations; and
  - Implementing non-storm water management, and materials and waste management activities such as: monitoring discharges; general Site clean-up; vehicle and equipment cleaning, fueling and maintenance; spill control; ensuring that no materials other than storm water are discharged in quantities which will have an adverse effect on receiving waters or storm drain systems.
- The QSP may delegate these inspections and activities to an appropriately trained employee, but shall ensure adequacy and adequate deployment.
- Ensuring elimination of unauthorized discharges.
- Coordinate with the Contractor(s) to assure all of the necessary corrections/repairs are made immediately and that the project complies with the SWPPP and approved plans at all times.
- Notifying the LRP immediately of off-site discharges or other non-compliance events.

6.1. CONTRACTOR LIST

The CGP requires that the SWPPP include a list of names of all contractors, subcontractors, and individuals who will be directed by the QSP. The list is included as Appendix C-11 of this SWPPP. The list includes telephone numbers and work addresses and the specific areas of responsibility of each subcontractor and emergency contact numbers. The prime contractor contact information is listed below

Prime Contractor Contact

Name: _____

Title: _____

Company: _____

Address: _____

Phone Number: _____

Cell Phone Number: _____

Section 7. Construction Site Monitoring Program

7.1. PURPOSE

The CGP requires that a written site-specific CSMP be developed by each discharger prior to the commencement of construction activities, and be revised as necessary to reflect project revisions and that the CSMP be included with the SWPPP. This CSMP has been developed to meet the specific requirements and objectives identified for a Risk Level 1 Site.

The objectives of the CSMP are as follows:

- Ensure that storm water discharges are in compliance with the Discharge Prohibitions, Effluent Limitations, and Receiving Water Limitations specified in the CGP;
- To aid in the implementation, evaluation, and revision of BMPs identified in the SWPPP;
- To identify the presence of non-storm water discharges;
- To ensure that practices at the facility to control pollutants in storm water discharges are evaluated and revised to meet changing Site conditions; and
- To measure the effectiveness of BMPs in removing pollutants from storm water discharges.

7.2. APPLICABILITY OF PERMIT REQUIREMENTS

This project has been determined to be a Risk Level 1 project. The CGP identifies the following types of monitoring as being applicable for a Risk Level 1 project.

- Visual inspections of BMPs;
- Visual monitoring of the Site related to qualifying storm events;
- Visual monitoring of the Site for non-storm water discharges;
- Sampling and analysis of construction Site runoff for non-visible pollutants when applicable; and
- Sampling and analysis of construction Site runoff as required by the Regional Water Board when applicable.

7.3. WEATHER AND RAIN EVENT TRACKING

Visual monitoring and inspections requirements for Risk Level 1 are triggered by a qualifying rain event. A qualifying rain event is any event that produces ½ inch of precipitation. A minimum of 48 hours of dry weather will be used to distinguish between separate qualifying storm events.

7.3.1. Weather Tracking

The Site Superintendent should consult the National Oceanographic and Atmospheric Administration (NOAA) for the weather forecasts each day. These forecasts can be obtained at http://www.srh.noaa.gov/. Weather reports should be printed and retained in Appendix C-12.

The quantitative precipitation forecast that provides predictions for amount of rainfall in 6-hour intervals during the next three days for San Francisco is available at:
http://www.wrh.noaa.gov/forecast/wxtables/index.php?lat=37.7749295&lon=-122.4194155&clrindex=0&table=custom&duration=7&interval=6

7.3.2. Rain Gauges

A rain gauge will be installed at the project Site. The gauge will be installed in an open area away from obstructions, such as trees or overhangs. The gauge will be included on the weather station used for dust monitoring. Amounts of storm water accumulated in the rain gauge will be recorded daily and will be read at approximately the same time every day. Rain gauge readings will be retained on the BMP inspection reports. Once accumulated storm water in the rain gauge has been recorded, accumulated rain will be removed from the gauge, and the gauge returned to use.

7.4. MONITORING LOCATIONS

The entire Site will be monitored during construction activities for non-storm water discharges and authorized storm water discharges and BMP effectiveness.

7.5. SAFETY AND MONITORING EXEMPTIONS

Safety practices for sample collection will be in accordance with a health and safety plan prepared by the QSD and/or a health and safety plan prepared by the contractor and approved by the QSD. A summary of the safety requirements that apply to sampling personnel is provided below.

This project is not required to collect samples or conduct visual observations (inspections) under the following conditions:

- During dangerous weather conditions such as flooding and electrical storms.

Outside of scheduled Site business hours, where construction activities would be performed during daylight hours [7 AM to 8PM] on Monday through Friday, unless otherwise approved by the Trust.

If monitoring (visual monitoring or sample collection) of the Site is unsafe due to dangerous conditions noted above, the conditions for why an exception to performing the monitoring was necessary shall be documented and retained in Appendix C-8.

7.6. VISUAL MONITORING

This project is categorized as a Risk Level 1. Therefore, a visual inspection of storm water discharges at discharge locations must be performed within two business days (48 hours) after each qualifying rain event to (1) identify whether BMPs were adequately designed, implemented, and effective, and (2) identify additional BMPs and revise the SWPPP accordingly. The observers will conduct visual inspections during business hours and record the time, date and rain gauge reading of all qualifying rain events. Within two business days (48 hours) prior to each qualifying rain event, the observers will visually inspect for the following:

- All storm water drainage areas to identify any spills, leaks, or uncontrolled pollutant sources. If needed, the discharger will implement appropriate corrective actions.
- All BMPs to identify whether they have been properly implemented in accordance with the SWPPP. If needed, the discharger shall implement appropriate corrective actions.
- Any storm water storage and containment areas to detect leaks and ensure maintenance of adequate freeboard.

For the visual observations (inspections) described above, the observers will inspect for the presence or absence of floating and suspended materials, a sheen on the surface, discolorations, turbidity, odors, and source(s) of any observed pollutants.

On-site records of all visual observations (inspections), personnel performing the observations, observation dates, weather conditions, locations observed, and corrective actions taken in response to the observations. These documents will be maintained in Appendix C-8.

Visual Monitoring and Inspections Schedule

Type of Inspection	Frequency
Routine Inspections	
▪ BMP Inspections (written inspection report)	Weekly
▪ BMP Inspections – Tracking Control	Daily
▪ BMP Inspections – Wind Erosion	Daily
Non-Storm Water Discharge Observations	Quarterly during daylight hours
Rain Event Triggered Inspections	
▪ Site Inspections Prior to a Qualifying Event	Within 48 hours of a qualifying event[1]
▪ BMP Inspections During an Extended Storm Event	Every 24-hour period of a rain event
▪ Site Inspections Following a Qualifying Event	Within 48 hours of a qualifying event[1]

Note:
1. A new qualifying rain event is identified when no precipitation is observed in a 48-hour period.

7.6.1. Routine BMP Inspections

Inspections of BMPs are conducted to identify and record the following:

- BMPs are properly installed;
- BMPs that need maintenance to operate effectively;
- BMPs that have failed; and
- BMPs that could fail to operate as intended.

7.6.2. Non-Storm Water Discharge Observations

Each drainage area will be inspected for the presence of or indications of prior unauthorized and authorized non-storm water discharges. Inspections will record:

- Presence or evidence of any non-storm water discharge (authorized or unauthorized);
- Pollutant characteristics (floating and suspended material, sheen, discoloration, turbidity, odor, etc.); and
- Source of discharge.

7.6.3. Rain-Event Triggered Observations and Inspections

Visual observations of the Site and inspections of BMPs are required prior to a qualifying rain event, following a qualifying rain event, and every 24-hour period during a qualifying rain event. Pre-rain inspections will be conducted after consulting NOAA and determining that a precipitation event with a 50 percent or greater probability of precipitation has been predicted.

7.6.4. Visual Monitoring Personnel

Visual monitoring shall be conducted by the Owner or their designee.

The name(s) and contact number(s) of the Site visual monitoring personnel are listed below. Personnel training qualifications are provided in Appendix C-9.

Assigned inspector:	_____	Contact phone:	_____
Assigned inspector:	_____	Contact phone:	_____

7.6.5. Visual Monitoring Follow-Up and Reporting

Correction of deficiencies identified by the observations or inspections, including required repairs or maintenance of BMPs, shall be initiated and completed as soon as possible. If identified deficiencies require design changes, including additional BMPs, the implementation of changes will be initiated within 72 hours

of identification and be completed as soon as possible. When design changes to BMPs are required, the SWPPP shall be amended to reflect the changes.

Deficiencies identified in Site inspection reports and correction of deficiencies will be recorded on the Inspection Report and shall be retained in the SWPPP Appendix C-8.

7.7. WATER QUALITY SAMPLING AND ANALYSIS

7.7.1. Sampling and Analysis Plan for Non-Visible Pollutants in Storm Water Runoff

This Sampling and Analysis Plan for Non-Visible Pollutants describes the sampling and analysis strategy and schedule for monitoring non-visible pollutants in storm water runoff discharges from the project Site.

This SWPPP was designed to meet the requirements of Risk Level 1. However, sampling may need to be performed if visual monitoring indicates that there has been a breach, malfunction, leakage, or spill from a BMP which could result in the discharge of storm water pollutants that will not be visually detectable, or if storm water comes into contact with soil amendments or other exposed materials or contaminants and is allowed to be discharged. The sampling and analysis parameters and procedures are designed to determine whether the BMPs installed and maintained prevent discharges of sediment from contributing to impairment in receiving waters. If sampling and analysis is required per these situations, the following procedures will apply to sampling and analysis:

- Monitor for the applicable parameter;
- Samples will be collected during the first two hours of discharge from rain events;
- Samples will be collected during daylight hours (sunrise to sunset);
- All samples will be taken at discharge locations;
- Field samples will be collected and analyzed according to the specifications of the manufacturer of the sampling devices employed; and
- Portable meters will be calibrated according to manufacturer's specification.

7.7.1.1. Sampling Schedule

The following Table summarizes Risk Level 1 Monitoring Requirements.

Risk Level 1 Sampling Schedule

Type of Monitoring	When
Sampling and Analysis	
Non-visible pollutant: Spill or BMP failure based on pollutant source assessment	Within first two hours of discharge from Site. Collect samples of runoff affected by the spilled or released material(s) and runoff that is unaffected by the spilled or released material(s)
Other	RWQCB or Total Maximum Daily Loads may require other monitoring.

If necessary, samples for the applicable non-visible pollutant(s), and a sufficiently large uncontaminated background samples, will be collected during the first two hours of discharge from rain events that result in a sufficient discharge for sample collection. Samples will be collected during daylight hours (sunrise to sunset) and will be collected regardless of the time of year, status of the construction Site, or day of the week.

Sampling and analysis is required when non-visible pollutants have the potential to contact storm water and runoff the construction Site into a drainage system or water body at levels that may cause or contribute to exceedance of water quality standards. Collection of discharge samples for non-visible pollutant monitoring will be triggered when any of the following conditions are observed during the required inspections conducted before or during rain events:

- Materials or wastes containing potential non-visible pollutants are stored under covered conditions, but (1) a breach, malfunction, leakage, or spill is observed, (2) the leak or spill is not cleaned up prior to the rain event, and (3) there is the potential for discharge of non- visible pollutants to surface waters or a storm sewer system.
- An operational activity with the potential to contribute non-visible pollutants (1) was occurring during or within 24 hours prior to the rain event, (2) applicable BMPs were observed to be breached, malfunctioning, or improperly implemented, and (3) there is the potential for discharge of non-visible pollutants to surface waters or a storm sewer system.
- Soil amendments that have the potential to change the chemical properties, engineering properties, or erosion resistance of the soil have been applied, and there is the potential for discharge of non-visible pollutants to surface waters or a storm sewer system.
- Storm water runoff from an area contaminated by historical usage of the Site has the potential to combine with storm water runoff from the Site, and there exists the potential for discharge of non-visible pollutants to surface waters or a storm sewer system.

The samples must be collected as described below and in accordance with the applicable sections of the American Public Health Associations "Standard Methods for the Examination of Water and Wastewater." Only trained personnel are tasked with sampling responsibilities. Performed by trained staff, manual sampling is the primary method for collecting samples at this facility.

7.7.1.2. Sampling Locations

Sampling locations are based on proximity to identified discharge or run-on location(s), accessibility for sampling, personnel safety, and other factors in accordance with applicable requirements. Sampling locations for non-visible pollutants will be determined in the field, if a breach of BMPs or spills or there is the potential for discharge of non-visible pollutants to surface waters or drainage system have occurred. Samples should be obtained up gradient of the discharge and down gradient of the discharge.

- An up gradient control sample can be analyzed for the prevailing condition of the receiving water without any influence from the construction Site. The control sample will be used to determine the background levels.
- A down gradient sample location should be obtained where direct discharge leaves the property of the project.

7.7.1.3. Monitoring Preparation

Non-visible pollutant samples will be collected by:

Contractor: Yes ☒ No ☐

Owner/LRP: Yes ☒ No ☐

Consultant: Yes ☒ No ☐

Laboratory: Yes ☐ No ☒

An adequate stock of monitoring supplies and equipment for monitoring non-visible pollutants will be available on the project Site prior to a sampling event. Monitoring supplies and equipment will be stored in a cool temperature environment that will not come into contact with rain or direct sunlight. Sampling personnel will be available to collect samples in accordance with the sampling schedule. Supplies maintained at the project Site will include clean powder-free nitrile gloves, sample collection equipment, coolers, appropriate number and volume of sample bottles, identification labels, re-sealable storage bags, paper towels, personal rain gear, ice, Sampling Field Log Sheet, and Chain of Custody forms.

7.7.1.4. Analytical Constituents

In the event that potentially contaminated soil is excavated from the Site and is exposed to storm water, the storm water runoff from that area may be analyzed for the following constituents:

- PAH using EPA Method 8270SIM
- Dioxins/Furans using EPA Method 8290A
- Metals using EPA method 6010B

If storm water contacts the exposed contaminated soil and is anticipated to discharge off-site, runoff shall be collected and retained in temporary storage tanks.

7.7.1.5. Sample Collection

Samples of discharge may be collected at the designated non-visible pollutant sampling locations in the locations determined by observed breaches, malfunctions, leakages, spills, and operational areas that triggered the sampling event.

Grab samples shall be collected and preserved in accordance with the appropriate means and methods. The Site Superintendent, or personnel trained in water quality sampling under the direction of the Site Superintendent shall collect samples.

7.7.1.6. Designated Laboratory

Samples shall be analyzed using the analytical methods identified in Section 7.7.1.4.

Laboratory Name:	Test America
Street Address:	1220 Quarry Lane
City, State Zip:	Pleasanton, CA
Telephone Number:	925-484-1919
Point of Contact:	
ELAP Certification Number:	

Samples will be delivered to the laboratory by:

Laboratory: Yes ☐ No ☒

An adequate stock of monitoring supplies and equipment for monitoring non-visible pollutants will be available on the project Site prior to a sampling event. Monitoring supplies and equipment will be stored in a cool temperature environment that will not come into contact with rain or direct sunlight. Sampling personnel will be available to collect samples in accordance with the sampling schedule. Supplies maintained at the project Site will include clean powder-free nitrile gloves, sample collection equipment, coolers, appropriate number and volume of sample bottles, identification labels, re-sealable storage bags, paper towels, personal rain gear, ice, Sampling Field Log Sheet, and Chain of Custody forms.

7.7.1.7. Analytical Constituents

In the event that potentially contaminated soil is excavated from the Site and is exposed to storm water, the storm water runoff from that area may be analyzed for the following constituents:

- PAH using EPA Method 8270SIM
- Dioxins/Furans using EPA Method 8290A
- Metals using EPA method 6010B

If storm water contacts the exposed contaminated soil and is anticipated to discharge off-site, runoff shall be collected and retained in temporary storage tanks.

7.7.1.8. Sample Collection

Samples of discharge may be collected at the designated non-visible pollutant sampling locations in the locations determined by observed breaches, malfunctions, leakages, spills, and operational areas that triggered the sampling event.

Grab samples shall be collected and preserved in accordance with the appropriate means and methods. The Site Superintendent, or personnel trained in water quality sampling under the direction of the Site Superintendent shall collect samples.

7.7.1.9. Designated Laboratory

Samples shall be analyzed using the analytical methods identified in Section 7.7.1.4.

Laboratory Name:	Test America
Street Address:	1220 Quarry Lane
City, State Zip:	Pleasanton, CA
Telephone Number:	925-484-1919
Point of Contact:	
ELAP Certification Number:	

Samples will be delivered to the laboratory by:

Driven by Contractor:	Yes ☐	No ☒
Picked up by Laboratory Courier:	Yes ☒	No ☐
Shipped:	Yes ☐	No ☒

7.7.1.10. Data Evaluation and Reporting

An evaluation of the water quality sample analytical results will be performed upon receiving analytical results from the laboratory. As determined by the Site conditions and sample result evaluation, appropriate BMPs shall be repaired or modified to mitigate discharges of potential pollutants. Revisions of BMPs shall be recorded as an amendment to the SWPPP.

The CGP prohibits the storm water discharges that contain hazardous substances equal to or in excess of reportable quantities established in 40 C.F.R. §§ 117.3 and 302.4. The results of any non-storm water discharge results that indicate the presence of a hazardous substance in excess of established reportable quantities shall be immediately reported to the Regional Water Board and other agencies as required by 40 C.F.R. §§ 117.3 and 302.4.

Results of non-visible pollutant monitoring shall be reported in the Annual Report.

7.7.2. Sampling and Analysis Plan for pH and Turbidity in Storm Water Runoff Discharges

Sampling and analysis of runoff for pH and turbidity is not required for Risk Level 1 projects.

7.7.3. Additional Monitoring Following a Numeric Effluent Limit (NEL) Exceedance

This project is not subject to NELs.

7.7.4. Sampling and Analysis Plan for Non-Storm Water Discharges

This project is not subject to the non-storm water sampling and analysis requirements unless triggered by actions listed in Section 7.7.1.1.

7.7.5. Sampling and Analysis Plan for Other Pollutants Required by the Regional Water Board

This project is not subject to sampling and analysis plan for other pollutants required by the Regional Water Board.

7.7.6. Training of Sampling Personnel

Sampling personnel shall be trained to collect, maintain, and ship samples. Training records of designated contractor sampling personnel are provided in Appendix C-9.

The following storm water sampling personnel have received the following storm water sampling training and are qualified to obtain samples at the Site:

Name	Training

7.7.7. Sample Collection and Handling

7.7.7.1. Sample Collection

Preparation

A storm water sampling kit for each outfall to be sampled will be provided. Each kit should be opened upon receipt and checked for the following:

- Labeled glass and plastic bottles (some may contain a small amount of liquid preserve):
  - Amber glass bottle – one for each discharge location to be sampled
  - Large plastic bottle - one for each discharge location to be sampled
- One unlabeled, wide mouth glass collection bottle
- Synthetic Ice "blue ice"
- Chain of Custody Records
- pH paper

All sampling equipment, supplies, and bottles should be readily available and organized. Sampling equipment and bottles should be stored in an area where physical (dust, water) and chemical (solvent vapor) contamination will not occur.

Sampling Procedure

- Grab samples must be collected within the two hours of discharge from the storm during daylight hours. Sample collection is only required of storm water discharges that occur during scheduled operating hours that are preceded by at least three working days without storm water discharge.
- Take all needed sampling equipment and supplies to the sample location. Wear clean, waterproof, chemical resistant gloves and safety glasses when sampling to avoid contact with pollutants that may be present in storm water.
- Station yourself with the wind to your back to avoid contacting storm water while filling sample bottles.

- Prior to collecting a sample, the collecting bottle should be rinsed with two or three volumes of storm water from the flow of the outfall being sampled (do not rinse containers that have been pre-dosed with acid as a preservative).
- The grab sample should be collected from the approximate middle of the flow's width and depth if practical. Insert the collecting bottle into the flow with the bottle opening facing upstream. Avoid collecting large floating debris and do not touch the inside of the bottle.
- Fill sample bottles to the top or level indicated on the bottle.
- Complete the sample label on the bottle and place in the cooler with ice. Samples should be placed in the cooler as quickly as possible after being collected.
- While still in the field, fill the unlabeled glass sample collection bottle in accordance with the instructions provided. Record the results on the Chain of Custody Record where indicated.
- Complete the Chain of Custody Record provided with the sample kit. The Chain of Custody Record is a legal document used to track the sample for collection through analysis. If the validity of the analytical results is suspect, the information on the Chain of Custody Record can assist in explaining any unexpected or abnormal results. Verify the information is accurate and consistent on the sample label and the Chain of Custody Record. You must sign the Chain of Custody Record. Also, obtain the signature of the person to whom you are giving the sample. Make a copy of the Chain of Custody Record and file it in the on-site SWPPP. Send the original to with the sample to the analytical laboratory. The laboratory will return the original to your facility after receiving the samples and completing their portion of the Chain of Custody Record.

After completion of the sampling, the analytical laboratory will be contacted to coordinate sample pick up and deliver to the laboratory. Samples should not be left in a cooler for extended periods of time because the temperature of the cooler may rise. The results of the analysis samples that were not properly cooled may not be considered valid.

To maintain sample integrity and prevent cross-contamination, sample collection personnel shall follow the protocols below.

- Collect samples (for laboratory analysis) only in analytical laboratory-provided sample containers;
- Wear clean, powder-free nitrile gloves when collecting samples;
- Change gloves whenever something not known to be clean has been touched;
- Change gloves between sampling locations;
- Decontaminate all equipment (e.g. bucket, tubing) prior to sample collection using a trisodium phosphate water wash, distilled water rinse, and final rinse with distilled water. (Dispose of wash and rinse water appropriately, i.e., do not discharge to storm drain or receiving water). Do not decontaminate laboratory provided sample containers;
- Do not smoke during sampling events;
- Do not park vehicles in the immediate sample collection area with the engine running;

- Do not eat or drink during sample collection; and
- Do not breathe, sneeze, or cough in the direction of an open sample container.

Note, that depending upon the specific analytical test, some containers may contain preservatives. These containers should never be dipped into the stream, but filled indirectly from the collection container.

Laboratory Name: _____

Street Address: _____

City, State Zip: _____

Telephone Number: _____

Point of Contact: _____

7.7.7.2. Sample Documentation Procedures

All original sample bottle identification labels, Sampling Field Log Sheet, and Chain of Custody forms shall be recorded using waterproof ink. If an error is made in recording on a document, the individual shall make corrections by lining through the error and entering the correct information. All corrections shall be initialed and dated.

Duplicate samples shall be identified consistent with the numbering system for other samples to prevent the laboratory from identifying duplicate samples. Duplicate samples shall be identified in the Sampling Field Log Sheet.

Sample documentation procedures include the following:

Sample Bottle Identification Labels: Sampling personnel shall attach an identification label to each sample bottle. Sample identification shall uniquely identify each sample location.

Field Log Sheets: Sampling personnel shall complete the Sampling Field Log Sheet and Receiving Water Sampling Field Log Sheet for each sampling event, as appropriate.

Chain of Custody: Sampling personnel shall complete the Chain of Custody for each sampling event for which samples are collected for laboratory analysis. The sampler will sign the Chain of Custody when the sample(s) is turned over to the testing laboratory or courier.

7.8. BIOASSESSMENT MONITORING

This project is not subject to bioassessment monitoring.

7.9. WATERSHED MONITORING OPTION

This project is not participating in a watershed monitoring program. Therefore, this section is not applicable.

7.10. QUALITY ASSURANCE AND QUALITY CONTROL

An evaluation of the water quality sample analytical results, including figures with sample locations, the water quality analytical results and the quality assurance/quality control (QA/QC) data will performed by qualified personnel. Should the runoff sample show an increased level of the tested analyte relative to the background sample, the BMPs, Site conditions, and surrounding influences will be assessed to determine the probable cause for the increase.

7.10.1. Field Logs

The purpose of field logs is to record sampling information and field observations during monitoring that may explain any uncharacteristic analytical results. Sampling information to be included in the field log include the date and time of water quality sample collection, sampling personnel, sample container identification numbers, and types of samples that were collected. Field observations should be noted in the field log for any abnormalities at the sampling location (color, odor, BMPs, etc.). Field measurements for pH and turbidity should also be recorded in the field log.

7.10.2. Clean Sampling Techniques

Clean sampling techniques involve the use of certified clean containers for sample collection and clean powder-free nitrile gloves during sample collection and handling. As discussed in Section 7.7.7, adoption of a clean sampling approach will minimize the chance of field contamination and questionable data results.

7.10.3. Chain of Custody

The sample Chain of Custody is an important documentation step that tracks samples from collection through analysis to ensure the validity of the sample. Sample Chain of Custody procedures include the following:

- Proper labeling of samples;
- Use of Chain of Custody forms for all samples; and
- Prompt sample delivery to the analytical laboratory.

Analytical laboratories usually provide Chain of Custody forms to be filled out for sample containers.

7.10.4. QA/QC Samples

QA/QC samples provide an indication of the accuracy and precision of the sample collection; sample handling; field measurements; and analytical laboratory methods. The following types of QA/QC will be conducted for this project:

☒ Field Duplicates at a frequency of 1 per every 10 samples or 1 per sample event

☐ Equipment Blanks at a frequency of 1 per day or 1 per sample event

☐ Field Blanks at a frequency of 1 per day or 1 per sample event

7.10.4.1. Field Duplicates

Field duplicates provide verification of laboratory or field analysis and sample collection. Duplicate samples shall be collected, handled, and analyzed using the same protocols as primary samples. The sample location where field duplicates are collected shall be randomly selected from the discharge locations. Duplicate samples shall be collected immediately after the primary sample has been collected.

Duplicate samples must be collected in the same manner and as close in time as possible to the original sample. Duplicate samples shall not influence any evaluations or conclusion.

7.10.4.2. Equipment Blanks

Equipment blanks provide verification that equipment has not introduced a pollutant into the sample. Equipment blanks are typically collected when:

- New equipment is used;
- Equipment that has been cleaned after use at a contaminated Site;
- Equipment that is not dedicated for surface water sampling is used; or
- Whenever a new lot of filters is used when sampling metals.

7.10.4.3. Field Blanks

Field blanks assess potential sample contamination levels that occur during field sampling activities. De-ionized water field blanks are taken to the field, transferred to the appropriate container, and treated the same as the corresponding sample type during the course of a sampling event.

7.10.4.4. Data Verification

After results are received from the analytical laboratory, the QSP or designee shall verify the data to ensure that it is complete, accurate, and the appropriate QA/QC requirements were met. Data must be verified when the analytical reports are received. Data verification shall include:

- Review the Chain of Custody and laboratory reports. Make sure all requested analyses were performed and all samples are accounted for in the reports.
- Review laboratory reports to make sure hold times were met and that the reporting levels meet or are lower than the reporting levels agreed to in the contract.
- Review data for outlier values and follow up with the laboratory. Occasionally typographical errors, unit reporting errors, or incomplete results are reported and should be easily detected. These errors need to be identified, clarified, and corrected quickly by the laboratory. The QSP or designee should especially note data that is an order of magnitude or more different than similar locations, or is inconsistent with previous data from the same location.
- Review laboratory QA/QC results. EPA establishes QA/QC checks and acceptable criteria for laboratory analyses. These data are typically reported along with the sample results. The QSP or designee shall evaluate the reported QA/QC data to check for contamination (method, field, and equipment blanks), precision (laboratory matrix spike duplicates), and accuracy (matrix spikes and laboratory control samples). When QA/QC checks are outside acceptable ranges, the laboratory must flag the data, and usually provides an explanation of the potential impact to the sample results.
- Review the data set for outlier values and, accordingly, confirm results and re-analyze samples where appropriate. Sample re-analysis should only be undertaken when it appears that some part of the QA/QC resulted in a value out of the accepted range. Sample results may not be discounted unless the analytical laboratory identifies the required QA/QC criteria were not met and confirms this in writing.

Field data including inspections and observations must be verified as soon as the field logs are received, typically at the end of the sampling event. Field data verification shall include:

- Review field logs to make sure all required measurements were completed and appropriately documented;
- Review reported values that appear out of the typical range or inconsistent; Follow-up immediately to identify potential reporting or equipment problems, if appropriate, recalibrate equipment after sampling;
- Verify equipment calibrations;
- Review observations noted on the field logs; and
- Review notations of any errors and actions taken to correct the equipment or recording errors.

7.11. RECORDS RETENTION

All records of storm water monitoring information and copies of reports (including Annual Reports) must be retained for a period of at least three years from date of submittal or longer if required by the Regional Water Board.

Results of visual monitoring, field measurements, and laboratory analyses must be kept in the SWPPP along with Chain of Custody, and other documentation related to the monitoring.

Records are to be kept on-site while construction is ongoing. Records to be retained include:

- The date, place, and time of inspections, sampling, visual observations, and/or measurements, including precipitation;
- The individual(s) who performed the inspections, sampling, visual observation, and/or field measurements;
- The date and approximate time of field measurements and laboratory analyses;
- The individual(s) who performed the laboratory analyses;
- A summary of all analytical results, the method detection limits and reporting limits, and the analytical techniques or methods used;
- Rain gauge readings from Site inspections;
- QA/QC records and results;
- Calibration records;
- Visual observation and sample collection exemption records; and
- The records of any corrective actions and follow-up activities that resulted from analytical results, visual observations, or inspections.

Section 8. References

California Stormwater Quality Association (CASQA), 2009, Stormwater BMP Handbook Portal: Construction, November.

MACTEC, 2007. Technical Memorandum, Human Health Soil Preliminary Remediation Goals and Toxic Equivalency Values for Dioxins and Furans, Presidio of San Francisco, California, March 28.

State Water Resources Control Board, 2010. Order 2010-0014-DWQ, NPDES CGP No. CAS000002: National Pollutant Discharges Elimination System (NPDES) California CGP for Storm Water Discharge Associated with Construction and Land Disturbing Activities. Available on-line at: http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml.

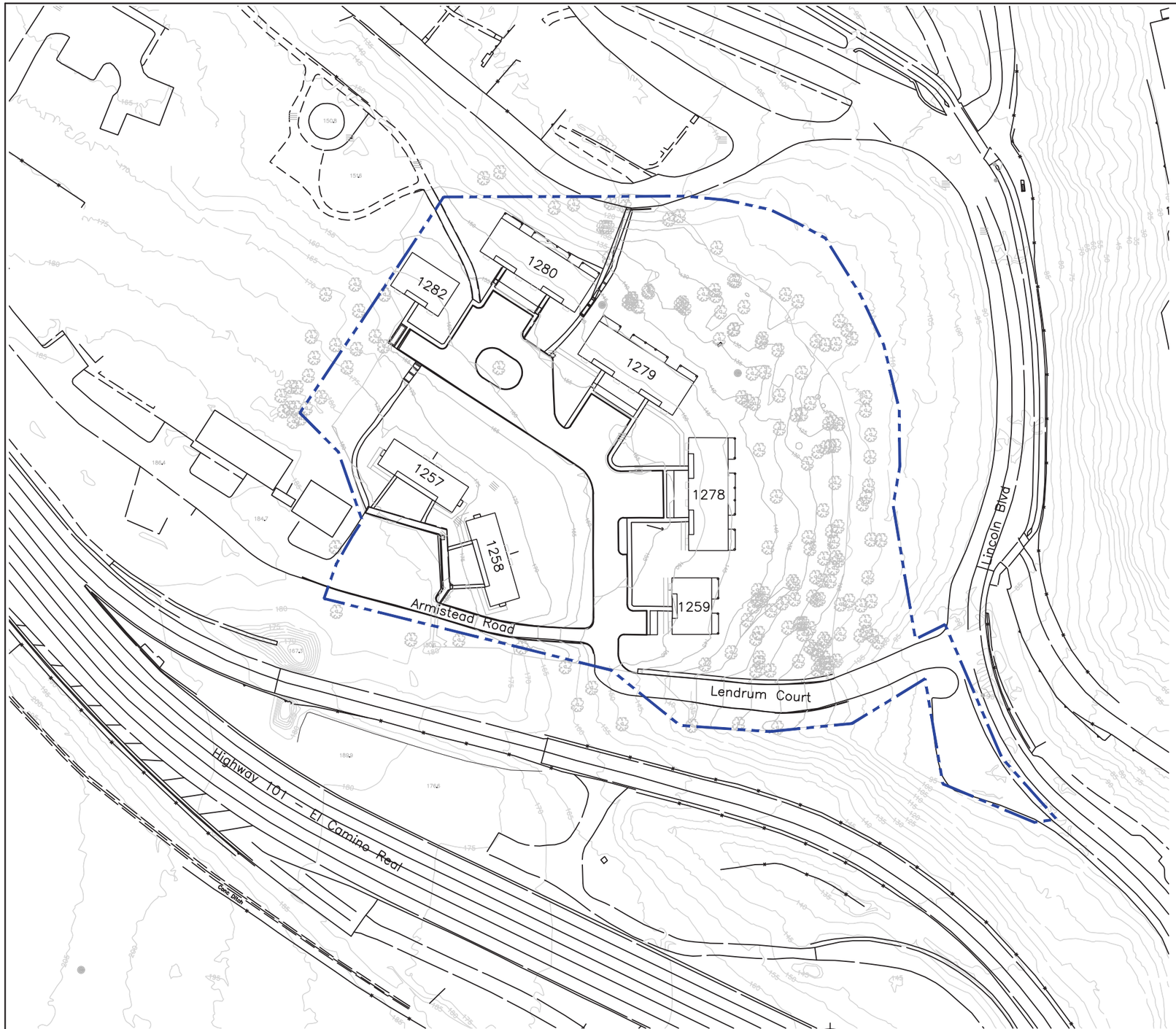
TRC, 2015a. Technical Memorandum Recreational Soil Cleanup Level for Lead, Presidio of San Francisco, San Francisco, California. April 6.

TRC, 2015b. Remedial Action Work Plan, Lendrum Court, Presidio of San Francisco, California. XXX. ‘

United States Department of the Interior/National Park Service/The Presidio Trust, 2001. Vegetation Management Plan (VMP) and Environmental Assessment (EA), Presidio of San Francisco, California. December.

Water Quality Control Board, 2009. Order 2009-0009-DWQ, NPDES CGP No. CAS000002: National Pollutant Discharges Elimination System (NPDES) California CGP for Storm Water Discharge Associated with Construction and Land Disturbing Activities. Available on-line at: http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml.

Figures



VICINITY MAP
NOT TO SCALE

LEGEND:

SITE BOUNDARY

NOTES:

1. SITE FEATURES AND TOPOGRAPHY PROVIDED BY PRESIDIO TRUST AS PERFORMED BY PLS SURVEYS, INC. UNDER SUBCONTRACT TO EKI, INC. ON OCTOBER 2014.
2. ALL COORDINATES ARE REPORTED IN U.S. SURVEY FEET.
3. HORIZONTAL COORDINATES ARE REFERENCED TO THE NAD83, CALIFORNIA COORDINATE SYSTEM ZONE 3, (2007.0).
4. ELEVATIONS ARE BASED ON NAVD88. PROJECT BENCHMARK IS NGS MONUMENT N813, ELEVATION = 11.09 FEET.

N

0' 80'

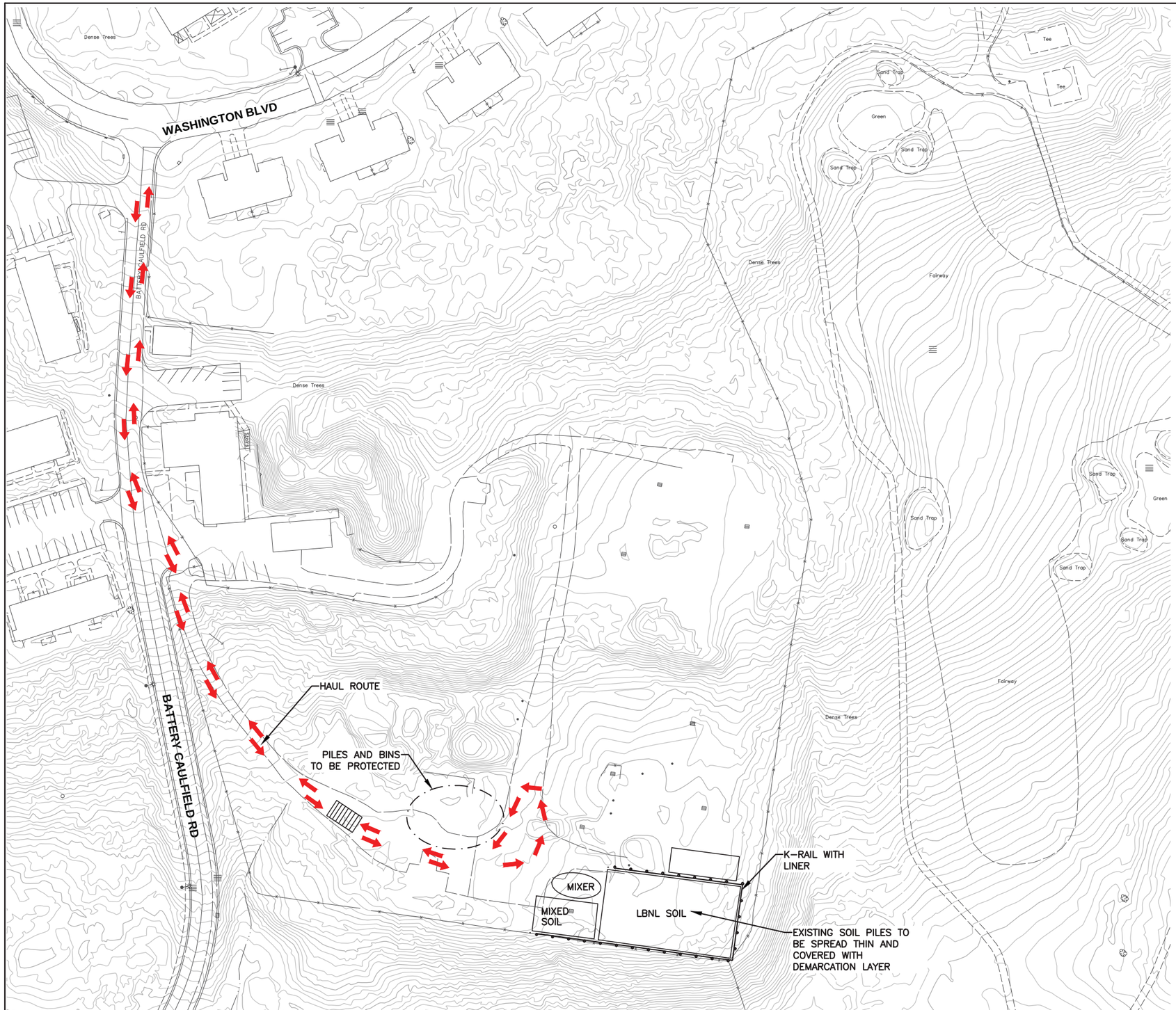
SCALE: 1"= 80'

SOURCE: DESIGN DRAWINGS PROVIDED BY TRC INC., JULY 2015.

FILE NAME: N:\Graphics\2015\2015-063\B1.dwg LAYOUT NAME: 1 PLOTTED: Tuesday, June 28, 2016 - 1:14pm

ERRG Engineering/Remediation Resources Group, Inc.
115 Sansome St., Suite 200
San Francisco, California 94104
(415) 395-9974

CLIENT: PRESIDIO TRUST	LENDRUM COURT SITE LOCATION AND VICINITY MAP			
LOCATION: LENDRUM CT. AND LINCOLN BLVD. SAN FRANCISCO, CA 94129	DRAWN BY: SC 06/28/16	CHECKED BY: TA 06/28/16	PROJECT NO. 2015-063	FIG NO. B-1



LEGEND:

HAUL ROUTE

RUMBLE PLATE

K-RAIL

N

0' 100'

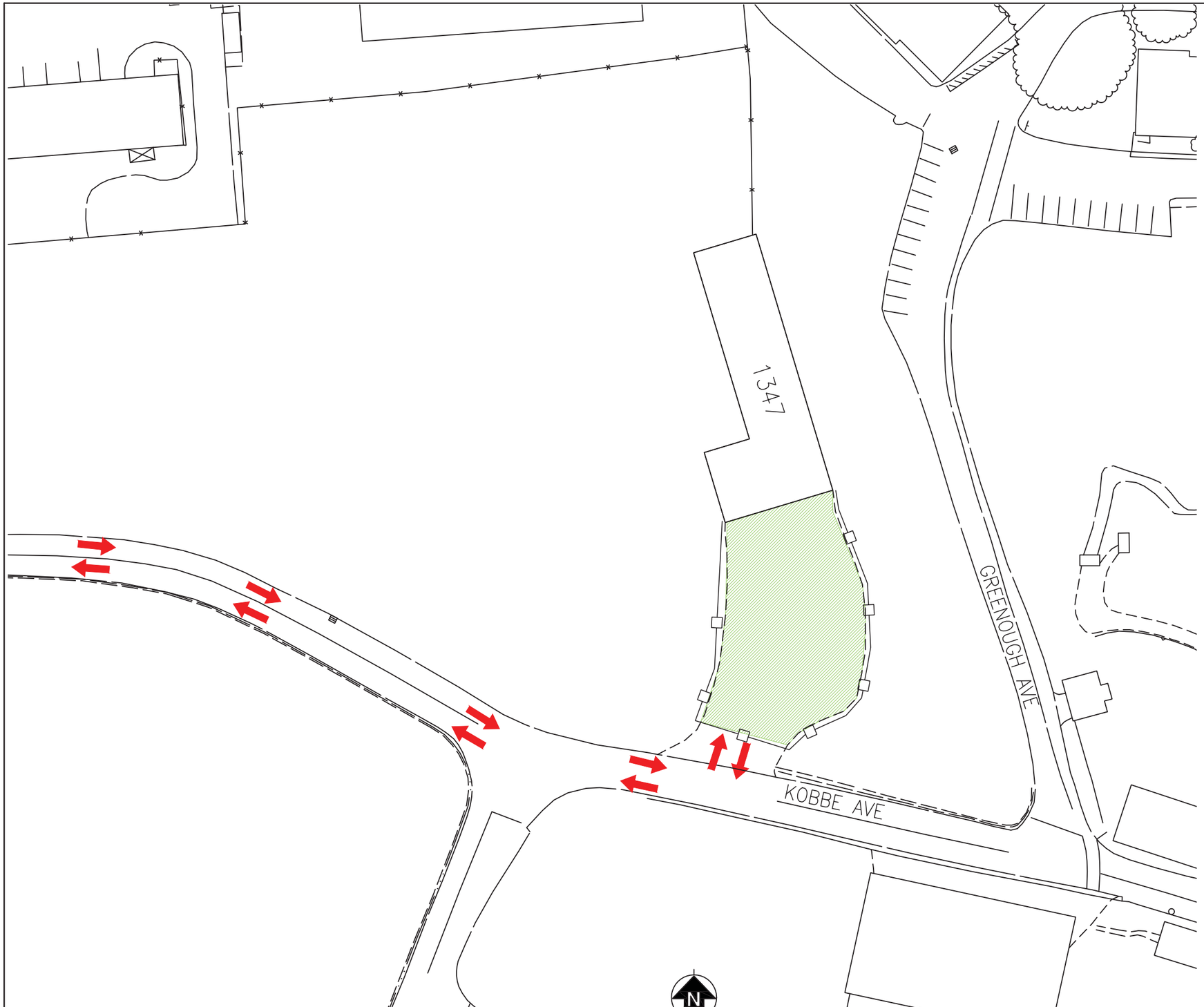
SCALE: 1"= 100'

SOURCE: DESIGN DRAWINGS PROVIDED BY TRC INC., JULY 2015.

ERRG
Engineering/Remediation Resources Group, Inc.
115 Sansome St., Suite 200
San Francisco, California 94104
(415) 395-9974

CLIENT:	PRESIDIO TRUST	NIKE SITE LOCATION MAP			
LOCATION:	LENDRUM CT. AND LINCOLN BLVD. SAN FRANCISCO, CA 94129	DRAWN BY: SC 06/28/16	CHECKED BY: TA 06/28/16	PROJECT NO. 2015-063	FIG NO. B-2

FILE NAME: N:\Graphics\2015\2015-063\B2.dwg LAYOUT NAME: B2 PLOTTED: Thursday, June 30, 2016 - 12:45pm



SOURCE: DESIGN DRAWINGS PROVIDED BY TRC INC., JULY 2015.

FILE NAME: N:\Graphics\2015\2015-063\plans\B3.dwg LAYOUT NAME: B3 PLOTTED: Thursday, June 30, 2016 - 2:50pm

ERRG Engineering/Remediation Resources Group, Inc.
115 Sansome St., Suite 200
San Francisco, California 94104
(415) 395-9974

CLIENT: PRESIDIO TRUST	BUILDING 1347 SITE LOCATION MAP			
LOCATION: LENDRUM CT. AND LINCOLN BLVD. SAN FRANCISCO, CA 94129	DRAWN BY: SC 06/28/16	CHECKED BY: TA 06/28/16	PROJECT NO. 2015-063	FIG NO. B-3

LEGEND:

- SITE BOUNDARY
- SILT FENCE
- TREE PROTECTION ZONE
- APPROXIMATE LIMITS OF LENDRUM COURT DISTURBED SOIL DUE TO REMEDIAL ACTIVITY
- CONTAMINANT REDUCTION ZONE
- STAGING AREA
- FIBER ROLL (STRAW WATTLE)
- STORM DRAIN INLET PROTECTION
- GRAVEL SPREAD BELOW ROOF GUTTER DOWNSPOUTS
- EXISTING TREE

NOTE:

1. TEMPORARY TYPE CL-6 FENCE WILL BE INSTALLED AROUND SITE. LOCKABLE GATES FOR INGRESS AND EGRESS WILL BE PROVIDED. FINAL FENCE ALIGNMENT AND QUANTITY MAY CHANGE.
2. ADEQUATE EQUIPMENT STORAGE, REFUELING, TRAILER, AND SANITARY FACILITY LOCATIONS ONSITE WILL BE LOCATED IN STAGING AREA.
3. SUITABLE CONTROLS FOR STAGING AND STOCKPILE AREA (STRAW WATTLE, PLASTIC GROUND COVER, AND TARP) WILL BE INSTALLED.
4. GRAVEL WILL BE PLACED ON THE GROUND UNDERNEATH BUILDING STORM DRAINS TO LIMIT EROSION FROM CONCENTRATED FALLING WATER GENERATED BY STORM DRAINS. LOCATIONS ARE APPROXIMATE.

N

0' 50'

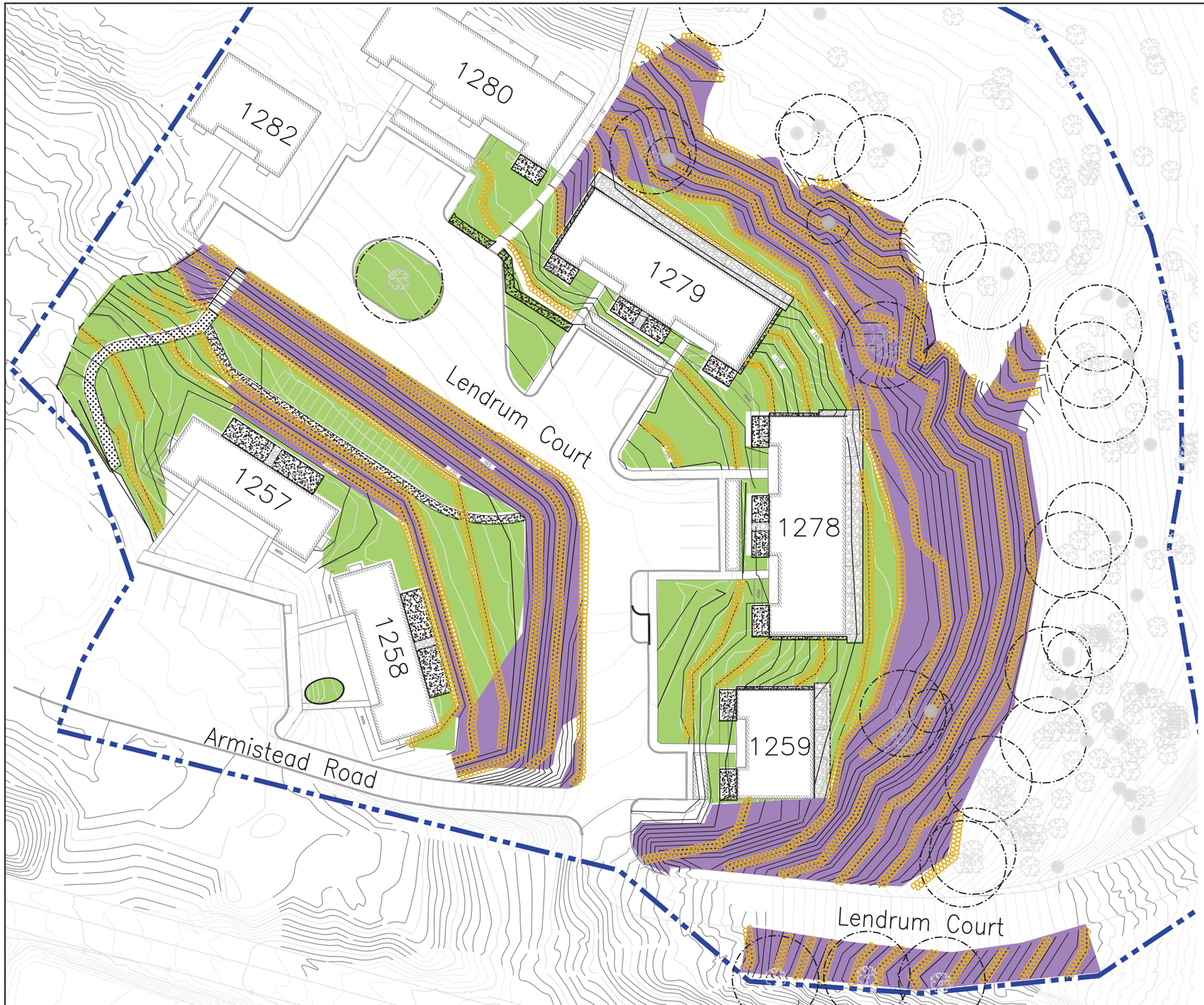
SCALE: 1"= 50'

SOURCE: DESIGN DRAWINGS PROVIDED BY TRC INC., JULY 2015.

ERRG Engineering/Remediation Resources Group, Inc.
115 Sansome St., Suite 200
San Francisco, California 94104
(415) 395-9974

CLIENT: PRESIDIO TRUST	INTERIM EROSION AND SEDIMENT CONTROL PLAN			
LOCATION: LENDRUM CT. AND LINCOLN BLVD. SAN FRANCISCO, CA 94129	DRAWN BY: SC 06/28/16	CHECKED BY: TA 06/28/16	PROJECT NO. 2015-063	FIG NO. B-4

FILE NAME: N:\Graphics\2015\2015-063\plans\Fig9.dwg LAYOUT NAME: B4 PLOTTED: Thursday, July 07, 2016 - 11:30am



LEGEND:

- SITE BOUNDARY
- TREE PROTECTION ZONE
- ECTC TYPE 4 EROSION CONTROL BLANKET ANCHORING PATTERN A
- ECTC TYPE 4 EROSION CONTROL BLANKET ANCHORING PATTERN B
- FIBER ROLL (STRAW WATTLE)
- EXISTING TREE

NOTES:

1. EROSION CONTROL IMPROVEMENTS WILL BE CONSTRUCTED IMMEDIATELY FOLLOWING COMPLETION OF GRADING AND WILL REMAIN AS IMPROVEMENTS.
2. INSTALL STRAW MULCH BELOW EROSION CONTROL BLANKETS AND NETTING ACROSS THE ENTIRE REMOVAL AREA PRIOR TO INSTALLATION.
3. EROSION CONTROL BLANKET PATTERNS PER SPECIFICATIONS.

N

0' 50'

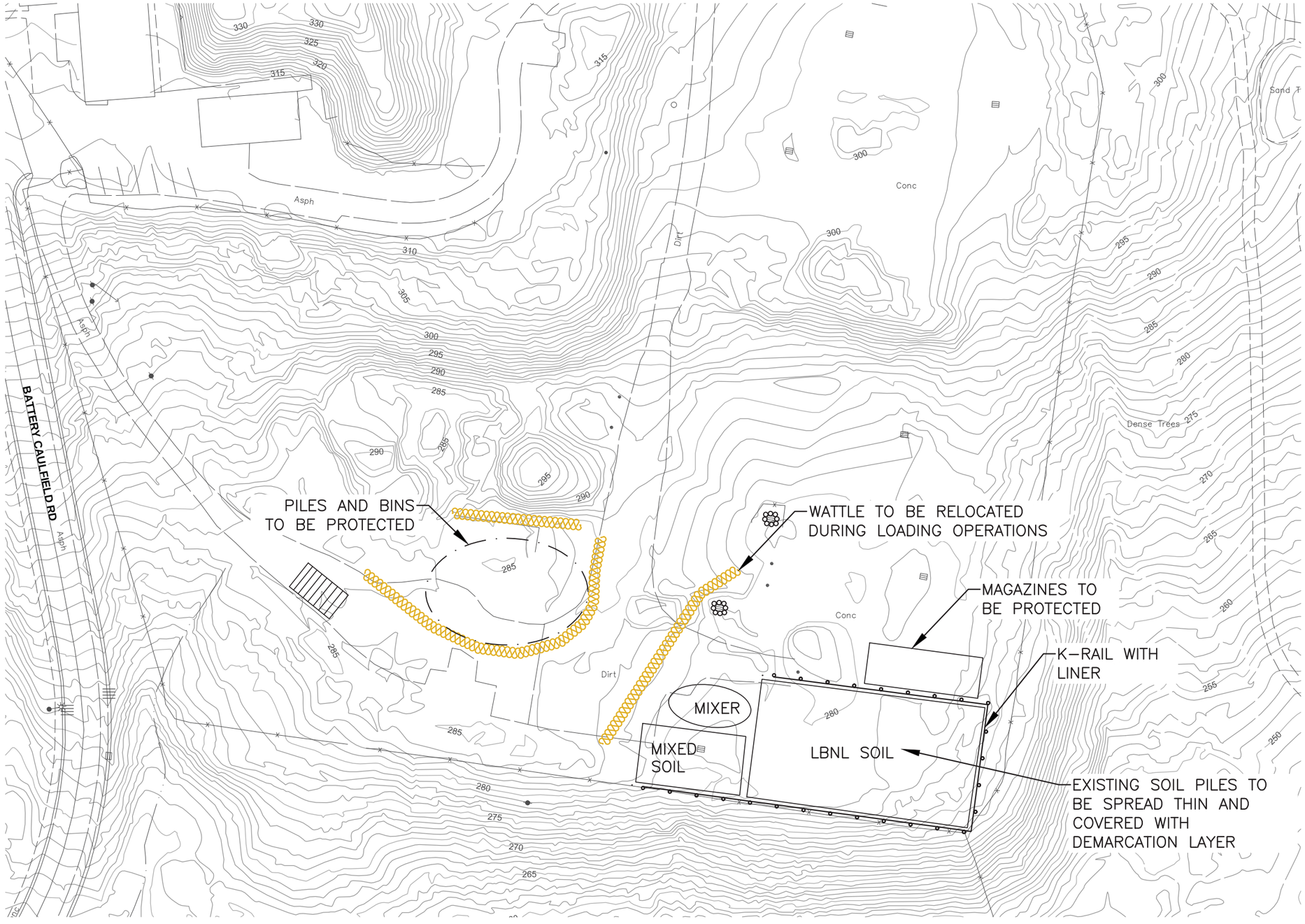
SCALE: 1"= 50'

SOURCE: DESIGN DRAWINGS PROVIDED BY TRC INC., JULY 2015.

ERRG Engineering/Remediation Resources Group, Inc.
115 Sansome St., Suite 200
San Francisco, California 94104
(415) 395-9974

CLIENT:	PRESIDIO TRUST	POST–CONSTRUCTION EROSION AND SEDIMENT CONTROL PLAN			
LOCATION:	LENDRUM CT. AND LINCOLN BLVD. SAN FRANCISCO, CA 94129	DRAWN BY: SC 06/28/16	CHECKED BY: TA 06/28/16	PROJECT NO. 2015–063	FIG NO. B–5

FILE NAME: N:\Graphics\2015\2015-063\plans\Fig10.dwg LAYOUT NAME: b5 PLOTTED: Thursday, July 07, 2016 - 11:26am



LEGEND:

- FIBER ROLL
- RUMBLE PLATE
- INLET PROTECTION
- K-RAIL

N

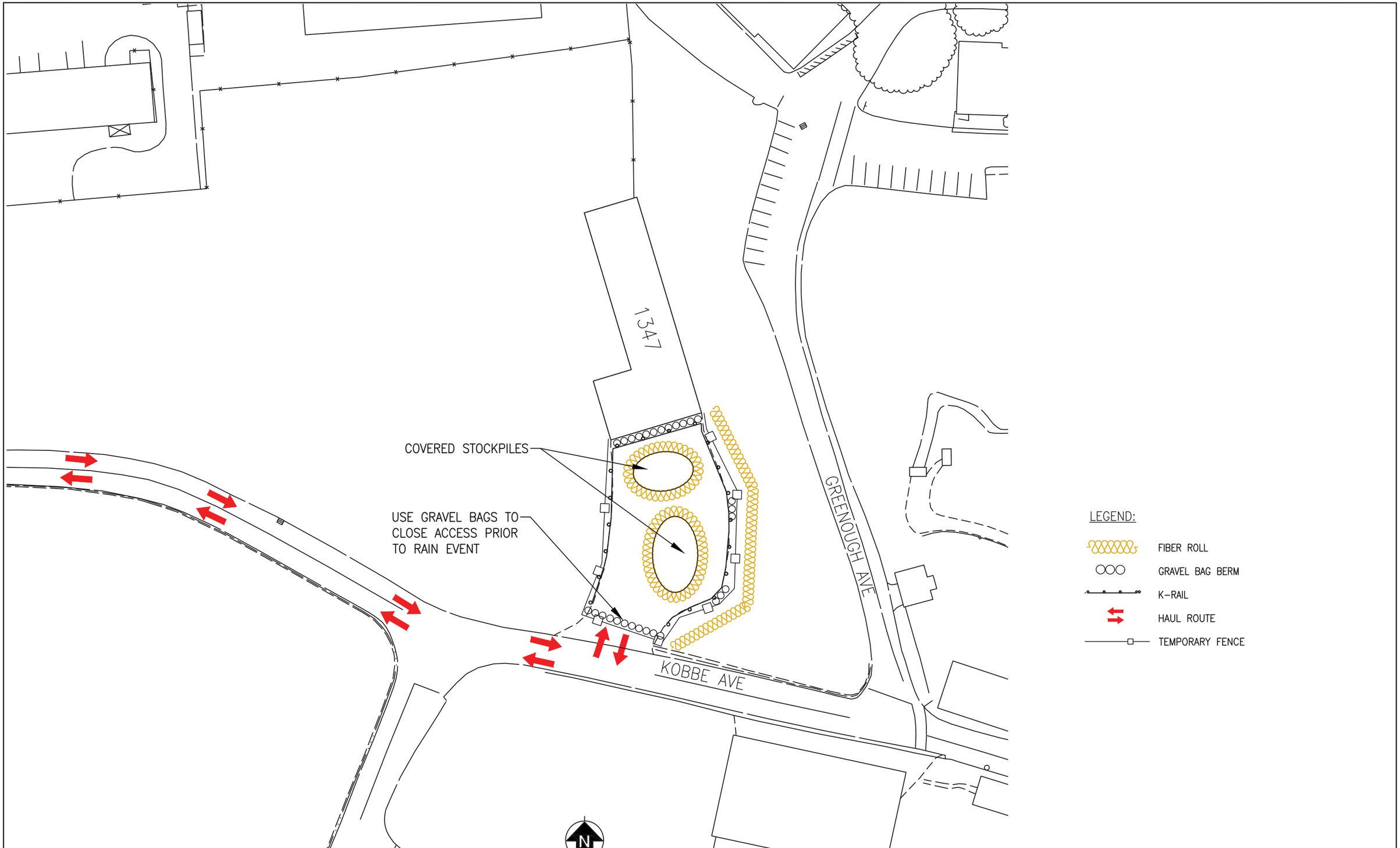
0' 60'

SCALE: 1"= 60'

SOURCE: DESIGN DRAWINGS PROVIDED BY TRC INC., JULY 2015.

FILE NAME: N:\Graphics\2015\2015-063\B6.dwg LAYOUT NAME: b6 PLOTTED: Thursday, June 30, 2016 - 12:38pm

ERRG Engineering/Remediation Resources Group, Inc. 115 Sansome St., Suite 200 San Francisco, California 94104 (415) 395-9974	CLIENT: PRESIDIO TRUST	NIKE EROSION CONTROL PLAN			
	LOCATION: LENDRUM CT. AND LINCOLN BLVD. SAN FRANCISCO, CA 94129	DRAWN BY: SC 06/28/16	CHECKED BY: TA 06/28/16	PROJECT NO. 2015-063	FIG NO. B-6



SOURCE: DESIGN DRAWINGS PROVIDED BY TRC INC., JULY 2015.

FILE NAME: N:\Graphics\2015\2015-063\plans\B7.dwg LAYOUT NAME: B7 PLOTTED: Tuesday, July 05, 2016 - 2:06pm

ERRG Engineering/Remediation Resources Group, Inc.
115 Sansome St., Suite 200
San Francisco, California 94104
(415) 395-9974

CLIENT: PRESIDIO TRUST		BUILDING 1347 EROSION CONTROL PLAN			
LOCATION: LENDRUM CT. AND LINCOLN BLVD. SAN FRANCISCO, CA 94129	DRAWN BY: SC 06/28/16	CHECKED BY: TA 06/28/16	PROJECT NO. 2015-063	FIG NO. B-7	

Appendix C-1. Construction CGP

State Water Resources Control Board
Division of Water Quality
1001 I Street • Sacramento, California 95814 • (916) 341-5455
Mailing Address: P.O. Box 100 • Sacramento, California • 95812-0100
Fax (916) 341-5463 • http://www.waterboards.ca.gov

Linda S. Adams
Secretary for
Environmental Protection

Arnold Schwarzenegger
Governor

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I. BACKGROUND

A. History

In 1972, the Federal Water Pollution Control Act (also referred to as the Clean Water Act [CWA]) was amended to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The 1987 amendments to the CWA added Section 402(p), which establishes a framework for regulating municipal and industrial storm water discharges under the NPDES Program. On November 16, 1990, the U.S. Environmental Protection Agency (USEPA) published final regulations that established storm water permit application requirements for specified categories of industries. The regulations provide that discharges of storm water to waters of the United States from construction projects that encompass five or more acres of soil disturbance are effectively prohibited unless the discharge is in compliance with an NPDES Permit. Regulations (Phase II Rule) that became final on December 8, 1999 lowered the permitting threshold from five acres to one acre.

While federal regulations allow two permitting options for storm water discharges (Individual Permits and General Permits), the State Water Board has elected to adopt only one statewide General Permit at this time that will apply to most storm water discharges associated with construction activity.

On August 19, 1999, the State Water Board reissued the General Construction Storm Water Permit (Water Quality Order 99-08-DWQ). On December 8, 1999 the State Water Board amended Order 99-08-DWQ to apply to sites as small as one acre.

The General Permit accompanying this fact sheet regulates storm water runoff from construction sites. Regulating many storm water discharges under one permit will greatly reduce the administrative burden associated with permitting individual storm water discharges. To obtain coverage under this General Permit, dischargers shall electronically file the Permit Registration Documents (PRDs), which includes a Notice of Intent (NOI), Storm Water Pollution Prevention Plan (SWPPP), and other compliance related documents required by this General Permit and mail the appropriate permit fee to the State Water Board. It is expected that as the storm water program develops, the Regional Water Quality Control Boards (Regional Water Boards) may issue General Permits or Individual Permits containing more specific permit provisions. When this occurs, this General Permit will no longer regulate those dischargers.

B. Legal Challenges and Court Decisions

1. Early Court Decisions

Shortly after the passage of the CWA, the USEPA promulgated regulations exempting most storm water discharges from the NPDES permit requirements. (See 40 C.F.R. § 125.4 (1975); see also *Natural Resources Defense Council v. Costle* (D.C. Cir. 1977) 568 F.2d 1369, 1372 (*Costle*); *Defenders of Wildlife v. Browner* (9th Cir. 1999) 191 F.3d 1159, 1163 (*Defenders of Wildlife*).) When environmental groups challenged this exemption in federal court, the District of Columbia Court of Appeals invalidated the regulation, holding that the USEPA "does not have authority to exempt categories of point sources from the permit requirements of [CWA] § 402." (*Costle*, 568 F.2d at 1377.) The *Costle* court rejected the USEPA's argument that effluent-based storm sewer regulation was administratively infeasible because of the variable nature of storm water pollution and the number of affected storm sewers throughout the country. (*Id.* at 1377-82.) Although the court acknowledged the practical problems relating to storm sewer regulation, the court found the USEPA had the flexibility under the CWA to design regulations that would overcome these problems. (*Id.* at 1379-83.) In particular, the court pointed to general permits and permits based on requiring best management practices (BMPs).

During the next 15 years, the USEPA made numerous attempts to reconcile the statutory requirement of point source regulation with the practical problem of regulating possibly millions of diverse point source discharges of storm water. (See *Defenders of Wildlife*, 191 F.3d at 1163; see also Gallagher, Clean Water Act in Environmental Law Handbook (Sullivan, edit., 2003)
p. 300 (Environmental Law Handbook); Eisen, *Toward a Sustainable Urbanism: Lessons from Federal Regulation of Urban Storm Water Runoff* (1995) 48 Wash. U.J. Urb. & Contemp. L.1, 40-41 [Regulation of Urban Storm Water Runoff].)

In 1987, Congress amended the CWA to require NPDES permits for storm water discharges. (See CWA § 402(p), 33 U.S.C. § 1342(p); *Defenders of Wildlife,* 191 F.3d at 1163; *Natural Resources Defense Council v. USEPA* (9th Cir. 1992) 966 F.2d 1292, 1296.) In these amendments, enacted as part of the Water Quality Act of 1987, Congress distinguished between industrial and municipal storm water discharges. With respect to industrial storm water discharges, Congress provided that NPDES permits "shall meet all applicable provisions of this section and section 1311 [requiring the USEPA to establish effluent limitations under specific timetables]." (CWA § 402(p)(3)(A), 33 U.S.C. § 1342(p)(3)(A); see also *Defenders of Wildlife,* 191 F.3d at 1163-64.)

In 1990, USEPA adopted regulations specifying what activities were considered "industrial" and thus required discharges of storm water associated with those activities to obtain coverage under NPDES permits. (55 Fed. Reg. 47,990 (1990); 40 C.F.R. § 122.26(b)(14).) Construction activities, deemed a subset of the industrial activities category, must also be regulated by an NPDES permit. (40 C.F.R. § 122.26(b)(14)(x)). In 1999, USEPA issued regulations for "Phase II" of storm water regulation, which required most small construction sites (1-5 acres) to be regulated under the NPDES program. (64 Fed. Reg. 68,722; 40 C.F.R. § 122.26(b)(15)(i).)

2. Court Decisions on Public Participation

Two recent federal court opinions have vacated USEPA rules that denied meaningful public review of NPDES permit conditions. On January 14, 2003, the Ninth Circuit Court of Appeals held that certain aspects of USEPA's Phase II regulations governing MS4s were invalid primarily because the general permit did not contain express requirements for public participation. (*Environmental Defense Center v. USEPA* (9th Cir. 2003) 344 F.3d 832.) Specifically, the court determined that applications for general permit coverage (including the Notice of Intent (NOI) and Storm Water Management Program (SWMP)) must be made available to the public, the applications must be reviewed and determined to meet the applicable standard by the permitting authority before coverage commences, and there must be a process to accommodate public hearings. (*Id.* at 852-54.) Similarly, on February 28, 2005, the Second Circuit Court of Appeals held that the USEPA's confined animal feeding operation (CAFO) rule violated the CWA because it allowed dischargers to write their own nutrient management plans without public review. (*Waterkeeper Alliance v. USEPA* (2d Cir. 2005) 399 F.3d 486.) Although neither decision involved the issuance of construction storm water permits, the State Water Board's Office of Chief Counsel has recommended that the new General Permit address the courts' rulings where feasible[1].

[1] In *Texas Independent Producers and Royalty Owners Assn. v. USEPA* (7th Cir. 2005) 410 F.3d 964, the Seventh Circuit Court of Appeals held that the USEPA's construction general permit was not required to provide the public with the opportunity for a public hearing on the Notice of Intent or Storm Water Pollution Prevention Plan. The Seventh Circuit briefly discussed why it agreed with the Ninth Circuit's dissent in *Environmental Defense Center*, but

The CWA and the USEPA's regulations provide states with the discretion to formulate permit terms, including specifying best management practices (BMPs), to achieve strict compliance with federal technology-based and water quality-based standards. (*Natural Resources Defense Council v. USEPA* (9th Cir. 1992) 966 F.2d 1292, 1308.) Accordingly, this General Permit has developed specific BMPs as well as numeric action levels (NALs) in order to achieve these minimum federal standards. In addition, the General Permit requires a SWPPP and REAP (another dynamic, site-specific plan) to be developed but has removed all language requiring the discharger to implement these plans – instead, the discharger is required to comply with specific requirements. By requiring the dischargers to implement these specific BMPs and NALs, this General Permit ensures that the dischargers do not "write their own permits." As a result this General Permit does not require each discharger's SWPPP and REAP to be reviewed and approved by the Regional Water Boards.

This General Permit also requires dischargers to electronically file all permit-related compliance documents. These documents include, but are not limited to, NOIs, SWPPPs, annual reports, Notice of Terminations (NOTs), and numeric action level (NAL) exceedance reports. Electronically submitted compliance information is immediately available to the public, as well as the Regional Water Quality Control Board (Regional Water Board) offices, via the Internet. In addition, this General Permit enables public review and hearings on permit applications when appropriate. Under this General Permit, the public clearly has a meaningful opportunity to participate in the permitting process.

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generally did not discuss the substantive holdings in *Environmental Defense Center* and *Waterkeeper Alliance*, because neither court addressed the initial question of whether the plaintiffs had standing to challenge the permits at issue. However, notwithstanding the Seventh Circuit's decision, it is not binding or controlling on the State Water Board because California is located within the Ninth Circuit.

C. Blue Ribbon Panel of Experts and Feasibility of Numeric Effluent Limitations

In 2005 and 2006, the State Water Board convened an expert panel (panel) to address the feasibility of numeric effluent limitations (NELs) in California's storm water permits. Specifically, the panel was asked to address:

"Is it technically feasible to establish numeric effluent limitations, or some other quantifiable limit, for inclusion in storm water permits? How would such limitations or criteria be established, and what information and data would be required?"

"The answers should address industrial general permits, construction general permits, and area-wide municipal permits. The answers should also address both technology-based limitations or criteria and water quality-based limitations or criteria. In evaluating establishment of any objective criteria, the panel should address all of the following:

The ability of the State Water Board to establish appropriate objective limitations or criteria;

How compliance determinations would be made;

The ability of dischargers and inspectors to monitor for compliance; and

The technical and financial ability of dischargers to comply with the limitations or criteria."

Through a series of public participation processes (State Water Board meetings, State Water Board workshops, and the solicitation of written comments), a number of water quality, public process and overall program effectiveness problems were identified. Some of these problems are addressed through this General Permit.

D. Summary of Panel Findings on Construction Activities

The panel's final report can be downloaded and viewed through links at www.waterboards.ca.gov or by clicking here[2].

The panel made the following observations:

"Limited field studies indicate that traditional erosion and sediment controls are highly variable in performance, resulting in highly variable turbidity levels in the site discharge."

"Site-to-site variability in runoff turbidity from undeveloped sites can also be quite large in many areas of California, particularly in more arid regions with less natural vegetative cover and steep slopes."

[2] http://www.waterboards.ca.gov/stormwtr/docs/numeric/swpanel_final_report.pdf

"Active treatment technologies involving the use of polymers with relatively large storage systems now exist that can provide much more consistent and very low discharge turbidity. However, these technologies have as yet only been applied to larger construction sites, generally five acres or greater. Furthermore, toxicity has been observed at some locations, although at the vast majority of sites, toxicity has not occurred. There is also the potential for an accidental large release of such chemicals with their use."

"To date most of the construction permits have focused on TSS and turbidity, but have not addressed other, potentially significant pollutants such as phosphorus and an assortment of chemicals used at construction sites."

"Currently, there is no required training or certification program for contractors, preparers of soil erosion and sediment control Storm Water Pollution Prevention Plans, or field inspectors."

"The quality of storm water discharges from construction sites that effectively employ BMPs likely varies due to site conditions such as climate, soil, and topography."

"The States of Oregon and Washington have recently adopted similar concepts to the Action Levels described earlier."

In addition, the panel made the following conclusions:

"It is the consensus of the Panel that active treatment technologies make Numeric Limits technically feasible for pollutants commonly associated with storm water discharges from construction sites (e.g. TSS and turbidity) for larger construction sites. Technical practicalities and cost-effectiveness may make these technologies less feasible for smaller sites, including small drainages within a larger site, as these technologies have seen limited use at small construction sites. If chemical addition is not permitted, then Numeric Limits are not likely feasible."

"The Board should consider Numeric Limits or Action Levels for other pollutants of relevance to construction sites, but in particular pH. It is of particular concern where fresh concrete or wash water from cement mixers/equipment is exposed to storm water."

"The Board should consider the phased implementation of Numeric Limits and Action Levels, commensurate with the capacity of the dischargers and support industry to respond."

E. How the Panel's Findings are Used in this General Permit

The State Water Board carefully considered the findings of the panel and related public comments. The State Water Board also reviewed and considered the comments regarding statewide storm water policy and the reissuance of the Industrial General Permit. From the input received the State Water Board identified some permit and program performance gaps that are addressed in this General Permit. The Summary of Significant Changes (below) in this General Permit are a direct result of this process.

F. Summary of Significant Changes in This General Permit

The State Water Board has significant changes to Order 99-08-DWQ. This General Permit differs from Order 99-08-DWQ in the following significant ways:

Rainfall Erosivity Waiver: this General Permit includes the option allowing a small construction site (>1 and <5 acres) to self-certify if the rainfall erosivity value (R value) for their site's given location and time frame compute to be less than or equal to 5.

Technology-Based Numeric Action Levels: this General Permit includes NALs for pH and turbidity.

Risk-Based Permitting Approach: this General Permit establishes three levels of risk possible for a construction site. Risk is calculated in two parts: 1) Project Sediment Risk, and 2) Receiving Water Risk.

Minimum Requirements Specified: this General Permit imposes more minimum BMPs and requirements that were previously only required as elements of the SWPPP or were suggested by guidance.

Project Site Soil Characteristics Monitoring and Reporting: this General Permit provides the option for dischargers to monitor and report the soil characteristics at their project location. The primary purpose of this requirement is to provide better risk determination and eventually better program evaluation.

Effluent Monitoring and Reporting: this General Permit requires effluent monitoring and reporting for pH and turbidity in storm water discharges. The purpose of this monitoring is to evaluate whether NALs and NELs for Active Treatment Systems included in this General Permit are exceeded.

Receiving Water Monitoring and Reporting: this General Permit requires some Risk Level 3 and LUP Type 3 dischargers to monitor receiving waters and conduct bioassessments.

Post-Construction Storm Water Performance Standards: this General Permit specifies runoff reduction requirements for all sites not covered by a Phase I or Phase II MS4 NPDES permit, to avoid, minimize and/or mitigate post-construction storm water runoff impacts.

Rain Event Action Plan: this General Permit requires certain sites to develop and implement a Rain Event Action Plan (REAP) that must be designed to protect all exposed portions of the site within 48 hours prior to any likely precipitation event.

Annual Reporting: this General Permit requires all projects that are enrolled for more than one continuous three-month period to submit information and annually certify that their site is in compliance with these requirements. The primary purpose of this requirement is to provide information needed for overall program evaluation and pubic information.

Certification/Training Requirements for Key Project Personnel: this General Permit requires that key personnel (e.g., SWPPP preparers, inspectors, etc.) have specific training or certifications to ensure their level of knowledge and skills are adequate to ensure their ability to design and evaluate project specifications that will comply with General Permit requirements.

Linear Underground/Overhead Projects: this General Permit includes requirements for all Linear Underground/Overhead Projects (LUPs).

II. RATIONALE

A. General Permit Approach

A general permit for construction activities is an appropriate permitting approach for the following reasons:

1. A general permit is an efficient method to establish the essential regulatory requirements for a broad range of construction activities under differing site conditions;

2. A general permit is the most efficient method to handle the large number of construction storm water permit applications;

3. The application process for coverage under a general permit is far less onerous than that for individual permit and hence more cost effective;

4. A general permit is consistent with USEPA's four-tier permitting strategy, the purpose of which is to use the flexibility provided by the CWA in designing a workable and efficient permitting system; and

5. A general permit is designed to provide coverage for a group of related facilities or operations of a specific industry type or group of industries. It is appropriate when the discharge characteristics are sufficiently similar, and a standard set of permit requirements can effectively provide environmental protection and comply with water quality standards for discharges. In most cases, the general permit will provide sufficient and appropriate management requirements to protect the quality of receiving waters from discharges of storm water from construction sites.

There may be instances where a general permit is not appropriate for a specific construction project. A Regional Water Board may require any discharger otherwise covered under the General Permit to apply for and obtain an Individual Permit or apply for coverage under a more specific General Permit. The Regional Water Board must determine that this General Permit does not provide adequate assurance that water quality will be protected, or that there is a site-specific reason why an individual permit should be required.

B. Construction Activities Covered

1. **Construction activity subject to this General Permit:**

Any construction or demolition activity, including, but not limited to, clearing, grading, grubbing, or excavation, or any other activity that results in a land disturbance of equal to or greater than one acre.

Construction activity that results in land surface disturbances of less than one acre if the construction activity is part of a larger common plan of development or sale of one or more acres of disturbed land surface.

Construction activity related to residential, commercial, or industrial development on lands currently used for agriculture including, but not limited to, the construction of buildings related to agriculture that are considered industrial pursuant to USEPA regulations, such as dairy barns or food processing facilities.

Construction activity associated with LUPs including, but not limited to, those activities necessary for the installation of underground and overhead linear facilities (e.g., conduits, substructures, pipelines, towers, poles, cables, wires, connectors, switching, regulating and transforming equipment and associated ancillary facilities) and include, but are not limited to, underground utility mark-out, potholing, concrete

and asphalt cutting and removal, trenching, excavation, boring and drilling, access road and pole/tower pad and cable/wire pull station, substation construction, substructure installation, construction of tower footings and/or foundations, pole and tower installations, pipeline installations, welding, concrete and/or pavement repair or replacement, and stockpile/borrow locations.

Discharges of sediment from construction activities associated with oil and gas exploration, production, processing, or treatment operations or transmission facilities.[3]

Storm water discharges from dredge spoil placement that occur outside of U.S. Army Corps of Engineers jurisdiction[4] (upland sites) and that disturb one or more acres of land surface from construction activity are covered by this General Permit. Construction projects that intend to disturb one or more acres of land within the jurisdictional boundaries of a CWA § 404 permit should contact the appropriate Regional Water Board to determine whether this permit applies to the project.

2. Linear Underground/Overhead Projects (LUPs) subject to this General Permit:

Underground/overhead facilities typically constructed as LUPs include, but are not limited to, any conveyance, pipe, or pipeline for the transportation of any gaseous, liquid (including water, wastewater for domestic municipal services), liquescent, or slurry substance; any cable line or wire for the transmission of electrical energy; any cable line or wire for communications (e.g., telephone, telegraph, radio or television messages); and associated ancillary facilities. Construction activities associated with LUPs include, but are not limited to, those activities necessary for the installation of underground and overhead linear facilities (e.g., conduits, substructures, pipelines, towers, poles, cables, wires, connectors, switching, regulating and transforming equipment and associated ancillary facilities) and include, but are not limited to, underground utility mark-out, potholing, concrete and asphalt cutting and removal, trenching, excavation, boring and drilling, access road and pole/tower pad and cable/wire pull station, substation construction, substructure installation, construction of tower footings and/or foundations, pole and tower installations, pipeline installations, welding, concrete and/or pavement repair or replacement, and stockpile/borrow locations.

Water Quality Order 2003-0007-DWQ regulated construction activities associated with small LUPs that resulted in land disturbances greater than one acre, but less than five acres. These projects were considered non-traditional construction projects. Attachment A of this Order now regulates all construction activities from LUPs resulting in land disturbances greater than one acre.

3. Common Plan of Development or Sale

USEPA regulations include the term “common plan of development or sale” to ensure that acreage within a common project does not artificially escape the permit requirements because construction activities are phased, split among smaller parcels, or completed by different owners/developers. In the absence of an

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[3] Pursuant to the Ninth Circuit Court of Appeals’ decision in *NRDC v. EPA* (9th Cir. 2008) 526 F.3d 591, and subsequent denial of the USEPA’s petition for reconsideration in November 2008, oil and gas construction activities discharging storm water contaminated only with sediment are no longer exempt from the NPDES program.

[4] A construction site that includes a dredge and/or fill discharge to any water of the United States (e.g., wetland, channel, pond, or marine water) requires a CWA Section 404 permit from the U.S. Army Corps of Engineers and a CWA Section 401 Water Quality Certification from the Regional Water Board or State Water Board.

exact definition of “common plan of development or sale,” the State Water Board is required to exercise its regulatory discretion in providing a common sense interpretation of the term as it applies to construction projects and permit coverage. An overbroad interpretation of the term would render meaningless the clear “one acre” federal permitting threshold and would potentially trigger permitting of almost any construction activity that occurs within an area that had previously received area-wide utility or road improvements.

Construction projects generally receive grading and/or building permits (Local Permits) from local authorities prior to initiating construction activity. These Local Permits spell out the scope of the project, the parcels involved, the type of construction approved, etc. Referring to the Local Permit helps define “common plan of development or sale.” In cases such as tract home development, a Local Permit will include all phases of the construction project including rough grading, utility and road installation, and vertical construction. All construction activities approved in the Local Permit are part of the common plan and must remain under the General Permit until construction is completed. For custom home construction, Local Permits typically only approve vertical construction as the rough grading, utilities, and road improvements were already independently completed under the a previous Local Permit. In the case of a custom home site, the homeowner must submit plans and obtain a distinct and separate Local Permit from the local authority in order to proceed. It is not the intent of the State Water Board to require permitting for an individual homeowner building a custom home on a private lot of less than one acre if it is subject to a separate Local Permit. Similarly, the installation of a swimming pool, deck, or landscaping that disturbs less than one acre that was not part of any previous Local Permit are not required to be permitted.

The following are several examples of construction activity of less than one acre that would require permit coverage:

a. A landowner receives a building permit(s) to build tract homes on a 100-acre site split into 200 one-third acre parcels, (the remaining acreage consists of streets and parkways) which are sold to individual homeowners as they are completed. The landowner completes and sells all the parcels except for two. Although the remaining two parcels combined are less than one acre, the landowner must continue permit coverage for the two parcels.

b. One of the parcels discussed above is sold to another owner who intends to complete the construction as already approved in the Local Permit. The new landowner must file Permit Registration Documents (PRDs) to complete the construction even if the new landowner is required to obtain a separate Local Permit.

c. Landowner in (1) above purchases 50 additional one half-acre parcels adjacent to the original 200-acre project. The landowner seeks a Local Permit (or amendment to existing Local permit) to build on 20 parcels while leaving the remaining 30 parcels for future development. The landowner must amend PRDs to include the 20 parcels 14 days prior to commencement of construction activity on those parcels.

C. Construction Activities Not Covered

1. Traditional Construction Projects Not Covered

This General Permit does not apply to the following construction activity:

a. Routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of the facility.

b. Disturbances to land surfaces solely related to agricultural operations such as disking, harrowing, terracing and leveling, and soil preparation.

c. Discharges of storm water from areas on tribal lands; construction on tribal lands is regulated by a federal permit.

d. Discharges of storm water within the Lake Tahoe Hydrologic Unit. The Lahontan Regional Water Board has adopted its own permit to regulate storm water discharges from construction activity in the Lake Tahoe Hydrologic Unit (Regional Water Board 6SLT). Owners of construction projects in this watershed must apply for the Lahontan Regional Water Board permit rather than the statewide Construction General Permit. Construction projects within the Lahontan region must also comply with the Lahontan Region Project Guideline for Erosion Control (R6T-2005-0007 Section), which can be found at **http://www.waterboards.ca.gov/lahontan/Adopted_Orders/2005/r6t_2005_0007.pdf**

e. Construction activity that disturbs less than one acre of land surface, unless part of a larger common plan of development or the sale of one or more acres of disturbed land surface.

f. Construction activity covered by an individual NPDES Permit for storm water discharges.

g. Landfill construction activity that is subject to the Industrial General Permit.

h. Construction activity that discharges to Combined Sewer Systems.

i. Conveyances that discharge storm water runoff combined with municipal sewage.

j. Discharges of storm water identified in CWA § 402(*l*)(2), 33 U.S.C. § 1342(*l*)(2).

2. **Linear Projects Not Covered**

a. LUP construction activity does not include linear routine maintenance projects. Routine maintenance projects are projects associated with operations and maintenance activities that are conducted on existing lines and facilities and within existing right-of-way, easements, franchise agreements, or other legally binding agreements of the discharger. Routine maintenance projects include, but are not limited to projects that are conducted to:

i. Maintain the original purpose of the facility or hydraulic capacity.

ii. Update existing lines[5] and facilities to comply with applicable codes, standards, and regulations regardless if such projects result in increased capacity.

iii. Repairing leaks.

[5]Update existing lines includes replacing existing lines with new materials or pipes.

Routine maintenance does not include construction of new[6] lines or facilities resulting from compliance with applicable codes, standards, and regulations.

Routine maintenance projects do not include those areas of maintenance projects that are outside of an existing right-of-way, franchise, easements, or agreements. When a project must secure new areas, those areas may be subject to this General Permit based on the area of disturbed land outside the original right-of-way, easement, or agreement.

b. LUP construction activity does not include field activities associated with the planning and design of a project (e.g., activities associated with route selection).

c. Tie-ins conducted immediately adjacent to "energized" or "pressurized" facilities by the discharger are not considered construction activities where all other LUP construction activities associated with the tie-in are covered by an NOI and SWPPP of a third party or municipal agency.

3. **EPA's Small Construction Rainfall Erosivity Waiver**

EPA's Storm Water Phase II Final Rule provides the option for a Small Construction Rainfall Erosivity Waiver. This waiver applies to small construction sites between 1 and 5 acres, and allows permitting authorities to waive those sites that do not have adverse water quality impacts.

Dischargers eligible for this waiver are exempt from Construction General Permit Coverage. In order to obtain the waiver, the discharger must certify to the State Water Board that small construction activity will occur only when the rainfall erosivity factor is less than 5 ("R" in the Revised Universal Soil Loss Equation). The period of construction activity begins at initial earth disturbance and ends with final stabilization. Where vegetation will be used for final stabilization, the date of installation of a practice that provides interim non-vegetative stabilization can be used for the end of the construction period. The operator must agree (as a condition waiver eligibility) to periodically inspect and properly maintain the area until the criteria for final stabilization as defined in the General Permit have been met. If use of this interim stabilization eligibility condition was relied on to qualify for the waiver, signature on the waiver with a certification statement constitutes acceptance of and commitment to complete the final stabilization process. The discharger must submit a waiver certification to the State Board prior to commencing construction activities.

USEPA funded a cooperative agreement with Texas A&M University to develop an online rainfall erosivity calculator. Dischargers can access the calculator from EPA's website at: www.epa.gov/npdes/stormwater/cgp. Use of the calculator allows the discharger to determine potential eligibility for the rainfall erosivity waiver. It may also be useful in determining the time periods during which construction activity could be waived from permit coverage.

[6]New lines are those that are not associated with existing facilities and are not part of a project to update or replace existing lines.

D. Obtaining and Terminating Permit Coverage

The appropriate Legally Responsible Person (LRP) must obtain coverage under this General Permit. To obtain coverage, the LRP or the LRP's Approved Signatory must file Permit Registration Documents (PRDs) prior to the commencement of construction activity. Failure to obtain coverage under this General Permit for storm water discharges to waters of the United States is a violation of the CWA and the California Water Code.

To obtain coverage under this General Permit, LRPs must electronically file the PRDs, which include a Notice of Intent (NOI), Storm Water Pollution Prevention Plan (SWPPP), and other documents required by this General Permit, and mail the appropriate permit fee to the State Water Board. It is expected that as the storm water program develops, the Regional Water Boards may issue General Permits or Individual Permits that contain more specific permit provisions. When this occurs, this General Permit will no longer regulate those dischargers that obtain coverage under Individual Permits.

Any information provided to the Regional Water Board shall comply with the Homeland Security Act and any other federal law that concerns security in the United States; any information that does not comply should not be submitted.

The application requirements of the General Permit establish a mechanism to clearly identify the responsible parties, locations, and scope of operations of dischargers covered by the General Permit and to document the discharger's knowledge of the General Permit's requirements.

This General Permit provides a grandfathering exception to existing dischargers subject to Water Quality Order No. 99-08-DWQ. Construction projects covered under Water Quality Order No. 99-08-DWQ shall obtain permit coverage at Risk Level 1. LUP projects covered under Water Quality Order No. 2003-0007-DWQ shall obtain permit coverage at LUP Type 1. The Regional Water Boards have the authority to require Risk Determination to be performed on projects currently covered under Water Quality Order No. 99-08-DWQ and 2003-0007-DWQ where they deem necessary.

LRPs must file a Notice of Termination (NOT) with the Regional Water Board when construction is complete and final stabilization has been reached or ownership has been transferred. The discharger must certify that all State and local requirements have been met in accordance with this General Permit. In order for construction to be found complete, the discharger must install post-construction storm water management measures and establish a long-term maintenance plan. This requirement is intended to ensure that the post-construction conditions at the project site do not cause or contribute to direct or indirect water quality impacts (i.e., pollution and/or hydromodification) upstream and downstream. Specifically, the discharger must demonstrate compliance with the post-construction standards set forth in this General Permit (Section XIII). The discharger is responsible for all compliance issues including all annual fees until the NOT has been filed and approved by the local Regional Water Board.

E. Discharge Prohibitions

This General Permit authorizes the discharge of storm water to surface waters from construction activities that result in the disturbance of one or more acres of land, provided that the discharger satisfies all permit conditions set forth in the Order. This General Permit prohibits the discharge of pollutants other than storm water and non-storm water discharges authorized by this General Permit or another NPDES permit. This General Permit also prohibits all discharges which contain a hazardous substance in excess of reportable quantities established in 40 C.F.R. §§ 117.3 and 302.4, unless a separate NPDES Permit has been issued to regulate those discharges. In addition, this General Permit incorporates discharge prohibitions contained in water quality control plans, as implemented by the nine Regional Water Boards. Discharges to Areas of Special Biological Significance (ASBS) are prohibited unless covered by an exception that the State Water Board has approved.

Non-storm water discharges include a wide variety of sources, including improper dumping, spills, or leakage from storage tanks or transfer areas. Non-storm water discharges may contribute significant pollutant loads to receiving waters. Measures to control spills, leakage, and dumping, and to prevent illicit connections during construction must be addressed through structural as well as non-structural BMPs. The State Water Board recognizes, however, that certain non-storm water discharges may be necessary for the completion of construction projects. Authorized non-storm water discharges may include those from de-chlorinated potable water sources such as: fire hydrant flushing, irrigation of vegetative erosion control measures, pipe flushing and testing, water to control dust, uncontaminated ground water dewatering, and other discharges not subject to a separate general NPDES permit adopted by a region. Therefore this General Permit authorizes such discharges provided they meet the following conditions.

These authorized non-storm water discharges must:

1. be infeasible to eliminate;
2. comply with BMPs as described in the SWPPP;
3. filter or treat, using appropriate technology, all dewatering discharges from sedimentation basins;
4. meet the NALs for pH and turbidity; and
5. not cause or contribute to a violation of water quality standards.

Additionally, authorized non-storm water discharges must not be used to clean up failed or inadequate construction or post-construction BMPs designed to keep materials onsite. Authorized non-storm water dewatering discharges may require a permit because some Regional Water Boards have adopted General Permits for dewatering discharges.

This General Permit prohibits the discharge of storm water that causes or threatens to cause pollution, contamination, or nuisance.

F. Effluent Standards for All Types of Discharges

1. Technology-Based Effluent Limitations

Permits for storm water discharges associated with construction activity must meet all applicable provisions of Sections 301 and 402 of the CWA. These provisions require controls of pollutant discharges that utilize best available technology economically achievable (BAT) for toxic pollutants and non conventional pollutants and best conventional pollutant control technology (BCT) for conventional pollutants. Additionally, these provisions require controls of pollutant discharges to reduce pollutants and any more stringent controls necessary to meet water quality standards. The USEPA has already established such limitations, known as effluent limitation guidelines (ELGs), for some industrial categories. This is not the case with construction discharges. In instances where there are no ELGs the permit writer is to use best professional judgment (BPJ) to establish requirements that the discharger must meet using BAT/BCT technology. This General Permit contains only narrative effluent limitations and does not contain numeric effluent limitations, except for Active Treatment Systems (ATS).

Order No. 2009-0009-DWQ, as originally adopted by the State Water Board on September 2, 2009, contained numeric effluent limitations for pH (within the range of 6.0 and 9.0 pH units) and turbidity (500 NTU) that applied only to Risk Level 3 and LUP Type 3 construction sites. The State Water Board adopted the numeric effluent limitations as technology-based effluent limitations based upon its best professional judgment. The California Building Industry Association, the Building Industry Legal Defense

Foundation, and the California Business Properties Association (petitioners) challenged Order No. 2009-0009-DWQ in *California Building Industry Association et al. v. State Water Resources Control Board*. On December 27, 2011, the Superior Court issued a judgment and writ of mandamus. The Superior Court ruled in favor of the State Water Board on almost all of the issues the petitioners raised, but the Superior Court invalidated the numeric effluent limitations for pH and turbidity for Risk Level 3 and LUP Type 3 sites because it determined that the State Water Board did not have sufficient BMP performance data to support those numeric effluent limitations. Therefore, the Superior Court concluded that the State Water Board did not comply with the federal regulations that apply to the use of best professional judgment. In invalidating the numeric effluent limitations, the Superior Court also suspended two ancillary requirements (a compliance storm event provision and receiving water monitoring at Risk Level 3 and LUP Type 3 sites that violated the numeric effluent limitations) that related solely to the invalidated numeric effluent limitations.

As a result of the Superior Court's writ of mandamus, this Order no longer contains numeric effluent limitations for pH and turbidity, except for ATS. In addition, as a result of the Superior Court's writ of mandamus, the receiving water monitoring requirements for Risk Level 3 and LUP Type 3 sites were suspended until the State Water Board amended this Order to restore the receiving water monitoring requirements. As amended, this Order now requires Risk Level 3 and LUP Type 3 Dischargers with direct discharges to surface waters to conduct receiving water monitoring whenever their effluent exceeds specified receiving water monitoring triggers. The receiving water monitoring triggers were established at the same levels as the previous numeric effluent limitations (effluent pH outside the range of 6.0 and 9.0 pH units or turbidity exceeding 500 NTU). In restoring the receiving water monitoring requirements, the State Water Board determined that it was appropriate to require receiving water monitoring for these types of sites with direct discharges to surface waters that exceeded the receiving water monitoring triggers under any storm event scenarios, because these sites represent the highest threat to receiving water quality. An exceedance of a receiving water monitoring trigger does not constitute a violation of this General Permit. These receiving water monitoring requirements take effect on the effective date of the amendment to this Order.

BAT/BCT technologies not only include passive systems such as conventional runoff and sediment control, but also treatment systems such as coagulation/flocculation using sand filtration, when appropriate. Such technologies allow for effective treatment of soil particles less 0.02 mm (medium silt) in diameter. The discharger must install structural controls, as necessary, such as erosion and sediment controls that meet BAT and BCT to achieve compliance with water quality standards. The narrative effluent limitations constitute compliance with the requirements of the CWA.

Because the permit is an NPDES permit, there is no legal requirement to address the factors set forth in Water Code sections 13241 and 13263, unless the permit is more stringent than what federal law requires. (See *City of Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 618, 627.) None of the requirements in this permit are more stringent than the minimum federal requirements, which include technology-based requirements achieving BAT/BCT and strict compliance with water quality standards. The inclusion of numeric effluent limitations (NELs) in the permit for Active Treatment Systems does not cause the permit to be more stringent than current federal law. NELs and best management practices are simply two different methods of achieving the same federal requirement: strict compliance with state water quality standards. Federal law authorizes both narrative and numeric effluent limitations to meet state water quality standards. The use of NELs to achieve compliance with water quality standards is not a more stringent requirement than the use of BMPs. (State Water Board Order No. WQ 2006-0012 (*Boeing*).) Accordingly, the State Water Board does not need to take into account the factors in Water Code sections 13241 and 13263.

The State Water Board has concluded that the establishment of BAT/BCT will not create or aggravate other environmental problems through increases in air pollution, solid waste generation, or energy consumption. While there may be a slight increase in non-water quality impacts due to the implementation of additional monitoring or the construction of additional BMPs, these impacts will be negligible in comparison with the construction activities taking place on site and would be justified by the water quality benefits associated with compliance.

pH Receiving Water Monitoring Trigger

Given the potential contaminants, the minimum standard method for control of pH in runoff requires the use of preventive measures such as avoiding concrete pours during rainy weather, covering concrete and directing flow away from fresh concrete if a pour occurs during rain, covering scrap drywall and stucco materials when stored outside and potentially exposed to rain, and other housekeeping measures. If necessary, pH-impaired storm water from construction sites can be treated in a filter or settling pond or basin, with additional natural or chemical treatment required to meet pH limits set forth in this permit. The basin or pond acts as a collection point and holds storm water for a sufficient period for the contaminants to be settled out, either naturally or artificially, and allows any additional treatment to take place. The State Water Board considers these techniques to be equivalent to BCT. In determining the pH concentration trigger for discharges, the State Water Board used BPJ to set these limitations.

The chosen trigger was established by calculating three standard deviations above and below the mean pH of runoff from highway construction sites[7] in California. Proper implementation of BMPs should result in discharges that are within the range of 6.0 to 9.0 pH Units.

Turbidity Receiving Water Monitoring Trigger

The Turbidity receiving water monitoring trigger of 500 NTU is a technology-based trigger and was developed using three different analyses aimed at finding the appropriate threshold to set the technology-based limit to ensure environmental protection, effluent quality and cost-effectiveness. The analyses fell into three, main types: (1) an ecoregion-specific dataset developed by Simon et. al. (2004) [8]; (2) Statewide Regional Water Quality Control Board enforcement data; and (3) published, peer-reviewed studies and reports on in-situ performance of best management practices in terms of erosion and sediment control on active construction sites.

A 1:3 relationship between turbidity (expressed as NTU) and suspended sediment concentration (expressed as mg/L) is assumed based on a review of suspended sediment and turbidity data from three gages used in the USGS National Water Quality Assessment Program:

USGS 11074000 SANTA ANA R BL PRADO DAM CA
USGS 11447650 SACRAMENTO R A FREEPORT CA
USGS 11303500 SAN JOAQUIN R NR VERNALIS CA

The receiving water monitoring trigger represents staff determination that the trigger value is the most practicable based on available data. The turbidity receiving water monitoring trigger represents a bridge between the narrative effluent limitations and receiving water limitations. To support this receiving water monitoring trigger, State Water Board staff analyzed construction site discharge information (monitoring data, estimates) and receiving water monitoring information.

Since the turbidity receiving water monitoring trigger represents an appropriate threshold level expected at a site, compliance with this value does not necessarily represent compliance with either the narrative effluent limitations (as enforced through the BAT/BCT standard) or the receiving water limitations. In the San Diego region, some inland surface waters have a receiving water objective for turbidity equal to 20 NTU. Obviously a discharge up to, but not exceeding, the turbidity receiving water monitoring trigger of

[7] Caltrans Construction Sites Runoff Characterization Study, 2002. Available at: http://www.dot.ca.gov/hq/env/stormwater/pdf/CTSW-RT-02-055.pdf.

500 NTU may still cause or contribute to the exceedance of the 20 NTU standard. Most of the waters of the State are protected by turbidity objectives based on background conditions**.**

Table 1 - Regional Water Board Basin Plans, Water Quality Objectives for Turbidity

REGIONAL WATER BOARD	WQ Objective	Background/Natural Turbidity	Maximum Increase
1	Based on background	All levels	20%
2	Based on background	> 50 NTU	10%
3	Based on background	0-50 JTU 50-100 JTU > 100 JTU	20% 10 NTU 10%
4	Based on background	0-50 NTU > 50 NTU	20% 10%
5	Based on background	0-5 NTU 5-50 NTU 50-100 NTU >100 NTU	1 NTU 20% 10 NTU 10%
6	Based on background	All levels	10%
7	Based on background	N/A	N/A
8	Based on background	0-50 NTU 50-100 NTU >100 NTU	20% 10 NTU 10%
9	Inland Surface Waters, 20 NTU All others, based on background	 0-50 NTU 50-100 NTU >100 NTU	 20% 10 NTU 10%

Table 2 shows the suspended sediment concentrations at the 1.5 year flow recurrence interval for the 12 ecoregions in California from Simon et. al (2004).

Table 2 - Results of Ecoregion Analysis

Ecoregion	Percent of California Land Area	Median Suspended Sediment Concentration (mg/L)
1	9.1	874
4	0.2	120
5	8.8	35.6
6	20.7	1530
7	7.7	122
8	3.0	47.4
9	9.4	284
13	5.2	143
14	21.7	5150
78	8.1	581
80	2.4	199
81	3.7	503
Area-weighted average		1633

If a 1:3 relationship between turbidity and suspended sediment is assumed, the median turbidity is 544 NTU.

The following table is composed of turbidity readings measured in NTUs from administrative civil liability (ACL) actions for construction sites from 2003 - 2009. This data was derived from the complete listing of construction-related ACLs for the six year period. All ACLs were reviewed and those that included turbidimeter readings at the point of storm water discharge were selected for this dataset.

Table 3 – ACL Sampling Data taken by Regional Water Board Staff

WDID#	Region	Discharger	Turbidity (NTU)
5S34C331884	5S	Bradshaw Interceptor Section 6B	1800
5S05C325110	5S	Bridalwood Subdivision	1670
5S48C336297	5S	Cheyenne at Browns Valley	1629
5R32C314271	5R	Grizzly Ranch Construction	1400
6A090406008	6T	El Dorado County Department of Transportation, Angora Creek	97.4
5S03C346861	5S	TML Development, LLC	1600
6A31C325917	6T	Northstar Village	See Subdata Set

Subdata Set - Turbidity for point of storm water runoff discharge at Northstar Village

Date	Turbidity (NTU)	Location
10/5/2006	900	Middle Martis Creek
11/2/2006	190	Middle Martis Creek
01/04/2007	36	West Fork, West Martis Creek
02/08/2007	180	Middle Martis Creek
02/09/2007	130	Middle Martis Creek
02/09/2007	290	Middle Martis Creek
02/09/2007	100	West Fork, West Martis Creek
02/10/2007	28	Middle Martis Creek
02/10/2007	23	Middle Martis Creek
02/10/2007	32	Middle Martis Creek
02/10/2007	12	Middle Martis Creek
02/10/2007	60	West Fork, West Martis Creek
02/10/2007	34	West Fork, West Martis Creek

A 95% confidence interval for mean turbidity in an ACL order was constructed. The data set used was a small sample size, so the 500 NTU (the value derived as the receiving water monitoring trigger for this General Permit) needed to be verified as a possible population mean. In this case, the population refers to a hypothetical population of turbidity measurements of which our sample of 20 represents. A t-distribution was assumed due to the small sample size:

Mean: 512.23 NTU
Standard Deviation: 686.85
Margin of Error: 321.45
Confidence Interval: 190.78 NTU (Low)
833.68 NTU (High)

Based on a constructed 95% confidence interval, an ACL order turbidity measurement will be between 190.78 – 833.68 NTU. 500 NTU falls within this range. Using the same data set, a small-sample hypothesis test was also performed to test if the ACL turbidity data set contains enough information to cast doubt on choosing a 500 NTU as a mean. 500 NTU was again chosen due to its proposed use as an acceptable value. The test was carried out using a 95% confidence interval. Results indicated that the ACL turbidity data set *does not* contain significant sample evidence to reject the claim of 500 NTU as an acceptable mean for the ACL turbidity population.

There are not many published, peer-reviewed studies and reports on in-situ performance of best management practices in terms of erosion and sediment control on active construction sites. The most often cited study is a report titled, "Improving the Cost Effectiveness of Highway Construction Site Erosion and Pollution Control" (Horner, Guedry, and Kortenhof 1990, http://www.wsdot.wa.gov/Research/Reports/200/200.1.htm). In a comment letter summarizing this report sent to the State Water Board, the primary author, Dr. Horner, states:

"The most effective erosion control product was wood fiber mulch applied at two different rates along with a bonding agent and grass seed in sufficient time before the tests to achieve germination. Plots treated in this way reduced influent turbidity by more than 97 percent and discharged effluent exhibiting mean and maximum turbidity values of 21 and 73 NTU, respectively. Some other mulch and blanket materials performed nearly as well. These tests demonstrated the control ability of widely available BMPs over a very broad range of erosion potential."

Other technologies studied in this report produced effluent quality at or near 100 NTU. It is the BPJ of the State Water Board staff that erosion control, while preferred, is not always an option on construction sites and that technology performance in a controlled study showing effluent quality directly leaving a BMP is always easier and cheaper to control than effluent being discharged from the project (edge of property, etc.). As a result, it is the BPJ of the State Water Board staff that it is not cost effective or feasible, at this time, for all risk level and type 3 sites in California to achieve effluent discharges with turbidity values that are less than 100 NTU.

To summarize, the analysis showed that: (1) results of the Simon et. al dataset reveals turbidity values in background receiving water in California's ecoregions range from 16 NTU to 1716 NTU (with a mean of 544 NTU); (2) based on a constructed 95% confidence interval, construction sites will be subject to administrative civil liability (ACL) when their turbidity measurement falls between 190.78 – 833.68 NTU; and (3) sites with highly controlled discharges employing and maintaining good erosion control practices can discharge effluent from the BMP with turbidity values less than 100 NTU. State Water Board staff has determined, using its BPJ, that it is most cost effective to set the receiving water monitoring trigger for turbidity at 500 NTU.

i. ***Compliance Storm Event***

While this General Permit no longer contains "compliance storm event" exceptions from technology-based NELs, the "compliance storm event" exception from the ATS NELs remain in effect. See Section K of this Fact Sheet, and Attachment F of this General Permit for more information.

a. **TMDLs and Waste Load Allocations**

Dischargers located within the watershed of a CWA § 303(d) impaired water body, for which a TMDL for sediment has been adopted by the Regional Water Board or USEPA, must comply with the approved TMDL if it identifies "construction activity" or land disturbance as a source of sediment. If it does, the

TMDL should include a specific waste load allocation for this activity/source. The discharger, in this case, may be required by a separate Regional Water Board order to implement additional BMPs, conduct additional monitoring activities, and/or comply with an applicable waste load allocation and implementation schedule. If a specific waste load allocation has been established that would apply to a specific discharge, the Regional Water Board may adopt an order requiring specific implementation actions necessary to meet that allocation. In the instance where an approved TMDL has specified a general waste load allocation to construction storm water discharges, but no specific requirements for construction sites have been identified in the TMDL, dischargers must consult with the state TMDL authority[9] to confirm that adherence to a SWPPP that meets the requirements of the General Permit will be consistent with the approved TMDL.

2. Determining Compliance with Effluent Standards

a. Technology-Based Numeric Action Levels (NALs)

This General Permit contains technology-based NALs for pH and turbidity, and requirements for effluent monitoring at all Risk level 2 & 3, and LUP Type 2 & 3 sites. Numeric action levels are essentially numeric benchmark values for certain parameters that, if exceeded in effluent sampling, trigger the discharger to take actions. Exceedance of an NAL does not itself constitute a violation of the General Permit. If the discharger fails to take the corrective action required by the General Permit, though, that may consititute a violation.

The primary purpose of NALs is to assist dischargers in evaluating the effectiveness of their on-site measures. Construction sites need to employ many different systems that must work together to achieve compliance with the permit's requirements. The NALs chosen should indicate whether the systems are working as intended.

Another purpose of NALs is to provide information regarding construction activities and water quality impacts. This data will provide the State and Regional Water Boards and the rest of the storm water community with more information about levels and types of pollutants present in runoff and how effective the dischargers BMPs are at reducing pollutants in effluent. The State Water Board also hopes to learn more about the linkage between effluent and receiving water quality. In addition, these requirements will provide information on the mechanics needed to establish compliance monitoring programs at construction sites in future permit deliberations.

i. *pH*

The chosen limits were established by calculating one standard deviation above and below the mean pH of runoff from highway construction sites[10] in California. Proper implementation of BMPs should result in discharges that are within the range of 6.5 to 8.5 pH Units.

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[9] http://www.waterboards.ca.gov/tmdl/tmdl.html.

[10] Caltrans Construction Sites Runoff Characterization Study, 2002. Available at: http://www.dot.ca.gov/hq/env/stormwater/pdf/CTSW-RT-02-055.pdf.

The Caltrans study included 33 highway construction sites throughout California over a period of four years, which included 120 storm events. All of these sites had BMPs in place that would be generally implemented at all types of construction sites in California.

ii. ***Turbidity***

BPJ was used to develop an NAL that can be used as a learning tool to help dischargers improve their site controls, and to provide meaningful information on the effectiveness of storm water controls. A statewide turbidity NAL has been set at 250 NTU.

G. Receiving Water Limitations

Construction-related activities that cause or contribute to an exceedance of water quality standards must be addressed. The dynamic nature of construction activity gives the discharger the ability to quickly identify and monitor the source of the exceedances. This is because when storm water mobilizes sediment, it provides visual cues as to where corrective actions should take place and how effective they are once implemented.

This General Permit requires that storm water discharges and authorized non-storm water discharges must not contain pollutants that cause or contribute to an exceedance of any applicable water quality objective or water quality standards. The monitoring requirements in this General Permit for sampling and analysis procedures will help determine whether BMPs installed and maintained are preventing pollutants in discharges from the construction site that may cause or contribute to an exceedance of water quality standards.

Water quality standards consist of designated beneficial uses of surface waters and the adoption of ambient criteria necessary to protect those uses. When adopted by the State Water Board or a Regional Water Board, the ambient criteria are termed "water quality objectives." If storm water runoff from construction sites contains pollutants, there is a risk that those pollutants could enter surface waters and cause or contribute to an exceedance of water quality standards. For that reason, dischargers should be aware of the applicable water quality standards in their receiving waters. (The best method to ensure compliance with receiving water limitations is to implement BMPs that prevent pollutants from contact with storm water or from leaving the construction site in runoff.)

In California, water quality standards are published in the Basin Plans adopted by each Regional Water Board, the California Toxics Rule (CTR), the National Toxics Rule (NTR), and the Ocean Plan.

Dischargers can determine the applicable water quality standards by contacting Regional Water Board staff or by consulting one of the following sources. The actual Basin Plans that contain the water quality standards can be viewed at the website of the appropriate Regional Water Board. (http://www.waterboards.ca.gov/regions.html), the State Water Board site for statewide plans (http://www.waterboards.ca.gov/plnspols/index.html), or the USEPA regulations for the NTR and CTR (40 C.F.R. §§ 131.36-38). Basin Plans and statewide plans are also available by mail from the appropriate Regional Water Board or the State Water Board. The USEPA regulations are available at http://www.epa.gov/. Additional information concerning water quality standards can be accessed through http://www.waterboards.ca.gov/stormwtr/gen_const.html.

H. Training Qualifications and Requirements

The Blue Ribbon Panel (BRP) made the following observation about the lack of industry-specific training requirements:

"Currently, there is no required training or certification program for contractors, preparers of soil erosion and sediment control Storm Water Pollution Prevention Plans, or field inspectors."

Order 99-08-DWQ required that all dischargers train their employees on how to comply with the permit, but it did not specificy a curriculum or certification program. This has resulted in inconsistent implementation by all affected parties - the dischargers, the local governments where the construction activity occurs, and the regulators required to enforce 99-08-DWQ. This General Permit requires Qualified SWPPP Developers and practitioners to obtain appropriate training, and makes this curriculum mandatory two years after adoption, to allow time for course completion. The State and Regional Water Board are working with many stakeholders to develop the curriculum and mechanisms needed to develop and deliver the courses.

To ensure that the preparation, implementation, and oversight of the SWPPP is sufficient for effective pollution prevention, the Qualified SWPPP Developer and Qualified SWPPP Practitioners responsible for creating, revising, overseeing, and implementing the SWPPP must attend a State Water Board-sponsored or approved Qualified SWPPP Developer and Qualified SWPPP Practitioner training course.

I. Sampling, Monitoring, Reporting and Record Keeping

1. Traditional Construction Monitoring Requirements

This General Permit requires visual monitoring at all sites, and effluent water quality at all Risk Level 2 & 3 sites. It requires receiving water monitoring at some Risk Level 3 sites. All sites are required to submit annual reports, which contain various types of information, depending on the site characteristics and events. A summary of the monitoring and reporting requirements is found in Table 4.

Table 4 - Required Monitoring Elements for Risk Levels

	Visual	Non-visible Pollutant	Effluent	Receiving Water
Risk Level 1	three types required for all Risk Levels: non-storm water, pre-rain and post-rain	As needed for all Risk Levels (see below)	where applicable	not required
Risk Level 2			pH, turbidity	not required
Risk Level 3			pH, turbidity	(if Receiving Water Monitoring Trigger exceeded) pH, turbidity and SSC. Bioassessment for sites 30 acres or larger.

a. Visual

All dischargers are required to conduct quarterly, non-storm water visual inspections. For these inspections, the discharger must visually observe each drainage area for the presence of (or indications of prior) unauthorized and authorized non-storm water discharges and their sources. For storm-related inspections, dischargers must visually observe storm water discharges at all discharge locations within two business days after a qualifying event. For this requirement, a qualifying rain event is one producing precipitation of ½ inch or more of discharge. Dischargers must conduct a post-storm event inspection to (1) identify whether BMPs were adequately designed, implemented, and effective, and (2) identify any additional BMPs necessary and revise the SWPPP accordingly. Dischargers must maintain on-site records of all visual observations, personnel performing the observations, observation dates, weather conditions, locations observed, and corrective actions taken in response to the observations.

b. Non-Visible Pollutant Monitoring

This General Permit requires that all dischargers develop a sampling and analysis strategy for monitoring pollutants that are not visually detectable in storm water. Monitoring for non-visible pollutants must be required at any construction site when the exposure of construction materials occurs and where a discharge can cause or contribute to an exceedance of a water quality objective.

Of significant concern for construction discharges are the pollutants found in materials used in large quantities at construction sites throughout California and exposed throughout the rainy season, such as cement, flyash, and other recycled materials or by-products of combustion. The water quality standards that apply to these materials will depend on their composition. Some of the more common storm water pollutants from construction activity are not CTR pollutants. Examples of non-visible pollutants include glyphosate (herbicides), diazinon and chlorpyrifos (pesticides), nutrients (fertilizers), and molybdenum (lubricants). The use of diazinon and chlorpyrifos is a common practice among landscaping professionals and may trigger sampling and analysis requirements if these materials come into contact with storm water. High pH values from cement and gypsum, high pH and SSC from wash waters, and chemical/fecal contamination from portable toilets, also are not CTR pollutants. Although some of these constituents do have numeric water quality objectives in individual Basin Plans, many do not and are subject only to narrative water quality standards (i.e. not causing toxicity). Dischargers are encouraged to discuss these issues with Regional Water Board staff and other storm water quality professionals.

The most effective way to avoid the sampling and analysis requirements, and to ensure permit compliance, is to avoid the exposure of construction materials to precipitation and storm water runoff. Materials that are not exposed do not have the potential to enter storm water runoff, and therefore receiving waters sampling is not required. Preventing contact between storm water and construction materials is one of the most important BMPs at any construction site.

Preventing or eliminating the exposure of pollutants at construction sites is not always possible. Some materials, such as soil amendments, are designed to be used in a manner that will result in exposure to storm water. In these cases, it is important to make sure that these materials are applied according to the manufacturer's instructions and at a time when they are unlikely to be washed away. Other construction materials can be exposed when storage, waste disposal or the application of the material is done in a manner not protective of water quality. For these situations, sampling is required unless there is capture and containment of all storm water that has been exposed. In cases where construction materials may be exposed to storm water, but the storm water is contained and is not allowed to run off the site, sampling will only be required when inspections show that the containment failed or is breached, resulting in potential exposure or discharge to receiving waters.

The discharger must develop a list of potential pollutants based on a review of potential sources, which will include construction materials soil amendments, soil treatments, and historic contamination at the site. The discharger must review existing environmental and real estate documentation to determine the potential for pollutants that could be present on the construction site as a result of past land use activities.

Good sources of information on previously existing pollution and past land uses include:

i. Environmental Assessments;

ii. Initial Studies;

iii. Phase 1 Assessments prepared for property transfers; and

iv. Environmental Impact Reports or Environmental Impact Statements prepared under the requirements of the National Environmental Policy Act or the California Environmental Quality Act.

In some instances, the results of soil chemical analyses may be available and can provide additional information on potential contamination.

The potential pollutant list must include all non-visible pollutants that are known or should be known to occur on the construction site including, but not limited to, materials that:

i. are being used in construction activities;

ii. are stored on the construction site;

iii. were spilled during construction operations and not cleaned up;

iv. were stored (or used) in a manner that created the potential for a release of the materials during past land use activities;

v. were spilled during previous land use activities and not cleaned up; or

vi. were applied to the soil as part of past land use activities.

C. Effluent Monitoring

Federal regulations[11] require effluent monitoring for discharges subject to NALs. Subsequently, all Risk Level 2 and 3 dischargers must perform sampling and analysis of effluent discharges to characterize discharges associated with construction activity from the entire area disturbed by the project. Dischargers must collect samples of stored or contained storm water that is discharged subsequent to a storm event producing precipitation of ½ inch or more at the time of discharge.

Table 5 - Storm Water Effluent Monitoring Requirements by Risk Level

	Frequency	Effluent Monitoring (Section E, below)
Risk Level 1	when applicable	non-visible pollutant parameters (if applicable)
Risk Level 2	Minimum of 3 samples per day during qualifying rain event characterizing discharges associated with construction activity from the entire project disturbed area.	pH, turbidity, and non-visible pollutant parameters (if applicable)
Risk Level 3	Minimum of 3 samples per day during qualifying rain event characterizing discharges associated with construction activity from the entire project disturbed area.	pH, turbidity, and non-visible pollutant parameters if applicable

Risk Level 1 dischargers must analyze samples for:

i. any parameters indicating the presence of pollutants identified in the pollutant source assessment required in Attachment C contained in the General Permit.

[11] 40 C.F.R. § 122.44.

Risk Level 2 dischargers must analyze samples for:

i. pH and turbidity;

ii. any parameters indicating the presence of pollutants identified in the pollutant source assessment required in Attachment D contained in the General Permit, and

iii. any additional parameters for which monitoring is required by the Regional Water Board.

Risk Level 3 dischargers must analyze samples for:

i. pH, turbidity;

ii. any parameters indicating the presence of pollutants identified in the pollutant source assessment required in Attachment E contained in the General Permit, and

iii. any additional parameters for which monitoring is required by the Regional Water Board.

2. Linear Monitoring and Sampling Requirements

Attachment A, establishes minimum monitoring and reporting requirements for all LUPs. It establishes different monitoring requirements depending on project complexity and risk to water quality. The monitoring requirements for Type 1 LUPs are less than Type 2 & 3 projects because Type 1 projects have a lower potential to impact water quality.

A discharger shall prepare a monitoring program prior to the start of construction and immediately implement the program at the start of construction for LUPs. The monitoring program must be implemented at the appropriate level to protect water quality at all times throughout the life of the project.

a. Type 1 LUP Monitoring Requirements

A discharger must conduct daily visual inspections of Type 1 LUPs during working hours while construction activities are occurring. Inspections are to be conducted by qualified personnel and can be conducted in conjunction with other daily activities. Inspections will be conducted to ensure the BMPs are adequate, maintained, and in place at the end of the construction day. The discharger will revise the SWPPP, as appropriate, based on the results of the daily inspections. Inspections can be discontinued in non-active construction areas where soil disturbing activities have been completed and final stabilization has been achieved (e.g., trench has been paved, substructures have been installed, and successful final vegetative cover or other stabilization criteria have been met).

A discharger shall implement the monitoring program for inspecting Type 1 LUPs. This program requires temporary and permanent stabilization BMPs after active construction is completed. Inspection activities will continue until adequate permanent stabilization has been established and will continue in areas where re-vegetation is chosen until minimum vegetative coverage has been established. Photographs shall be taken during site inspections and submitted to the State Water Board.

b. Type 2 & 3 LUP Monitoring Requirements

A discharger must conduct daily visual inspections of Type 2 & 3 LUPs during working hours while construction activities are occurring. Inspections are to be conducted by qualified personnel and can be in conjunction with other daily activities.

All dischargers of Type 2 & 3 LUPs are required to conduct inspections by qualified personnel of the construction site during normal working hours prior to all anticipated storm events and after actual storm events. During extended storm events, the discharger shall conduct inspections during normal working hours for each 24-hour period. Inspections can be discontinued in non-active construction areas where soil disturbing activities have been completed and final stabilization has been achieved (e.g., trench has been paved, substructures installed, and successful vegetative cover or other stabilization criteria have been met).

The goals of these inspections are (1) to identify areas contributing to a storm water discharge; (2) to evaluate whether measures to reduce pollutant loadings identified in the SWPPP are adequate and properly installed and functioning in accordance with the terms of the General Permit; and (3) to determine whether additional control practices or corrective maintenance activities are needed. Equipment, materials, and workers must be available for rapid response to failures and emergencies. All corrective maintenance to BMPs shall be performed as soon as possible, depending upon worker safety.

All dischargers shall develop and implement a monitoring program for inspecting Type 2 & 3 LUPs that require temporary and permanent stabilization BMPs after active construction is completed. Inspections will be conducted to ensure the BMPs are adequate and maintained. Inspection activities will continue until adequate permanent stabilization has been established and will continue in areas where revegetation is chosen until minimum vegetative coverage has been established.

A log of inspections conducted before, during, and after the storm events must be maintained in the SWPPP. The log will provide the date and time of the inspection and who conducted the inspection. Photographs must be taken during site inspections and submitted to the State Water Board.

C. Sampling Requirements for all LUP Project Types

LUPs are also subject to sampling and analysis requirements for visible pollutants (i.e., sedimentation/siltation, turbidity) and for non-visible pollutants.

Sampling for visible pollutants is required for Type 2 & 3 LUPs.

Non-visible pollutant monitoring is required for pollutants associated with construction sites and activities that (1) are not visually detectable in storm water discharges, and (2) are known or should be known to occur on the construction site, and (3) could cause or contribute to an exceedance of water quality objectives in the receiving waters. Sample collection for non-visible pollutants must only be required (1) during a storm event when pollutants associated with construction activities may be discharged with storm water runoff due to a spill, or in the event there was a breach, malfunction, failure, and/or leak of any BMP, and (2) when the discharger has failed to adequately clean the area of material and pollutants. Failure to implement appropriate BMPs will trigger the same sampling requirements as those required for a breach, malfunction and/or leak, or when the discharger has failed to implement appropriate BMPs prior to the next storm event.

Additional monitoring parameters may be required by the Regional Water Boards.

It is not anticipated that many LUPs will be required to collect samples for pollutants not visually detected in runoff due to the nature and character of the construction site and activities as previously described in this fact sheet. Most LUPs are constructed in urban areas with public access (e.g., existing roadways, road shoulders, parking areas, etc.). This raises a concern regarding the potential contribution of pollutants from vehicle use and/or from normal activities of the public (e.g., vehicle washing, landscape fertilization, pest spraying, etc.) in runoff from the project site. Since the dischargers are not the land owners of the project area and are not able to control the presence of these pollutants in the storm water that runs through their projects, it is not the intent of this General Permit to require dischargers to sample for these pollutants. This General Permit does not require the discharger to sample for these types of pollutants except where the discharger has brought materials onsite that contain these pollutants and when a condition (e.g., breach, failure, etc.) described above occurs.

3. Receiving Water Monitoring

In order to ensure that receiving water limitations are met, discharges subject to receiving water monitoring triggers (i.e., Risk Level 3 and LUP Type 3 sites) or numeric effluent limitations (i.e., Risk Level 3 and LUP Type 3 sites utilizing ATS with direct discharges into receiving waters) must also monitor the downstream receiving water(s) for turbidity, SSC, and pH (if applicable) when a receiving water monitoring trigger or NEL is exceeded.

a. Bioassessment Monitoring

This General Permit requires a bioassessment of receiving waters for dischargers of Risk Level 3 or LUP Type 3 construction projects equal to or larger than 30 acres with direct discharges into receiving waters. Benthic macroinvertebrate samples will be taken upstream and downstream of the site's discharge point in the receiving water. Bioassessments measure the quality of the stream by analyzing the aquatic life present. Higher levels of appropriate aquatic species tend to indicate a healthy stream; whereas low levels of organisms can indicate stream degradation. Active construction sites have the potential to discharge large amounts of sediment and pollutants into receiving waters. Requiring a bioassessment for large project sites, with the most potential to impact water quality, provides a snapshot of the health of the receiving water prior to initiation of construction activities. This snapshot can be used in comparison to the health of the receiving water after construction has commenced.

Each ecoregion (biologically and geographically related area) in the State has a specific yearly peak time where stream biota is in a stable and abundant state. This time of year is called an Index Period. The bioassessment requirements in this General Permit, requires benthic macroinvertebrate sampling within a sites index period. The State Water Board has developed a map designating index periods for the ecoregions in the State (see State Water Board Website).

This General Permit requires the bioassessment methods to be in accordance with the Surface Water Ambient Monitoring Program (SWAMP) in order to provide data consistency within the state as well as generate useable biological stream data.

Table 6 - Receiving Water Monitoring Requirements

	Receiving Water Monitoring Parameters
Risk Level 1 /LUP Type 1	not required
Risk Level 2 / LUP Type 2	not required
Risk Level 3 / LUP Type 3	If Receiving Water Monitoring Trigger exceeded: pH (if applicable), turbidity, and SSC. Bioassessment for sites 30 acres or larger.

4. Reporting Requirements

a. NAL Exceedance Report

All Risk Level 3 and LUP Type 3 dischargers must electronically submit all storm event sampling results to the State And Regional Boards, via the electronic data system, no later than 10 days after the conclusion of the storm event.

b. Annual Report

All dischargers must prepare and electronically submit an annual report no later than September 1 of each year using the Storm water Multi-Application Reporting and Tracking System (SMARTS). The

Annual Report must include a summary and evaluation of all sampling and analysis results, original laboratory reports, chain of custody forms, a summary of all corrective actions taken during the compliance year, and identification of any compliance activities or corrective actions that were not implemented.

5. Record Keeping

According to 40 C.F.R. Parts 122.21(p) and 122.41(j), the discharger is required to retain paper or electronic copies of all records required by this General Permit for a period of at least three years from the date generated or the date submitted to the State Water Board or Regional Water Boards. A discharger must retain records for a period beyond three years as directed by Regional Water Board.

J. Risk Determination

1. Traditional Projects

a. Overall Risk Determination

There are two major requirements related to site planning and risk determination in this General Permit. The project's overall risk is broken up into two elements – (1) project sediment risk (the relative amount of sediment that can be discharged, given the project and location details) and (2) receiving water risk (the risk sediment discharges pose to the receiving waters).

Project Sediment Risk:
Project Sediment Risk is determined by multiplying the R, K, and LS factors from the Revised Universal Soil Loss Equation (RUSLE) to obtain an estimate of project-related bare ground soil loss expressed in tons/acre. The RUSLE equation is as follows:

A = (R)(K)(LS)(C)(P)

Where: A = the rate of sheet and rill erosion
R = rainfall-runoff erosivity factor
K = soil erodibility factor
LS = length-slope factor
C = cover factor (erosion controls)
P = management operations and support practices (sediment controls)

The C and P factors are given values of 1.0 to simulate bare ground conditions.

There is a map option and a manual calculation option for determining soil loss. For the map option, the R factor for the project is calculated using the online calculator at http://cfpub.epa.gov/npdes/stormwater/LEW/lewCalculator.cfm. The product of K and LS are shown on Figure 1. To determine soil loss in tons per acre, the discharger multiplies the R factor times the value for K times LS from the map.

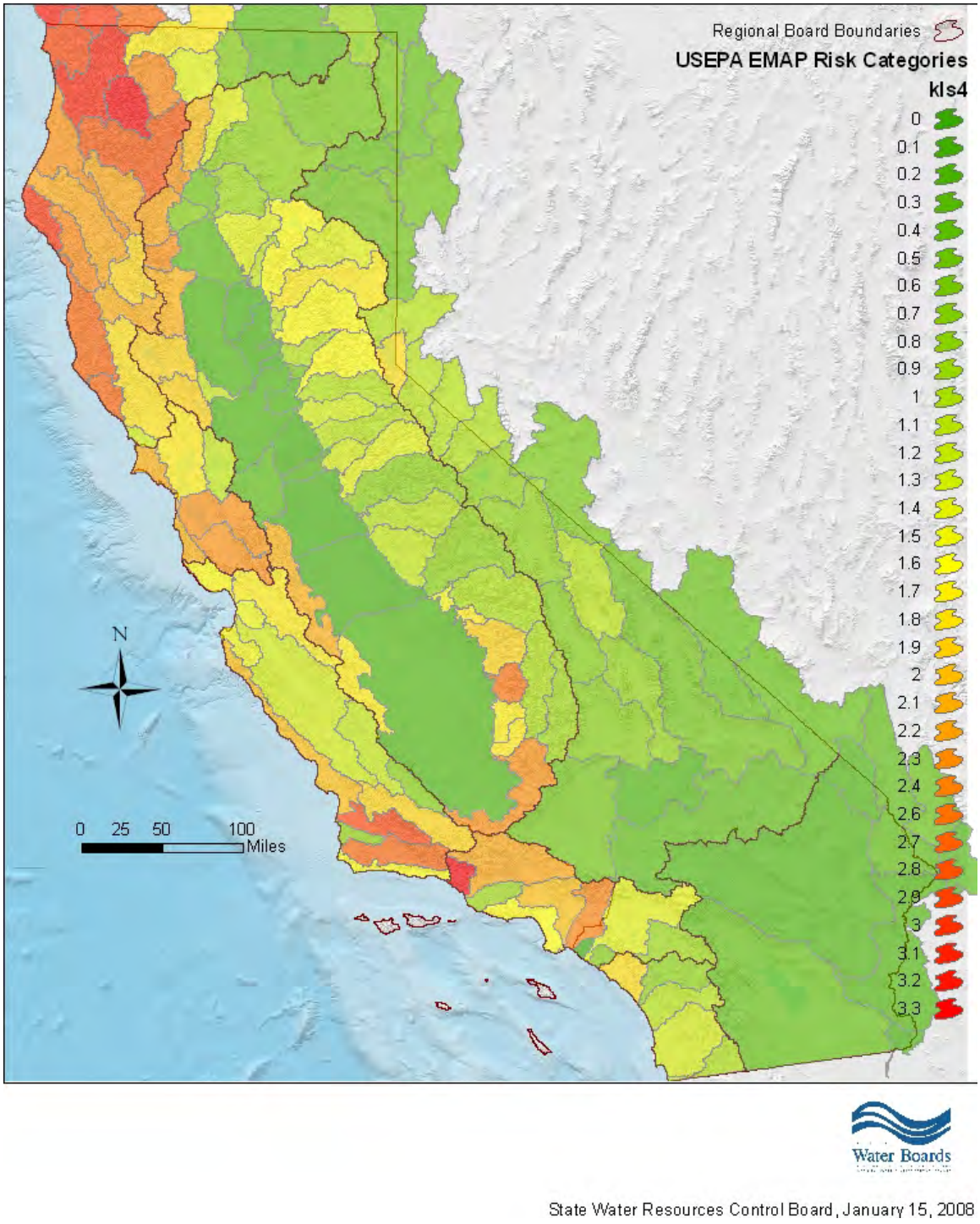

Figure 1 -Statewide Map of K * LS

For the manual calculation option, the R factor for the project is calculated using the online calculator at http://cfpub.epa.gov/npdes/stormwater/LEW/lewCalculator.cfm. The K and LS factors are determined using Appendix 1.

Soil loss of less than 15 tons/acre is considered **low** sediment risk.
Soil loss between 15 and 75 tons/acre is **medium** sediment risk.
Soil loss over 75 tons/acre is considered **high** sediment risk.

The soil loss values and risk categories were obtained from mean and standard deviation RKLS values from the USEPA EMAP program. High risk is the mean RKLS value plus two standard deviations. Low risk is the mean RKLS value minus two standard deviations.

Receiving Water Risk:
Receiving water risk is based on whether a project drains to a sediment-sensitive waterbody. A sediment-sensitive waterbody is either

on the most recent 303d list for waterbodies impaired for sediment;
has a USEPA-approved Total Maximum Daily Load implementation plan for sediment; **or**
has the beneficial uses of COLD, SPAWN, and MIGRATORY.

A project that meets at least one of the three criteria has a high receiving water risk. A list of sediment-sensitive waterbodies will be posted on the State Water Board's website. It is anticipated that an interactive map of sediment sensitive water bodies in California will be available in the future.

The Risk Levels have been altered by eliminating the possibility of a Risk Level 4, and expanding the constraints for Risk Levels 1, 2, and 3. Therefore, projects with high receiving water risk and high sediment risk will be considered a Risk Level 3 risk to water quality.

In response to public comments, the Risk Level requirements have also been changed such that Risk Level 1 projects will be subject to minimum BMP and visual monitoring requirements, Risk Level 2 projects will be subject to NALs and some additional monitoring requirements, and Risk Level 3 projects will be subject to NALs, and more rigorous monitoring requirements such as receiving water monitoring and in some cases bioassessment.

Table 7 - Combined Risk Level Matrix

Combined Risk Level Matrix				
Receiving Water Risk		Sediment Risk		
		Low	Medium	High
	Low	Level 1	Level 2	
	High	Level 2		Level 3

b. Effluent Standards

All dischargers are subject to the narrative effluent limitations specified in the General Permit. The narrative effluent limitations require storm water discharges associated with construction activity to meet all applicable provisions of Sections 301 and 402 of the CWA. These provisions require controls of pollutant discharges that utilize BAT and BCT to reduce pollutants and any more stringent controls necessary to meet water quality standards.

Risk Level 2 dischargers that pose a medium risk to water quality are subject to technology-based NALs for pH and turbidity. Risk Level 3 dischargers that pose a high risk to water quality are also subject to technology-based NALs for pH and turbidity.

c. Good Housekeeping

Proper handling and managing of construction materials can help minimize threats to water quality. The discharger must consider good housekeeping measures for: construction materials, waste management, vehicle storage & maintenance, landscape materials, and potential pollutant sources. Examples include; conducting an inventory of products used, implementing proper storage & containment, and properly cleaning all leaks from equipment and vehicles.

d. Non-Storm Water Management

Non-storm water discharges directly connected to receiving waters or the storm drain system have the potential to negatively impact water quality. The discharger must implement measures to control all non-storm water discharges during construction, and from dewatering activities associated with construction. Examples include; properly washing vehicles in contained areas, cleaning streets, and minimizing irrigation runoff.

e. Erosion Control

The best way to minimize the risk of creating erosion and sedimentation problems during construction is to disturb as little of the land surface as possible by fitting the development to the terrain. When development is tailored to the natural contours of the land, little grading is necessary and, consequently, erosion potential is lower.[14] Other effective erosion control measures include: preserving existing vegetation where feasible, limiting disturbance, and stabilizing and re-vegetating disturbed areas as soon as possible after grading or construction activities. Particular attention must be paid to large, mass-graded sites where the potential for soil exposure to the erosive effects of rainfall and wind is great and where there is potential for significant sediment discharge from the site to surface waters. Until permanent vegetation is established, soil cover is the most cost-effective and expeditious method to protect soil particles from detachment and transport by rainfall. Temporary soil stabilization can be the single most important factor in reducing erosion at construction sites. The discharger is required to consider measures such as: covering disturbed areas with mulch, temporary seeding, soil stabilizers, binders, fiber rolls or blankets, temporary vegetation, and permanent seeding. These erosion control measures are only examples of what should be considered and should not preclude new or innovative approaches currently available or being developed. Erosion control BMPs should be the primary means of preventing storm water contamination, and sediment control techniques should be used to capture any soil that becomes eroded.[12]

Risk Level 3 dischargers pose a higher risk to water quality and are therefore additionally required to ensure that post-construction soil loss is equivalent to or less than the pre-construction levels.

f. Sediment Control

Sediment control BMPs should be the secondary means of preventing storm water contamination. When erosion control techniques are ineffective, sediment control techniques should be used to capture any soil that becomes eroded. The discharger is required to consider perimeter control measures such as: installing silt fences or placing straw wattles below slopes. These sediment control measures are only

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[12] U.S. Environmental Protection Agency. 2007. Developing Your Storm Water Pollution Prevention Plan: A Guide for Construction Sites.

examples of what should be considered and should not preclude new or innovative approaches currently available or being developed.

Because Risk Level 2 and 3 dischargers pose a higher risk to water quality, additional requirements for the application of sediment controls are imposed on these projects. This General Permit also authorizes the Regional Water Boards to require Risk Level 3 dischargers to implement additional site-specific sediment control requirements if the implementation of other erosion or sediment controls are not adequately protecting the receiving waters.

g. Run-on and Runoff Control

Inappropriate management of run-on and runoff can result in excessive physical impacts to receiving waters from sediment and increased flows. The discharger is required to manage all run-on and runoff from a project site. Examples include: installing berms and other temporary run-on and runoff diversions.

Risk Level 1 dischargers with lower risks to impact water quality are not subject to the run-on and runoff control requirements unless an evaluation deems them necessary or visual inspections show that such controls are required.

h. Inspection, Maintenance and Repair

All measures must be periodically inspected, maintained and repaired to ensure that receiving water quality is protected. Frequent inspections coupled with thorough documentation and timely repair is necessary to ensure that all measures are functioning as intended.

i. Rain Event Action Plan (REAP)

A Rain Event Action Plan (REAP) is a written document, specific for each rain event. A REAP should be designed that when implemented it protects all exposed portions of the site within 48 hours of any likely precipitation event forecast of 50% or greater probability.

This General Permit requires Risk Level 2 and 3 dischargers to develop and implement a REAP designed to protect all exposed portions of their sites within 48 hours prior to any likely precipitation event. The REAP requirement is designed to ensure that the discharger has adequate materials, staff, and time to implement erosion and sediment control measures that are intended to reduce the amount of sediment and other pollutants generated from the active site. A REAP must be developed when there is likely a forecast of 50% or greater probability of precipitation in the project area. (The National Oceanic and Atmospheric Administration (NOAA) defines a chance of precipitation as a probability of precipitation of 30% to 50% chance of producing precipitation in the project area.[13] NOAA defines the probability of precipitation (PoP) as the likelihood of occurrence (expressed as a percent) of a measurable amount (0.01 inch or more) of liquid precipitation (or the water equivalent of frozen precipitation) during a specified period of time at any given point in the forecast area.) Forecasts are normally issued for 12-hour time periods. Descriptive terms for uncertainty and aerial coverage are used as follows:

Table 8 -National Oceanic and Atmospheric Administration (NOAA) Definition of Probability of Precipitation (PoP)

[13] http://www.crh.noaa.gov/lot/severe/wxterms.php.

PoP	Expressions of Uncertainty	Aerial Coverage
0%	none used	none used
10%	none used	isolated
20%	slight chance	isolated
30-50%	chance	scattered
60-70%	likely	numerous
80-100%	none used	none used

The discharger must obtain the precipitation forecast information from the National Weather Service Forecast Office (http://www.srh.noaa.gov/).

2. **Linear Projects**

a. **Linear Risk Determination**

LUPs vary in complexity and water quality concerns based on the type of project. This General Permit has varying application requirements based on the project's risk to water quality. Factors that lead to the characterization of the project include location, sediment risk, and receiving water risk.

Based on the location and complexity of a project area or project section area, LUPs are separated into project types. As described below, LUPs have been categorized into three project types.

i. ***Type 1 LUPs***

Type 1 LUPs are those construction projects where:

(1) 70 percent or more of the construction activity occurs on a paved surface and where areas disturbed during construction will be returned to preconstruction conditions or equivalent protection established at the end of the construction activities for the day, or

(2) greater than 30 percent of construction activities occur within the non-paved shoulders or land immediately adjacent to paved surfaces, or where construction occurs on unpaved improved roads, including their shoulders or land immediately adjacent to them where:

Areas disturbed during construction will be returned to pre-construction conditions or equivalent protection established at the end of the construction activities for the day to minimize the potential for erosion and sediment deposition, and

Areas where established vegetation was disturbed during construction will be stabilized and re-vegetated by the end of project. When required, adequate temporary stabilization Best Management Practices (BMPs) will be installed and maintained until vegetation is established to meet minimum cover requirements established in this General Permit for final stabilization.

Type 1 LUPs typically do not have a high potential to impact storm water quality because (1) these construction activities are not typically conducted during a rain event, (2) these projects are normally constructed over a short period of time[14], minimizing the duration that pollutants could potentially be exposed to rainfall; and (3) disturbed soils such as those from trench excavation are required to be hauled away, backfilled into the trench, and/or covered (e.g., metal plates, pavement, plastic covers over spoil piles) at the end of the construction day.

Type 1 LUPs are determined during the risk assessment found in Attachment A.1 to be 1) low sediment risk and low receiving water risk; 2) low sediment risk and medium receiving water risk; and 3) medium sediment risk and low receiving water risk.

This General Permit requires the discharger to ensure a SWPPP is developed for these construction activities that is specific to project type, location and characteristics.

ii. ***Type 2 LUPs:***

Type 2 projects are determined to have a combination of High, Medium, and Low project sediment risk along with High, Medium, and Low receiving water risk. Like Type 1 projects, Type 2 projects are typically constructed over a short period of time. However, these projects have a higher potential to impact water quality because they:

(1) typically occur outside the more urban/developed areas;

(2) have larger areas of soil disturbance that are not closed or restored at the end of the day;

(3) may have onsite stockpiles of soil, spoil and other materials;

(4) cross or occur in close proximity to a wide variety of sensitive resources that may include, but are not limited to, steep topography and/or water bodies; and

(5) have larger areas of disturbed soils that may be exposed for a longer time interval before final stabilization, cleanup and/or reclamation occurs.

This General Permit requires the discharger to develop and implement a SWPPP for these construction activities that are specific for project type, location and characteristics.

iii. ***Type 3 LUPs:***

[14] Short period of time refers to a project duration of weeks to months, but typically less than one year in duration.

Type 3 projects are determined to have a combination of High and Medium project sediment risk along with High and Medium receiving water risk. Similar to Type 2 projects, Type 3 projects have a higher potential to impact water quality because they:

(1) typically occur outside of the more urban/developed areas;

(2) have larger areas of soil disturbance that are not closed or restored at the end of the day;

(3) may have onsite stockpiles of soil, spoil and other materials;

(4) cross or occur in close proximity to a wide variety of sensitive resources that may include, but are not limited to, steep topography and/or water bodies; and

(5) have larger areas of disturbed soils that may be exposed for a longer time interval before final stabilization, cleanup and/or reclamation occurs.

This General Permit requires the discharger to develop and implement a SWPPP for these construction activities that are specific for project type, location, and characteristics.

b. Linear Effluent Standards

All LUPs are subject to the narrative effluent limitations specified in the General Permit.

Type 2 and Type 3 projects are subject to technology-based NALs for pH and turbidity.

c. Linear Good Housekeeping

Improper use and handling of construction materials could potentially cause a threat to water quality. In order to ensure proper site management of these construction materials, all LUP dischargers must comply with a minimum set of Good Housekeeping measures specified in Attachment A of this General Permit.

d. Linear Non-Storm Water Management

In order to ensure control of all non-storm water discharges during construction, all LUP dischargers must comply with the Non-Storm Water Management measures specified in Attachment A of this General Permit.

e. Linear Erosion Control

This General Permit requires all LUP dischargers to implement effective wind erosion control measures, and soil cover for inactive areas. Type 3 LUPs posing a higher risk to water quality are additionally required to ensure the post-construction soil loss is equivalent to or less than the pre-construction levels.

f. Linear Sediment Control

In order to ensure control and containment of all sediment discharges, all LUP dischargers must comply with the general Sediment Control measures specified in Attachment A or this General Permit. Additional requirements for sediment controls are imposed on Type 2 & 3 LUPs due to their higher risk to water quality.

g. Linear Run-on and Runoff Control

Discharges originating outside of a project's perimeter and flowing onto the property can adversely affect the quantity and quality of discharges originating from a project site. In order to ensure proper management of run-on and runoff, all LUPs must comply with the run-on and runoff control measures specified in Attachment A of this General Permit. Due to the lower risk of impacting water quality, Type 1 LUPs are not required to implement run-on and runoff controls unless deemed necessary by the discharger.

h. Linear Inspection, Maintenance and Repair

Proper inspection, maintenance, and repair activities are important to ensure the effectiveness of on-site measures to control water quality. In order to ensure that inspection, maintenance, and repair activities are adequately performed, the all LUP dischargers a re required to comply with the Inspection, Maintenance, and Repair requirements specified in Attachment A of this General Permit.

K. ATS[15] Requirements

There are instances on construction sites where traditional erosion and sediment controls do not effectively control accelerated erosion. Under such circumstances, or under circumstances where storm water discharges leaving the site may cause or contribute to an exceedance of a water quality standard, the use of an Active Treatment System (ATS) may be necessary. Additionally, it may be appropriate to use an ATS when site constraints inhibit the ability to construct a correctly sized sediment basin, when clay and/or highly erosive soils are present, or when the site has very steep or long slope lengths.[16]

Although treatment systems have been in use in some form since the mid-1990s, the ATS industry in California is relatively young, and detailed regulatory standards have not yet been developed. Many developers are using these systems to treat storm water discharges from their construction sites. The new ATS requirements set forth in this General Permit are based on those in place for small wastewater treatment systems, ATS regulations from the Central Valley Regional Water Quality Control Board (September 2005 memorandum "2005/2006 Rainy Season – Monitoring Requirements for Storm Water Treatment Systems that Utilize Chemical Additives to Enhance Sedimentation"), the Construction Storm Water Program at the State of Washington's Department of Ecology, as well as recent advances in technology and knowledge of coagulant performance and aquatic safety.

The effective design of an ATS requires a detailed survey and analysis of site conditions. With proper planning, ATS performance can provide exceptional water quality discharge and prevent significant impacts to surface water quality, even under extreme environmental conditions.

These systems can be very effective in reducing the sediment in storm water runoff, but the systems that use additives/polymers to enhance sedimentation also pose a potential risk to water quality (e.g., operational failure, equipment failure, additive/polymer release, etc.). The State Water Board is concerned about the potential acute and chronic impacts that the polymers and other chemical additives may have on fish and aquatic organisms if released in sufficient quantities or concentrations. In addition

[15] An ATS is a treatment system that employs chemical coagulation, chemical flocculation, or electrocoagulation in order to reduce turbidity caused by fine suspended sediment.
[16] Pitt, R., S. Clark, and D. Lake. 2006. Construction Site Erosion and Sediment Controls: Planning, Design, and Performance. DEStech Publications. Lancaster, PA. 370pp.

to anecdotal evidence of polymer releases causing aquatic toxicity in California, the literature supports this concern.[17] For example, cationic polymers have been shown to bind with the negatively charged gills of fish, resulting in mechanical suffocation.[18] Due to the potential toxicity impacts, which may be caused by the release of additives/polymers into receiving waters, this General Permit establishes residual polymer monitoring and toxicity testing requirements have been established in this General Permit for discharges from construction sites that utilize an ATS in order to protect receiving water quality and beneficial uses.

The primary treatment process in an ATS is coagulation/flocculation. ATS's operate on the principle that the added coagulant is bound to suspended sediment, forming floc, which is gravitationally settled in tanks or a basin, or removed by sand filters. A typical installation utilizes an injection pump upstream from the clarifier tank, basin, or sand filters, which is electronically metered to both flow rate and suspended solids level of the influent, assuring a constant dose. The coagulant mixes and reacts with the influent, forming a dense floc. The floc may be removed by gravitational setting in a clarifier tank or basin, or by filtration. Water from the clarifier tank, basin, or sand filters may be routed through cartridge(s) and/or bag filters for final polishing. Vendor-specific systems use various methods of dose control, sediment/floc removal, filtration, etc., that are detailed in project-specific documentation. The particular coagulant/flocculant to be used for a given project is determined based on the water chemistry of the site because the coagulants are specific in their reactions with various types of sediments. Appropriate selection of dosage must be carefully matched to the characteristics of each site.

ATS's are operated in two differing modes, either Batch or Flow-Through. Batch treatment can be defined as Pump-Treat-Hold-Test-Release. In Batch treatment, water is held in a basin or tank, and is not discharged until treatment is complete. Batch treatment involves holding or recirculating the treated water in a holding basin or tank(s) until treatment is complete or the basin or storage tank(s) is full. In Flow-Through treatment, water is pumped into the ATS directly from the runoff collection system or storm water holding pond, where it is treated and filtered as it flows through the system, and is then directly discharged. "Flow-Through Treatment" is also referred to as "Continuous Treatment."

1. Effluent Standards

This General Permit establishes NELs for discharges from construction sites that utilize an ATS. These systems lend themselves to NELs for turbidity and pH because of their known reliable treatment. Advanced systems have been in use in some form since the mid-1990s. An ATS is considered reliable, can consistently produce a discharge of less than 10 NTU, and has been used successfully at many sites in several states since 1995 to reduce turbidity to very low levels.[19]

This General Permit contains "compliance storm event" exceptions from the technology-based NELs for ATS discharges. The rationale is that technology-based requirements are developed assuming a certain design storm. In the case of ATS the industry-standard design storm is 10-year, 24-hour (as stated in

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[17] RomØen, K., B. Thu, and Ø. Evensen. 2002. Immersion delivery of plasmid DNA II. A study of the potentials of a chitosan based delivery system in rainbow trout (*Oncorhynchus mykiss*) fry. *Journal of Controlled Release* **85**: 215-225.

[18] Bullock, G., V. Blazer, S. Tsukuda, and S. Summerfelt. 2000. Toxicity of acidified chitosan for cultured rainbow trout (*Oncorhynchus mykiss*). *Aquaculture* **185**:273-280.

[19] Currier, B., G. Minton, R. Pitt, L. Roesner, K. Schiff, M. Stenstrom, E. Strassler, and E. Strecker. 2006. The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities.

Attachment F of this General Permit), so the compliance storm event has been established as the 10-year 24-hour event as well to provide consistency.

2. **Training**

Operator training is critical to the safe and efficient operation and maintenance of the ATS, and to ensure that all State Water Board monitoring and sampling requirements are met. The General Permit requires that all ATS operators have training specific to using ATS's liquid coagulants.

L. Post-Construction Requirements

Under past practices, new and redevelopment construction activities have resulted in modified natural watershed and stream processes. This is caused by altering the terrain, modifying the vegetation and soil characteristics, introducing impervious surfaces such as pavement and buildings, increasing drainage density through pipes and channels, and altering the condition of stream channels through straightening, deepening, and armoring. These changes result in a drainage system where sediment transport capacity is increased and sediment supply is decreased. A receiving channel's response is dependent on dominant channel materials and its stage of adjustment.

Construction activity can lead to impairment of beneficial uses in two main ways. First, during the actual construction process, storm water discharges can negatively affect the chemical, biological, and physical properties of downstream receiving waters. Due to the disturbance of the landscape, the most likely pollutant is sediment, however pH and other non-visible pollutants are also of great concern. Second, after most construction activities are completed at a construction site, the finished project may result in significant modification of the site's response to precipitation. New development and redevelopment projects have almost always resulted in permanent post-construction water quality impacts because more precipitation ends up as runoff and less precipitation is intercepted, evapotranspired, and infiltrated.

General Permit 99-08-DWQ required the SWPPP to include a description of all post-construction BMPs on a site and a maintenance schedule. An effective storm water management strategy must address the full suite of storm events (water quality, channel protection, overbank flood protection, extreme flood protection) (Figure 2).

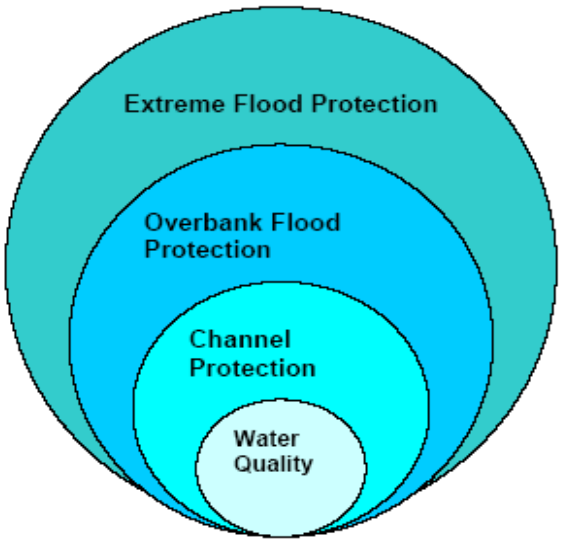

Figure 2 - Suite of Storm Events

The post-construction storm water performance standards in this General Permit specifically address water quality and channel protection events. Overbank flood protection and extreme flood protection events are traditionally dealt with in local drainage and flood protection ordinances. However, measures in this General Permit to address water quality and channel protection also reduce overbank and extreme flooding impacts. This General Permit aims to match post-construction runoff to pre-construction runoff for the 85th percentile storm event, which not only reduces the risk of impact to the receiving water's channel morphology but also provides some protection of water quality.

This General Permit clarifies that its runoff reduction requirements only apply to projects that lie outside of jurisdictions covered by a Standard Urban Storm water Management Plan (SUSMP) (or other more protective) post-construction requirements in either Phase I or Phase II permits.

Figures 3 and 4, below, show the General Permit enrollees (to Order 99-08-DWQ, as of March 10, 2008) overlaid upon a map with SUSMP (or more protective) areas in blue and purple. Areas without blue or purple indicate where the General Permit's runoff reduction requirements would actually apply.

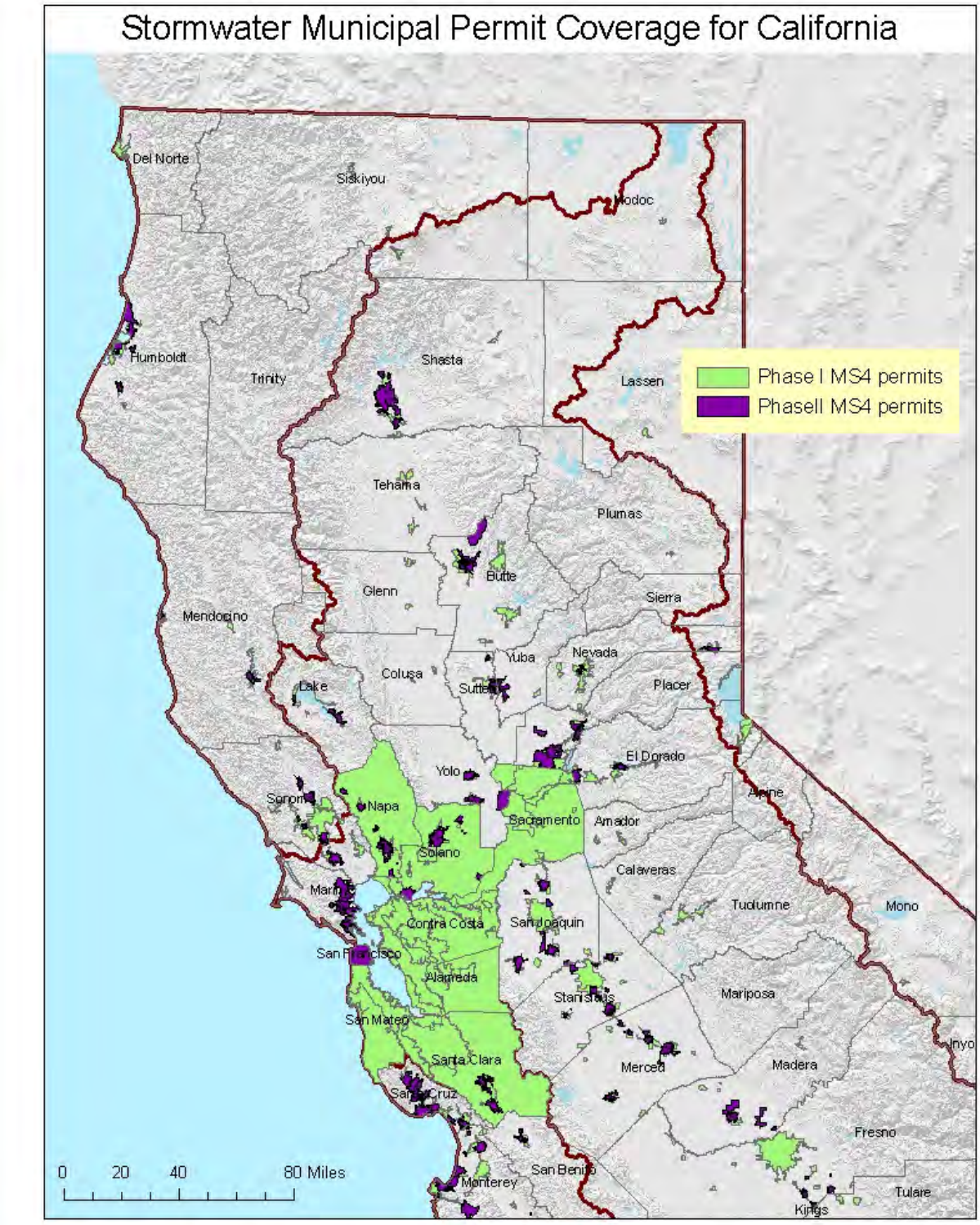

Figure 3 - Northern CA (2009) Counties / Cities With SUSMP-Plus Coverage

Figure 4 - Southern CA (2009) Counties / Cities With SUSMP-Plus Coverage

Water Quality:
This General Permit requires dischargers to replicate the pre-project runoff water balance (defined as the amount of rainfall that ends up as runoff) for the smallest storms up to the 85th percentile storm event, or the smallest storm event that generates runoff, whichever is larger. Contemporary storm water management generally routes these flows directly to the drainage system, increasing pollutant loads and potentially causing adverse effects on receiving waters. These smaller water quality events happen much more frequently than larger events and generate much higher pollutant loads on an annual basis. There are other adverse hydrological impacts that result from not designing according to the site's pre-construction water balance. In Maryland, Klein[20] noted that baseflow decreases as the extent of urbanization increases. Ferguson and Suckling[21] noted a similar relation in watersheds in Georgia. On Long Island, Spinello and Simmons[22] noted substantial decreases in base flow in intensely urbanized watersheds.

The permit emphasizes runoff reduction through on-site storm water reuse, interception, evapo-transpiration and infiltration through non-structural controls and conservation design measures (e.g., downspout disconnection, soil quality preservation/enhancement, interceptor trees). Employing these measures close to the source of runoff generation is the easiest and most cost-effective way to comply with the pre-construction water balance standard. Using low-tech runoff reduction techniques close to the source is consistent with a number of recommendations in the literature.[23] In many cases, BMPs implemented close to the source of runoff generation cost less than end-of the pipe measures.[24] Dischargers are given the option of using Appendix 2 to calculate the required runoff volume or a watershed process-based, continuous simulation model such as the EPA's Storm Water Management Model (SWMMM) or Hydrologic Simulation Program Fortran (HSPF). Such methods used by the discharger will be reviewed by the Regional Water Board upon NOT application.

Channel Protection:
In order to address channel protection, a basic understanding of fluvial geomorphic concepts is necessary. A dominant paradigm in fluvial geomorphology holds that streams adjust their channel dimensions (width and depth) in response to long-term changes in sediment supply and bankfull discharge (1.5 to 2 year recurrence interval). The bankfull stage corresponds to the discharge at which channel maintenance is the most effective, that is, the discharge at which the moving sediment, forming or removing bars, forming or changing bends and meanders, and generally doing work that results in the average morphologic characteristics of channels.[25] Lane (1955 as cited in Rosgen 1996[26]) showed the generalized relationship between sediment load, sediment size, stream discharge and stream slope in

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[20] Klein 1979 as cited in Delaware Department of Natural Resources (DDNR). 2004. Green Technology: The Delaware Urban Runoff Management Approach. Dover, DE. 117 pp.
[21] Ferguson and Suckling 1990 as cited Delaware Department of Natural Resources (DDNR). 2004. Green Technology: The Delaware Urban Runoff Management Approach. Dover, DE. 117 pp.
[22] Center for Watershed Protection (CWP). 2000. The Practice of Watershed Protection: Techniques for protecting our nation's streams, lakes, rivers, and estuaries. Ellicott City, MD. 741 pp.
[23] Bay Area Storm Water Management Agencies Association (BASMAA). 1997. Start at the Source: Residential Site Planning and Design Guidance Manual for Storm Water Quality Protection. Palo Alto, CA;
McCuen, R.H. 2003 Smart Growth: hydrologic perspective. Journal of Professional Issues in Engineering Education and Practice. Vol (129), pp.151-154;
Moglen, G.E. and S. Kim. 2007. Impervious imperviousness-are threshold based policies a good idea? Journal of the American Planning Association, Vol 73 No. 2. pp 161-171.
[24] Delaware Department of natural Resources (DDNR). 2004. Green technology: The Delaware urban Runoff Management Approcah. Dover, DE. 117 pp.
[25] Dunne, T and L.B. Leopold. 1978. Water in Environmental Planning. San Francisco W.H. Freeman and Company
[26] Rosgen. D.L. 1996. Applied River Morphology. Pagosa Springs. Wildland Hydrology

Figure 5. A change in any one of these variables sets up a series of mutual adjustments in the companion variables with a resulting direct change in the physical characteristics of the stream channel.

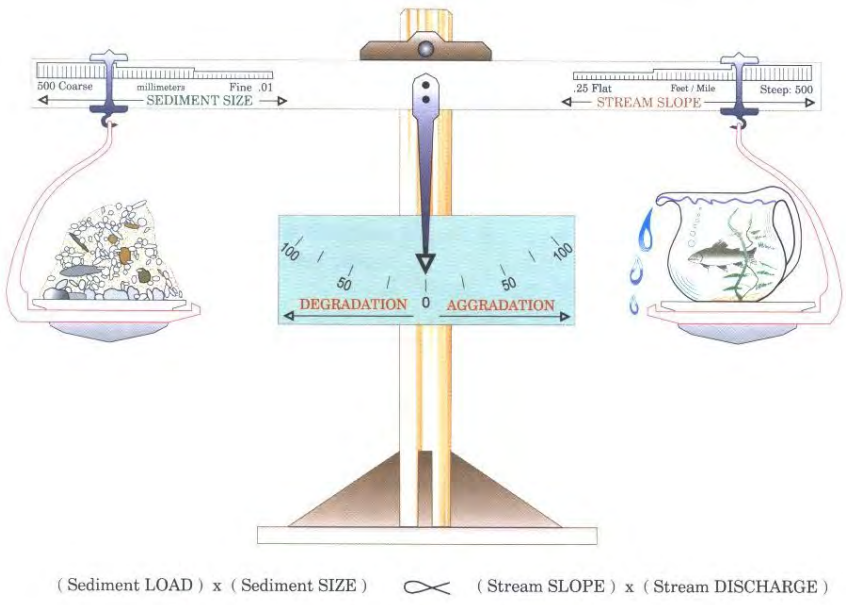

Figure 5 - Schematic of the Lane Relationship

After Lane (1955) as cited in Rosgen (1996)

Stream slope multiplied by stream discharge (the right side of the scale) is essentially an approximation of stream power, a unifying concept in fluvial geomorphology (Bledsoe 1999). Urbanization generally increases stream power and affects the resisting forces in a channel (sediment load and sediment size represented on the left side of the scale).

During construction, sediment loads can increase from 2 to 40,000 times over pre-construction levels.[27] Most of this sediment is delivered to stream channels during large, episodic rain events.[28] This increased sediment load leads to an initial aggradation phase where stream depths may decrease as sediment fills the channel, leading to a decrease in channel capacity and increase in flooding and overbank deposition. A degradation phase initiates after construction is completed.

Schumm et. al (1984) developed a channel evolution model that describes the series of adjustments from initial downcutting, to widening, to establishing new floodplains at lower elevations (Figure 6).

[27] Goldman S.J., K. Jackson, and T.A. Bursztynsky. 1986. Erosion and Sediment Control Handbook. McGraw Hill. San Francisco.
[28] Wolman 1967 as cited in Paul, M.P. and J.L. Meyer. 2001. Streams in the Urban Landscape. *Annu. Rev.Ecol. Syst.* 32: 333-365.

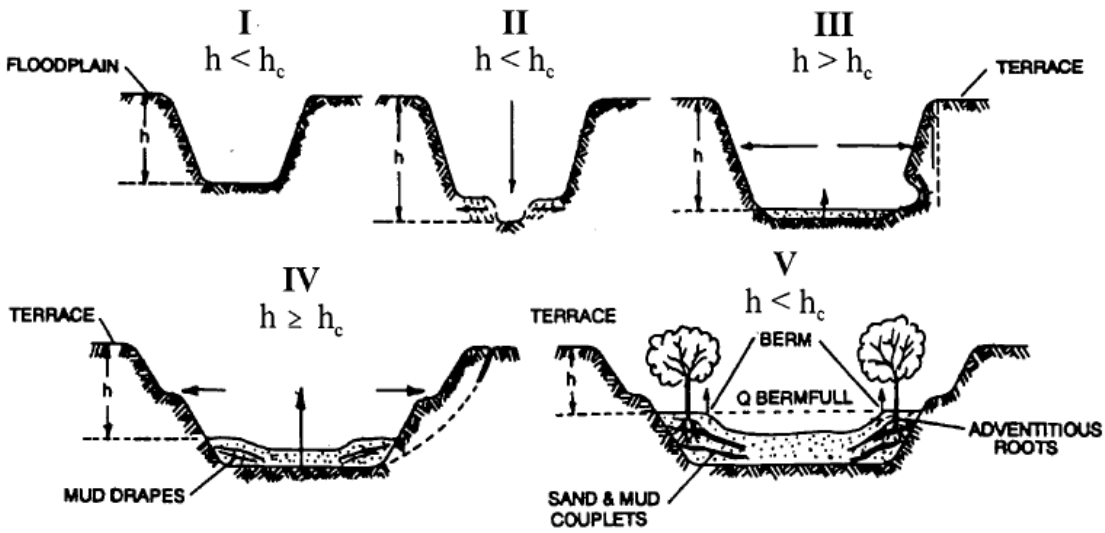

Figure 6 - Channel Changes Associated with Urbanization

After Incised Channel Evolution Sequence in Schumm et. al 1984

Channel incision (Stage II) and widening (Stages III and to a lesser degree, Stage IV) are due to a number of fundamental changes on the landscape. Connected impervious area and compaction of pervious surfaces increase the frequency and volume of bankfull discharges.[29] Increased drainage density (miles of stream length per square mile of watershed) also negatively impacts receiving stream channels.[30] Increased drainage density and hydraulic efficiency leads to an increase in the frequency and volume of bankfull discharges because the time of concentration is shortened. Flows from engineered pipes and channels are also often "sediment starved" and seek to replenish their sediment supply from the channel.

Encroachment of stream channels can also lead to an increase in stream slope, which leads to an increase in stream power. In addition, watershed sediment loads and sediment size (with size generally represented as the median bed and bank particle size, or d_{50}) decrease during urbanization.[31] This means

[29] Booth, D. B. and C. R. Jackson. 1997. Urbanization of Aquatic Systems: Degradation Thresholds, Storm Water Detection, and the Limits of Mitigation. Journal of the American Water Resources Association Vol. 33, No.5, pp. 1077-1089.

[30] May, C.W. 1998. Cumulative effects of urbanization on small streams in the Puget Sound Lowland ecoregion. Conference proceedings from Puget Sound Research '98 held March 12, 13 1998 in Seattle, WA;
Santa Clara Valley Urban Runoff Pollution Prevention Program. 2002. Hydromodification Management Plan Literature Review. 80 pp.

[31] Finkenbine, J.K., D.S. Atwater, and D.S. Mavinic. 2000. Stream health after urbanization. *J. Am. Water Resour. Assoc.* 36:1149-60;

that even if pre- and post-development stream power are the same, more erosion will occur in the post-development stage because the smaller particles are less resistant (provided they are non-cohesive).

As shown in Stages II and III, the channel deepens and widens to accommodate the increased stream power [32]and decrease in sediment load and sediment size. Channels may actually narrow as entrained sediment from incision is deposited laterally in the channel. After incised channels begin to migrate laterally (Stage III), bank erosion begins, which leads to general channel widening.[33] At this point, a majority of the sediment that leaves a drainage area comes from within the channel, as opposed to the background and construction related hillslope contribution. Stage IV is characterized by more aggradation and localized bank instability. Stage V represents a new quasi-equilibrium channel morphology in balance with the new flow and sediment supply regime. In other words, stream power is in balance with sediment load and sediment size.

The magnitude of the channel morphology changes discussed above varies along a stream network as well as with the age of development, slope, geology (sand-bedded channels may cycle through the evolution sequence in a matter of decades whereas clay-dominated channels may take much longer), watershed sediment load and size, type of urbanization, and land use history. It is also dependent on a channel's stage in the channel evolution sequence when urbanization occurs. Management strategies

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Pizzuto, J.E. W.S. Hession, and M. McBride. 2000. Comparing gravel-bed rivers in paired urban and rural catchments of southeastern Pennsylvania. *Geology* 28:79-82.

[32] Hammer 1973 as cited in Delaware Department of Natural Resources (DDNR). 2004. Green Technology: The Delaware Urban Runoff Management Approach. Dover, DE. 117 pp;
Booth, D.B. 1990. Stream Channel Incision Following Drainage Basin Urbanization. *Water Resour. Bull.* 26:407-417.

[33] Trimble, S.W. 1997. Contribution of Stream Channel Erosion to Sediment Yield from an Urbanizing Watershed. *Science*: Vol. 278 (21), pp. 1442-1444.

must take into account a channel's stage of adjustment and account for future changes in the evolution of channel form (Stein and Zaleski 2005). [34]

Traditional structural water quality BMPs (e.g. detention basins and other devices used to store volumes of runoff) unless they are highly engineered to provide adequate flow duration control, do not adequately protect receiving waters from accelerated channel bed and bank erosion, do not address post-development increases in runoff volume, and do not mitigate the decline in benthic macroinvertebrate communities in the receiving waters[35] suggest that structural BMPs are not as effective in protecting aquatic communities as a continuous riparian buffer of native vegetation. This is supported by the findings of Zucker and White[36], where instream biological metrics were correlated with the extent of forested buffers.

This General Permit requires dischargers to maintain pre-development drainage densities and times of concentration in order to protect channels and encourages dischargers to implement setbacks to reduce channel slope and velocity changes that can lead to aquatic habitat degradation.

There are a number of other approaches for modeling fluvial systems, including statistical and physical models and simpler stream power models.[37] The use of these models in California is described in Stein and Zaleski (2005).[38] Rather than prescribe a specific one-size-fits-all modeling method in this permit, the State Water Board intends to develop a stream power and channel evolution model-based framework to assess channels and develop a hierarchy of suitable analysis methods and management strategies. In time, this framework may become a State Water Board water quality control policy.

Permit Linkage to Overbank and Extreme Flood Protection
Site design BMPs (e.g. rooftop and impervious disconnection, vegetated swales, setbacks and buffers) filter and settle out pollutants and provide for more infiltration than is possible for traditional centralized structural BMPs placed at the lowest point in a site. They provide source control for runoff and lead to a reduction in pollutant loads. When implemented, they also help reduce the magnitude and volume of larger, less frequent storm events (e.g., 10-yr, 24-hour storm and larger), thereby reducing the need for expensive flood control infrastructure. Nonstructural BMPs can also be a landscape amenity, instead of a large isolated structure requiring substantial area for ancillary access, buffering, screening and maintenance facilities.[25] The multiple benefits of using non-structural benefits will be critically important as the state's population increases and imposes strains upon our existing water resources.

Maintaining predevelopment drainage densities and times of concentration will help reduce post-development peak flows and volumes in areas not covered under a municipal permit. The most effective way to preserve drainage areas and maximize time of concentration is to implement landform grading,

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[34] Stein, E.S. and S. Zaleski. 2005.Managing runoff to protect natural stream: the latest developments on investigation and management of hydromodification in California. Southern California Coastal Water Research Project Technical Report 475. 26 pp.
[35] Horner, R.R. 2006. Investigation of the Feasibility and Benefits of Low-Impact Site Design Practices (LID) for the San Diego Region. Available at: http://www.projectcleanwater.org/pdf/permit/case-study_lid.pdf.
[36] Delaware Department of Natural Resources (DDNR). 2004. Green Technology: The Delaware Urban Runoff Management Approach. Dover, DE. 117 pp.
[37] Finlayson, D.P. and D.R. Montgomery. 2003. Modeling large-scale fluvial erosion in geographic information systems. Geomorphology (53), pp. 147-164).
[38] Stein, E.S. and S. Zaleski. 2005.Managing runoff to protect natural stream: the latest developments on investigation and management of hydromodification in California. Southern California Coastal Water Research Project Technical Report 475. 26 pp.

incorporate site design BMPs and implement distributed structural BMPs (e.g., bioretention cells, rain gardens, rain cisterns).

M. Storm Water Pollution Prevention Plans

USEPA's Construction General Permit requires that qualified personnel conduct inspections. USEPA defines qualified personnel as "a person knowledgeable in the principles and practice of erosion and sediment controls who possesses the skills to assess conditions at the construction site that could impact storm water quality and to assess the effectiveness of any sediment and erosion control measures selected to control the quality of storm water discharges from the construction activity."[39] USEPA also suggests that qualified personnel prepare SWPPPs and points to numerous states that require certified professionals to be on construction sites at all times. States that currently have certification programs are Washington, Georgia, Florida, Delaware, Maryland, and New Jersey. The Permit 99-08-DWQ did not require that qualified personnel prepare SWPPPs or conduct inspections. However, to ensure that water quality is being protected, this General Permit requires that all SWPPPs be written, amended, and certified by a Qualified SWPPP Developer. A Qualified SWPPP Developer must possess one of the eight certifications and or registrations specified in this General Permit and effective two years after the adoption date of this General Permit, must have attended a State Water Board-sponsored or approved Qualified SWPPP Developer training course. Table 9 provides an overview of the criteria used in determining qualified certification titles for a QSD and QSP.

39 US Environmental Protection Agency. Stormwater Pollution Prevention Plans for Construction Activities. <http://cfpub.epa.gov/npdes/stormwater/swppp.cfm> and <http://www.epa.gov/npdes/pubs/sw_swppp_guide.pdf>.

Table 9 - Qualified SWPPP Developer/ Qualified SWPPP Practitioner Certification Criteria

Certification/ Title	Registered By	QSD/QSP	Certification Criteria
Professional Civil Engineer	California	Both	1. Approval Process 2. Code of Ethics 3. Accountability 4. Pre-requisites
Professional Geologist or Engineering Geologist	California	Both	1. Approval Process 2. Code of Ethics 3. Accountability 4. Pre-requisites
Landscape Architect	California	Both	1. Approval Process 2. Code of Ethics 3. Accountability 4. Pre-requisites
Professional Hydrologist	American Institute of Hydrology	Both	1. Approval Process 2. Code of Ethics 3. Accountability 4. Pre-requisites
Certified Professional in Erosion and Sediment Control™ (CPESC)	Enviro Cert International Inc.	Both	1. Approval Process 2. Code of Ethics 3. Accountability 4. Pre-requisites 5. Continuing Education
Certified Inspector of Sediment and Erosion Control™ (CISEC)	Certified Inspector of Sediment and Erosion Control, Inc.	QSP	1. Approval Process 2. Code of Ethics 3. Accountability 4. Pre-requisites 5. Continuing Education
Certified Erosion, Sediment and Storm Water Inspector™ (CESSWI)	Enviro Cert International Inc.	QSP	1. Approval Process 2. Code of Ethics 3. Accountability 4. Pre-requisites 5. Continuing Education
Certified Professional in Storm Water Quality™ (CPSWQ)	Enviro Cert International Inc.	Both	1. Approval Process 2. Code of Ethics 3. Accountability 4. Pre-requisites 5. Continuing Education

The previous versions of the General Permit required development and implementation of a SWPPP as the primary compliance mechanism. The SWPPP has two major objectives: (1) to help identify the sources of sediment and other pollutants that affect the quality of storm water discharges; and (2) to describe and ensure the implementation of BMPs to reduce or eliminate sediment and other pollutants in storm water and non-storm water discharges. The SWPPP must include BMPs that address source control, BMPs that address pollutant control, and BMPs that address treatment control.

This General Permit shifts some of the measures that were covered by this general requirement to specific permit requirements, each individually enforceable as a permit term. This General Permit emphasizes the use of appropriately selected, correctly installed and maintained pollution reduction BMPs. This approach provides the flexibility necessary to establish BMPs that can effectively address source control of pollutants during changing construction activities. These specific requirements also improve both the clarity and the enforceability of the General Permit so that the dischargers understand, and the public can determine whether the discharges are in compliance with, permit requirements.

The SWPPP must be implemented at the appropriate level to protect water quality at all times throughout the life of the project. The SWPPP must remain on the site during construction activities, commencing with the initial mobilization and ending with the termination of coverage under the General Permit. For LUPs the discharger shall make the SWPPP available at the construction site during working hours while construction is occurring and shall be made available upon request by a State or Municipal inspector. When the original SWPPP is retained by a crewmember in a construction vehicle and is not currently at the construction site, current copies of the BMPs and map/drawing will be left with the field crew and the original SWPPP shall be made available via a request by radio or telephone. Once construction activities are complete, until stabilization is achieved, the SWPPP shall be available from the SWPPP contact listed in the PRDs

A SWPPP must be appropriate for the type and complexity of a project and will be developed and implemented to address project specific conditions. Some projects may have similarities or complexities, yet each project is unique in its progressive state that requires specific description and selection of BMPs needed to address all possible generated pollutants

N. Regional Water Board Authorities

Because this General Permit will be issued to thousands of construction sites across the State, the Regional Water Boards retain discretionary authority over certain issues that may arise from the discharges in their respective regions. This General Permit does not grant the Regional Water Boards any authority they do not otherwise have; rather, it merely emphasizes that the Regional Water Boards can take specific actions related to this General Permit. For example, the Regional Water Boards will be enforcing this General Permit and may need to adjust some requirements for a discharger based on the discharger's compliance history.

Linda S. Adams
Secretary for
Environmental Protection

State Water Resources Control Board

Arnold Schwarzenegger
Governor

Division of Water Quality
1001 I Street • Sacramento, California 95814 • (916) 341-5455
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NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT FOR
STORM WATER DISCHARGES
ASSOCIATED WITH CONSTRUCTION AND LAND DISTURBANCE
ACTIVITIES

ORDER NO. 2009-0009-DWQ
NPDES NO**. CAS000002**

This Order was adopted by the State Water Resources Control Board on:	**September 2, 2009**
This Order shall become effective on:	**July 1, 2010**
This Order shall expire on:	**September 2, 2014**

IT IS HEREBY ORDERED, that this Order supersedes Order No. 99-08-DWQ [as amended by Order No. 2010-0014-DWQ] except for enforcement purposes. The Discharger shall comply with the requirements in this Order to meet the provisions contained in Division 7 of the California Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the federal Clean Water Act and regulations and guidelines adopted thereunder.

I, Jeanine Townsend, Clerk to the Board, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the State Water Resources Control Board, on September 2, 2009.

AYE: Vice Chair Frances Spivy-Weber
Board Member Arthur G. Baggett, Jr.
Board Member Tam M. Doduc

NAY: Chairman Charles R. Hoppin

ABSENT: None

ABSTAIN: None

Jeanine Townsend
Clerk to the Board

Linda S. Adams
Secretary for
Environmental Protection

State Water Resources Control Board

Division of Water Quality
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Arnold Schwarzenegger
Governor

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION AND LAND DISTURBANCE ACTIVITIES

ORDER NO. 2010-0014-DWQ
NPDES NO. CAS000002

Order No. 2009-0009-DWQ was adopted by the State Water Resources Control Board on:	**September 2, 2009**
Order No. 2009-0009-DWQ became effective on:	**July 1, 2010**
Order No. 2009-0009-DWQ shall expire on:	**September 2, 2014**
This Order, which amends Order No. 2009-0009-DWQ, was adopted by the State Water Resources Control Board on:	**November 16, 2010**
This Order shall become effective on:	**February 14, 2011**

IT IS HEREBY ORDERED that this Order amends Order No. 2009-0009-DWQ. Additions to Order No. 2009-0009-DWQ are reflected in blue-underline text and deletions are reflected in red-strikeout text.

IT IS FURTHER ORDERED that staff are directed to prepare and post a conformed copy of Order No. 2009-0009-DWQ incorporating the revisions made by this Order.

I, Jeanine Townsend, Clerk to the Board, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the State Water Resources Control Board, on **November 16, 2010.**

AYE: Chairman Charles R. Hoppin
Vice Chair Frances Spivy-Weber
Board Member Arthur G. Baggett, Jr.
Board Member Tam M. Doduc

NAY: None

ABSENT: None

ABSTAIN: None

Jeanine Townsend
Clerk to the Board

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT FOR
STORM WATER DISCHARGES
ASSOCIATED WITH CONSTRUCTION AND LAND DISTURBANCE ACTIVITIES

ORDER NO. 2012-0006-DWQ
NPDES NO**. CAS000002**

Order No. 2009-0009-DWQ was adopted by the State Water Resources Control Board on:	**September 2, 2009**
Order No. 2009-0009-DWQ became effective on:	**July 1, 2010**
Order No. 2010-0014-DWQ became effective on:	**February 14, 2011**
Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ shall expire on:	**September 2, 2014**
This Order, which amends Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ, was adopted by the State Water Resources Control Board on:	**July 17, 2012**
This Order No. 2012-0006-DWQ shall become effective on:	**July 17, 2012**

IT IS HEREBY ORDERED that this Order amends Order No. 2009-0009-DWQ. Additions to Order No. 2009-0009-DWQ are reflected in blue-underline text and deletions are reflected in red-strikeout text.

IT IS FURTHER ORDERED that staff are directed to prepare and post a conformed copy of Order No. 2009-000-DWQ incorporating the revisions made by this Order.

I, Jeanine Townsend, Clerk to the Board, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the State Water Resources Control Board, on July 17, 2012.

AYE:	Chairman Charles R. Hoppin Vice Chair Frances Spivy-Weber Board Member Tam M. Doduc Board Member Steven Moore Board Member Felicia Marcus
NAY:	None
ABSENT:	None
ABSTAIN:	None

Jeanine Townsend
Clerk to the Board

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STATE WATER RESOURCES CONTROL BOARD
ORDER NO. 2009-0009-DWQ
[AS AMENDED BY ORDER NO. 2010-0014-DWQ]
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
GENERAL PERMIT NO. CAS000002

WASTE DISCHARGE REQUIREMENTS
FOR
DISCHARGES OF STORM WATER RUNOFF ASSOCIATED WITH CONSTRUCTION AND LAND DISTURBANCE ACTIVITIES

I. FINDINGS

A. General Findings

The State Water Resources Control Board (State Water Board) finds that:

1. The federal Clean Water Act (CWA) prohibits certain discharges of storm water containing pollutants except in compliance with a National Pollutant Discharge Elimination System (NPDES) permit (Title 33 United States Code (U.S.C.) §§ 1311 and 1342(p); also referred to as Clean Water Act (CWA) §§ 301 and 402(p)). The U.S. Environmental Protection Agency (U.S. EPA) promulgates federal regulations to implement the CWA's mandate to control pollutants in storm water runoff discharges. (Title 40 Code of Federal Regulations (C.F.R.) Parts 122, 123, and 124). The federal statutes and regulations require discharges to surface waters comprised of storm water associated with construction activity, including demolition, clearing, grading, and excavation, and other land disturbance activities (except operations that result in disturbance of less than one acre of total land area and which are not part of a larger common plan of development or sale), to obtain coverage under an NPDES permit. The NPDES permit must require implementation of Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to reduce or eliminate pollutants in storm water runoff. The NPDES permit must also include additional requirements necessary to implement applicable water quality standards.

2. This General Permit authorizes discharges of storm water associated with construction activity so long as the dischargers comply with all requirements, provisions, limitations and prohibitions in the permit. In addition, this General Permit regulates the discharges of storm water associated with construction activities from all Linear

Underground/Overhead Projects resulting in the disturbance of greater than or equal to one acre (Attachment A).

3. This General Permit regulates discharges of pollutants in storm water associated with construction activity (storm water discharges) to waters of the United States from construction sites that disturb one or more acres of land surface, or that are part of a common plan of development or sale that disturbs more than one acre of land surface.

4. This General Permit does not preempt or supersede the authority of local storm water management agencies to prohibit, restrict, or control storm water discharges to municipal separate storm sewer systems or other watercourses within their jurisdictions.

5. This action to adopt a general NPDES permit is exempt from the provisions of Chapter 3 of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21100, et seq.), pursuant to Section 13389 of the California Water Code.

6. Pursuant to 40 C.F.R. § 131.12 and State Water Board Resolution No. 68-16,[1] which incorporates the requirements of § 131.12 where applicable, the State Water Board finds that discharges in compliance with this General Permit will not result in the lowering of water quality standards, and are therefore consistent with those provisions. Compliance with this General Permit will result in improvements in water quality.

7. This General Permit serves as an NPDES permit in compliance with CWA § 402 and will take effect on July 1, 2010 by the State Water Board provided the Regional Administrator of the U.S. EPA has no objection. If the U.S. EPA Regional Administrator objects to its issuance, the General Permit will not become effective until such objection is withdrawn.

8. Following adoption and upon the effective date of this General Permit, the Regional Water Quality Control Boards (Regional Water Boards) shall enforce the provisions herein.

9. Regional Water Boards establish water quality standards in Basin Plans. The State Water Board establishes water quality standards in various statewide plans, including the California Ocean Plan. U.S. EPA establishes water quality standards in the National Toxic Rule (NTR) and the California Toxic Rule (CTR).

[1] Resolution No. 68-16 generally requires that existing water quality be maintained unless degradation is justified based on specific findings.

10. This General Permit does not authorize discharges of fill or dredged material regulated by the U.S. Army Corps of Engineers under CWA § 404 and does not constitute a waiver of water quality certification under CWA § 401.

11. The primary storm water pollutant at construction sites is excess sediment. Excess sediment can cloud the water, which reduces the amount of sunlight reaching aquatic plants, clog fish gills, smother aquatic habitat and spawning areas, and impede navigation in our waterways. Sediment also transports other pollutants such as nutrients, metals, and oils and greases.

12. Construction activities can impact a construction site's runoff sediment supply and transport characteristics. These modifications, which can occur both during and after the construction phase, are a significant cause of degradation of the beneficial uses established for water bodies in California. Dischargers can avoid these effects through better construction site design and activity practices.

13. This General Permit recognizes four distinct phases of construction activities. The phases are Grading and Land Development Phase, Streets and Utilities Phase, Vertical Construction Phase, and Final Landscaping and Site Stabilization Phase. Each phase has activities that can result in different water quality effects from different water quality pollutants. This General Permit also recognizes inactive construction as a category of construction site type.

14. Compliance with any specific limits or requirements contained in this General Permit does not constitute compliance with any other applicable requirements.

15. Following public notice in accordance with State and Federal laws and regulations, the State Water Board heard and considered all comments and testimony in a public hearing on 06/03/2009. The State Water Board has prepared written responses to all significant comments.

16. Construction activities obtaining coverage under the General Permit may have multiple discharges subject to requirements that are specific to general, linear, and/or active treatment system discharge types.

17. The State Water Board may reopen the permit if the U.S. EPA adopts a final effluent limitation guideline for construction activities.

B. Activities Covered Under the General Permit

18. Any construction or demolition activity, including, but not limited to, clearing, grading, grubbing, or excavation, or any other activity that results in a land disturbance of equal to or greater than one acre.

19. Construction activity that results in land surface disturbances of less than one acre if the construction activity is part of a larger common plan of development or the sale of one or more acres of disturbed land surface.

20. Construction activity related to residential, commercial, or industrial development on lands currently used for agriculture including, but not limited to, the construction of buildings related to agriculture that are considered industrial pursuant to U.S. EPA regulations, such as dairy barns or food processing facilities.

21. Construction activity associated with Linear Underground/Overhead Utility Projects (LUPs) including, but not limited to, those activities necessary for the installation of underground and overhead linear facilities (e.g., conduits, substructures, pipelines, towers, poles, cables, wires, connectors, switching, regulating and transforming equipment and associated ancillary facilities) and include, but are not limited to, underground utility mark-out, potholing, concrete and asphalt cutting and removal, trenching, excavation, boring and drilling, access road and pole/tower pad and cable/wire pull station, substation construction, substructure installation, construction of tower footings and/or foundations, pole and tower installations, pipeline installations, welding, concrete and/or pavement repair or replacement, and stockpile/borrow locations.

22. Discharges of sediment from construction activities associated with oil and gas exploration, production, processing, or treatment operations or transmission facilities.[2]

23. Storm water discharges from dredge spoil placement that occur outside of U.S. Army Corps of Engineers jurisdiction (upland sites) and that disturb one or more acres of land surface from construction activity are covered by this General Permit. Construction sites that intend to disturb one or more acres of land within the jurisdictional boundaries of

[2] Pursuant to the Ninth Circuit Court of Appeals' decision in *NRDC v. EPA* (9th Cir. 2008) 526 F.3d 591, and subsequent denial of the U.S. EPA's petition for reconsideration in November 2008, oil and gas construction activities discharging storm water contaminated only with sediment are no longer exempt from the NPDES program.

a CWA § 404 permit should contact the appropriate Regional Water Board to determine whether this permit applies to the site.

C. Activities Not Covered Under the General Permit

24. Routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of the facility.

25. Disturbances to land surfaces solely related to agricultural operations such as disking, harrowing, terracing and leveling, and soil preparation.

26. Discharges of storm water from areas on tribal lands; construction on tribal lands is regulated by a federal permit.

27. Construction activity and land disturbance involving discharges of storm water within the Lake Tahoe Hydrologic Unit. The Lahontan Regional Water Board has adopted its own permit to regulate storm water discharges from construction activity in the Lake Tahoe Hydrologic Unit (Regional Water Board 6SLT). Owners of construction sites in this watershed must apply for the Lahontan Regional Water Board permit rather than the statewide Construction General Permit.

28. Construction activity that disturbs less than one acre of land surface, and that is not part of a larger common plan of development or the sale of one or more acres of disturbed land surface.

29. Construction activity covered by an individual NPDES Permit for storm water discharges.

30. Discharges from small (1 to 5 acre) construction activities with an approved Rainfall Erosivity Waiver authorized by U.S. EPA Phase II regulations certifying to the State Board that small construction activity will occur only when the Rainfall Erosivity Factor is less than 5 (“R” in the Revised Universal Soil Loss Equation).

31. Landfill construction activity that is subject to the Industrial General Permit.

32. Construction activity that discharges to Combined Sewer Systems.

33. Conveyances that discharge storm water runoff combined with municipal sewage.

34. Discharges of storm water identified in CWA § 402(*l*)(2), 33 U.S.C. § 1342(*l*)(2).

35. Discharges occurring in basins that are not tributary or hydrologically connected to waters of the United States (for more information contact your Regional Water Board).

D. Obtaining and Modifying General Permit Coverage

36. This General Permit requires all dischargers to electronically file all Permit Registration Documents (PRDs), Notices of Termination (NOT), changes of information, annual reporting, and other compliance documents required by this General Permit through the State Water Board's Storm water Multi-Application and Report Tracking System (SMARTS) website.

37. Any information provided to the Regional Water Board shall comply with the Homeland Security Act and any other federal law that concerns security in the United States; any information that does not comply should not be submitted.

38. This General Permit grants an exception from the Risk Determination requirements for existing sites covered under Water Quality Orders No. 99-08-DWQ, and No. 2003-0007-DWQ. For certain sites, adding additional requirements may not be cost effective. Construction sites covered under Water Quality Order No. 99-08-DWQ shall obtain permit coverage at the Risk Level 1. LUPs covered under Water Quality Order No. 2003-0007-DWQ shall obtain permit coverage as a Type 1 LUP. The Regional Water Boards have the authority to require Risk Determination to be performed on sites currently covered under Water Quality Orders No. 99-08-DWQ and No. 2003-0007-DWQ where they deem it necessary. The State Water Board finds that there are two circumstances when it may be appropriate for the Regional Water Boards to require a discharger that had filed an NOI under State Water Board Order No. 99-08-DWQ to recalculate the site's risk level. These circumstances are: (1) when the discharger has a demonstrated history of noncompliance with State Water Board Order No. 99-08-DWQ or; (2) when the discharger's site poses a significant risk of causing or contributing to an exceedance of a water quality standard without the implementation of the additional Risk Level 2 or 3 requirements.

E. Prohibitions

39. All discharges are prohibited except for the storm water and non-storm water discharges specifically authorized by this General Permit or another NPDES permit. Non-storm water discharges include a wide variety of sources, including improper dumping, spills, or leakage from storage tanks or transfer areas. Non-storm water discharges may

contribute significant pollutant loads to receiving waters. Measures to control spills, leakage, and dumping, and to prevent illicit connections during construction must be addressed through structural as well as non-structural Best Management Practices (BMPs)[3]. The State Water Board recognizes, however, that certain non-storm water discharges may be necessary for the completion of construction.

40. This General Permit prohibits all discharges which contain a hazardous substance in excess of reportable quantities established in 40 C.F.R. §§ 117.3 and 302.4, unless a separate NPDES Permit has been issued to regulate those discharges.

41. This General Permit incorporates discharge prohibitions contained in water quality control plans, as implemented by the State Water Board and the nine Regional Water Boards.

42. Pursuant to the Ocean Plan, discharges to Areas of Special Biological Significance (ASBS) are prohibited unless covered by an exception that the State Water Board has approved.

43. This General Permit prohibits the discharge of any debris[4] from construction sites. Plastic and other trash materials can cause negative impacts to receiving water beneficial uses. The State Water Board encourages the use of more environmentally safe, biodegradable materials on construction sites to minimize the potential risk to water quality.

F. Training

44. In order to improve compliance with and to maintain consistent enforcement of this General Permit, all dischargers are required to appoint two positions - the Qualified SWPPP Developer (QSD) and the Qualified SWPPP Practitioner (QSP) - who must obtain appropriate training. Together with the key stakeholders, the State and Regional Water Boards are leading the development of this curriculum through a collaborative organization called The Construction General Permit (CGP) Training Team.

45. The Professional Engineers Act (Bus. & Prof. Code section 6700, et seq.) requires that all engineering work must be performed by a California licensed engineer.

[3] BMPs are scheduling of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the United States. BMPs also include treatment requirements, operating procedures, and practice to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

[4] Litter, rubble, discarded refuse, and remains of destroyed inorganic anthropogenic waste.

G. Determining and Reducing Risk

46. The risk of accelerated erosion and sedimentation from wind and water depends on a number of factors, including proximity to receiving water bodies, climate, topography, and soil type.

47. This General Permit requires dischargers to assess the risk level of a site based on both sediment transport and receiving water risk. This General Permit contains requirements for Risk Levels 1, 2 and 3, and LUP Risk Type 1, 2, and 3 (Attachment A). Risk levels are established by determining two factors: first, calculating the site's sediment risk; and second, receiving water risk during periods of soil exposure (i.e. grading and site stabilization). Both factors are used to determine the site-specific Risk Level(s). LUPs can be determined to be Type 1 based on the flowchart in Attachment A.1.

48. Although this General Permit does not mandate specific setback distances, dischargers are encouraged to set back their construction activities from streams and wetlands whenever feasible to reduce the risk of impacting water quality (e.g., natural stream stability and habitat function). Because there is a reduced risk to receiving waters when setbacks are used, this General Permit gives credit to setbacks in the risk determination and post-construction storm water performance standards. The risk calculation and runoff reduction mechanisms in this General Permit are expected to facilitate compliance with any Regional Water Board and local agency setback requirements, and to encourage voluntary setbacks wherever practicable.

49. Rain events can occur at any time of the year in California. Therefore, a Rain Event Action Plan (REAP) is necessary for Risk Level 2 and 3 traditional construction projects (LUPs exempt) to ensure that active construction sites have adequate erosion and sediment controls implemented prior to the onset of a storm event, even if construction is planned only during the dry season.

50. Soil particles smaller than 0.02 millimeters (mm) (i.e., finer than medium silt) do not settle easily using conventional measures for sediment control (i.e., sediment basins). Given their long settling time, dislodging these soils results in a significant risk that fine particles will be released into surface waters and cause unacceptable downstream impacts. If operated correctly, an Active Treatment System (ATS[5]) can prevent or reduce the release of fine particles from construction sites.

[5] An ATS is a treatment system that employs chemical coagulation, chemical flocculation, or electro coagulation in order to reduce turbidity caused by fine suspended sediment.

Use of an ATS can effectively reduce a site's risk of impacting receiving waters.

51. Dischargers located in a watershed area where a Total Maximum Daily Load (TMDL) has been adopted or approved by the Regional Water Board or U.S. EPA may be required by a separate Regional Water Board action to implement additional BMPs, conduct additional monitoring activities, and/or comply with an applicable waste load allocation and implementation schedule. Such dischargers may also be required to obtain an individual Regional Water Board permit specific to the area.

H. Effluent Standards

52. The State Water Board convened a blue ribbon panel of storm water experts that submitted a report entitled, "The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities," dated June 19, 2006. The panel concluded that numeric limits or action levels are technically feasible to control construction storm water discharges, provided that certain conditions are considered. The panel also concluded that numeric effluent limitations (NELs) are feasible for discharges from construction sites that utilize an ATS. The State Water Board has incorporated the expert panel's suggestions into this General Permit, which includes numeric action levels (NALs) for pH and turbidity, and special numeric limits for ATS discharges.

Determining Compliance with Numeric Limitations

53. This General Permit sets a pH NAL of 6.5 to 8.5, and a turbidity NAL of 250 NTU. The purpose of the NAL and its associated monitoring requirement is to provide operational information regarding the performance of the measures used at the site to minimize the discharge of pollutants and to protect beneficial uses and receiving waters from the adverse effects of construction-related storm water discharges. An exceedance of a NAL does not constitute a violation of this General Permit.

54. This General Permit requires dischargers with NAL exceedances to immediately implement additional BMPs and revise their Storm Water Pollution Prevention Plans (SWPPPs) accordingly to either prevent pollutants and authorized non-storm water discharges from contaminating storm water, or to substantially reduce the pollutants to levels consistently below the NALs. NAL exceedances are reported in the State Water Boards SMARTS system, and the discharger is

required to provide an NAL Exceedance Report when requested by a Regional Water Board.

I. Receiving Water Limitations

55. This General Permit requires all enrolled dischargers to determine the receiving waters potentially affected by their discharges and to comply with all applicable water quality standards, including any more stringent standards applicable to a water body.

J. Sampling, Monitoring, Reporting and Record Keeping

56. Visual monitoring of storm water and non-storm water discharges is required for all sites subject to this General Permit.

57. Records of all visual monitoring inspections are required to remain on-site during the construction period and for a minimum of three years.

58. For all Risk Level 3/LUP Type 3 and Risk Level 2/LUP Type 2 sites, this General Permit requires effluent monitoring for pH and turbidity. Sampling, analysis and monitoring requirements for effluent monitoring for pH and turbidity are contained in this General Permit.

59. Risk Level 3 and LUP Type 3 sites with effluent that exceeds the Receiving Water Monitoring Triggers contained in this General Permit and with direct discharges to receiving water are required to conduct receiving water monitoring. An exceedance of a Receiving Water Monitoring Trigger does not constitute a violation of this General Permit.

60. This General Permit establishes a 5 year, 24 hour (expressed in inches of rainfall) as an exemptions to the receiving water monitoring requirements for Risk Level 3 and LUP Type 3 dischargers.

61. If run-on is caused by a forest fire or any other natural disaster, then receiving water monitoring triggers do not apply.

62. For Risk Level 3 and LUP Type 3 sites larger than 30 acres and with direct discharges to receiving waters, this General Permit requires bioassessment sampling before and after site completion to determine if significant degradation to the receiving water's biota has occurred. Bioassessment sampling guidelines are contained in this General Permit.

63. A summary and evaluation of the sampling and analysis results will be submitted in the Annual Reports.

64. This General Permit contains sampling, analysis and monitoring requirements for non-visible pollutants at all sites subject to this General Permit.

65. Compliance with the General Permit relies upon dischargers to electronically self-report any discharge violations and to comply with any Regional Water Board enforcement actions.

66. This General Permit requires that all dischargers maintain a paper or electronic copy of all required records for three years from the date generated or date submitted, whichever is last. These records must be available at the construction site until construction is completed. For LUPs, these documents may be retained in a crew member's vehicle and made available upon request.

K. Active Treatment System (ATS) Requirements

67. Active treatment systems add chemicals to facilitate flocculation, coagulation and filtration of suspended sediment particles. The uncontrolled release of these chemicals to the environment can negatively affect the beneficial uses of receiving waters and/or degrade water quality (e.g., acute and chronic toxicity). Additionally, the batch storage and treatment of storm water through an ATS' can potentially cause physical impacts on receiving waters if storage volume is inadequate or due to sudden releases of the ATS batches and improperly designed outfalls.

68. If designed, operated and maintained properly an ATS can achieve very high removal rates of suspended sediment (measured as turbidity), albeit at sometimes significantly higher costs than traditional erosion/sediment control practices. As a result, this General Permit establishes NELs consistent with the expected level of typical ATS performance.

69. This General Permit requires discharges of storm water associated with construction activity that undergo active treatment to comply with special operational and effluent limitations to ensure that these discharges do not adversely affect the beneficial uses of the receiving waters or cause degradation of their water quality.

70. For ATS discharges, this General Permit establishes technology-based NELs for turbidity.

71. This General Permit establishes a 10 year, 24 hour (expressed in inches of rainfall) Compliance Storm Event exemption from the technology-based numeric effluent limitations for ATS discharges. Exceedances of the ATS turbidity NEL constitutes a violation of this General Permit.

L. Post-Construction Requirements

72. This General Permit includes performance standards for post-construction that are consistent with State Water Board Resolution No. 2005-0006, "Resolution Adopting the Concept of Sustainability as a Core Value for State Water Board Programs and Directing Its Incorporation," and 2008-0030, "Requiring Sustainable Water Resources Management." The requirement for all construction sites to match pre-project hydrology will help ensure that the physical and biological integrity of aquatic ecosystems are sustained. This "runoff reduction" approach is analogous in principle to Low Impact Development (LID) and will serve to protect related watersheds and waterbodies from both hydrologic-based and pollution impacts associated with the post-construction landscape.

73. LUP projects are not subject to post-construction requirements due to the nature of their construction to return project sites to pre-construction conditions.

M. Storm Water Pollution Prevention Plan Requirements

74. This General Permit requires the development of a site-specific SWPPP. The SWPPP must include the information needed to demonstrate compliance with all requirements of this General Permit, and must be kept on the construction site and be available for review. The discharger shall ensure that a QSD develops the SWPPP.

75. To ensure proper site oversight, this General Permit requires a Qualified SWPPP Practitioner to oversee implementation of the BMPs required to comply with this General Permit.

N. Regional Water Board Authorities

76. Regional Water Boards are responsible for implementation and enforcement of this General Permit. A general approach to permitting is not always suitable for every construction site and environmental circumstances. Therefore, this General Permit recognizes that Regional Water Boards must have some flexibility and authority to alter, approve, exempt, or rescind permit authority granted under this

General Permit in order to protect the beneficial uses of our receiving waters and prevent degradation of water quality.

IT IS HEREBY ORDERED that all dischargers subject to this General Permit shall comply with the following conditions and requirements (including all conditions and requirements as set forth in Attachments A, B, C, D, E and F)[6]:

II. CONDITIONS FOR PERMIT COVERAGE

A. Linear Underground/Overhead Projects (LUPs)

1. Linear Underground/Overhead Projects (LUPs) include, but are not limited to, any conveyance, pipe, or pipeline for the transportation of any gaseous, liquid (including water and wastewater for domestic municipal services), liquescent, or slurry substance; any cable line or wire for the transmission of electrical energy; any cable line or wire for communications (e.g. telephone, telegraph, radio or television messages); and associated ancillary facilities. Construction activities associated with LUPs include, but are not limited to, (a) those activities necessary for the installation of underground and overhead linear facilities (e.g., conduits, substructures, pipelines, towers, poles, cables, wires, connectors, switching, regulating and transforming equipment, and associated ancillary facilities); and include, but are not limited to, (b) underground utility mark-out, potholing, concrete and asphalt cutting and removal, trenching, excavation, boring and drilling, access road and pole/tower pad and cable/wire pull station, substation construction, substructure installation, construction of tower footings and/or foundations, pole and tower installations, pipeline installations, welding, concrete and/ or pavement repair or replacement, and stockpile/borrow locations.

2. The Legally Responsible Person is responsible for obtaining coverage under the General Permit where the construction of pipelines, utility lines, fiber-optic cables, or other linear underground/overhead projects will occur across several properties unless the LUP construction activities are covered under another construction storm water permit.

3. Only LUPs shall comply with the conditions and requirements in Attachment A, A.1 & A.2 of this Order. The balance of this Order is not applicable to LUPs except as indicated in Attachment A.

[6] These attachments are part of the General Permit itself and are not separate documents that are capable of being updated independently by the State Water Board.

B. Obtaining Permit Coverage Traditional Construction Sites

1. The Legally Responsible Person (LRP) (see Special Provisions, Electronic Signature and Certification Requirements, Section IV.I.1) must obtain coverage under this General Permit.

2. To obtain coverage, the LRP must electronically file Permit Registration Documents (PRDs) prior to the commencement of construction activity. Failure to obtain coverage under this General Permit for storm water discharges to waters of the United States is a violation of the CWA and the California Water Code.

3. PRDs shall consist of:

   a. Notice of Intent (NOI)
   b. Risk Assessment (Section VIII)
   c. Site Map
   d. Storm Water Pollution Prevention Plan (Section XIV)
   e. Annual Fee
   f. Signed Certification Statement

   Any information provided to the Regional Water Board shall comply with the Homeland Security Act and any other federal law that concerns security in the United States; any information that does not comply should not be submitted.

   Attachment B contains additional PRD information. Dischargers must electronically file the PRDs, and mail the appropriate annual fee to the State Water Board.

4. This permit is effective on July 1, 2010.

   a. **Dischargers Obtaining Coverage On or After July 1, 2010:** All dischargers requiring coverage on or after July 1, 2010, shall electronically file their PRDs prior to the commencement of construction activities, and mail the appropriate annual fee no later than seven days prior to the commencement of construction activities. Permit coverage shall not commence until the PRDs and the annual fee are received by the State Water Board, and a WDID number is assigned and sent by SMARTS.

   b. **Dischargers Covered Under 99-08-DWQ and 2003-0007-DWQ:** Existing dischargers subject to State Water Board Order No. 99-08-DWQ (existing dischargers) will continue coverage under 99-08-DWQ until July 1, 2010. After July 1, 2010, all NOIs subject to State Water Board Order No. 99-08-DWQ will be terminated.

Existing dischargers shall electronically file their PRDs no later than July 1, 2010. If an existing discharger's site acreage subject to the annual fee has changed, it shall mail a revised annual fee no less than seven days after receiving the revised annual fee notification, **or else lose permit coverage**. All existing dischargers shall be exempt from the risk determination requirements in Section VIII of this General Permit until two years after permit adoption. All existing dischargers are therefore subject to Risk Level 1 requirements regardless of their site's sediment and receiving water risks. However, a Regional Board retains the authority to require an existing discharger to comply with the Section VIII risk determination requirements.

5. The discharger is only considered covered by this General Permit upon receipt of a Waste Discharger Identification (WDID) number assigned and sent by the State Water Board Storm water Multi-Application and Report Tracking System (SMARTS). In order to demonstrate compliance with this General Permit, the discharger must obtain a WDID number and must present documentation of a valid WDID upon demand.

6. During the period this permit is subject to review by the U.S. EPA, the prior permit (State Water Board Order No. 99-08-DWQ) remains in effect. Existing dischargers under the prior permit will continue to have coverage under State Water Board Order No. 99-08-DWQ until this General Permit takes effect on July 1, 2010. Dischargers who complete their projects and electronically file an NOT prior to July 1, 2010, are not required to obtain coverage under this General Permit.

7. Small Construction Rainfall Erosivity Waiver

   EPA's Small Construction Erosivity Waiver applies to sites between one and five acres demonstrating that there are no adverse water quality impacts.

   Dischargers eligible for a Rainfall Erosivity Waiver based on low erosivity potential shall complete the electronic Notice of Intent (NOI) and Sediment Risk form through the State Water Board's SMARTS system, certifying that the construction activity will take place during a period when the value of the rainfall erosivity factor is less than five. Where the LRP changes or another LRP is added during construction, the new LRP must also submit a waiver certification through the SMARTS system.

   If a small construction site continues beyond the projected completion date given on the waiver certification, the LRP shall recalculate the

rainfall erosivity factor for the new project duration and submit this information through the SMARTS system. If the new R factor is below five (5), the discharger shall update through SMARTS all applicable information on the waiver certification and retain a copy of the revised waiver onsite. The LRP shall submit the new waiver certification 30 days prior to the projected completion date listed on the original waiver form to assure exemption from permitting requirements is uninterrupted. If the new R factor is five (5) or above, the LRP shall be required to apply for coverage under this Order.

8. In the case of a public emergency that requires immediate construction activities, a discharger shall submit a brief description of the emergency construction activity within five days of the onset of construction, and then shall submit all PRDs within thirty days.

C. Revising Permit Coverage for Change of Acreage or New Ownership

1. The discharger may reduce or increase the total acreage covered under this General Permit when a portion of the site is complete and/or conditions for termination of coverage have been met (See Section II.D Conditions for Termination of Coverage); when ownership of a portion of the site is sold to a different entity; or when new acreage, subject to this General Permit, is added to the site.

2. Within 30 days of a reduction or increase in total disturbed acreage, the discharger shall electronically file revisions to the PRDs that include:

   a. A revised NOI indicating the new project size;

   b. A revised site map showing the acreage of the site completed, acreage currently under construction, acreage sold/transferred or added, and acreage currently stabilized in accordance with the Conditions for Termination of Coverage in Section II.D below.

   c. SWPPP revisions, as appropriate; and

   d. Certification that any new landowners have been notified of applicable requirements to obtain General Permit coverage. The certification shall include the name, address, telephone number, and e-mail address of the new landowner.

   e. If the project acreage has increased, dischargers shall mail payment of revised annual fees within 14 days of receiving the revised annual fee notification.

3. The discharger shall continue coverage under the General Permit for any parcel that has not achieved "Final Stabilization" as defined in Section II.D.

4. When an LRP with active General Permit coverage transfers its LRP status to another person or entity that qualifies as an LRP, the existing LRP shall inform the new LRP of the General Permit's requirements. In order for the new LRP to continue the construction activity on its parcel of property, the new LRP, or the new LRP's approved signatory, must submit PRDs in accordance with this General Permit's requirements.

D. Conditions for Termination of Coverage

1. Within 90 days of when construction is complete or ownership has been transferred, the discharger shall electronically file a Notice of Termination (NOT), a final site map, and photos through the State Water Boards SMARTS system. Filing a NOT certifies that all General Permit requirements have been met. The Regional Water Board will consider a construction site complete only when all portions of the site have been transferred to a new owner, or all of the following conditions have been met:

   a. For purposes of "final stabilization," the site will not pose any additional sediment discharge risk than it did prior to the commencement of construction activity;

   b. There is no potential for construction-related storm water pollutants to be discharged into site runoff;

   c. Final stabilization has been reached;

   d. Construction materials and wastes have been disposed of properly;

   e. Compliance with the Post-Construction Standards in Section XIII of this General Permit has been demonstrated;

   f. Post-construction storm water management measures have been installed and a long-term maintenance plan[7] has been established; and

   g. All construction-related equipment, materials and any temporary BMPs no longer needed are removed from the site.

[7] For the purposes of this requirement a long-term maintenance plan will be designed for a minimum of five years, and will describe the procedures to ensure that the post-construction storm water management measures are adequately maintained.

2. The discharger shall certify that final stabilization conditions are satisfied in their NOT. Failure to certify shall result in continuation of permit coverage and annual billing.

3. The NOT must demonstrate through photos, RUSLE or RUSLE2, or results of testing and analysis that the site meets all of the conditions above (Section II.D.1) and the final stabilization condition (Section II.D.1.a) is attained by one of the following methods:

   a. "70% final cover method," no computational proof required

      OR:

   b. "RUSLE or RUSLE2 method," computational proof required

      OR:

   c. "Custom method", the discharger shall demonstrate in some other manner than a or b, above, that the site complies with the "final stabilization" requirement in Section II.D.1.a.

III. DISCHARGE PROHIBITIONS

A. Dischargers shall not violate any discharge prohibitions contained in applicable Basin Plans or statewide water quality control plans. Waste discharges to Areas of Special Biological Significance (ASBS) are prohibited by the California Ocean Plan, unless granted an exception issued by the State Water Board.

B. All discharges are prohibited except for the storm water and non-storm water discharges specifically authorized by this General Permit or another NPDES permit.

C. Authorized non-storm water discharges may include those from de-chlorinated potable water sources such as: fire hydrant flushing, irrigation of vegetative erosion control measures, pipe flushing and testing, water to control dust, uncontaminated ground water from dewatering, and other discharges not subject to a separate general NPDES permit adopted by a Regional Water Board. The discharge of non-storm water is authorized under the following conditions:

1. The discharge does not cause or contribute to a violation of any water quality standard;

2. The discharge does not violate any other provision of this General Permit;

3. The discharge is not prohibited by the applicable Basin Plan;

4. The discharger has included and implemented specific BMPs required by this General Permit to prevent or reduce the contact of the non-storm water discharge with construction materials or equipment.

5. The discharge does not contain toxic constituents in toxic amounts or (other) significant quantities of pollutants;

6. The discharge is monitored and meets the applicable NALs; and

7. The discharger reports the sampling information in the Annual Report.

If any of the above conditions are not satisfied, the discharge is not authorized by this General Permit. The discharger shall notify the Regional Water Board of any anticipated non-storm water discharges not already authorized by this General Permit or another NPDES permit, to determine whether a separate NPDES permit is necessary.

D. Debris resulting from construction activities are prohibited from being discharged from construction sites.

E. When soil contamination is found or suspected and a responsible party is not identified, or the responsible party fails to promptly take the appropriate action, the discharger shall have those soils sampled and tested to ensure proper handling and public safety measures are implemented. The discharger shall notify the appropriate local, State, and federal agency(ies) when contaminated soil is found at a construction site, and will notify the appropriate Regional Water Board.

IV. SPECIAL PROVISIONS

A. Duty to Comply

1. The discharger shall comply with all of the conditions of this General Permit. Any permit noncompliance constitutes a violation of the Clean Water Act (CWA) and the Porter-Cologne Water Quality Control Act and is grounds for enforcement action and/or removal from General Permit coverage.

2. The discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this General Permit has not yet been modified to incorporate the requirement.

B. General Permit Actions

1. This General Permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the discharger for a General Permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not annul any General Permit condition.

2. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the CWA for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this General Permit, this General Permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition and the dischargers so notified.

C. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this General Permit.

D. Duty to Mitigate

The discharger shall take all responsible steps to minimize or prevent any discharge in violation of this General Permit, which has a reasonable likelihood of adversely affecting human health or the environment.

E. Proper Operation and Maintenance

The discharger shall at all times properly operate and maintain any facilities and systems of treatment and control (and related appurtenances) which are installed or used by the discharger to achieve compliance with the conditions of this General Permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance may require the operation of backup or auxiliary facilities or similar systems installed by a discharger when necessary to achieve compliance with the conditions of this General Permit.

F. Property Rights

This General Permit does not convey any property rights of any sort or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor does it authorize any infringement of Federal, State, or local laws or regulations.

G. Duty to Maintain Records and Provide Information

1. The discharger shall maintain a paper or electronic copy of all required records, including a copy of this General Permit, for three years from the date generated or date submitted, whichever is last. These records shall be available at the construction site until construction is completed.

2. The discharger shall furnish the Regional Water Board, State Water Board, or U.S. EPA, within a reasonable time, any requested information to determine compliance with this General Permit. The discharger shall also furnish, upon request, copies of records that are required to be kept by this General Permit.

H. Inspection and Entry

The discharger shall allow the Regional Water Board, State Water Board, U.S. EPA, and/or, in the case of construction sites which discharge through a municipal separate storm sewer, an authorized representative of the municipal operator of the separate storm sewer system receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the discharger's premises at reasonable times where a regulated construction activity is being conducted or where records must be kept under the conditions of this General Permit;

2. Access and copy at reasonable times any records that must be kept under the conditions of this General Permit;

3. Inspect at reasonable times the complete construction site, including any off-site staging areas or material storage areas, and the erosion/sediment controls; and

4. Sample or monitor at reasonable times for the purpose of ensuring General Permit compliance.

I. Electronic Signature and Certification Requirements

1. All Permit Registration Documents (PRDs) and Notices of Termination (NOTs) shall be electronically signed, certified, and submitted via SMARTS to the State Water Board. Either the Legally Responsible Person (LRP), as defined in Appendix 5 – Glossary, or a person legally authorized to sign and certify PRDs and NOTs on behalf of the LRP (the LRP's Approved Signatory, as defined in Appendix 5 - Glossary) must submit all information electronically via SMARTS.

2. Changes to Authorization. If an Approved Signatory's authorization is no longer accurate, a new authorization satisfying the requirements of paragraph (a) of this section must be submitted via SMARTS prior to or together with any reports, information or applications to be signed by an Approved Signatory.

3. All Annual Reports, or other information required by the General Permit (other than PRDs and NOTs) or requested by the Regional Water Board, State Water Board, U.S. EPA, or local storm water management agency shall be certified and submitted by the LRP or the LRP's Approved Signatory.

J. Certification

Any person signing documents under Section IV.I above, shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

K. Anticipated Noncompliance

The discharger shall give advance notice to the Regional Water Board and local storm water management agency of any planned changes in the construction activity, which may result in noncompliance with General Permit requirements.

L. Bypass

Bypass[8] is prohibited. The Regional Water Board may take enforcement action against the discharger for bypass unless:

1. Bypass was unavoidable to prevent loss of life, personal injury or severe property damage;[9]

2. There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that could occur during normal periods of equipment downtime or preventative maintenance;

3. The discharger submitted a notice at least ten days in advance of the need for a bypass to the Regional Water Board; or

4. The discharger may allow a bypass to occur that does not cause effluent limitations to be exceeded, but only if it is for essential maintenance to assure efficient operation. In such a case, the above bypass conditions are not applicable. The discharger shall submit notice of an unanticipated bypass as required.

M. Upset

1. A discharger that wishes to establish the affirmative defense of an upset[10] in an action brought for noncompliance shall demonstrate,

[8] The intentional diversion of waste streams from any portion of a treatment facility

[9] Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

[10] An exceptional incident in which there is unintentional and temporary noncompliance the technology based numeric effluent limitations because of factors beyond the reasonable control of the discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An upset occurred and that the discharger can identify the cause(s) of the upset

b. The treatment facility was being properly operated by the time of the upset

c. The discharger submitted notice of the upset as required; and

d. The discharger complied with any remedial measures required

2. No determination made before an action of noncompliance occurs, such as during administrative review of claims that noncompliance was caused by an upset, is final administrative action subject to judicial review.

3. In any enforcement proceeding, the discharger seeking to establish the occurrence of an upset has the burden of proof

N. Penalties for Falsification of Reports

Section 309(c)(4) of the CWA provides that any person who knowingly makes any false material statement, representation, or certification in any record or other document submitted or required to be maintained under this General Permit, including reports of compliance or noncompliance shall upon conviction, be punished by a fine of not more than $10,000 or by imprisonment for not more than two years or by both.

O. Oil and Hazardous Substance Liability

Nothing in this General Permit shall be construed to preclude the institution of any legal action or relieve the discharger from any responsibilities, liabilities, or penalties to which the discharger is or may be subject to under Section 311 of the CWA.

P. Severability

The provisions of this General Permit are severable; and, if any provision of this General Permit or the application of any provision of this General Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this General Permit shall not be affected thereby.

Q. Reopener Clause

This General Permit may be modified, revoked and reissued, or terminated for cause due to promulgation of amended regulations, receipt of U.S. EPA guidance concerning regulated activities, judicial decision, or in accordance with 40 Code of Federal Regulations (CFR) 122.62, 122.63, 122.64, and 124.5.

R. Penalties for Violations of Permit Conditions

1. Section 309 of the CWA provides significant penalties for any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the CWA or any permit condition or limitation implementing any such section in a permit issued under Section 402. Any person who violates any permit condition of this General Permit is subject to a civil penalty not to exceed $37,500[11] per calendar day of such violation, as well as any other appropriate sanction provided by Section 309 of the CWA.

2. The Porter-Cologne Water Quality Control Act also provides for civil and criminal penalties, which in some cases are greater than those under the CWA.

S. Transfers

This General Permit is not transferable.

T. Continuation of Expired Permit

This General Permit continues in force and effect until a new General Permit is issued or the SWRCB rescinds this General Permit. Only those dischargers authorized to discharge under the expiring General Permit are covered by the continued General Permit.

[11] May be further adjusted in accordance with the Federal Civil Penalties Inflation Adjustment Act.

V. EFFLUENT STANDARDS & RECEIVING WATER MONITORING

A. Narrative Effluent Limitations

1. Storm water discharges and authorized non-storm water discharges regulated by this General Permit shall not contain a hazardous substance equal to or in excess of reportable quantities established in 40 C.F.R. §§ 117.3 and 302.4, unless a separate NPDES Permit has been issued to regulate those discharges.

2. Dischargers shall minimize or prevent pollutants in storm water discharges and authorized non-storm water discharges through the use of controls, structures, and management practices that achieve BAT for toxic and non-conventional pollutants and BCT for conventional pollutants.

Table 1- Numeric Action Levels, Test Methods, Detection Limits, and Reporting Units

Parameter	Test Method	Discharge Type	Min. Detection Limit	Units	Numeric Action Level
pH	Field test with calibrated portable instrument	Risk Level 2	0.2	pH units	lower NAL = 6.5 upper NAL = 8.5
		Risk Level 3			lower NAL = 6.5 upper NAL = 8.5
Turbidity	EPA 0180.1 and/or field test with calibrated portable instrument	Risk Level 2	1	NTU	250 NTU
		Risk Level 3			250 NTU

B. Numeric Action Levels (NALs)

1. For Risk Level 2 and 3 dischargers, the lower storm event average NAL for pH is 6.5 pH units and the upper storm event average NAL for

pH is 8.5 pH units. The discharger shall take actions as described below if the discharge is outside of this range of pH values.

2. For Risk Level 2 and 3 dischargers, the NAL storm event daily average for turbidity is 250 NTU. The discharger shall take actions as described below if the discharge is outside of this range of turbidity values.

3. Whenever the results from a storm event daily average indicate that the discharge is below the lower NAL for pH, exceeds the upper NAL for pH, or exceeds the turbidity NAL (as listed in Table 1), the discharger shall conduct a construction site and run-on evaluation to determine whether pollutant source(s) associated with the site's construction activity may have caused or contributed to the NAL exceedance and shall immediately implement corrective actions if they are needed.

4. The site evaluation shall be documented in the SWPPP and specifically address whether the source(s) of the pollutants causing the exceedance of the NAL:

   a. Are related to the construction activities and whether additional BMPs are required to (1) meet BAT/BCT requirements; (2) reduce or prevent pollutants in storm water discharges from causing exceedances of receiving water objectives; and (3) determine what corrective action(s) were taken or will be taken and with a description of the schedule for completion.

      AND/OR:

   b. Are related to the run-on associated with the construction site location and whether additional BMPs measures are required to (1) meet BAT/BCT requirements; (2) reduce or prevent pollutants in storm water discharges from causing exceedances of receiving water objectives; and (3) what corrective action(s) were taken or will be taken with a description of the schedule for completion.

C. Receiving Water Monitoring Triggers

1. The receiving water monitoring triggers for Risk Level 3 dischargers with direct discharges to surface waters are triggered when the daily average effluent pH values during any site phase when there is a high risk of pH discharge[12] fall outside of the range of 6.0 and 9.0 pH units, or when the daily average effluent turbidity exceeds 500 NTU.

2. Risk Level 3 dischargers with with direct discharges to surface waters shall conduct receiving water monitoring whenever their effluent monitoring results exceed the receiving water monitoring triggers. If the pH trigger is exceeded, the receiving water shall be monitored for pH for the duration of coverage under this General Permit. If the turbidity trigger is exceeded, the receiving water shall be monitored for turbidity and SSC for the duration of coverage under this general permit.

3. Risk Level 3 dischargers with direct discharges to surfaces waters shall initiate receiving water monitoring when the triggers are exceeded unless the storm event causing the exceedance is determined after the fact to equal to or greater than the 5-year 24-hour storm (expressed in inches of rainfall) as determined by using these maps:

   http://www.wrcc.dri.edu/pcpnfreq/nca5y24.gif
   http://www.wrcc.dri.edu/pcpnfreq/sca5y24.gif

   Verification of the 5-year 24-hour storm event shall be done by reporting on-site rain gauge readings as well as nearby governmental rain gauge readings.

4. If run-on is caused by a forest fire or any other natural disaster, then receiving water monitoring triggers do not apply.

[12] A period of high risk of pH discharge is defined as a project's complete utilities phase, complete vertical build phase, and any portion of any phase where significant amounts of materials are placed directly on the land at the site in a manner that could result in significant alterations of the background pH of the discharges.

VI. RECEIVING WATER LIMITATIONS

A. The discharger shall ensure that storm water discharges and authorized non-storm water discharges to any surface or ground water will not adversely affect human health or the environment.

B. The discharger shall ensure that storm water discharges and authorized non-storm water discharges will not contain pollutants in quantities that threaten to cause pollution or a public nuisance.

C. The discharger shall ensure that storm water discharges and authorized non-storm water discharges will not contain pollutants that cause or contribute to an exceedance of any applicable water quality objectives or water quality standards (collectively, WQS) contained in a Statewide Water Quality Control Plan, the California Toxics Rule, the National Toxics Rule, or the applicable Regional Water Board's Water Quality Control Plan (Basin Plan).

D. Dischargers located within the watershed of a CWA § 303(d) impaired water body, for which a TMDL has been approved by the U.S. EPA, shall comply with the approved TMDL if it identifies "construction activity" or land disturbance as a source of the pollution.

VII. TRAINING QUALIFICATIONS AND CERTIFICATION REQUIREMENTS

A. General

The discharger shall ensure that all persons responsible for implementing requirements of this General Permit shall be appropriately trained in accordance with this Section. Training should be both formal and informal, occur on an ongoing basis, and should include training offered by recognized governmental agencies or professional organizations. Those responsible for preparing and amending SWPPPs shall comply with the requirements in this Section VII.

The discharger shall provide documentation of all training for persons responsible for implementing the requirements of this General Permit in the Annual Reports.

B. SWPPP Certification Requirements

1. **Qualified SWPPP Developer:** The discharger shall ensure that SWPPPs are written, amended and certified by a Qualified SWPPP Developer (QSD). A QSD shall have one of the following registrations or certifications, and appropriate experience, as required for:

   a. A California registered professional civil engineer;

   b. A California registered professional geologist or engineering geologist;

   c. A California registered landscape architect;

   d. A professional hydrologist registered through the American Institute of Hydrology;

   e. A Certified Professional in Erosion and Sediment Control (CPESC) ™ registered through Enviro Cert International, Inc.;

   f. A Certified Professional in Storm Water Quality (CPSWQ) ™ registered through Enviro Cert International, Inc.; or

   g. A professional in erosion and sediment control registered through the National Institute for Certification in Engineering Technologies (NICET).

Effective two years after the adoption date of this General Permit, a QSD shall have attended a State Water Board-sponsored or approved QSD training course.

2. The discharger shall list the name and telephone number of the currently designated Qualified SWPPP Developer(s) in the SWPPP.

3. **Qualified SWPPP Practitioner:** The discharger shall ensure that all BMPs required by this General Permit are implemented by a Qualified SWPPP Practitioner (QSP). A QSP is a person responsible for non-storm water and storm water visual observations, sampling and analysis. Effective two years from the date of adoption of this General Permit, a QSP shall be either a QSD or have one of the following certifications:

   a. A certified erosion, sediment and storm water inspector registered through Enviro Cert International, Inc.; or

   b. A certified inspector of sediment and erosion control registered through Certified Inspector of Sediment and Erosion Control, Inc.

   Effective two years after the adoption date of this General Permit, a QSP shall have attended a State Water Board-sponsored or approved QSP training course.

4. The LRP shall list in the SWPPP, the name of any Approved Signatory, and provide a copy of the written agreement or other mechanism that provides this authority from the LRP in the SWPPP.

5. The discharger shall include, in the SWPPP, a list of names of all contractors, subcontractors, and individuals who will be directed by the Qualified SWPPP Practitioner. This list shall include telephone numbers and work addresses. Specific areas of responsibility of each subcontractor and emergency contact numbers shall also be included.

6. The discharger shall ensure that the SWPPP and each amendment will be signed by the Qualified SWPPP Developer. The discharger shall include a listing of the date of initial preparation and the date of each amendment in the SWPPP.

VIII. RISK DETERMINATION

The discharger shall calculate the site's sediment risk and receiving water risk during periods of soil exposure (i.e. grading and site stabilization) and use the calculated risks to determine a Risk Level(s) using the methodology in

Appendix 1. For any site that spans two or more planning watersheds,[13] the discharger shall calculate a separate Risk Level for each planning watershed. The discharger shall notify the State Water Board of the site's Risk Level determination(s) and shall include this determination as a part of submitting the PRDs. If a discharger ends up with more than one Risk Level determination, the Regional Water Board may choose to break the project into separate levels of implementation.

IX. RISK LEVEL 1 REQUIREMENTS

Risk Level 1 Dischargers shall comply with the requirements included in Attachment C of this General Permit.

X. RISK LEVEL 2 REQUIREMENTS

Risk Level 2 Dischargers shall comply with the requirements included in Attachment D of this General Permit.

XI. RISK LEVEL 3 REQUIREMENTS

Risk Level 3 Dischargers shall comply with the requirements included in Attachment E of this General Permit.

XII. ACTIVE TREATMENT SYSTEMS (ATS)

Dischargers choosing to implement an ATS on their site shall comply with all of the requirements in Attachment F of this General Permit.

[13] Planning watershed: defined by the Calwater Watershed documents as a watershed that ranges in size from approximately 3,000 to 10,000 acres http://cain.ice.ucdavis.edu/calwater/calwfaq.html, http://gis.ca.gov/catalog/BrowseRecord.epl?id=22175 .

XIII. POST-CONSTRUCTION STANDARDS

A. All dischargers shall comply with the following runoff reduction requirements unless they are located within an area subject to post-construction standards of an active Phase I or II municipal separate storm sewer system (MS4) permit that has an approved Storm Water Management Plan.

1. This provision shall take effect three years from the adoption date of this permit, or later at the discretion of the Executive Officer of the Regional Board.

2. The discharger shall demonstrate compliance with the requirements of this section by submitting with their NOI a map and worksheets in accordance with the instructions in Appendix 2. The discharger shall use non-structural controls unless the discharger demonstrates that non-structural controls are infeasible or that structural controls will produce greater reduction in water quality impacts.

3. The discharger shall, through the use of non-structural and structural measures as described in Appendix 2, replicate the pre-project water balance (for this permit, defined as the volume of rainfall that ends up as runoff) for the smallest storms up to the 85th percentile storm event (or the smallest storm event that generates runoff, whichever is larger). Dischargers shall inform Regional Water Board staff at least 30 days prior to the use of any structural control measure used to comply with this requirement. Volume that cannot be addressed using non-structural practices shall be captured in structural practices and approved by the Regional Water Board. When seeking Regional Board approval for the use of structural practices, dischargers shall document the infeasibility of using non-structural practices on the project site, or document that there will be fewer water quality impacts through the use of structural practices.

4. For sites whose disturbed area exceeds two acres, the discharger shall preserve the pre-construction drainage density (miles of stream length per square mile of drainage area) for all drainage areas within the area serving a first order stream[14] or larger stream and ensure that post-project time of runoff concentration is equal or greater than pre-project time of concentration.

[14] A first order stream is defined as a stream with no tributaries.

B. All dischargers shall implement BMPs to reduce pollutants in storm water discharges that are reasonably foreseeable after all construction phases have been completed at the site (Post-construction BMPs).

XIV. SWPPP REQUIREMENTS

A. The discharger shall ensure that the Storm Water Pollution Prevention Plans (SWPPPs) for all traditional project sites are developed and amended or revised by a QSD. The SWPPP shall be designed to address the following objectives:

1. All pollutants and their sources, including sources of sediment associated with construction, construction site erosion and all other activities associated with construction activity are controlled;

2. Where not otherwise required to be under a Regional Water Board permit, all non-storm water discharges are identified and either eliminated, controlled, or treated;

3. Site BMPs are effective and result in the reduction or elimination of pollutants in storm water discharges and authorized non-storm water discharges from construction activity to the BAT/BCT standard;

4. Calculations and design details as well as BMP controls for site run-on are complete and correct, and

5. Stabilization BMPs installed to reduce or eliminate pollutants after construction are completed.

B. To demonstrate compliance with requirements of this General Permit, the QSD shall include information in the SWPPP that supports the conclusions, selections, use, and maintenance of BMPs.

C. The discharger shall make the SWPPP available at the construction site during working hours while construction is occurring and shall be made available upon request by a State or Municipal inspector. When the original SWPPP is retained by a crewmember in a construction vehicle and is not currently at the construction site, current copies of the BMPs and map/drawing will be left with the field crew and the original SWPPP shall be made available via a request by radio/telephone.

XV. REGIONAL WATER BOARD AUTHORITIES

A. In the case where the Regional Water Board does not agree with the discharger's self-reported risk level (e.g., they determine themselves to be a Level 1 Risk when they are actually a Level 2 Risk site), Regional Water Boards may either direct the discharger to reevaluate the Risk Level(s) for their site or terminate coverage under this General Permit.

B. Regional Water Boards may terminate coverage under this General Permit for dischargers who fail to comply with its requirements or where they determine that an individual NPDES permit is appropriate.

C. Regional Water Boards may require dischargers to submit a Report of Waste Discharge / NPDES permit application for Regional Water Board consideration of individual requirements.

D. Regional Water Boards may require additional Monitoring and Reporting Program Requirements, including sampling and analysis of discharges to sediment-impaired water bodies.

E. Regional Water Boards may require dischargers to retain records for more than the three years required by this General Permit.

XVI. ANNUAL REPORTING REQUIREMENTS

A. All dischargers shall prepare and electronically submit an Annual Report no later than September 1 of each year.

B. The discharger shall certify each Annual Report in accordance with the Special Provisions.

C. The discharger shall retain an electronic or paper copy of each Annual Report for a minimum of three years after the date the annual report is filed.

D. The discharger shall include storm water monitoring information in the Annual Report consisting of:

1. a summary and evaluation of all sampling and analysis results, including copies of laboratory reports;

2. the analytical method(s), method reporting unit(s), and method detection limit(s) of each analytical parameter (analytical results that are less than the method detection limit shall be reported as "less than the method detection limit");

3. a summary of all corrective actions taken during the compliance year;

4. identification of any compliance activities or corrective actions that were not implemented;

5. a summary of all violations of the General Permit;

6. the names of individual(s) who performed the facility inspections, sampling, visual observation (inspections), and/or measurements;

7. the date, place, time of facility inspections, sampling, visual observation (inspections), and/or measurements, including precipitation (rain gauge); and

8. the visual observation and sample collection exception records and reports specified in Attachments C, D, and E.

E. The discharger shall provide training information in the Annual Report consisting of:

1. documentation of all training for individuals responsible for all activities associated with compliance with this General Permit;

2. documentation of all training for individuals responsible for BMP installation, inspection, maintenance, and repair; and

3. documentation of all training for individuals responsible for overseeing, revising, and amending the SWPPP.

ATTACHMENT A
Linear Underground/ Overhead Requirements

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All Linear Underground/Overhead project dischargers who submit permit registration documents (PRDs) indicating their intention to be regulated under the provisions of this General Permit shall comply with the following:

A. DEFINITION OF LINEAR UNDERGROUND/OVERHEAD PROJECTS

1. Linear Underground/Overhead Projects (LUPs) include, but are not limited to, any conveyance, pipe, or pipeline for the transportation of any gaseous, liquid (including water and wastewater for domestic municipal services), liquiescent, or slurry substance; any cable line or wire for the transmission of electrical energy; any cable line or wire for communications (e.g., telephone, telegraph, radio, or television messages); and associated ancillary facilities. Construction activities associated with LUPs include, but are not limited to, (a) those activities necessary for the installation of underground and overhead linear facilities (e.g., conduits, substructures, pipelines, towers, poles, cables, wires, connectors, switching, regulating and transforming equipment, and associated ancillary facilities); and include, but are not limited to, (b) underground utility mark-out, potholing, concrete and asphalt cutting and removal, trenching, excavation, boring and drilling, access road and pole/tower pad and cable/wire pull station, substation construction, substructure installation, construction of tower footings and/or foundations, pole and tower installations, pipeline installations, welding, concrete and/ or pavement repair or replacement, and stockpile/borrow locations.

2. LUP evaluation shall consist of two tasks:

a. Confirm that the project or project section(s) qualifies as an LUP. The State Water Board website contains a project determination guidance flowchart. http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

b. Identify which Type(s) (1, 2 or 3 described in Section I below) are applicable to the project or project sections based on project sediment and receiving water risk. (See Attachment A.1)

3. A Legally Responsible Person (LRP) for a Linear Underground/Overhead project is required to obtain CGP coverage under one or more permit registration document (PRD) electronic submittals to the State Water Board's Storm Water Multi-Application and Report Tracking (SMARTs) system. Attachment A.1 contains a flow chart to be used when determining if a linear project qualifies for coverage and to determine LUP Types. Since a LUP may be constructed within both developed and undeveloped locations and portions of LUPs may be constructed by different contractors, LUPs may be broken into logical permit sections. Sections may be determined based on portions of a project conducted by one contractor. Other situations may also occur, such as the time period in which the sections of a project will be constructed (e.g. project phases), for which separate permit coverage is possible. For projects that are broken into separate sections, a description of how each section relates to the overall project and the definition of the boundaries between sections shall be clearly stated.

4. Where construction activities transverse or enter into different Regional Water Board jurisdictions, LRPs shall obtain permit coverage for each Regional Water Board area involved prior to the commencement of construction activities.

5. Small Construction Rainfall Erosivity Waiver

EPA's Small Construction Erosivity Waiver applies to sites between one and five acres demonstrating that there are no adverse water quality impacts.

Dischargers eligible for a Rainfall Erosivity Waiver based on low erosivity potential shall complete the electronic Notice of Intent (NOI) and Sediment Risk form through the State Water Board's SMARTS system, certifying that the construction activity will take place during a period when the value of the rainfall erosivity factor is less than five. Where the LRP changes or another LRP is added during construction, the new LRP must also submit a waiver certification through the SMARTS system.

If a small linear construction site continues beyond the projected completion date given on the waiver certification, the LRP shall recalculate the rainfall erosivity factor for the new project duration and submit this information through the SMARTS system. If the new R factor is below five (5), the discharger shall update through SMARTS all applicable information on the waiver certification and retain a copy of the revised waiver onsite. The LRP shall submit the new waiver certification 30 days prior to the projected completion date listed on the original waiver form to assure exemption from permitting requirements is uninterrupted. If the new R factor is five (5) or above, the LRP shall be required to apply for coverage under this Order.

B. LINEAR PROJECT PERMIT REGISTRATION DOCUMENTS (PRDs)

Any information provided to the Regional Water Board shall comply with the Homeland Security Act and any other federal law that concerns security in the United States; any information that does not comply should not be submitted. PRDs shall consist of the following:

1. Notice of Intent (NOI)

Prior to construction activities, the LRP of a proposed linear underground/overhead project shall utilize the processes and methods provided in Attachment A.2, Permit Registration Documents (PRDs) – General Instructions for Linear Underground/Overhead Projects to comply with the Construction General Permit.

2. Site Maps

LRPs submitting PRDs shall include at least 3 maps. The first map will be a zoomed[1] 1000-1500 ft vicinity map that shows the starting point of the project. The second will be a zoomed map of 1000-1500 ft showing the ending location of the project. The third will be a larger view vicinity map, 1000 ft to 2000 ft, displaying the entire project location depending on the project size, and indicating the LUP type (1, 2 or 3) areas within the total project footprint.

3. Drawings

LRPs submitting PRDs shall include a construction drawing(s) or other appropriate drawing(s) or map(s) that shows the locations of storm drain

[1] An image with a close-up/enhanced detailed view of site features that show minute details such as streets and neighboring structures.
Or: An image with a close-up/enhanced detailed view of the site's surrounding infrastructure.
Or: An image with a close up detailed view of the project and its surroundings.

inlets and waterbodies[2] that may receive discharges from the construction activities and that shows the locations of BMPs to be installed for all those BMPs that can be illustrated on the revisable drawing(s) or map(s). If storm drain inlets, waterbodies, and/or BMPs cannot be adequately shown on the drawing(s) or map(s) they should be described in detail within the SWPPP.

4. Storm Water Pollution Prevention Plan (SWPPP)

LUP dischargers shall comply with the SWPPP Preparation, Implementation, and Oversight requirements in Section K of this Attachment.

5. Contact information

LUP dischargers shall include contact information for all contractors (or subcontractors) responsible for each area of an LUP project. This should include the names, telephone numbers, and addresses of contact personnel. Specific areas of responsibility of each contact, and emergency contact numbers should also be included.

6. In the case of a public emergency that requires immediate construction activities, a discharger shall submit a brief description of the emergency construction activity within five days of the onset of construction, and then shall submit all PRDs within thirty days.

C. LINEAR PROJECT TERMINATION OF COVERAGE REQUIREMENTS

The LRP may terminate coverage of an LUP when construction activities are completed by submitting an electronic notice of termination (NOT) through the State Water Board's SMARTS system. Termination requirements are different depending on the complexity of the LUP. An LUP is considered complete when: (a) there is no potential for construction-related storm water pollution; (b) all elements of the SWPPP have been completed; (c) construction materials and waste have been disposed of properly; (d) the site is in compliance with all local storm water management requirements; and (e) the LRP submits a notice of termination (NOT) and has received approval for termination from the appropriate Regional Water Board office.

1. LUP Stabilization Requirements

The LUP discharger shall ensure that all disturbed areas of the construction site are stabilized prior to termination of coverage under this General Permit. Final stabilization for the purposes of submitting an NOT

[2] Includes basin(s) that the MS4 storm sewer systems may drain to for Hydromodification or Hydrological Conditional of Concerns under the MS4 permits.

is satisfied when all soil disturbing activities are completed and one of the following criteria is met:

a. In disturbed areas that were vegetated prior to construction activities of the LUP, the area disturbed must be re-established to a uniform vegetative cover equivalent to 70 percent coverage of the preconstruction vegetative conditions. Where preconstruction vegetation covers less than 100 percent of the surface, such as in arid areas, the 70 percent coverage criteria is adjusted as follows: if the preconstruction vegetation covers 50 percent of the ground surface, 70 percent of 50 percent (.70 X .50=.35) would require 35 percent total uniform surface coverage; or

b. Where no vegetation is present prior to construction, the site is returned to its original line and grade and/or compacted to achieve stabilization; or

c. Equivalent stabilization measures have been employed. These measures include, but are not limited to, the use of such BMPs as blankets, reinforced channel liners, soil cement, fiber matrices, geotextiles, or other erosion resistant soil coverings or treatments.

2. LUP Termination of Coverage Requirements

The LRP shall file an NOT through the State Water Board's SMARTS system. By submitting an NOT, the LRP is certifying that construction activities for an LUP are complete and that the project is in full compliance with requirements of this General Permit and that it is now compliant with soil stabilization requirements where appropriate. Upon approval by the appropriate Regional Water Board office, permit coverage will be terminated.

3. Revising Coverage for Change of Acreage

When the LRP of a portion of an LUP construction project changes, or when a phase within a multi-phase project is completed, the LRP may reduce the total acreage covered by this General Permit. In reducing the acreage covered by this General Permit, the LRP shall electronically file revisions to the PRDs that include:

a. a revised NOI indicating the new project size;

b. a revised site map showing the acreage of the project completed, acreage currently under construction, acreage sold, transferred or added, and acreage currently stabilized.

c. SWPPP revisions, as appropriate; and

d. certification that any new LRPs have been notified of applicable requirements to obtain General Permit coverage. The certification shall include the name, address, telephone number, and e-mail address (if known) of the new LRP.

If the project acreage has increased, dischargers shall mail payment of revised annual fees within 14 days of receiving the revised annual fee notification.

D. DISCHARGE PROHIBITIONS

1. LUP dischargers shall not violate any discharge prohibitions contained in applicable Basin Plans or statewide water quality control plans. Waste discharges to Areas of Special Biological Significance (ASBS) are prohibited by the California Ocean Plan, unless granted an exception issued by the State Water Board.

2. LUP dischargers are prohibited from discharging non-storm water that is not otherwise authorized by this General Permit. Non-storm water discharges authorized by this General Permit[3] may include, fire hydrant flushing, irrigation of vegetative erosion control measures, pipe flushing and testing, water to control dust, street cleaning, dewatering,[4] uncontaminated groundwater from dewatering, and other discharges not subject to a separate general NPDES permit adopted by a Regional Water Board. Such discharges are allowed by this General Permit provided they are not relied upon to clean up failed or inadequate construction or post-construction BMPs designed to keep materials on site. These authorized non-storm water discharges:

[3] Dischargers must identify all authorized non-storm water discharges in the LUP's SWPPP and identify BMPs that will be implemented to either eliminate or reduce pollutants in non-storm water discharges. Regional Water Boards may direct the discharger to discontinue discharging such non-storm water discharges if determined that such discharges discharge significant pollutants or threaten water quality.
[4] Dewatering activities may be prohibited or need coverage under a separate permit issued by the Regional Water Boards. Dischargers shall check with the appropriate Regional Water Boards for any required permit or basin plan conditions prior to initial dewatering activities to land, storm drains, or waterbodies.

a. Shall not cause or contribute to a violation of any water quality standard;

b. Shall not violate any other provision of this General Permit;

c. Shall not violate any applicable Basin Plan;

d. Shall comply with BMPs as described in the SWPPP;

e. Shall not contain toxic constituents in toxic amounts or (other) significant quantities of pollutants;

f. Shall be monitored and meets the applicable NALs; and

g. Shall be reported by the discharger in the Annual Report.

If any of the above conditions are not satisfied, the discharge is not authorized by this General Permit. The discharger shall notify the Regional Water Board of any anticipated non-storm water discharges not authorized by this General Permit to determine the need for a separate NPDES permit.

Additionally, some LUP dischargers may be required to obtain a separate permit if the applicable Regional Water Board has adopted a General Permit for dewatering discharges. Wherever feasible, alternatives, that do not result in the discharge of non-storm water, shall be implemented in accordance with this Attachment's Section K.2 - SWPPP Implementation Schedule.

3. LUP dischargers shall ensure that trench spoils or any other soils disturbed during construction activities that are contaminated[5] are not discharged with storm water or non-storm water discharges into any storm drain or water body except pursuant to an NPDES permit.

When soil contamination is found or suspected and a responsible party is not identified, or the responsible party fails to promptly take the appropriate action, the LUP discharger shall have those soils sampled and tested to ensure that proper handling and public safety measures are

[5] Contaminated soil contains pollutants in concentrations that exceed the appropriate thresholds that various regulatory agencies set for those substances. Preliminary testing of potentially contaminated soils will be based on odor, soil discoloration, or prior history of the site's chemical use and storage and other similar factors. When soil contamination is found or suspected and a responsible party is not identified, or the responsible party fails to promptly take the appropriate action, the discharger shall have those soils sampled and tested to ensure proper handling and public safety measures are implemented. The legally responsible person will notify the appropriate local, State, or federal agency(ies) when contaminated soil is found at a construction site, and will notify the Regional Water Board by submitting an NOT at the completion of the project.

implemented. The LUP discharger shall notify the appropriate local, State, and federal agency(ies) when contaminated soil is found at a construction site, and will notify the appropriate Regional Water Board.

4. Discharging any pollutant-laden water that will cause or contribute to an exceedance of the applicable Regional Water Board's Basin Plan from a dewatering site or sediment basin into any receiving water or storm drain is prohibited.

5. Debris[6] resulting from construction activities are prohibited from being discharged from construction project sites.

E. SPECIAL PROVISIONS

1. Duty to Comply

a. The LUP discharger must comply with all of the conditions of this General Permit. Any permit noncompliance constitutes a violation of the Clean Water Act (CWA) and the Porter-Cologne Water Quality Control Act and is grounds for enforcement action and/or removal from General Permit coverage.

b. The LUP discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this General Permit has not yet been modified to incorporate the requirement.

2. General Permit Actions

a. This General Permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the discharger for a General Permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not annul any General Permit condition.

[6] Litter, rubble, discarded refuse, and remains of something destroyed.

b. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the CWA for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this General Permit, this General Permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition and the dischargers so notified.

3. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for an LUP discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this General Permit.

4. Duty to Mitigate

The LUP discharger shall take all responsible steps to minimize or prevent any discharge in violation of this General Permit, which has a reasonable likelihood of adversely affecting human health or the environment.

5. Proper Operation and Maintenance

The LUP discharger shall at all times properly operate and maintain any facilities and systems of treatment and control (and related appurtenances) which are installed or used by the discharger to achieve compliance with the conditions of this General Permit and with the requirements of the Storm Water Pollution Prevention Plan (SWPPP). Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance may require the operation of backup or auxiliary facilities or similar systems installed by a discharger when necessary to achieve compliance with the conditions of this General Permit.

6. Property Rights

This General Permit does not convey any property rights of any sort or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor does it authorize any infringement of Federal, State, or local laws or regulations.

7. Duty to Maintain Records and Provide Information

a. The LUP discharger shall maintain a paper or electronic copy of all required records, including a copy of this General Permit, for three years from the date generated or date submitted, whichever is last. These records shall be kept at the construction site or in a crew

member's vehicle until construction is completed, and shall be made available upon request.

b. The LUP discharger shall furnish the Regional Water Board, State Water Board, or USEPA, within a reasonable time, any requested information to determine compliance with this General Permit. The LUP discharger shall also furnish, upon request, copies of records that are required to be kept by this General Permit.

8. Inspection and Entry

The LUP discharger shall allow the Regional Water Board, State Water Board, USEPA, and/or, in the case of construction sites which discharge through a municipal separate storm sewer, an authorized representative of the municipal operator of the separate storm sewer system receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

a. Enter upon the discharger's premises at reasonable times where a regulated construction activity is being conducted or where records must be kept under the conditions of this General Permit;

b. Access and copy at reasonable times any records that must be kept under the conditions of this General Permit;

c. Inspect at reasonable times the complete construction site, including any off-site staging areas or material storage areas, and the erosion/sediment controls; and

d. Sample or monitor at reasonable times for the purpose of ensuring General Permit compliance.

9. Electronic Signature and Certification Requirements

a. All Permit Registration Documents (PRDs) and Notices of Termination (NOTs) shall be electronically signed, certified, and submitted via SMARTS to the State Water Board. Either the Legally Responsible Person (LRP), as defined in Appendix 5 – Glossary, or a person legally authorized to sign and certify PRDs and NOTs on behalf of the LRP (the LRP's Approved Signatory, as defined in Appendix 5 - Glossary) must submit all information electronically via SMARTS.

b. Changes to Authorization. If an Approved Signatory's authorization is no longer accurate, a new authorization satisfying the requirements of paragraph (a) of this section must be submitted via SMARTS prior to or

together with any reports, information or applications to be signed by an Approved Signatory.

c. All SWPPP revisions, annual reports, or other information required by the General Permit (other than PRDs and NOTs) or requested by the Regional Water Board, State Water Board, USEPA, or local storm water management agency shall be certified and submitted by the LRP or the LRP's Approved Signatory.

10. Certification

Any person signing documents under Section E.9 above, shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

11. Anticipated Noncompliance

The LUP discharger shall give advance notice to the Regional Water Board and local storm water management agency of any planned changes in the construction activity, which may result in noncompliance with General Permit requirements.

12. Penalties for Falsification of Reports

Section 309(c)(4) of the CWA provides that any person who knowingly makes any false material statement, representation, or certification in any record or other document submitted or required to be maintained under this General Permit, including reports of compliance or noncompliance shall upon conviction, be punished by a fine of not more than $10,000 or by imprisonment for not more than two years or by both.

13. Oil and Hazardous Substance Liability

Nothing in this General Permit shall be construed to preclude the institution of any legal action or relieve the discharger from any responsibilities, liabilities, or penalties to which the LUP discharger is or may be subject to under Section 311 of the CWA.

14. Severability

The provisions of this General Permit are severable; and, if any provision of this General Permit or the application of any provision of this General Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this General Permit shall not be affected thereby.

15. Reopener Clause

This General Permit may be modified, revoked and reissued, or terminated for cause due to promulgation of amended regulations, receipt of USEPA guidance concerning regulated activities, judicial decision, or in accordance with 40 Code of Federal Regulations (CFR) 122.62, 122.63, 122.64, and 124.5.

16. Penalties for Violations of Permit Conditions

a. Section 309 of the CWA provides significant penalties for any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the CWA or any permit condition or limitation implementing any such section in a permit issued under Section 402. Any person who violates any permit condition of this General Permit is subject to a civil penalty not to exceed $37,500[7] per calendar day of such violation, as well as any other appropriate sanction provided by Section 309 of the CWA.

b. The Porter-Cologne Water Quality Control Act also provides for civil and criminal penalties, which in some cases are greater than those under the CWA.

17. Transfers

This General Permit is not transferable. A new LRP of an ongoing construction activity must submit PRDs in accordance with the requirements of this General Permit to be authorized to discharge under this General Permit. An LRP who is a property owner with active General Permit coverage who sells a fraction or all the land shall inform the new property owner(s) of the requirements of this General Permit.

18. Continuation of Expired Permit

This General Permit continues in force and effect until a new General Permit is issued or the SWRCB rescinds this General Permit. Only those

[7] May be further adjusted in accordance with the Federal Civil Penalties Inflation Adjustment Act

dischargers authorized to discharge under the expiring General Permit are covered by the continued General Permit.

F. EFFLUENT STANDARDS & RECEIVING WATER MONITORING

1. Narrative Effluent Limitations

a. LUP dischargers shall ensure that storm water discharges and authorized non-storm water discharges regulated by this General Permit do not contain a hazardous substance equal to or in excess of reportable quantities established in 40 C.F.R. §§ 117.3 and 302.4, unless a separate NPDES Permit has been issued to regulate those discharges.

b. LUP dischargers shall minimize or prevent pollutants in storm water discharges and authorized non-storm water discharges through the use of structural or non-structural controls, structures, and management practices that achieve BAT for toxic and non-conventional pollutants and BCT for conventional pollutants.

Table 1. Numeric Action Levels, Test Methods, Detection Limits, and Reporting Units

Parameter	Test Method	Discharge Type	Min. Detection Limit	Units	Numeric Action Level
pH	Field test with calibrated portable instrument	LUP Type 2	0.2	pH units	lower NAL = 6.5 upper NAL = 8.5
		LUP Type 3			lower NAL = 6.5 upper NAL = 8.5
Turbidity	EPA 0180.1 and/or field test with calibrated portable instrument	LUP Type 2	1	NTU	250 NTU
		LUP Type 3			250 NTU

2. Numeric Action Levels (NALs)

a. For LUP Type 2 and 3 dischargers, the lower storm event daily average NAL for pH is 6.5 pH units and the upper storm event daily average NAL for pH is 8.5 pH units. The LUP discharger shall take actions as described below if the storm event daily average discharge is outside of this range of pH values.

b. For LUP Type 2 and 3 dischargers, the storm event daily average NAL for turbidity is 250 NTU. The discharger shall take actions as described below if the storm event daily average discharge is outside of this range of turbidity values.

c. Whenever daily average analytical effluent monitoring results indicate that the discharge is below the lower NAL for pH, exceeds the upper NAL for pH, or exceeds the turbidity NAL (as listed in Table 1), the LUP discharger shall conduct a construction site and run-on evaluation to determine whether pollutant source(s) associated with the site's construction activity may have caused or contributed to the NAL exceedance and shall immediately implement corrective actions if they are needed.

d. The site evaluation will be documented in the SWPPP and specifically address whether the source(s) of the pollutants causing the exceedance of the NAL:

i Are related to the construction activities and whether additional BMPs or SWPPP implementation measures are required to (1) meet BAT/BCT requirements; (2) reduce or prevent pollutants in storm water discharges from causing exceedances of receiving water objectives; and (3) determine what corrective action(s) were taken or will be taken and with a description of the schedule for completion.

AND/OR:

ii Are related to the run-on associated with the construction site location and whether additional BMPs or SWPPP implementation measures are required to (1) meet BAT/BCT requirements; (2) reduce or prevent pollutants in storm water discharges from causing exceedances of receiving water objectives; and (3) decide what corrective action(s) were taken or will be taken, including a description of the schedule for completion.

3. Receiving Water Monitoring Triggers

a. The receiving water monitoring triggers for LUP Type 3 dischargers with direct discharges to surface waters are triggered when the daily average effluent pH values during any site phase when there is a high risk of pH discharge[8] fall outside of the range of 6.0 and 9.0 pH units, or when the daily average effluent turbidity exceeds 500 NTU.

b. LUP Type 3 dischargers with direct discharges to surface waters shall conduct receiving water monitoring whenever their effluent monitoring results exceed the receiving water monitoring triggers. If the pH trigger is exceeded, the receiving water shall be monitored for pH for the duration of coverage under this General Permit. If the turbidity trigger is exceeded, the receiving water shall be monitored for turbidity and SSC for the duration of coverage under this General Permit.

c. LUP Type 3 dischargers with direct discharges to surfaces waters shall initiate receiving water monitoring when the triggers are exceeded unless the storm event causing the exceedance is determined after the fact to equal to or greater than the 5-year 24-hour storm (expressed in inches of rainfall) as determined by using these maps:

   http://www.wrcc.dri.edu/pcpnfreq/nca5y24.gif
   http://www.wrcc.dri.edu/pcpnfreq/sca5y24.gif

   Verification of the 5-year 24-hour storm event shall be done by reporting on-site rain gauge readings as well as nearby governmental rain gauge readings.

d. If run-on is caused by a forest fire or any other natural disaster, then receiving water monitoring triggers do not apply.

G. RECEIVING WATER LIMITATIONS

1. LUP dischargers shall ensure that storm water discharges and authorized non-storm water discharges to any surface or ground water will not adversely affect human health or the environment.

2. LUP dischargers shall ensure that storm water discharges and authorized non-storm water discharges will not contain pollutants in quantities that threaten to cause pollution or a public nuisance.

3. LUP dischargers shall ensure that storm water discharges and authorized non-storm water discharges will not contain pollutants that cause or

[8] A period of high risk of pH discharge is defined as a project's complete utilities phase, complete vertical build phase, and any portion of any phase where significant amounts of materials are placed directly on the land at the site in a manner that could result in significant alterations of the background pH of the discharges.

contribute to an exceedance of any applicable water quality objectives or water quality standards (collectively, WQS) contained in a Statewide Water Quality Control Plan, the California Toxics Rule, the National Toxics Rule, or the applicable Regional Water Board's Water Quality Control Plan (Basin Plan).

H. TRAINING QUALIFICATIONS

1. General

All persons responsible for implementing requirements of this General Permit shall be appropriately trained. Training should be both formal and informal, occur on an ongoing basis, and should include training offered by recognized governmental agencies or professional organizations. Persons responsible for preparing, amending and certifying SWPPPs shall comply with the requirements in this Section H.

2. SWPPP Certification Requirements

a. **Qualified SWPPP Developer:** The LUP discharger shall ensure that all SWPPPs be written, amended and certified by a Qualified SWPPP Developer (QSD). A QSD shall have one of the following registrations or certifications, and appropriate experience, as required for:

i A California registered professional civil engineer;

ii A California registered professional geologist or engineering geologist;

iii A California registered landscape architect;

iv A professional hydrologist registered through the American Institute of Hydrology;

v A certified professional in erosion and sediment control (CPESC) ™ registered through Enviro Cert International, Inc;

vi A certified professional in storm water quality (CPSWQ)™ registered through Enviro Cert International, Inc.; or

vii A certified professional in erosion and sediment control registered through the National Institute for Certification in Engineering Technologies (NICET).

Effective two years after the adoption date of this General Permit, a QSD shall have attended a State Water Board-sponsored or approved QSD training course.

b. The LUP discharger shall ensure that the SWPPP is written and amended, as needed, to address the specific circumstances for each construction site covered by this General Permit prior to commencement of construction activity for any stage.

c. The LUP discharger shall list the name and telephone number of the currently designated Qualified SWPPP Developer(s) in the SWPPP.

d. **Qualified SWPPP Practitioner:** The LUP discharger shall ensure that all elements of any SWPPP for each project will be implemented by a Qualified SWPPP Practitioner (QSP). A QSP is a person responsible for non-storm water and storm water visual observations, sampling and analysis, and for ensuring full compliance with the permit and implementation of all elements of the SWPPP. Effective two years from the date of adoption of this General Permit, a QSP shall be either a QSD or have one of the following certifications:

   i A certified erosion, sediment and storm water inspector registered through Certified Professional in Erosion and Sediment Control, Inc.; or

   ii A certified inspector of sediment and erosion control registered through Certified Inspector of Sediment and Erosion Control, Inc.

   Effective two years after the adoption date of this General Permit, a QSP shall have attended a State Water Board-sponsored or approved QSP training course.

e. The LUP discharger shall ensure that the SWPPP include a list of names of all contractors, subcontractors, and individuals who will be directed by the Qualified SWPPP Practitioner, and who is ultimately responsible for implementation of the SWPPP. This list shall include telephone numbers and work addresses. Specific areas of responsibility of each subcontractor and emergency contact numbers shall also be included.

f. The LUP discharger shall ensure that the SWPPP and each amendment be signed by the Qualified SWPPP Developer. The LUP discharger shall include a listing of the date of initial preparation and the dates of each amendment in the SWPPP.

I. TYPES OF LINEAR PROJECTS

This attachment establishes three types (Type 1, 2 & 3) of complexity for areas within an LUP or project section based on threat to water quality. Project area Types are determined through Attachment A.1.

The Type 1 requirements below establish the baseline requirements for all LUPs subject to this General Permit. Additional requirements for Type 2 and Type 3 LUPs are labeled.

1. Type 1 LUPs*:*

LUP dischargers with areas of a LUP designated as Type 1 shall comply with the requirements in this Attachment. Type 1 LUPs are:

a. Those construction areas where 70 percent or more of the construction activity occurs on a paved surface and where areas disturbed during construction will be returned to preconstruction conditions or equivalent protection established at the end of the construction activities for the day; or

b. Where greater than 30 percent of construction activities occur within the non-paved shoulders or land immediately adjacent to paved surfaces, or where construction occurs on unpaved improved roads, including their shoulders or land immediately adjacent to them where:

   i Areas disturbed during construction will be returned to preconstruction conditions or equivalent protection is established at the end of the construction activities for the day to minimize the potential for erosion and sediment deposition, and

   ii Areas where established vegetation was disturbed during construction will be stabilized and re-vegetated by the end of project. When required, adequate temporary stabilization BMPs will be installed and maintained until vegetation is established to meet minimum cover requirements established in this General Permit for final stabilization.

c. Where the risk determination is as follows:

   i Low sediment risk, low receiving water risk, or

   ii Low sediment risk, medium receiving water risk, or

   iii Medium sediment risk, low receiving water risk

2. Type 2 LUPs:

Type 2 LUPs are determined by the Combined Risk Matrix in Attachment A.1. Type 2 LUPs have the specified combination of risk:

d. High sediment risk, low receiving water risk, or

e. Medium sediment risk, medium receiving water risk, or

f. Low sediment risk, high receiving water risk

Receiving water risk is either considered "Low" for those areas of the project that are not in close proximity to a sensitive receiving watershed, "Medium" for those areas of the project within a sensitive receiving watershed yet outside of the flood plain of a sensitive receiving water body, and "High" where the soil disturbance is within close proximity to a sensitive receiving water body. Project sediment risk is calculated based on the Risk Factor Worksheet in Attachment C of this General Permit.

3. Type 3 LUPs:

Type 3 LUPs are determined by the Combined Risk Matrix in Attachment A.1. Type 3 LUPs have the specified combination of risk:

a. High sediment risk, high receiving water risk, or

b. High sediment risk, medium receiving water risk, or

c. Medium sediment risk, high receiving water risk

Receiving water risk is either considered "Medium" for those areas of the project within a sensitive receiving watershed yet outside of the flood plain of a sensitive receiving water body, or "High" where the soil disturbance is within close proximity to a sensitive receiving water body. Project sediment risk is calculated based on the Risk Factor Worksheet in Attachment C.

J. LUP TYPE-SPECIFIC REQUIREMENTS

1. Effluent Standards

a. Narrative – LUP dischargers shall comply with the narrative effluent standards below.

i Storm water discharges and authorized non-storm water discharges regulated by this General Permit shall not contain a hazardous substance equal to or in excess of reportable quantities established in 40 C.F.R. §§ 117.3 and 302.4, unless a separate NPDES Permit has been issued to regulate those discharges.

ii LUP dischargers shall minimize or prevent pollutants in storm water discharges and authorized non-storm water discharges through the use of controls, structures, and management practices that achieve BAT for toxic and non-conventional pollutants and BCT for conventional pollutants.

b. Numeric – LUP Type 1 dischargers are not subject to a numeric effluent standard

c. Numeric –LUP Type 2 dischargers are subject to a pH NAL of 6.5-8.5, and a turbidity NAL of 250 NTU.

d. Numeric – LUP Type 3 dischargers are subject to a pH NAL of 6.5-8.5, and a turbidity NAL of 250 NTU.

2. Good Site Management "Housekeeping"

a. LUP dischargers shall implement good site management (i.e., "housekeeping") measures for construction materials that could potentially be a threat to water quality if discharged. At a minimum, the good housekeeping measures shall consist of the following:

i Identify the products used and/or expected to be used and the end products that are produced and/or expected to be produced. This does not include materials and equipment that are designed to be outdoors and exposed to environmental conditions (i.e. poles, equipment pads, cabinets, conductors, insulators, bricks, etc.).

ii Cover and berm loose stockpiled construction materials that are not actively being used (i.e. soil, spoils, aggregate, fly-ash, stucco, hydrated lime, etc.).

iii Store chemicals in watertight containers (with appropriate secondary containment to prevent any spillage or leakage) or in a storage shed (completely enclosed).

iv Minimize exposure of construction materials to precipitation (not applicable to materials designed to be outdoors and exposed to the environment).

v Implement BMPs to control the off-site tracking of loose construction and landscape materials.

b. LUP dischargers shall implement good housekeeping measures for waste management, which, at a minimum, shall consist of the following:

i Prevent disposal of any rinse or wash waters or materials on impervious or pervious site surfaces or into the storm drain system.

ii Ensure the containment of sanitation facilities (e.g., portable toilets) to prevent discharges of pollutants to the storm water drainage system or receiving water.

iii Clean or replace sanitation facilities and inspecting them regularly for leaks and spills.

iv Cover waste disposal containers at the end of every business day and during a rain event.

v Prevent discharges from waste disposal containers to the storm water drainage system or receiving water.

vi Contain and securely protect stockpiled waste material from wind and rain at all times unless actively being used.

vii Implement procedures that effectively address hazardous and non-hazardous spills.

viii Develop a spill response and implementation element of the SWPPP prior to commencement of construction activities. The SWPPP shall require that:

(1) Equipment and materials for cleanup of spills shall be available on site and that spills and leaks shall be cleaned up immediately and disposed of properly; and

(2) Appropriate spill response personnel are assigned and trained.

ix Ensure the containment of concrete washout areas and other washout areas that may contain additional pollutants so there is no discharge into the underlying soil and onto the surrounding areas.

c. LUP dischargers shall implement good housekeeping for vehicle storage and maintenance, which, at a minimum, shall consist of the following:

   i Prevent oil, grease, or fuel from leaking into the ground, storm drains or surface waters.

   ii Implement appropriate BMPs whenever equipment or vehicles are fueled, maintained or stored.

   iii Clean leaks immediately and disposing of leaked materials properly.

d. LUP dischargers shall implement good housekeeping for landscape materials, which, at a minimum, shall consist of the following:

   i Contain stockpiled materials such as mulches and topsoil when they are not actively being used.

   ii Contain fertilizers and other landscape materials when they are not actively being used.

   iii Discontinue the application of any erodible landscape material at least 2 days before a forecasted rain event[9] or during periods of precipitation.

   iv Applying erodible landscape material at quantities and application rates according to manufacture recommendations or based on written specifications by knowledgeable and experienced field personnel.

   v Stacking erodible landscape material on pallets and covering or storing such materials when not being used or applied.

e. LUP dischargers shall conduct an assessment and create a list of potential pollutant sources and identify any areas of the site where additional BMPs are necessary to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. This potential pollutant list shall be kept with the SWPPP and shall identify all non-visible pollutants which are known, or should be known, to occur on the construction site. At a minimum, when developing BMPs, LUP dischargers shall do the following:

[9] 50% or greater chance of producing precipitation.

i Consider the quantity, physical characteristics (e.g., liquid, powder, solid), and locations of each potential pollutant source handled, produced, stored, recycled, or disposed of at the site.

ii Consider the degree to which pollutants associated with those materials may be exposed to and mobilized by contact with storm water.

iii Consider the direct and indirect pathways that pollutants may be exposed to storm water or authorized non-storm water discharges. This shall include an assessment of past spills or leaks, non-storm water discharges, and discharges from adjoining areas.

iv Ensure retention of sampling, visual observation, and inspection records.

v Ensure effectiveness of existing BMPs to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges.

f. LUP dischargers shall implement good housekeeping measures on the construction site to control the air deposition of site materials and from site operations.

3. Non-Storm Water Management

a. LUP dischargers shall implement measures to control all non-storm water discharges during construction.

b. LUP dischargers shall wash vehicles in such a manner as to prevent non-storm water discharges to surface waters or MS4 drainage systems.

c. LUP dischargers shall clean streets in such a manner as to prevent unauthorized non-storm water discharges from reaching surface water or MS4 drainage systems.

4. Erosion Control

a. LUP dischargers shall implement effective wind erosion control.

b. LUP dischargers shall provide effective soil cover for inactive[10] areas and all finished slopes, and utility backfill.

[10] Areas of construction activity that have been disturbed and are not scheduled to be re-disturbed for at least 14 days

c. LUP dischargers shall limit the use of plastic materials when more sustainable, environmentally friendly alternatives exist. Where plastic materials are deemed necessary, the discharger shall consider the use of plastic materials resistant to solar degradation.

5. Sediment Controls

a. LUP dischargers shall establish and maintain effective perimeter controls as needed, and implement effective BMPs for all construction entrances and exits to sufficiently control erosion and sediment discharges from the site.

b. On sites where sediment basins are to be used, LUP dischargers shall, at minimum, design sediment basins according to the guidance provided in CASQA's Construction BMP Handbook.

c. **Additional LUP Type 2 & 3 Requirement:** LUP Type 2 & 3 dischargers shall apply linear sediment controls along the toe of the slope, face of the slope, and at the grade breaks of exposed slopes to comply with sheet flow lengths[11] in accordance with Table 2 below.

Table 2 – Critical Slope/Sheet Flow Length Combinations

Slope Percentage	Sheet flow length not to exceed
0-25%	20 feet
25-50%	15 feet
Over 50%	10 feet

d. **Additional LUP Type 2 & 3 Requirement:** LUP Type 2 & 3 dischargers shall ensure that construction activity traffic to and from the project is limited to entrances and exits that employ effective controls to prevent off-site tracking of sediment.

e. **Additional LUP Type 2 & 3 Requirement:** LUP Type 2 & 3 dischargers shall ensure that all storm drain inlets and perimeter controls, runoff control BMPs, and pollutant controls at entrances and exits (e.g. tire washoff locations) are maintained and protected from activities that reduce their effectiveness.

f. **Additional LUP Type 2 & 3 Requirement:** LUP Type 2 & 3 dischargers shall inspect all immediate access roads. At a minimum daily and prior to any rain event, the discharger shall remove any

[11] Sheet flow length is the length that shallow, low velocity flow travels across a site.

sediment or other construction activity-related materials that are deposited on the roads (by vacuuming or sweeping).

g. **Additional LUP Type 3 Requirement:** The Regional Water Board may require LUP Type 3 dischargers to implement additional site-specific sediment control requirements if the implementation of the other requirements in this section are not adequately protecting the receiving waters.

6. Run-on and Run-off Controls

a. LUP dischargers shall effectively manage all run-on, all runoff within the site and all runoff that discharges off the site. Run-on from off site-shall be directed away from all disturbed areas or shall collectively be in compliance with the effluent limitations in this Attachment.

b. Run-on and runoff controls are not required for Type 1 LUPs unless the evaluation of quantity and quality of run-on and runoff deems them necessary or visual inspections show that the site requires such controls.

7. Inspection, Maintenance and Repair

a. All inspection, maintenance repair and sampling activities at the discharger's LUP location shall be performed or supervised by a QSP representing the discharger. The QSP may delegate any or all of these activities to an employee trained to do the task(s) appropriately, but shall ensure adequate deployment.

b. LUP dischargers shall conduct visual inspections and observations daily during working hours (not recorded). At least once each 24-hour period during extended storm events, **LUP Type 2 & 3 dischargers** shall conduct visual inspections to identify and record BMPs that need maintenance to operate effectively, that have failed, or that could fail to operate as intended. Inspectors shall be the QSP or be trained by the QSP.

c. Upon identifying failures or other shortcomings, as directed by the QSP, LUP dischargers shall begin implementing repairs or design changes to BMPs within 72 hours of identification and complete the changes as soon as possible.

d. For each pre- and post-rain event inspection required, LUP dischargers shall complete an inspection checklist, using a form provided by the State Water Board or Regional Water Board or in an alternative format that includes the information described below.

e. The LUP discharger shall ensure that the checklist remains on-site or with the SWPPP. At a minimum, an inspection checklist should include:

i Inspection date and date the inspection report was written.

ii Weather information, including presence or absence of precipitation, estimate of beginning of qualifying storm event, duration of event, time elapsed since last storm, and approximate amount of rainfall in inches.

iii Site information, including stage of construction, activities completed, and approximate area of the site exposed.

iv A description of any BMPs evaluated and any deficiencies noted.

v If the construction site is safely accessible during inclement weather, list the observations of all BMPs: erosion controls, sediment controls, chemical and waste controls, and non-storm water controls. Otherwise, list the results of visual inspections at all relevant outfalls, discharge points, downstream locations and any projected maintenance activities.

vi Report the presence of noticeable odors or of any visible sheen on the surface of any discharges.

vii Any corrective actions required, including any necessary changes to the SWPPP and the associated implementation dates.

viii Photographs taken during the inspection, if any.

ix Inspector's name, title, and signature.

K. STORM WATER POLLUTION PREVENTION PLAN (SWPPP) REQUIREMENTS

1. Objectives

SWPPPs for all LUPs shall be developed and amended or revised by a QSD. The SWPPP shall be designed to address the following objectives:

a. All pollutants and their sources, including sources of sediment, associated with construction activities associated with LUP activity are controlled;

b. All non-storm water discharges are identified and either eliminated, controlled, or treated;

c. BMPs are effective and result in the reduction or elimination of pollutants in storm water discharges and authorized non-storm water discharges from LUPs during construction; and

d. Stabilization BMPs installed to reduce or eliminate pollutants after construction is completed are effective and maintained.

2. SWPPP Implementation Schedule

a. LUPs for which PRDs have been submitted to the State Water Board shall develop a site/project location SWPPP prior to the start of land-disturbing activity in accordance with this Section and shall implement the SWPPP concurrently with commencement of soil-disturbing activities.

b. For an ongoing LUP involving a change in the LRP, the new LRP shall review the existing SWPPP and amend it, if necessary, or develop a new SWPPP within 15 calendar days to conform to the requirements set forth in this General Permit.

3. Availability

The SWPPP shall be available at the construction site during working hours while construction is occurring and shall be made available upon request by a State or Municipal inspector. When the original SWPPP is retained by a crewmember in a construction vehicle and is not currently at the construction site, copies of the BMPs and map/drawing will be left with the field crew and the original SWPPP shall be made available via a request by radio/telephone.

L. REGIONAL WATER BOARD AUTHORITIES

1. Regional Water Boards shall administer the provisions of this General Permit. Administration of this General Permit may include, but is not limited to, requesting the submittal of SWPPPs, reviewing SWPPPs, reviewing monitoring and sampling and analysis reports, conducting compliance inspections, gathering site information by any medium including sampling, photo and video documentation, and taking enforcement actions.

2. Regional Water Boards may terminate coverage under this General Permit for dischargers who fail to comply with its requirements or where they determine that an individual NPDES permit is appropriate.

3. Regional Water Boards may issue separate permits for discharges of storm water associated with construction activity to individual dischargers, categories of dischargers, or dischargers in a geographic area. Upon issuance of such permits by a Regional Water Board, dischargers subject to those permits shall no longer be regulated by this General Permit.

4. Regional Water Boards may direct the discharger to reevaluate the LUP Type(s) for the project (or elements/areas of the project) and impose the appropriate level of requirements.

5. Regional Water Boards may terminate coverage under this General Permit for dischargers who negligently or with willful intent incorrectly determine or report their LUP Type (e.g., they determine themselves to be a LUP Type 1 when they are actually a Type 2).

6. Regional Water Boards may review PRDs and reject or accept applications for permit coverage or may require dischargers to submit a Report of Waste Discharge / NPDES permit application for Regional Water Board consideration of individual requirements.

7. Regional Water Boards may impose additional requirements on dischargers to satisfy TMDL implementation requirements or to satisfy provisions in their Basin Plans.

8. Regional Water Boards may require additional Monitoring and Reporting Program Requirements, including sampling and analysis of discharges to sediment-impaired water bodies.

9. Regional Water Boards may require dischargers to retain records for more than the three years required by this General Permit.

10. Based on an LUP's threat to water quality and complexity, the Regional Water Board may determine on a case-by-case basis that an LUP, or a portion of an LUP, is not eligible for the linear project requirements contained in this Attachment, and require that the discharger comply with all standard requirements in this General Permit.

11. The Regional Water Board may require additional monitoring and reporting program requirements including sampling and analysis of discharges to CWA § 303(d)-listed water bodies. Additional requirements imposed by the Regional Water Board shall be consistent with the overall monitoring effort in the receiving waters.

M. MONITORING AND REPORTING REQUIREMENTS

Table 3. LUP Summary of Monitoring Requirements

LUP Type	Visual Inspections				Sample Collection		
	Daily Site BMP	Pre-storm Event / Baseline	Daily Storm BMP	Post Storm	Storm Water Discharge	Receiving Water	Non-Visible (when applicable)
1	X						X
2	X	X	X	X	X		X
3	X	X	X	X	X	X	X

1. Objectives

LUP dischargers shall prepare a monitoring and reporting program (M&RP) prior to the start of construction and immediately implement the program at the start of construction for LUPs. The monitoring program must be implemented at the appropriate level to protect water quality at all times throughout the life of the project. The M&RP must be a part of the SWPPP, included as an appendix or separate SWPPP chapter.

2. M&RP Implementation Schedule

a. LUP dischargers shall implement the requirements of this Section at the time of commencement of construction activity. LUP dischargers are responsible for implementing these requirements until construction activity is complete and the site is stabilized.

b. LUP dischargers shall revise the M&RP when:

i Site conditions or construction activities change such that a change in monitoring is required to comply with the requirements and intent of this General Permit.

ii The Regional Water Board requires the discharger to revise its M&RP based on its review of the document. Revisions may include, but not be limited to, conducting additional site inspections, submitting reports, and certifications. Revisions shall be submitted via postal mail or electronic e-mail.

iii The Regional Water Board may require additional monitoring and reporting program requirements including sampling and analysis of discharges to CWA § 303(d)-listed water bodies. Additional requirements imposed by the Regional Water Board shall be consistent with the overall monitoring effort in the receiving waters.

3. LUP Type 1 Monitoring and Reporting Requirements

a. LUP Type 1 Inspection Requirements

i LUP Type 1 dischargers shall ensure that all inspections are conducted by trained personnel. The name(s) and contact number(s) of the assigned inspection personnel should be listed in the SWPPP.

ii LUP Type 1 dischargers shall ensure that all visual inspections are conducted daily during working hours and in conjunction with other daily activities in areas where active construction is occurring.

iii LUP Type 1 dischargers shall ensure that photographs of the site taken before, during, and after storm events are taken during inspections, and submitted through the State Water Board's SMARTS website once every three rain events.

iv LUP Type 1 dischargers shall conduct daily visual inspections to verify that:

(1) Appropriate BMPs for storm water and non-storm water are being implemented in areas where active construction is occurring (including staging areas);

(2) Project excavations are closed, with properly protected spoils, and that road surfaces are cleaned of excavated material and construction materials such as chemicals by either removing or storing the material in protective storage containers at the end of every construction day;

(3) Land areas disturbed during construction are returned to pre-construction conditions or an equivalent protection is used at the end of each workday to eliminate or minimize erosion and the possible discharge of sediment or other pollutants during a rain event.

v Inspections may be discontinued in non-active construction areas where soil-disturbing activities are completed and final soil stabilization is achieved (e.g., paving is completed, substructures

are installed, vegetation meets minimum cover requirements for final stabilization, or other stabilization requirements are met).

vi Inspection programs are required for LUP Type 1 projects where temporary and permanent stabilization BMPs are installed and are to be monitored after active construction is completed. Inspection activities shall continue until adequate permanent stabilization is established and, in areas where re-vegetation is chosen, until minimum vegetative coverage is established in accordance with Section C.1 of this Attachment.

b. LUP Type 1 Monitoring Requirements for Non-Visible Pollutants

LUP Type 1 dischargers shall implement sampling and analysis requirements to monitor non-visible pollutants associated with (1) construction sites; (2) activities producing pollutants that are not visually detectable in storm water discharges; and (3) activities which could cause or contribute to an exceedance of water quality objectives in the receiving waters.

i Sampling and analysis for non-visible pollutants is only required where the LUP Type 1 discharger believes pollutants associated with construction activities have the potential to be discharged with storm water runoff due to a spill or in the event there was a breach, malfunction, failure and/or leak of any BMP. Also, failure to implement BMPs may require sample collection.

(1) Visual observations made during the monitoring program described above will help the LUP Type 1 discharger determine when to collect samples.

(2) The LUP Type 1 discharger is not required to sample if one of the conditions described above (e.g., breach or spill) occurs and the site is cleaned of material and pollutants and/or BMPs are implemented prior to the next storm event.

ii LUP Type 1 dischargers shall collect samples down-gradient from all discharge locations where the visual observations were made triggering the monitoring, and which can be safely accessed. For sites where sampling and analysis is required, personnel trained in water quality sampling procedures shall collect storm water samples.

iii If sampling for non-visible pollutant parameters is required, LUP Type 1 dischargers shall ensure that samples be analyzed for parameters indicating the presence of pollutants identified in the pollutant source assessment required in Section J.2.a.i.

iv LUP Type 1 dischargers shall collect samples during the first two hours of discharge from rain events that occur during business hours and which generate runoff.

v LUP Type 1 dischargers shall ensure that a sufficiently large sample of storm water that has not come into contact with the disturbed soil or the materials stored or used on-site (uncontaminated sample[12]) will be collected for comparison with the discharge sample. Samples shall be collected during the first two hours of discharge from rain events that occur during daylight hours and which generate runoff.

vi LUP Type 1 dischargers shall compare the uncontaminated sample to the samples of discharge using field analysis or through laboratory analysis. Analyses may include, but are not limited to, indicator parameters such as: pH, specific conductance, dissolved oxygen, conductivity, salinity, and Total Dissolved Solids (TDS).

vii For laboratory analyses, all sampling, sample preservation, and other analyses must be conducted according to test procedures pursuant to 40 C.F.R. Part 136. LUP Type 1 dischargers shall ensure that field samples are collected and analyzed according to manufacturer specifications of the sampling devices employed. Portable meters shall be calibrated according to manufacturer's specification.

viii LUP Type 1 dischargers shall ensure that all field and/or analytical data are kept in the SWPPP document.

c. <u>LUP Type 1 Visual Observation Exceptions</u>

i LUP Type 1 dischargers shall be prepared to collect samples and conduct visual observation (inspections) to meet the minimum visual observation requirements of this Attachment. The Type 1 LUP discharger is not required to physically collect samples or conduct visual observation (inspections) under the following conditions:

(1) During dangerous weather conditions such as flooding and electrical storms;

(2) Outside of scheduled site business hours.

(3) When access to the site is unsafe due to storm events.

[12] Sample collected at a location unaffected by contruction activities.

ii If the LUP Type 1 discharger does not collect the required samples or visual observation (inspections) due to these exceptions, an explanation why the sampling or visual observation (inspections) were not conducted shall be included in both the SWPPP and the Annual Report.

d. Particle Size Analysis for Risk Justification

LUP Type 1 dischargers utilizing justifying an alternative project risk shall report a soil particle size analysis used to determine the RUSLE K-Factor. ASTM D-422 (Standard Test Method for Particle-Size Analysis of Soils), as revised, shall be used to determine the percentages of sand, very fine sand, silt, and clay on the site.

4. LUP Type 2 & 3 Monitoring and Reporting Requirements

a. LUP Type 2 & 3 Inspection Requirements

i LUP Type 2 & 3 dischargers shall ensure that all inspections are conducted by trained personnel. The name(s) and contact number(s) of the assigned inspection personnel should be listed in the SWPPP.

ii LUP Type 2 & 3 dischargers shall ensure that all visual inspections are conducted daily during working hours and in conjunction with other daily activities in areas where active construction is occurring.

iii LUP Type 2 & 3 dischargers shall ensure that photographs of the site taken before, during, and after storm events are taken during inspections, and submitted through the State Water Board's SMARTS website once every three rain events.

iv LUP Type 2 & 3 dischargers shall conduct daily visual inspections to verify that appropriate BMPs for storm water and non-storm water are being implemented and in place in areas where active construction is occurring (including staging areas).

v LUP Type 2 & 3 dischargers shall conduct inspections of the construction site prior to anticipated storm events, during extended storm events, and after actual storm events to identify areas contributing to a discharge of storm water associated with construction activity. Pre-storm inspections are to ensure that BMPs are properly installed and maintained; post-storm inspections are to assure that BMPs have functioned adequately. During

extended storm events, inspections shall be required during normal working hours for each 24-hour period.

vi Inspections may be discontinued in non-active construction areas where soil-disturbing activities are completed and final soil stabilization is achieved (e.g., paving is completed, substructures are installed, vegetation meets minimum cover requirements for final stabilization, or other stabilization requirements are met).

vii LUP Type 2 & 3 dischargers shall implement a monitoring program for inspecting projects that require temporary and permanent stabilization BMPs after active construction is complete. Inspections shall ensure that the BMPs are adequate and maintained. Inspection activities shall continue until adequate permanent stabilization is established and, in vegetated areas, until minimum vegetative coverage is established in accordance with Section C.1 of this Attachment.

viii If possible, LUP Type 2 & 3 dischargers shall install a rain gauge on-site at an accessible and secure location with readings made during all storm event inspections. When readings are unavailable, data from the closest rain gauge with publically available data may be used.

ix LUP Type 2 & 3 dischargers shall Include and maintain a log of the inspections conducted in the SWPPP. The log will provide the date and time of the inspection and who conducted the inspection.

b. LUP Type 2 & 3 Storm Water Effluent Monitoring Requirements

Table 4. LUP Type 2 & 3 Effluent Monitoring Requirements

LUP Type	Frequency	Effluent Monitoring
2	Minimum of 3 samples per day characterizing discharges associated with construction activity from the project active areas of construction.	Turbidity, pH, and non-visible pollutant parameters (if applicable)
3	Minimum of 3 samples per day characterizing discharges associated with construction activity from the project active areas of construction.	turbidity, pH, and non-visible pollutant parameters (if applicable)

i LUP Type 2 & 3 dischargers shall collect storm water grab samples from sampling locations characterizing discharges associated with activity from the LUP active areas of construction. At a minimum, 3 samples shall be collected per day of discharge.

ii LUP Type 2 & 3 dischargers shall collect samples of stored or contained storm water that is discharged subsequent to a storm event producing precipitation of ½ inch or more at the time of discharge.

iii LUP Type 2 & 3 dischargers shall ensure that storm water grab sample(s) obtained be representative of the flow and characteristics of the discharge.

iv LUP Type 2 & 3 dischargers shall analyze their effluent samples for:

(1) pH and turbidity
(2) Any additional parameter for which monitoring is required by the Regional Water Board.

c. LUP Type 2 & 3 Storm Water Effluent Sampling Locations

i LUP Type 2 & 3 dischargers shall perform sampling and analysis of storm water discharges to characterize discharges associated with construction activity from the entire disturbed project or area.

ii LUP Type 2 & 3 dischargers may monitor and report run-on from surrounding areas if there is reason to believe run-on may contribute to exceedance of NALs.

iii LUP Type 2 & 3 dischargers shall select analytical test methods from the list provided in Table 5 below.

iv LUP Type 2 & 3 dischargers shall ensure that all storm water sample collection preservation and handling shall be conducted in accordance with the “Storm Water Sample Collection and Handling Instructions” below.

d. LUP Type 3 Receiving Water Monitoring Requirements

i In the event that an LUP Type 3 discharger’s effluent exceeds the receiving water monitoring triggers of 500 NTU turbidity or pH range of 6.0-9.0, contained in this General Permit and has a direct discharge to receiving waters, the LUP discharger shall subsequently sample Receiving Waters (RWs) for turbidity, pH (if applicable) and SSC for the duration of coverage under this General Permit. In the event that an LUP Tupe 3 discharger utilizing ATS with direct discharges into receiving waters discharges effluent that exceeds the NELs in this permit, the discharger shall

subsequently sample RWs for turbidity, pH (if applicable), and SSC for the duration of coverage under this General Permit.

ii LUP Type 3 dischargers that meet the project criteria in Appendix 3 of this General Permit and have more than 30 acres of soil disturbance in the project area or project section area designated as Type 3, shall comply with the Bioassessment requirements prior to commencement of construction activity.

iii LUP Type 3 dischargers shall obtain RW samples in accordance with the requirements of the Receiving Water Sampling Locations section (Section M.4.c. of this Attachment).

e. LUP Type 3 Receiving Water Sampling Locations

i **Upstream/up-gradient RW samples**: LUP Type 3 dischargers shall obtain any required upstream/up-gradient receiving water samples from a representative and accessible location as close as possible to and upstream from the effluent discharge point.

ii **Downstream/down-gradient RW samples**: LUP Type 3 dischargers shall obtain any required downstream/down-gradient receiving water samples from a representative and accessible location as close as possible to and downstream from the effluent discharge point.

iii If two or more discharge locations discharge to the same receiving water, LUP Type 3 dischargers may sample the receiving water at a single upstream and downstream location.

f. LUP Type 2 & 3 Monitoring Requirements for Non-Visible Pollutants

LUP Type 2 & 3 dischargers shall implement sampling and analysis requirements to monitor non-visible pollutants associated with (1) construction sites; (2) activities producing pollutants that are not visually detectable in storm water discharges; and (3) activities which could cause or contribute to an exceedance of water quality objectives in the receiving waters.

i Sampling and analysis for non-visible pollutants is only required where LUP Type 2 & 3 dischargers believe pollutants associated with construction activities have the potential to be discharged with storm water runoff due to a spill or in the event there was a breach, malfunction, failure and/or leak of any BMP. Also, failure to implement BMPs may require sample collection.

(1) Visual observations made during the monitoring program described above will help LUP Type 2 & 3 dischargers determine when to collect samples.

(2) LUP Type 2 & 3 dischargers are not required to sample if one of the conditions described above (e.g., breach or spill) occurs and the site is cleaned of material and pollutants and/or BMPs are implemented prior to the next storm event.

ii LUP Type 2 & 3 dischargers shall collect samples down-gradient from the discharge locations where the visual observations were made triggering the monitoring and which can be safely accessed. For sites where sampling and analysis is required, personnel trained in water quality sampling procedures shall collect storm water samples.

iii If sampling for non-visible pollutant parameters is required, LUP Type 2 & 3 dischargers shall ensure that samples be analyzed for parameters indicating the presence of pollutants identified in the pollutant source assessment required in Section J.2.a.i.

iv LUP Type 2 & 3 dischargers shall collect samples during the first two hours of discharge from rain events that occur during business hours and which generate runoff.

v LUP Type 2 & 3 dischargers shall ensure that a sufficiently large sample of storm water that has not come into contact with the disturbed soil or the materials stored or used on-site (uncontaminated sample[13]) will be collected for comparison with the discharge sample. Samples shall be collected during the first two hours of discharge from rain events that occur during daylight hours and which generate runoff.

vi LUP Type 2 & 3 dischargers shall compare the uncontaminated sample to the samples of discharge using field analysis or through laboratory analysis. Analyses may include, but are not limited to, indicator parameters such as: pH, specific conductance, dissolved oxygen, conductivity, salinity, and Total Dissolved Solids (TDS).

vii For laboratory analyses, all sampling, sample preservation, and other analyses must be conducted according to test procedures pursuant to 40 C.F.R. Part 136. LUP Type 2 & 3 dischargers shall ensure that field samples are collected and analyzed according to manufacturer specifications of the sampling devices employed.

[13] Sample collected at a location unaffected by construction activities

Portable meters shall be calibrated according to manufacturer's specification.

viii LUP Type 2 & 3 dischargers shall ensure that all field and/or analytical data are kept in the SWPPP document.

g. LUP Type 2 & 3 Visual Observation and Sample Collection Exceptions

i LUP Type 2 & 3 dischargers shall be prepared to collect samples and conduct visual observation (inspections) to meet the minimum visual observation requirements of this Attachment. Type 2 & 3 LUP dischargers are not required to physically collect samples or conduct visual observation (inspections) under the following conditions:

(1) During dangerous weather conditions such as flooding and electrical storms;

(2) Outside of scheduled site business hours.

(3) When access to the site is unsafe due to storm events.

ii If the LUP Type 2 or 3 discharger does not collect the required samples or visual observation (inspections) due to these exceptions, an explanation why the sampling or visual observation (inspections) were not conducted shall be included in both the SWPPP and the Annual Report.

h. LUP Type 2 & 3 Storm Water Sample Collection and Handling Instructions

LUP Type 2 & 3 dischargers shall refer to Table 5 below for test Methods, detection Limits, and reporting Units. During storm water sample collection and handling, the LUP Type 2 & 3 discharger shall:

i Identify the parameters required for testing and the number of storm water discharge points that will be sampled. Request the laboratory to provide the appropriate number of sample containers, types of containers, sample container labels, blank chain of custody forms, and sample preservation instructions.

ii Determine how to ship the samples to the laboratory. The testing laboratory should receive samples within 48 hours of the physical sampling (unless otherwise required by the laboratory). The options are to either deliver the samples to the laboratory, arrange to have the laboratory pick them up, or ship them overnight to the laboratory.

iii Use only the sample containers provided by the laboratory to collect and store samples. Use of any other type of containers could contaminate your samples.

iv Prevent sample contamination, by not touching, or putting anything into the sample containers before collecting storm water samples.

v Not overfilling sample containers. Overfilling can change the analytical results.

vi Tightly screw the cap of each sample container without stripping the threads of the cap.

vii Complete and attach a label to each sample container. The label shall identify the date and time of sample collection, the person taking the sample, and the sample collection location or discharge point. The label should also identify any sample containers that have been preserved.

viii Carefully pack sample containers into an ice chest or refrigerator to prevent breakage and maintain temperature during shipment. Remember to place frozen ice packs into the shipping container. Samples should be kept as close to 4° C (39° F) as possible until arriving at the laboratory. Do not freeze samples.

ix Complete a Chain of Custody form for each set of samples. The Chain of Custody form shall include the discharger's name, address, and phone number, identification of each sample container and sample collection point, person collecting the samples, the date and time each sample container was filled, and the analysis that is required for each sample container.

x Upon shipping/delivering the sample containers, obtain both the signatures of the persons relinquishing and receiving the sample containers.

xi Designate and train personnel to collect, maintain, and ship samples in accordance with the above sample protocols and good laboratory practices.

xii Refer to the Surface Water Ambient Monitoring Program's (SWAMP) 2008 Quality Assurance Program Plan (QAPrP) for more

information on sampling collection and analysis. See http://www.waterboards.ca.gov/water_issues/programs/swamp/[14]

Table 5. Test Methods, Detection Limits, Reporting Units and Applicable NALs

Parameter	Test Method	Discharge Type	Min. Detection Limit	Reporting Units	Numeric Action Levels	(LUP Type 3) Receiving Water Monitoring Trigger
pH	Field test with calibrated portable instrument	Type 2 & 3	0.2	pH units	Lower = 6.5 upper = 8.5	Lower = 6.0 upper = 9.0
Turbidity	EPA 0180.1 and/or field test with calibrated portable instrument	Type 2 & 3	1	NTU	250 NTU	500 NTU
SSC	ASTM Method D 3977-97[15]	Type 3 if Receiving Water Monitoring Trigger is exceeded	5	Mg/L	N/A	N/A
Bioassessment	(STE) Level I of (SAFIT),[16] fixed-count of 600 org/sample	Type 3 LUPs > 30 acres	N/A	N/A	N/A	N/A

i. LUP Type 2 & 3 Monitoring Methods

i The LUP Type 2 or 3 discharger's project M&RP shall include a description of the following items:

(1) Visual observation locations, visual observation procedures, and visual observation follow-up and tracking procedures.

[14] Additional information regarding SWAMP's QAPrP can be found at: http://www.waterboards.ca.gov/water_issues/programs/swamp/.

[15] ASTM, 1999, Standard Test Method for Determining Sediment Concentration in Water Samples: American Society of Testing and Materials, D 3977-97, Vol. 11.02, pp. 389-394

[16] The current SAFIT STEs (28 November 2006) list requirements for both the Level I and Level II taxonomic effort, and are located at: http://www.swrcb.ca.gov/swamp/docs/safit/ste_list.pdf. When new editions are published by SAFIT, they will supersede all previous editions. All editions will be posted at the State Water Board's SWAMP website.

(2) Sampling locations, and sample collection and handling procedures. This shall include detailed procedures for sample collection, storage, preservation, and shipping to the testing lab to assure that consistent quality control and quality assurance is maintained. Dischargers shall attach to the monitoring program a copy of the Chain of Custody form used when handling and shipping samples.

(3) Identification of the analytical methods and related method detection limits (if applicable) for each parameter required in Section M.4.f above.

ii LUP Type 2 & 3 dischargers shall ensure that all sampling and sample preservation be in accordance with the current edition of "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association). All monitoring instruments and equipment (including a discharger's own field instruments for measuring pH and turbidity) shall be calibrated and maintained in accordance with manufacturers' specifications to ensure accurate measurements. All laboratory analyses shall be conducted according to test procedures under 40 CFR Part 136, unless other test procedures have been specified in this General Permit or by the Regional Water Board. With the exception of field analysis conducted by the discharger for turbidity and pH, all analyses shall be sent to and conducted at a laboratory certified for such analyses by the State Department of Health Services (SSC exception). The LUP discharger shall conduct its own field analysis of pH and may conduct its own field analysis of turbidity if the discharger has sufficient capability (qualified and trained employees, properly calibrated and maintained field instruments, etc.) to adequately perform the field analysis.

j. <u>LUP Type 2 & 3 Analytical Methods</u>

LUP Type 2 & 3 dischargers shall refer to Table 5 above for test Methods, detection Limits, and reporting Units.

i **pH**: LUP Type 2 & 3 dischargers shall perform pH analysis on-site with a calibrated pH meter or pH test kit. The LUP discharger shall record pH monitoring results on paper and retain these records in accordance with Section M.4.o, below.

ii **Turbidity**: LUP Type 2 & 3 dischargers shall perform turbidity analysis using a calibrated turbidity meter (turbidimeter), either on-site or at an accredited lab. Acceptable test methods include Standard Method 2130 or USEPA Method 180.1. The results shall

be recorded in the site log book in Nephelometric Turbidity Units (NTU).

iii **Suspended sediment concentration (SSC)**: LUP Type 3 dischargers exceeding the turbidity Receiving Water Monitoring Trigger, shall perform SSC analysis using ASTM Method D3977-97.

iv **Bioassessment**: LUP Type 3 dischargers shall perform bioassessment sampling and analysis according to Appendix 3 of this General Permit.

k. Watershed Monitoring Option

If an LUP Type 2 or 3 discharger is part of a qualified regional watershed-based monitoring program the LUP Type 2 or 3 discharger may be eligible for relief from the monitoring requirements in this Attachment. The Regional Water Board may approve proposals to substitute an acceptable watershed-based monitoring program if it determines that the watershed-based monitoring program will provide information to determine each discharger's compliance with the requirements of this General Permit.

l. Particle Size Analysis for Risk Justification

LUP Type 2 & 3 dischargers justifying an alternative project risk shall report a soil particle size analysis used to determine the RUSLE K-Factor. ASTM D-422 (Standard Test Method for Particle-Size Analysis of Soils), as revised, shall be used to determine the percentages of sand, very fine sand, silt, and clay on the site.

m. NAL Exceedance Report

i In the event that any effluent sample exceeds an applicable NAL, the Regional Water Boards may require LUP Type 2 & 3 dischargers to submit NAL Exceedance Reports.

ii LUP Type 2 & 3 dischargers shall certify each NAL Exceedance Report in accordance with the Special Provisions for Construction Activity.

iii LUP Type 2 & 3 dischargers shall retain an electronic or paper copy of each NAL Exceedance Report for a minimum of three years after the date the exceedance report is filed.

iv LUP Type 2 & 3 dischargers shall include in the NAL Exceedance Report:

(1) the analytical method(s), method reporting unit(s), and method detection limit(s) of each analytical parameter (analytical results that are less than the method detection limit shall be reported as "less than the method detection limit"); and
(2) the date, place, time of sampling, visual observation (inspections), and/or measurements, including precipitation.
(3) Description of the current BMPs associated with the effluent sample that exceeded the NAL and the proposed corrective actions taken.

n. Monitoring Records

LUP Type 2 & 3 dischargers shall ensure that records of all storm water monitoring information and copies of all reports (including Annual Reports) required by this General Permit be retained for a period of at least three years. LUP Type 2 & 3 dischargers may retain records off-site and make them available upon request. These records shall include:

i The date, place, time of facility inspections, sampling, visual observation (inspections), and/or measurements, including precipitation (rain gauge);

ii The individual(s) who performed the facility inspections, sampling, visual observation (inspections), and or measurements;

iii The date and approximate time of analyses;

iv The individual(s) who performed the analyses;

v A summary of all analytical results from the last three years, the method detection limits and reporting units, the analytical techniques or methods used, and all chain of custody forms;

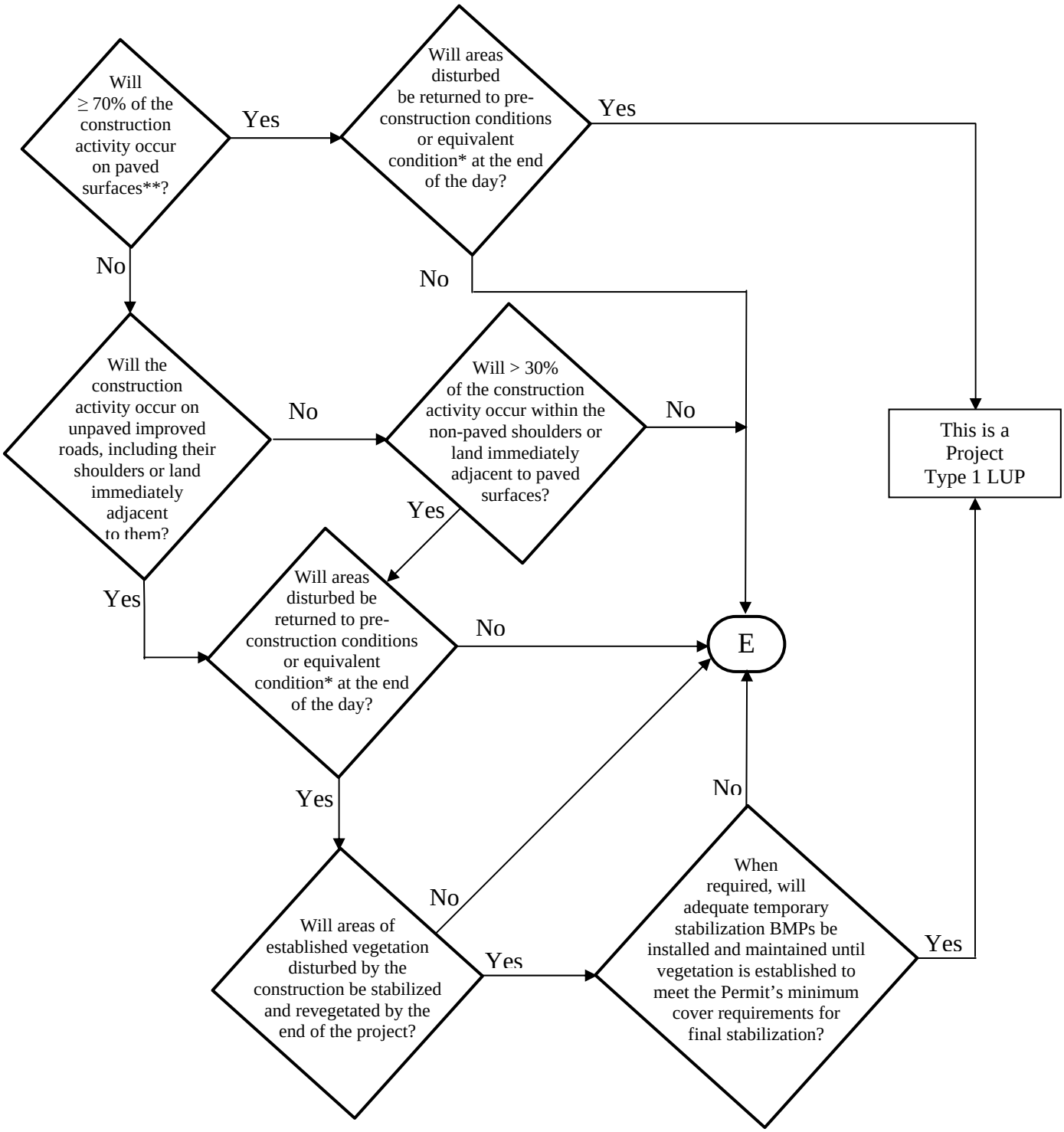
vi Quality assurance/quality control records and results;

vii Non-storm water discharge inspections and visual observation (inspections) and storm water discharge visual observation records (see Section M.4.a above);

viii Visual observation and sample collection exception records (see Section M.4.g above); and

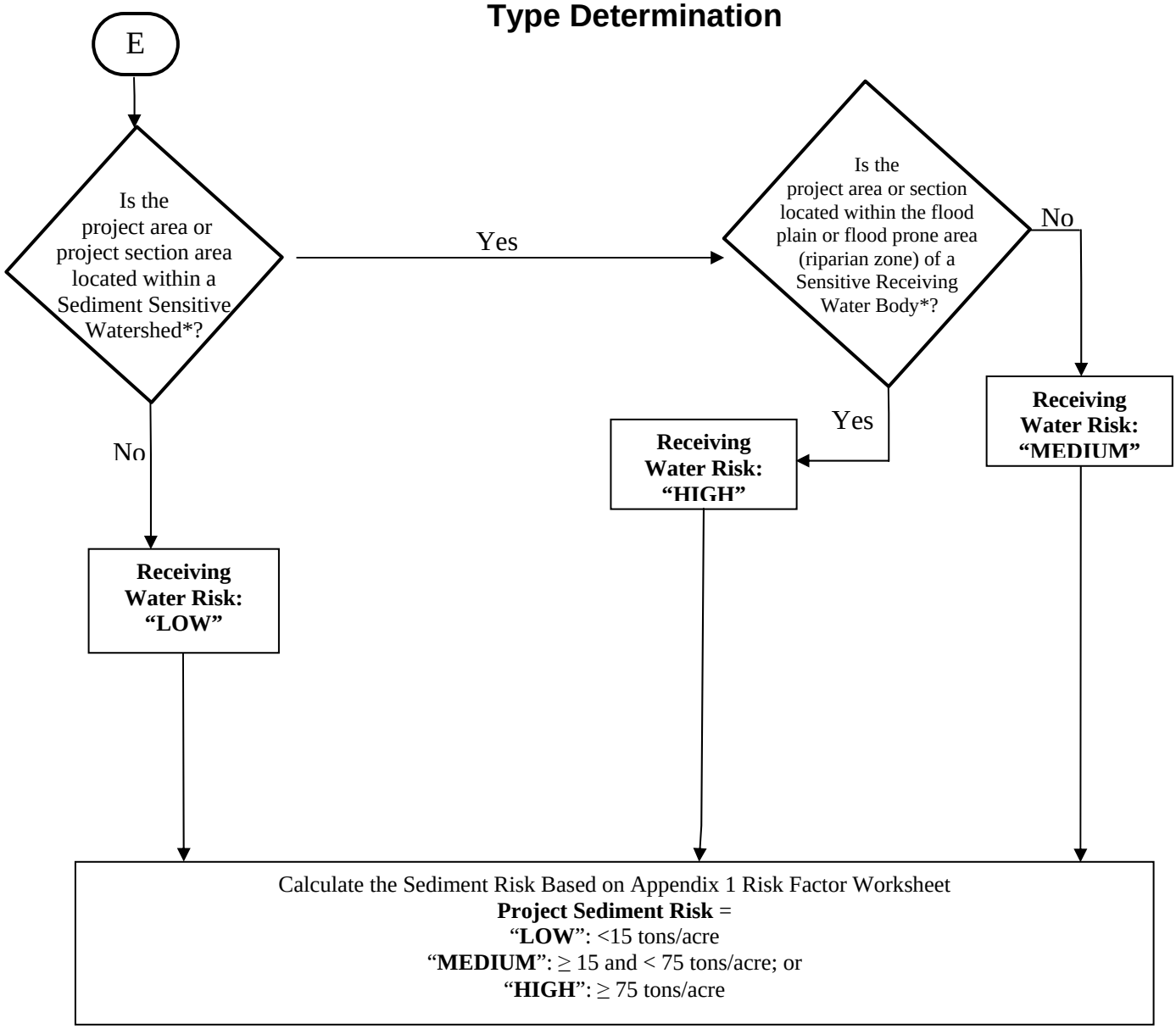
ix The records of any corrective actions and follow-up activities that resulted from analytical results, visual observation (inspections), or inspections.

ATTACHMENT A.1
LUP Project Area or Project Section Area Type Determination



*See Definition of Terms
** Or: "Will < 30% of the soil disturbance occur on unpaved surfaces?

ATTACHMENT A.1
LUP Project Area or Project Section Area Type Determination



* See Definition of Terms

PROJECT SEDIMENT RISK

RECEIVING WATER RISK	**LOW**	**MEDIUM**	**HIGH**
LOW	Type 1	Type 1	Type 2
MEDIUM	Type 1	Type 2	Type 3
HIGH	Type 2	Type 3	Type 3

ATTACHMENT A.1
Definition of Terms

1. **Equivalent Condition** – Means disturbed soils such as those from trench excavation are required to be hauled away, backfilled into the trench, and/or covered (e.g., metal plates, pavement, plastic covers over spoil piles) at the end of the construction day.
2. **Linear Construction Activity** – Linear construction activity consists of underground/ overhead facilities that typically include, but are not limited to, any conveyance, pipe or pipeline for the transportation of any gaseous, liquid (including water, wastewater for domestic municipal services), liquescent, or slurry substance; any cable line or wire for the transmission of electrical energy; any cable line or wire for communications (e.g., telephone, telegraph, radio or television messages); and associated ancillary facilities. Construction activities associated with LUPs include, but are not limited to those activities necessary for the installation of underground and overhead linear facilities (e.g., conduits, substructures, pipelines, towers, poles, cables, wires, connectors, switching, regulating and transforming equipment and associated ancillary facilities) and include, but are not limited to, underground utility mark-out, potholing, concrete and asphalt cutting and removal, trenching, excavation, boring and drilling, access road and pole/ tower pad and cable/ wire pull station, substation construction, substructure installation, construction of tower footings and/or foundations, pole and tower installations, pipeline installations, welding, concrete and/or pavement repair or replacement, and stockpile/ borrow locations.
3. **Sediment Sensitive Receiving Water Body –** Defined as a water body segment that is listed on EPA's approved CWA 303(d) list for sedimentation/siltation, turbidity, or is designated with beneficial uses of SPAWN, MIGRATORY, and COLD.
4. **Sediment Sensitive Watershed –** Defined as a watershed draining into a receiving water body listed on EPA's approved CWA 303(d) list for sedimentation/siltation, turbidity, or a water body designated with beneficial uses of SPAWN, MIGRATORY, and COLD.

ATTACHMENT A.2
PERMIT REGISTRATION DOCUMENTS (PRDs)
GENERAL INSTRUCTIONS FOR LINEAR UNDERGROUND/OVERHEAD PROJECTS TO COMPLY WITH THE CONSTRUCTION GENERAL PERMIT

GENERAL INSTRUCTIONS

Who Must Submit

This permit is effective on July 1, 2010.

The Legally Responsible Person (LRP) for construction activities associated with linear underground/overhead project (LUP) must electronically apply for coverage under this General Permit on or after July 1, 2010. If it is determined that the LUP construction activities require an NPDES permit, the Legally Responsible Person[1] (LRP) shall submit PRDs for this General Permit in accordance with the following:

LUPs associated with Private or Municipal Development Projects

1. For LUPs associated with pre-development and pre-redevelopment construction activities:

   The LRP must obtain coverage[2] under this General Permit for its pre-development and pre-redevelopment construction activities where the total disturbed land area of these construction activities is greater than 1 acre.

2. For LUPs associated with new development and redevelopment construction projects:

   The LRP must obtain coverage under this General Permit for LUP construction activities associated with new development and redevelopment projects where the total disturbed land area of the LUP is greater than 1 acre. Coverage under this permit is not required where the same LUP construction activities are covered by another NPDES permit.

LUPs not associated with private or municipal new development or redevelopment projects:

The LRP must obtain coverage under this General Permit on or after July 1, 2010 for its LUP construction activities where the total disturbed land area is greater than 1 acre.

PRD Submittal Requirements

Prior to the start of construction activities a LRP must submit PRDs and fees to the State Water Board for each LUP.

New and Ongoing LUPs

Dischargers of new LUPs that commence construction activities after the adoption date of this General Permit shall file PRDs prior to the commencement of construction and implement the SWPPP upon the start of construction.

[1] person possessing the title of the land on which the construction activities will occur for the regulated site
[2] obtain coverage means filing PRDs for the project.

PERMIT REGISTRATION DOCUMENTS (PRDs)
GENERAL INSTRUCTIONS (CONTINUED)

Dischargers of ongoing LUPs that are currently covered under State Water Board Order No. 2003-0007 (Small LUP General Permit) shall electronically file Permit Registration Documents no later than July 1, 2010. After July 1, 2010, all NOIs subject to State Water Board Order No. 2003-0007-DWQ will be terminated. All existing dischargers shall be exempt from the risk determination requirements in Attachment A. All existing dischargers are therefore subject to LUP Type 1 requirements regardless of their project's sediment and receiving water risks. However, a Regional Board retains the authority to require an existing discharger to comply with the risk determination requirements in Attachment A.

Where to Apply

The Permit Registration Documents (PRDs) can be found at www.waterboards.ca.gov/water_issues/programs/stormwater/

Fees

The annual fee for storm water permits are established through the State of California Code of Regulations.

When Permit Coverage Commences

To obtain coverage under the General Permit, the LRP must include the complete PRDs and the annual fee. All PRDs deemed incomplete will be rejected with an explanation as to what is required to complete submittal. Upon receipt of complete PRDs and associated fee, each discharger will be sent a waste discharger's identification (WDID) number.

Projects and Activities Not Defined As Construction Activity

1. LUP construction activity does not include routine maintenance projects to maintain original line and grade, hydraulic capacity, or original purpose of the facility. Routine maintenance projects are projects associated with operations and maintenance activities that are conducted on existing lines and facilities and within existing right-of-way, easements, franchise agreements or other legally binding agreements of the discharger. Routine maintenance projects include, but are not limited to projects that are conducted to:

    - Maintain the original purpose of the facility, or hydraulic capacity.
    - Update existing lines[3] and facilities to comply with applicable codes, standards and regulations regardless if such projects result in increased capacity.
    - Repairing leaks.

    Routine maintenance does not include construction of new[4] lines or facilities resulting from compliance with applicable codes, standards and regulations.

[3] Update existing lines includes replacing existing lines with new materials or pipes.
[4] New lines are those that are not associated with existing facilities and are not part of a project to update or replace existing lines.

PERMIT REGISTRATION DOCUMENTS (PRDs)
GENERAL INSTRUCTIONS (CONTINUED)

Routine maintenance projects do not include those areas of maintenance projects that are outside of an existing right-of-way, franchise, easements, or agreements. When a project must acquire new areas, those areas may be subject to this General Permit based on the area of disturbed land outside the original right-of-way, easement, or agreement.

2. LUP construction activity does not include field activities associated with the planning and design of a project (e.g., activities associated with route selection).

3. Tie-ins conducted immediately adjacent to "energized" or "pressurized" facilities by the discharger are not considered small construction activities where all other LUP construction activities associated with the tie-in are covered by a NOI and SWPPP of a third party or municipal agency.

Calculating Land Disturbance Areas of LUPs

The total land area disturbed for LUPs is the sum of the:

- Surface areas of trenches, laterals and ancillary facilities, plus
- Area of the base of stockpiles on unpaved surfaces, plus
- Surface area of the borrow area, plus
- Areas of paved surfaces constructed for the project, plus
- Areas of new roads constructed or areas of major reconstruction to existing roads (e.g. improvements to two-track surfaces or road widening) for the sole purpose of accessing construction activities or as part of the final project, plus
- Equipment and material storage, staging, and preparation areas (laydown areas) not on paved surfaces, plus
- Soil areas outside the surface area of trenches, laterals and ancillary facilities that will be graded, and/or disturbed by the use of construction equipment, vehicles and machinery during construction activities.

Stockpiling Areas

Stockpiling areas, borrow areas and the removal of soils from a construction site may or may not be included when calculating the area of disturbed soil for a site depending on the following conditions:

- For stockpiling of soils onsite or immediately adjacent to a LUP site and the stockpile is not on a paved surface, the area of the base of the stockpile is to be included in the disturbed area calculation.

- The surface area of borrow areas that are onsite or immediately adjacent to a project site are to be included in the disturbed area calculation.

- For soil that is hauled offsite to a location owned or operated by the discharger that is not a paved surface, the area of the base of the stockpile is to be included in the disturbed area calculation except when the offsite location is already subject to a separate storm water permit.

PERMIT REGISTRATION DOCUMENTS (PRDs)
GENERAL INSTRUCTIONS (CONTINUED)

- For soil that is brought to the project from an off-site location owned or operated by the discharger the surface area of the borrow pit is to be included in the disturbed area calculation except when the offsite location is already subject to a separate storm water permit.

- Trench spoils on a paved surface that are either returned to the trench or excavation or hauled away from the project daily for disposal or reuse will not be included in the disturbed area calculation.

If you have any questions concerning submittal of PRDs, please call the State Water Board at (866) 563-3107.

ATTACHMENT B
PERMIT REGISTRATION DOCUMENTS (PRDs) TO COMPLY WITH THE TERMS OF THE GENERAL PERMIT TO DISCHARGE STORM WATER ASSOCIATED WITH CONSTRUCTION ACTIVITY

GENERAL INSTRUCTIONS

A. All Linear Construction Projects shall comply with the PRD requirements in Attachment A.2 of this Order.

B. Who Must Submit

Discharges of storm water associated with construction that results in the disturbance of one acre or more of land must apply for coverage under the General Construction Storm Water Permit (General Permit). Any construction activity that is a part of a larger common plan of development or sale must also be permitted, regardless of size. (For example, if 0.5 acre of a 20-acre subdivision is disturbed by the construction activities of discharger A and the remaining 19.5 acres is to be developed by discharger B, discharger A must obtain a General Storm Water Permit for the 0.5 acre project).

Other discharges from construction activities that are covered under this General Permit can be found in the General Permit Section II.B.

It is the LRP's responsibility to obtain coverage under this General Permit by electronically submitting complete PRDs (Permit Registration Documents).

In all cases, the proper procedures for submitting the PRDs must be completed before construction can commence.

C. Construction Activity Not Covered By This General Permit

Discharges from construction that are not covered under this General Permit can be found in the General Permit Sections II.A &B..

D. Annual Fees and Fee Calculation

Annual fees are calculated based upon the total area of land to be disturbed not the total size of the acreage owned. However, the calculation includes all acres to be disturbed during the duration of the project. For example, if 10 acres are scheduled to be disturbed the first year and 10 in each subsequent year for 5 years, the annual fees would be based upon 50 acres of disturbance. The State Water Board will evaluate adding acreage to an existing Permit Waste Discharge Identification (WDID) number on a case-by-case basis. In general, any acreage to be considered must be contiguous to the permitted land area and the existing

SWPPP must be appropriate for the construction activity and topography of the acreage under consideration. As acreage is built out and stabilized or sold, the Change of Information (COI) form enables the applicant to remove those acres from inclusion in the annual fee calculation. Checks should be made payable to: State Water Board.

The Annual fees are established through regulations adopted by the State Water Board. The total annual fee is the current base fee plus applicable surcharges for all construction sites submitting an NOI, based on the total acreage to be disturbed during the life of the project. Annual fees are subject to change by regulation.

Dischargers that apply for and satisfy the Small Construction Erosivity Wavier requirements shall pay a fee of $200.00 plus an applicable surcharge, see the General Permit Section II.B.7.

E. When to Apply

LRP's proposing to conduct construction activities subject to this General Permit must submit their PRDs prior to the commencement of construction activity.

F. Requirements for Completing Permit Registration Documents (PRDs)

All dischargers required to comply with this General Permit shall electronically submit the required PRDs for their type of construction as defined below.

G. Standard PRD Requirements (All Dischargers)

1. Notice of Intent
2. Risk Assessment (Standard or Site-Specific)
3. Site Map
4. SWPPP
5. Annual Fee
6. Certification

H. Additional PRD Requirements Related to Construction Type

1. Discharger in unincorporated areas of the State (not covered under an adopted Phase I or II SUSMP requirements) and that are not a linear project shall also submit a completed:
   a. Post-Construction Water Balance Calculator (Appendix 2).

2. Dischargers who are proposing to implement ATS shall submit:
   a. Complete ATS Plan in accordance with Attachment F at least 14 days prior to the planned operation of the ATS and a paper copy shall be available onsite during ATS operation.

b. Certification proof that design done by a professional in accordance with Attachment F.

3. Dischargers who are proposing an alternate Risk Justification:
   a. Particle Size Analysis.

I. Exceptions to Standard PRD Requirements

Construction sites with an R value less than 5 as determined in the Risk Assessment are not required to submit a SWPPP.

J. Description of PRDs

1. Notice of Intent (NOI)

2. Site Map(s) Includes:
   a. The project's surrounding area (vicinity)
   b. Site layout
   c. Construction site boundaries
   d. Drainage areas
   e. Discharge locations
   f. Sampling locations
   g. Areas of soil disturbance (temporary or permanent)
   h. Active areas of soil disturbance (cut or fill)
   i. Locations of all runoff BMPs
   j. Locations of all erosion control BMPs
   k. Locations of all sediment control BMPs
   l. ATS location (if applicable)
   m. Locations of sensitive habitats, watercourses, or other features which are not to be disturbed
   n. Locations of all post-construction BMPs
   o. Locations of storage areas for waste, vehicles, service, loading/unloading of materials, access (entrance/exits) points to construction site, fueling, and water storage, water transfer for dust control and compaction practices

3. **SWPPPs**
   A site-specific SWPPP shall be developed by each discharger and shall be submitted with the PRDs.

4. **Risk Assessment**
   All dischargers shall use the Risk Assessment procedure as describe in the General Permit Appendix 1.

   a. The Standard Risk Assessment includes utilization of the following:
      i. Receiving water Risk Assessment interactive map

ii. EPA Rainfall Erosivity Factor Calculator Website
iii. Sediment Risk interactive map
iv. Sediment sensitive water bodies list

b. The Site-Specific Risk Assessment includes the completion of the hand calculated R value Risk Calculator

5. **Post-Construction Water Balance Calculator**
All dischargers subject to this requirement shall complete the Water Balance Calculator (in Appendix 2) in accordance with the instructions.

6. **ATS Design Document and Certification**
All dischargers using ATS must submit electronically their system design (as well as any supporting documentation) and proof that the system was designed by a qualified ATS design professional (See Attachment F).

To obtain coverage under the General Permit PRDs must be included and completed. If any of the required items are missing, the PRD submittal is considered incomplete and will be rejected. Upon receipt of a complete PRD submittal, the State Water Board will process the application package in the order received and assign a (WDID) number.

Questions?

If you have any questions on completing the PRDs please email stormwater@waterboards.ca.gov or call (866) 563-3107.

ATTACHMENT C
RISK LEVEL 1 REQUIREMENTS

A. Effluent Standards

[These requirements are the same as those in the General Permit order.]

1. Narrative – Risk Level 1 dischargers shall comply with the narrative effluent standards listed below:

    a. Storm water discharges and authorized non-storm water discharges regulated by this General Permit shall not contain a hazardous substance equal to or in excess of reportable quantities established in 40 C.F.R. §§ 117.3 and 302.4, unless a separate NPDES Permit has been issued to regulate those discharges.

    b. Dischargers shall minimize or prevent pollutants in storm water discharges and authorized non-storm water discharges through the use of controls, structures, and management practices that achieve BAT for toxic and non-conventional pollutants and BCT for conventional pollutants.

2. Numeric – Risk Level 1 dischargers are not subject to a numeric effluent standard.

B. Good Site Management "Housekeeping"

1. Risk Level 1 dischargers shall implement good site management (i.e., "housekeeping") measures for construction materials that could potentially be a threat to water quality if discharged. At a minimum, Risk Level 1 dischargers shall implement the following good housekeeping measures:

    a. Conduct an inventory of the products used and/or expected to be used and the end products that are produced and/or expected to be produced. This does not include materials and equipment that are designed to be outdoors and exposed to environmental conditions (i.e. poles, equipment pads, cabinets, conductors, insulators, bricks, etc.).

    b. Cover and berm loose stockpiled construction materials that are not actively being used (i.e. soil, spoils, aggregate, fly-ash, stucco, hydrated lime, etc.).

c. Store chemicals in watertight containers (with appropriate secondary containment to prevent any spillage or leakage) or in a storage shed (completely enclosed).

d. Minimize exposure of construction materials to precipitation. This does not include materials and equipment that are designed to be outdoors and exposed to environmental conditions (i.e. poles, equipment pads, cabinets, conductors, insulators, bricks, etc.).

e. Implement BMPs to prevent the off-site tracking of loose construction and landscape materials.

2. Risk Level 1 dischargers shall implement good housekeeping measures for waste management, which, at a minimum, shall consist of the following:

a. Prevent disposal of any rinse or wash waters or materials on impervious or pervious site surfaces or into the storm drain system.

b. Ensure the containment of sanitation facilities (e.g., portable toilets) to prevent discharges of pollutants to the storm water drainage system or receiving water.

c. Clean or replace sanitation facilities and inspecting them regularly for leaks and spills.

d. Cover waste disposal containers at the end of every business day and during a rain event.

e. Prevent discharges from waste disposal containers to the storm water drainage system or receiving water.

f. Contain and securely protect stockpiled waste material from wind and rain at all times unless actively being used.

g. Implement procedures that effectively address hazardous and non-hazardous spills.

h. Develop a spill response and implementation element of the SWPPP prior to commencement of construction activities. The SWPPP shall require that:

i. Equipment and materials for cleanup of spills shall be available on site and that spills and leaks shall be cleaned up immediately and disposed of properly; and

ii. Appropriate spill response personnel are assigned and trained.

i. Ensure the containment of concrete washout areas and other washout areas that may contain additional pollutants so there is no discharge into the underlying soil and onto the surrounding areas.

3. Risk Level 1 dischargers shall implement good housekeeping for vehicle storage and maintenance, which, at a minimum, shall consist of the following:

   a. Prevent oil, grease, or fuel to leak in to the ground, storm drains or surface waters.

   b. Place all equipment or vehicles, which are to be fueled, maintained and stored in a designated area fitted with appropriate BMPs.

   c. Clean leaks immediately and disposing of leaked materials properly.

4. Risk Level 1 dischargers shall implement good housekeeping for landscape materials, which, at a minimum, shall consist of the following:

   a. Contain stockpiled materials such as mulches and topsoil when they are not actively being used.

   b. Contain fertilizers and other landscape materials when they are not actively being used.

   c. Discontinue the application of any erodible landscape material within 2 days before a forecasted rain event or during periods of precipitation.

   d. Apply erodible landscape material at quantities and application rates according to manufacture recommendations or based on written specifications by knowledgeable and experienced field personnel.

   e. Stack erodible landscape material on pallets and covering or storing such materials when not being used or applied.

5. Risk Level 1 dischargers shall conduct an assessment and create a list of potential pollutant sources and identify any areas of the site where additional BMPs are necessary to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. This potential pollutant list shall be kept with the SWPPP and shall identify

all non-visible pollutants which are known, or should be known, to occur on the construction site. At a minimum, when developing BMPs, Risk Level 1 dischargers shall do the following:

a. Consider the quantity, physical characteristics (e.g., liquid, powder, solid), and locations of each potential pollutant source handled, produced, stored, recycled, or disposed of at the site.

b. Consider the degree to which pollutants associated with those materials may be exposed to and mobilized by contact with storm water.

c. Consider the direct and indirect pathways that pollutants may be exposed to storm water or authorized non-storm water discharges. This shall include an assessment of past spills or leaks, non-storm water discharges, and discharges from adjoining areas.

d. Ensure retention of sampling, visual observation, and inspection records.

e. Ensure effectiveness of existing BMPs to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges.

6. Risk Level 1 dischargers shall implement good housekeeping measures on the construction site to control the air deposition of site materials and from site operations. Such particulates can include, but are not limited to, sediment, nutrients, trash, metals, bacteria, oil and grease and organics.

C. Non-Storm Water Management

1. Risk Level 1 dischargers shall implement measures to control all non-storm water discharges during construction.

2. Risk Level 1 dischargers shall wash vehicles in such a manner as to prevent non-storm water discharges to surface waters or MS4 drainage systems.

3. Risk Level 1 dischargers shall clean streets in such a manner as to prevent unauthorized non-storm water discharges from reaching surface water or MS4 drainage systems.

D. Erosion Control

1. Risk Level 1 dischargers shall implement effective wind erosion control.

2. Risk Level 1 dischargers shall provide effective soil cover for inactive[1] areas and all finished slopes, open space, utility backfill, and completed lots.

3. Risk Level 1 dischargers shall limit the use of plastic materials when more sustainable, environmentally friendly alternatives exist. Where plastic materials are deemed necessary, the discharger shall consider the use of plastic materials resistant to solar degradation.

E. Sediment Controls

1. Risk Level 1 dischargers shall establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from the site.

2. On sites where sediment basins are to be used, Risk Level 1 dischargers shall, at minimum, design sediment basins according to the method provided in CASQA's Construction BMP Guidance Handbook.

F. Run-on and Runoff Controls

Risk Level 1 dischargers shall effectively manage all run-on, all runoff within the site and all runoff that discharges off the site. Run-on from off site shall be directed away from all disturbed areas or shall collectively be in compliance with the effluent limitations in this General Permit.

G. Inspection, Maintenance and Repair

1. Risk Level 1 dischargers shall ensure that all inspection, maintenance repair and sampling activities at the project location shall be performed or supervised by a Qualified SWPPP Practitioner (QSP) representing the discharger. The QSP may delegate any or all of these activities to an employee trained to do the task(s) appropriately, but shall ensure adequate deployment.

2. Risk Level 1 dischargers shall perform weekly inspections and observations, and at least once each 24-hour period during extended

[1] Inactive areas of construction are areas of construction activity that have been disturbed and are not scheduled to be re-disturbed for at least 14 days.

storm events, to identify and record BMPs that need maintenance to operate effectively, that have failed, or that could fail to operate as intended. Inspectors shall be the QSP or be trained by the QSP.

3. Upon identifying failures or other shortcomings, as directed by the QSP, Risk Level 1 dischargers shall begin implementing repairs or design changes to BMPs within 72 hours of identification and complete the changes as soon as possible.

4. For each inspection required, Risk Level 1 dischargers shall complete an inspection checklist, using a form provided by the State Water Board or Regional Water Board or in an alternative format.

5. Risk Level 1 dischargers shall ensure that checklists shall remain onsite with the SWPPP and at a minimum, shall include:

   a. Inspection date and date the inspection report was written.

   b. Weather information, including presence or absence of precipitation, estimate of beginning of qualifying storm event, duration of event, time elapsed since last storm, and approximate amount of rainfall in inches.

   c. Site information, including stage of construction, activities completed, and approximate area of the site exposed.

   d. A description of any BMPs evaluated and any deficiencies noted.

   e. If the construction site is safely accessible during inclement weather, list the observations of all BMPs: erosion controls, sediment controls, chemical and waste controls, and non-storm water controls. Otherwise, list the results of visual inspections at all relevant outfalls, discharge points, downstream locations and any projected maintenance activities.

   f. Report the presence of noticeable odors or of any visible sheen on the surface of any discharges.

   g. Any corrective actions required, including any necessary changes to the SWPPP and the associated implementation dates.

   h. Photographs taken during the inspection, if any.

   i. Inspector’s name, title, and signature.

H. Rain Event Action Plan

Not required for Risk Level 1 dischargers.

I. Risk Level 1 Monitoring and Reporting Requirements

Table 1- Summary of Monitoring Requirements

Risk Level	Visual Inspections					Sample Collection	
	Quarterly Non-storm Water Discharge	Pre-storm Event		Daily Storm BMP	Post Storm	Storm Water Discharge	Receiving Water
		Baseline	REAP				
1	X	X		X	X		

1. **Construction Site Monitoring Program Requirements**

   a. Pursuant to Water Code Sections 13383 and 13267, all dischargers subject to this General Permit shall develop and implement a written site-specific Construction Site Monitoring Program (CSMP) in accordance with the requirements of this Section. The CSMP shall include all monitoring procedures and instructions, location maps, forms, and checklists as required in this section. The CSMP shall be developed prior to the commencement of construction activities, and revised as necessary to reflect project revisions. The CSMP shall be a part of the Storm Water Pollution Prevention Plan (SWPPP), included as an appendix or separate SWPPP chapter.

   b. Existing dischargers registered under the State Water Board Order No. 99-08-DWQ shall make and implement necessary revisions to their Monitoring Programs to reflect the changes in this General Permit in a timely manner, but no later than July 1, 2010. Existing dischargers shall continue to implement their existing Monitoring Programs in compliance with State Water Board Order No. 99-08-DWQ until the necessary revisions are completed according to the schedule above.

   c. When a change of ownership occurs for all or any portion of the construction site prior to completion or final stabilization, the new discharger shall comply with these requirements as of the date the ownership change occurs.

2. **Objectives**

   The CSMP shall be developed and implemented to address the following objectives:

   a. To demonstrate that the site is in compliance with the Discharge Prohibitions;

b. To determine whether non-visible pollutants are present at the construction site and are causing or contributing to exceedances of water quality objectives;

c. To determine whether immediate corrective actions, additional Best Management Practice (BMP) implementation, or SWPPP revisions are necessary to reduce pollutants in storm water discharges and authorized non-storm water discharges; and

d. To determine whether BMPs included in the SWPPP are effective in preventing or reducing pollutants in storm water discharges and authorized non-storm water discharges.

3. **Risk Level 1 - Visual Monitoring (Inspection) Requirements for Qualifying Rain Events**

a. Risk Level 1 dischargers shall visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event.

b. Risk Level 1 dischargers shall visually observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Stored or contained storm water that will likely discharge after operating hours due to anticipated precipitation shall be observed prior to the discharge during operating hours.

c. Risk Level 1 dischargers shall conduct visual observations (inspections) during business hours only.

d. Risk Level 1 dischargers shall record the time, date and rain gauge reading of all qualifying rain events.

e. Within 2 business days (48 hours) prior to each qualifying rain event, Risk Level 1 dischargers shall visually observe (inspect):

i. All storm water drainage areas to identify any spills, leaks, or uncontrolled pollutant sources. If needed, the discharger shall implement appropriate corrective actions.

ii. All BMPs to identify whether they have been properly implemented in accordance with the SWPPP. If needed, the discharger shall implement appropriate corrective actions.

iii. Any storm water storage and containment areas to detect leaks and ensure maintenance of adequate freeboard.

f. For the visual observations (inspections) described in e.i and e.iii above, Risk Level 1 dischargers shall observe the presence or absence of floating and suspended materials, a sheen on the surface, discolorations, turbidity, odors, and source(s) of any observed pollutants.

g. Within two business days (48 hours) after each qualifying rain event, Risk Level 1 dischargers shall conduct post rain event visual observations (inspections) to (1) identify whether BMPs were adequately designed, implemented, and effective, and (2) identify additional BMPs and revise the SWPPP accordingly.

h. Risk Level 1 dischargers shall maintain on-site records of all visual observations (inspections), personnel performing the observations, observation dates, weather conditions, locations observed, and corrective actions taken in response to the observations.

4. **Risk Level 1 – Visual Observation Exemptions**

a. Risk Level 1 dischargers shall be prepared to conduct visual observation (inspections) until the minimum requirements of Section I.3 above are completed. Risk Level 1 dischargers are not required to conduct visual observation (inspections) under the following conditions:

i. During dangerous weather conditions such as flooding and electrical storms.

ii. Outside of scheduled site business hours.

b. If no required visual observations (inspections) are collected due to these exceptions, Risk Level 1 dischargers shall include an explanation in their SWPPP and in the Annual Report documenting why the visual observations (inspections) were not conducted.

5. **Risk Level 1 – Monitoring Methods**

Risk Level 1 dischargers shall include a description of the visual observation locations, visual observation procedures, and visual observation follow-up and tracking procedures in the CSMP.

6. **Risk Level 1 – Non-Storm Water Discharge Monitoring Requirements**

a. Visual Monitoring Requirements:

i. Risk Level 1 dischargers shall visually observe (inspect) each drainage area for the presence of (or indications of prior) unauthorized and authorized non-storm water discharges and their sources.

ii. Risk Level 1 dischargers shall conduct one visual observation (inspection) quarterly in each of the following periods: January-March, April-June, July-September, and October-December. Visual observation (inspections) are only required during daylight hours (sunrise to sunset).

iii. Risk Level 1 dischargers shall ensure that visual observations (inspections) document the presence or evidence of any non-storm water discharge (authorized or unauthorized), pollutant characteristics (floating and suspended material, sheen, discoloration, turbidity, odor, etc.), and source. Risk Level 1 dischargers shall maintain on-site records indicating the personnel performing the visual observation (inspections), the dates and approximate time each drainage area and non-storm water discharge was observed, and the response taken to eliminate unauthorized non-storm water discharges and to reduce or prevent pollutants from contacting non-storm water discharges.

7. **Risk Level 1 – Non-Visible Pollutant Monitoring Requirements**

a. Risk Level 1 dischargers shall collect one or more samples during any breach, malfunction, leakage, or spill observed during a visual inspection which could result in the discharge of pollutants to surface waters that would not be visually detectable in storm water.

b. Risk Level 1 dischargers shall ensure that water samples are large enough to characterize the site conditions.

c. Risk Level 1 dischargers shall collect samples at all discharge locations that can be safely accessed.

d. Risk Level 1 dischargers shall collect samples during the first two hours of discharge from rain events that occur during business hours and which generate runoff.

e. Risk Level 1 dischargers shall analyze samples for all non-visible pollutant parameters (if applicable) - parameters indicating the

presence of pollutants identified in the pollutant source assessment required (Risk Level 1 dischargers shall modify their CSMPs to address these additional parameters in accordance with any updated SWPPP pollutant source assessment).

f. Risk Level 1 dischargers shall collect a sample of storm water that has not come in contact with the disturbed soil or the materials stored or used on-site (uncontaminated sample) for comparison with the discharge sample.

g. Risk Level 1 dischargers shall compare the uncontaminated sample to the samples of discharge using field analysis or through laboratory analysis.[2]

h. Risk Level 1 dischargers shall keep all field /or analytical data in the SWPPP document.

8. **Risk Level 1 – Particle Size Analysis for Project Risk Justification**

Risk Level 1 dischargers justifying an alternative project risk shall report a soil particle size analysis used to determine the RUSLE K-Factor. ASTM D-422 (Standard Test Method for Particle-Size Analysis of Soils), as revised, shall be used to determine the percentages of sand, very fine sand, silt, and clay on the site.

9. **Risk Level 1 – Records**

Risk Level 1 dischargers shall retain records of all storm water monitoring information and copies of all reports (including Annual Reports) for a period of at least three years. Risk Level 1 dischargers shall retain all records on-site while construction is ongoing. These records include:

a. The date, place, time of facility inspections, sampling, visual observation (inspections), and/or measurements, including precipitation.

b. The individual(s) who performed the facility inspections, sampling, visual observation (inspections), and or measurements.

c. The date and approximate time of analyses.

d. The individual(s) who performed the analyses.

[2] For laboratory analysis, all sampling, sample preservation, and analyses must be conducted according to test procedures under 40 CFR Part 136. Field discharge samples shall be collected and analyzed according to the specifications of the manufacturer of the sampling devices employed.

e. A summary of all analytical results from the last three years, the method detection limits and reporting units, and the analytical techniques or methods used.

f. Rain gauge readings from site inspections.

g. Quality assurance/quality control records and results.

h. Non-storm water discharge inspections and visual observation (inspections) and storm water discharge visual observation records (see Sections I.3 and I.6 above).

i. Visual observation and sample collection exception records (see Section I.4 above).

j. The records of any corrective actions and follow-up activities that resulted from analytical results, visual observation (inspections), or inspections.

ATTACHMENT D
RISK LEVEL 2 REQUIREMENTS

A. Effluent Standards

[These requirements are the same as those in the General Permit order.]

1. Narrative – Risk Level 2 dischargers shall comply with the narrative effluent standards listed below:

    a. Storm water discharges and authorized non-storm water discharges regulated by this General Permit shall not contain a hazardous substance equal to or in excess of reportable quantities established in 40 C.F.R. §§ 117.3 and 302.4, unless a separate NPDES Permit has been issued to regulate those discharges.

    b. Dischargers shall minimize or prevent pollutants in storm water discharges and authorized non-storm water discharges through the use of controls, structures, and management practices that achieve BAT for toxic and non-conventional pollutants and BCT for conventional pollutants.

2. Numeric – Risk level 2 dischargers are subject to a pH NAL of 6.5-8.5, and a turbidity NAL of 250 NTU.

B. Good Site Management "Housekeeping"

1. Risk Level 2 dischargers shall implement good site management (i.e., "housekeeping") measures for construction materials that could potentially be a threat to water quality if discharged. At a minimum, Risk Level 2 dischargers shall implement the following good housekeeping measures:

    a. Conduct an inventory of the products used and/or expected to be used and the end products that are produced and/or expected to be produced. This does not include materials and equipment that are designed to be outdoors and exposed to environmental conditions (i.e. poles, equipment pads, cabinets, conductors, insulators, bricks, etc.).

    b. Cover and berm loose stockpiled construction materials that are not actively being used (i.e. soil, spoils, aggregate, fly-ash, stucco, hydrated lime, etc.).

c. Store chemicals in watertight containers (with appropriate secondary containment to prevent any spillage or leakage) or in a storage shed (completely enclosed).

d. Minimize exposure of construction materials to precipitation. This does not include materials and equipment that are designed to be outdoors and exposed to environmental conditions (i.e. poles, equipment pads, cabinets, conductors, insulators, bricks, etc.).

e. Implement BMPs to prevent the off-site tracking of loose construction and landscape materials.

2. Risk Level 2 dischargers shall implement good housekeeping measures for waste management, which, at a minimum, shall consist of the following:

a. Prevent disposal of any rinse or wash waters or materials on impervious or pervious site surfaces or into the storm drain system.

b. Ensure the containment of sanitation facilities (e.g., portable toilets) to prevent discharges of pollutants to the storm water drainage system or receiving water.

c. Clean or replace sanitation facilities and inspecting them regularly for leaks and spills.

d. Cover waste disposal containers at the end of every business day and during a rain event.

e. Prevent discharges from waste disposal containers to the storm water drainage system or receiving water.

f. Contain and securely protect stockpiled waste material from wind and rain at all times unless actively being used.

g. Implement procedures that effectively address hazardous and non-hazardous spills.

h. Develop a spill response and implementation element of the SWPPP prior to commencement of construction activities. The SWPPP shall require:

i. Equipment and materials for cleanup of spills shall be available on site and that spills and leaks shall be cleaned up immediately and disposed of properly.

ii. Appropriate spill response personnel are assigned and trained.

i. Ensure the containment of concrete washout areas and other washout areas that may contain additional pollutants so there is no discharge into the underlying soil and onto the surrounding areas.

3. Risk Level 2 dischargers shall implement good housekeeping for vehicle storage and maintenance, which, at a minimum, shall consist of the following:

   a. Prevent oil, grease, or fuel to leak in to the ground, storm drains or surface waters.

   b. Place all equipment or vehicles, which are to be fueled, maintained and stored in a designated area fitted with appropriate BMPs.

   c. Clean leaks immediately and disposing of leaked materials properly.

4. Risk Level 2 dischargers shall implement good housekeeping for landscape materials, which, at a minimum, shall consist of the following:

   a. Contain stockpiled materials such as mulches and topsoil when they are not actively being used.

   b. Contain all fertilizers and other landscape materials when they are not actively being used.

   c. Discontinue the application of any erodible landscape material within 2 days before a forecasted rain event or during periods of precipitation.

   d. Apply erodible landscape material at quantities and application rates according to manufacture recommendations or based on written specifications by knowledgeable and experienced field personnel.

   e. Stack erodible landscape material on pallets and covering or storing such materials when not being used or applied.

5. Risk Level 2 dischargers shall conduct an assessment and create a list of potential pollutant sources and identify any areas of the site where additional BMPs are necessary to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. This potential pollutant list shall be kept with the SWPPP and shall identify

all non-visible pollutants which are known, or should be known, to occur on the construction site. At a minimum, when developing BMPs, Risk Level 2 dischargers shall do the following:

a. Consider the quantity, physical characteristics (e.g., liquid, powder, solid), and locations of each potential pollutant source handled, produced, stored, recycled, or disposed of at the site.

b. Consider the degree to which pollutants associated with those materials may be exposed to and mobilized by contact with storm water.

c. Consider the direct and indirect pathways that pollutants may be exposed to storm water or authorized non-storm water discharges. This shall include an assessment of past spills or leaks, non-storm water discharges, and discharges from adjoining areas.

d. Ensure retention of sampling, visual observation, and inspection records.

e. Ensure effectiveness of existing BMPs to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges.

6. Risk Level 2 dischargers shall implement good housekeeping measures on the construction site to control the air deposition of site materials and from site operations. Such particulates can include, but are not limited to, sediment, nutrients, trash, metals, bacteria, oil and grease and organics.

7. **Additional Risk Level 2 Requirement:** Risk Level 2 dischargers shall document all housekeeping BMPs in the SWPPP and REAP(s) in accordance with the nature and phase of the construction project. Construction phases at traditional land development projects include Grading and Land Development Phase, Streets and Utilities, or Vertical Construction for traditional land development projects.

C. Non-Storm Water Management

1. Risk Level 2 dischargers shall implement measures to control all non-storm water discharges during construction.

2. Risk Level 2 dischargers shall wash vehicles in such a manner as to prevent non-storm water discharges to surface waters or MS4 drainage systems.

3. Risk Level 2 dischargers shall clean streets in such a manner as to prevent unauthorized non-storm water discharges from reaching surface water or MS4 drainage systems.

D. Erosion Control

1. Risk Level 2 dischargers shall implement effective wind erosion control.

2. Risk Level 2 dischargers shall provide effective soil cover for inactive[1] areas and all finished slopes, open space, utility backfill, and completed lots.

3. Risk Level 2 dischargers shall limit the use of plastic materials when more sustainable, environmentally friendly alternatives exist. Where plastic materials are deemed necessary, the discharger shall consider the use of plastic materials resistant to solar degradation.

E. Sediment Controls

1. Risk Level 2 dischargers shall establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from the site.

2. On sites where sediment basins are to be used, Risk Level 2 dischargers shall, at minimum, design sediment basins according to the method provided in CASQA's Construction BMP Guidance Handbook.

3. **Additional Risk Level 2 Requirement:** Risk Level 2 dischargers shall implement appropriate erosion control BMPs (runoff control and soil stabilization) in conjunction with sediment control BMPs for areas under active[2] construction.

4. **Additional Risk Level 2 Requirement:** Risk Level 2 dischargers shall apply linear sediment controls along the toe of the slope, face of the slope, and at the grade breaks of exposed slopes to comply with sheet flow lengths[3] in accordance with Table 1.

[1] Inactive areas of construction are areas of construction activity that have been disturbed and are not scheduled to be re-disturbed for at least 14 days.
[2] Active areas of construction are areas undergoing land surface disturbance. This includes construction activity during the preliminary stage, mass grading stage, streets and utilities stage and the vertical construction stage.
[3] Sheet flow length is the length that shallow, low velocity flow travels across a site.

Table 1 - Critical Slope/Sheet Flow Length Combinations

Slope Percentage	Sheet flow length not to exceed
0-25%	20 feet
25-50%	15 feet
Over 50%	10 feet

5. **Additional Risk Level 2 Requirement:** Risk Level 2 dischargers shall ensure that construction activity traffic to and from the project is limited to entrances and exits that employ effective controls to prevent offsite tracking of sediment.

6. **Additional Risk Level 2 Requirement:** Risk Level 2 dischargers shall ensure that all storm drain inlets and perimeter controls, runoff control BMPs, and pollutant controls at entrances and exits (e.g. tire washoff locations) are maintained and protected from activities that reduce their effectiveness.

7. **Additional Risk Level 2 Requirement:** Risk Level 2 dischargers shall inspect on a daily basis all immediate access roads daily. At a minimum daily (when necessary) and prior to any rain event, the discharger shall remove any sediment or other construction activity-related materials that are deposited on the roads (by vacuuming or sweeping).

F. Run-on and Run-off Controls

Risk Level 2 dischargers shall effectively manage all run-on, all runoff within the site and all runoff that discharges off the site. Run-on from off site shall be directed away from all disturbed areas or shall collectively be in compliance with the effluent limitations in this General Permit.

G. Inspection, Maintenance and Repair

1. Risk Level 2 dischargers shall ensure that all inspection, maintenance repair and sampling activities at the project location shall be performed or supervised by a Qualified SWPPP Practitioner (QSP) representing the discharger. The QSP may delegate any or all of these activities to an employee appropriately trained to do the task(s).

2. Risk Level 2 dischargers shall perform weekly inspections and observations, and at least once each 24-hour period during extended storm events, to identify and record BMPs that need maintenance to operate effectively, that have failed, or that could fail to operate as intended. Inspectors shall be the QSP or be trained by the QSP.

3. Upon identifying failures or other shortcomings, as directed by the QSP, Risk Level 2 dischargers shall begin implementing repairs or design changes to BMPs within 72 hours of identification and complete the changes as soon as possible.

4. For each inspection required, Risk Level 2 dischargers shall complete an inspection checklist, using a form provided by the State Water Board or Regional Water Board or in an alternative format.

5. Risk Level 2 dischargers shall ensure that checklists shall remain onsite with the SWPPP and at a minimum, shall include:

   a. Inspection date and date the inspection report was written.

   b. Weather information, including presence or absence of precipitation, estimate of beginning of qualifying storm event, duration of event, time elapsed since last storm, and approximate amount of rainfall in inches.

   c. Site information, including stage of construction, activities completed, and approximate area of the site exposed.

   d. A description of any BMPs evaluated and any deficiencies noted.

   e. If the construction site is safely accessible during inclement weather, list the observations of all BMPs: erosion controls, sediment controls, chemical and waste controls, and non-storm water controls. Otherwise, list the results of visual inspections at all relevant outfalls, discharge points, downstream locations and any projected maintenance activities.

   f. Report the presence of noticeable odors or of any visible sheen on the surface of any discharges.

   g. Any corrective actions required, including any necessary changes to the SWPPP and the associated implementation dates.

   h. Photographs taken during the inspection, if any.

   i. Inspector's name, title, and signature.

H. Rain Event Action Plan

1. **Additional Risk Level 2 Requirement:** The discharger shall ensure a QSP develop a Rain Event Action Plan (REAP) 48 hours prior to any

likely precipitation event. A likely precipitation event is any weather pattern that is forecast to have a 50% or greater probability of producing precipitation in the project area. The discharger shall ensure a QSP obtain a printed copy of precipitation forecast information from the National Weather Service Forecast Office (e.g., by entering the zip code of the project's location at http://www.srh.noaa.gov/forecast).

2. **Additional Risk Level 2 Requirement:** The discharger shall ensure a QSP develop the REAPs for all phases of construction (i.e., Grading and Land Development, Streets and Utilities, Vertical Construction, Final Landscaping and Site Stabilization).

3. **Additional Risk Level 2 Requirement:** The discharger shall ensure a QSP ensure that the REAP include, at a minimum, the following site information:

    a. Site Address
    b. Calculated Risk Level (2 or 3)
    c. Site Storm Water Manager Information including the name, company, and 24-hour emergency telephone number
    d. Erosion and Sediment Control Provider information including the name, company, and 24-hour emergency telephone number
    e. Storm Water Sampling Agent information including the name, company, and 24-hour emergency telephone number

4. **Additional Risk Level 2 Requirement:** The discharger shall ensure a QSP include in the REAP, at a minimum, the following project phase information:

    a. Activities associated with each construction phase
    b. Trades active on the construction site during each construction phase
    c. Trade contractor information
    d. Suggested actions for each project phase

5. **Additional Risk Level 2 Requirement:** The discharger shall ensure a QSP develop additional REAPs for project sites where construction activities are indefinitely halted or postponed (Inactive Construction). At a minimum, Inactive Construction REAPs must include:

    a. Site Address
    b. Calculated Risk Level (2 or 3)
    c. Site Storm Water Manager Information including the name, company, and 24-hour emergency telephone number

d. Erosion and Sediment Control Provider information including the name, company, and 24-hour emergency telephone number
e. Storm Water Sampling Agent information including the name, company, and 24-hour emergency telephone number
f. Trades active on site during Inactive Construction
g. Trade contractor information
h. Suggested actions for inactive construction sites

6. **Additional Risk Level 2 Requirement:** The discharger shall ensure a QSP begin implementation and make the REAP available onsite no later than 24 hours prior to the likely precipitation event.

7. **Additional Risk Level 2 Requirement:** The discharger shall ensure a QSP maintain onsite a paper copy of each REAP onsite in compliance with the record retention requirements of the Special Provisions in this General Permit.

I. Risk Level 2 Monitoring and Reporting Requirements

Table 2- Summary of Monitoring Requirements

Risk Level	Visual Inspections					Sample Collection	
	Quarterly Non-storm Water Discharge	Pre-storm Event		Daily Storm BMP	Post Storm	Storm Water Discharge	Receiving Water
		Baseline	REAP				
2	X	X	X	X	X	X	

1. Construction Site Monitoring Program Requirements

   a. Pursuant to Water Code Sections 13383 and 13267, all dischargers subject to this General Permit shall develop and implement a written site-specific Construction Site Monitoring Program (CSMP) in accordance with the requirements of this Section. The CSMP shall include all monitoring procedures and instructions, location maps, forms, and checklists as required in this section. The CSMP shall be developed prior to the commencement of construction activities, and revised as necessary to reflect project revisions. The CSMP shall be a part of the Storm Water Pollution Prevention Plan (SWPPP), included as an appendix or separate SWPPP chapter.

   b. Existing dischargers registered under the State Water Board Order No. 99-08-DWQ shall make and implement necessary revisions to their Monitoring Program to reflect the changes in this General Permit in a timely manner, but no later than July 1, 2010. Existing dischargers shall continue to implement their existing Monitoring Programs in compliance with State Water Board Order No. 99-08-DWQ until the necessary revisions are completed according to the schedule above.

   c. When a change of ownership occurs for all or any portion of the construction site prior to completion or final stabilization, the new discharger shall comply with these requirements as of the date the ownership change occurs.

2. **Objectives**

   The CSMP shall be developed and implemented to address the following objectives:

   a. To demonstrate that the site is in compliance with the Discharge Prohibitions and applicable Numeric Action Levels (NALs).

b. To determine whether non-visible pollutants are present at the construction site and are causing or contributing to exceedances of water quality objectives.

c. To determine whether immediate corrective actions, additional Best Management Practice (BMP) implementation, or SWPPP revisions are necessary to reduce pollutants in storm water discharges and authorized non-storm water discharges.

d. To determine whether BMPs included in the SWPPP/Rain Event Action Plan (REAP) are effective in preventing or reducing pollutants in storm water discharges and authorized non-storm water discharges.

3. **Risk Level 2 – Visual Monitoring (Inspection) Requirements for Qualifying Rain Events**

a. Risk Level 2 dischargers shall visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event.

b. Risk Level 2 dischargers shall visually observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Stored or contained storm water that will likely discharge after operating hours due to anticipated precipitation shall be observed prior to the discharge during operating hours.

c. Risk Level 2 dischargers shall conduct visual observations (inspections) during business hours only.

d. Risk Level 2 dischargers shall record the time, date and rain gauge reading of all qualifying rain events.

e. Within 2 business days (48 hours) prior to each qualifying rain event, Risk Level 2 dischargers shall visually observe (inspect):

i. all storm water drainage areas to identify any spills, leaks, or uncontrolled pollutant sources. If needed, the discharger shall implement appropriate corrective actions.

ii. all BMPs to identify whether they have been properly implemented in accordance with the SWPPP/REAP. If needed, the discharger shall implement appropriate corrective actions.

iii. any storm water storage and containment areas to detect leaks and ensure maintenance of adequate freeboard.

f. For the visual observations (inspections) described in c.i and c.iii above, Risk Level 2 dischargers shall observe the presence or absence of floating and suspended materials, a sheen on the surface, discolorations, turbidity, odors, and source(s) of any observed pollutants.

g. Within two business days (48 hours) after each qualifying rain event, Risk Level 2 dischargers shall conduct post rain event visual observations (inspections) to (1) identify whether BMPs were adequately designed, implemented, and effective, and (2) identify additional BMPs and revise the SWPPP accordingly.

h. Risk Level 2 dischargers shall maintain on-site records of all visual observations (inspections), personnel performing the observations, observation dates, weather conditions, locations observed, and corrective actions taken in response to the observations.

4. **Risk Level 2 – Water Quality Sampling and Analysis**

a. Risk Level 2 dischargers shall collect storm water grab samples from sampling locations, as defined in Section I.5. The storm water grab sample(s) obtained shall be representative of the flow and characteristics of the discharge.

b. At minimum, Risk Level 2 dischargers shall collect 3 samples per day of the qualifying event.

c. Risk Level 2 dischargers shall ensure that the grab samples collected of stored or contained storm water are from discharges subsequent to a qualifying rain event (producing precipitation of ½ inch or more at the time of discharge).

<u>Storm Water Effluent Monitoring Requirements</u>

d. Risk Level 2 dischargers shall analyze their effluent samples for:

i. pH and turbidity.

ii. Any additional parameters for which monitoring is required by the Regional Water Board.

5. **Risk Level 2 – Storm Water Discharge Water Quality Sampling Locations**

Effluent Sampling Locations

a. Risk Level 2 dischargers shall perform sampling and analysis of storm water discharges to characterize discharges associated with construction activity from the entire project disturbed area.

b. Risk Level 2 dischargers shall collect effluent samples at all discharge points where storm water is discharged off-site.

c. Risk Level 2 dischargers shall ensure that storm water discharge collected and observed represent[4] the effluent in each drainage area based on visual observation of the water and upstream conditions.

d. Risk Level 2 dischargers shall monitor and report site run-on from surrounding areas if there is reason to believe run-on may contribute to an exceedance of NALs.

e. Risk Level 2 dischargers who deploy an ATS on their site, or a portion on their site, shall collect ATS effluent samples and measurements from the discharge pipe or another location representative of the nature of the discharge.

f. Risk Level 2 dischargers shall select analytical test methods from the list provided in Table 3 below.

g. All storm water sample collection preservation and handling shall be conducted in accordance with Section I.7 “Storm Water Sample Collection and Handling Instructions” below.

6. **Risk Level 2 – Visual Observation and Sample Collection Exemptions**

a. Risk Level 2 dischargers shall be prepared to collect samples and conduct visual observation (inspections) until the minimum requirements of Sections I.3 and I.4 above are completed. Risk Level 2 dischargers are not required to physically collect samples or conduct visual observation (inspections) under the following conditions:

[4] For example, if there has been concrete work recently in an area, or drywall scrap is exposed to the rain, a pH sample shall be taken of drainage from the relevant work area. Similarly, if sediment laden water is flowing through some parts of a silt fence, samples shall be taken of the sediment-laden water even if most water flowing through the fence is clear.

i. During dangerous weather conditions such as flooding and electrical storms.

ii. Outside of scheduled site business hours.

b. If no required samples or visual observation (inspections) are collected due to these exceptions, Risk Level 2 dischargers shall include an explanation in their SWPPP and in the Annual Report documenting why the sampling or visual observation (inspections) were not conducted.

7. **Risk Level 2 – Storm Water Sample Collection and Handling Instructions**

a. Risk Level 2 dischargers shall refer to Table 3 below for test methods, detection limits, and reporting units.

b. Risk Level 2 dischargers shall ensure that testing laboratories will receive samples within 48 hours of the physical sampling (unless otherwise required by the laboratory), and shall use only the sample containers provided by the laboratory to collect and store samples.

c. Risk Level 2 dischargers shall designate and train personnel to collect, maintain, and ship samples in accordance with the Surface Water Ambient Monitoring Program's (SWAMP) 2008 Quality Assurance Program Plan (QAPrP).[5]

8. **Risk Level 2 – Monitoring Methods**

a. Risk Level 2 dischargers shall include a description of the following items in the CSMP:

i. Visual observation locations, visual observation procedures, and visual observation follow-up and tracking procedures.

ii. Sampling locations, and sample collection and handling procedures. This shall include detailed procedures for sample collection, storage, preservation, and shipping to the testing lab to assure that consistent quality control and quality assurance is maintained. Dischargers shall attach to the monitoring program

[5] Additional information regarding SWAMP's QAPrP can be found at http://www.waterboards.ca.gov/water_issues/programs/swamp/. QAPrP:http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/qapp/swamp_qapp_master090108a.pdf.

an example Chain of Custody form used when handling and shipping samples.

iii. Identification of the analytical methods and related method detection limits (if applicable) for each parameter required in Section I.4 above.

b. Risk Level 2 dischargers shall ensure that all sampling and sample preservation are in accordance with the current edition of "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association). All monitoring instruments and equipment (including a discharger's own field instruments for measuring pH and turbidity) should be calibrated and maintained in accordance with manufacturers' specifications to ensure accurate measurements. Risk Level 2 dischargers shall ensure that all laboratory analyses are conducted according to test procedures under 40 CFR Part 136, unless other test procedures have been specified in this General Permit or by the Regional Water Board. With the exception of field analysis conducted by the discharger for turbidity and pH, all analyses should be sent to and conducted at a laboratory certified for such analyses by the State Department of Health Services. Risk Level 2 dischargers shall conduct their own field analysis of pH and may conduct their own field analysis of turbidity if the discharger has sufficient capability (qualified and trained employees, properly calibrated and maintained field instruments, etc.) to adequately perform the field analysis.

9. **Risk Level 2 – Analytical Methods**

a. Risk Level 2 dischargers shall refer to Table 3 below for test methods, detection limits, and reporting units.

b. **pH**: Risk Level 2 dischargers shall perform pH analysis on-site with a calibrated pH meter or a pH test kit. Risk Level 2 dischargers shall record pH monitoring results on paper and retain these records in accordance with Section I.14, below.

c. **Turbidity**: Risk Level 2 dischargers shall perform turbidity analysis using a calibrated turbidity meter (turbidimeter), either on-site or at an accredited lab. Acceptable test methods include Standard Method 2130 or USEPA Method 180.1. The results will be recorded in the site log book in Nephelometric Turbidity Units (NTU).

10. **Risk Level 2 - Non-Storm Water Discharge Monitoring Requirements**

a. Visual Monitoring Requirements:

i. Risk Level 2 dischargers shall visually observe (inspect) each drainage area for the presence of (or indications of prior) unauthorized and authorized non-storm water discharges and their sources.

ii. Risk Level 2 dischargers shall conduct one visual observation (inspection) quarterly in each of the following periods: January-March, April-June, July-September, and October-December. Visual observation (inspections) are only required during daylight hours (sunrise to sunset).

iii. Risk Level 2 dischargers shall ensure that visual observations (inspections) document the presence or evidence of any non-storm water discharge (authorized or unauthorized), pollutant characteristics (floating and suspended material, sheen, discoloration, turbidity, odor, etc.), and source. Risk Level 2 dischargers shall maintain on-site records indicating the personnel performing the visual observation (inspections), the dates and approximate time each drainage area and non-storm water discharge was observed, and the response taken to eliminate unauthorized non-storm water discharges and to reduce or prevent pollutants from contacting non-storm water discharges.

b. Effluent Sampling Locations:

i. Risk Level 2 dischargers shall sample effluent at all discharge points where non-storm water and/or authorized non-storm water is discharged off-site.

ii. Risk Level 2 dischargers shall send all non-storm water sample analyses to a laboratory certified for such analyses by the State Department of Health Services.

iii. Risk Level 2 dischargers shall monitor and report run-on from surrounding areas if there is reason to believe run-on may contribute to an exceedance of NALs.

11. **Risk Level 2 – Non-Visible Pollutant Monitoring Requirements**

a. Risk Level 2 dischargers shall collect one or more samples during any breach, malfunction, leakage, or spill observed during a visual

inspection which could result in the discharge of pollutants to surface waters that would not be visually detectable in storm water.

b. Risk Level 2 dischargers shall ensure that water samples are large enough to characterize the site conditions.

c. Risk Level 2 dischargers shall collect samples at all discharge locations that can be safely accessed.

d. Risk Level 2 dischargers shall collect samples during the first two hours of discharge from rain events that occur during business hours and which generate runoff.

e. Risk Level 2 dischargers shall analyze samples for all non-visible pollutant parameters (if applicable) - parameters indicating the presence of pollutants identified in the pollutant source assessment required (Risk Level 2 dischargers shall modify their CSMPs to address these additional parameters in accordance with any updated SWPPP pollutant source assessment).

f. Risk Level 2 dischargers shall collect a sample of storm water that has not come in contact with the disturbed soil or the materials stored or used on-site (uncontaminated sample) for comparison with the discharge sample.

g. Risk Level 2 dischargers shall compare the uncontaminated sample to the samples of discharge using field analysis or through laboratory analysis.[6]

h. Risk Level 2 dischargers shall keep all field /or analytical data in the SWPPP document.

12. **Risk Level 2 – Watershed Monitoring Option**

Risk Level 2 dischargers who are part of a qualified regional watershed-based monitoring program may be eligible for relief from the requirements in Sections I.5. The Regional Water Board may approve proposals to substitute an acceptable watershed-based monitoring program by determining if the watershed-based monitoring program will provide substantially similar monitoring information in evaluating discharger compliance with the requirements of this General Permit.

[6] For laboratory analysis, all sampling, sample preservation, and analyses must be conducted according to test procedures under 40 CFR Part 136. Field discharge samples shall be collected and analyzed according to the specifications of the manufacturer of the sampling devices employed.

13. **Risk Level 2 – Particle Size Analysis for Project Risk Justification**

Risk Level 2 dischargers justifying an alternative project risk shall report a soil particle size analysis used to determine the RUSLE K-Factor. ASTM D-422 (Standard Test Method for Particle-Size Analysis of Soils), as revised, shall be used to determine the percentages of sand, very fine sand, silt, and clay on the site.

14. **Risk Level 2 – Records**

Risk Level 2 dischargers shall retain records of all storm water monitoring information and copies of all reports (including Annual Reports) for a period of at least three years. Risk Level 2 dischargers shall retain all records on-site while construction is ongoing. These records include:

a. The date, place, time of facility inspections, sampling, visual observation (inspections), and/or measurements, including precipitation.

b. The individual(s) who performed the facility inspections, sampling, visual observation (inspections), and or measurements.

c. The date and approximate time of analyses.

d. The individual(s) who performed the analyses.

e. A summary of all analytical results from the last three years, the method detection limits and reporting units, the analytical techniques or methods used, and the chain of custody forms.

f. Rain gauge readings from site inspections;

g. Quality assurance/quality control records and results.

h. Non-storm water discharge inspections and visual observation (inspections) and storm water discharge visual observation records (see Sections I.3 and I.10 above).

i. Visual observation and sample collection exception records (see Section I.6 above).

j. The records of any corrective actions and follow-up activities that resulted from analytical results, visual observation (inspections), or inspections.

15. **Risk Level 2 – NAL Exceedance Report**

a. In the event that any effluent sample exceeds an applicable NAL, Risk Level 2 dischargers shall electronically submit all storm event sampling results to the State Water Board no later than 10 days after the conclusion of the storm event. The Regional Boards have the authority to require the submittal of an NAL Exceedance Report.

b. Risk Level 2 dischargers shall certify each NAL Exceedance Report in accordance with the Special Provisions for Construction Activity.

c. Risk Level 2 dischargers shall retain an electronic or paper copy of each NAL Exceedance Report for a minimum of three years after the date the annual report is filed.

d. Risk Level 2 dischargers shall include in the NAL Exceedance Report:

i. The analytical method(s), method reporting unit(s), and method detection limit(s) of each analytical parameter (analytical results that are less than the method detection limit shall be reported as “less than the method detection limit”).

ii. The date, place, time of sampling, visual observation (inspections), and/or measurements, including precipitation.

iii. A description of the current BMPs associated with the effluent sample that exceeded the NAL and the proposed corrective actions taken.

Table 3 – Risk Level 2 Test Methods, Detection Limits, Reporting Units and Applicable NALs/NELs

Parameter	Test Method / Protocol	Discharge Type	Min. Detection Limit	Reporting Units	Numeric Action Level
pH	Field test with calibrated portable instrument	Risk Level 2 Discharges	0.2	pH units	lower NAL = 6.5 upper NAL = 8.5
Turbidity	EPA 0180.1 and/or field test with calibrated portable instrument	Risk Level 2 Discharges other than ATS	1	NTU	250 NTU
		For ATS discharges	1	NTU	N/A

ATTACHMENT E
RISK LEVEL 3 REQUIREMENTS

A. Effluent Standards

[These requirements are the same as those in the General Permit order.]

1. Narrative – Risk Level 3 dischargers shall comply with the narrative effluent standards listed below:

   a. Storm water discharges and authorized non-storm water discharges regulated by this General Permit shall not contain a hazardous substance equal to or in excess of reportable quantities established in 40 C.F.R. §§ 117.3 and 302.4, unless a separate NPDES Permit has been issued to regulate those discharges.

   b. Dischargers shall minimize or prevent pollutants in storm water discharges and authorized non-storm water discharges through the use of controls, structures, and management practices that achieve BAT for toxic and non-conventional pollutants and BCT for conventional pollutants.

2. Numeric –Risk Level 3 dischargers are subject to a pH NAL of 6.5-8.5, and a turbidity NAL of 250 NTU.

B. Good Site Management "Housekeeping"

1. Risk Level 3 dischargers shall implement good site management (i.e., "housekeeping") measures for construction materials that could potentially be a threat to water quality if discharged. At a minimum, Risk Level 3 dischargers shall implement the following good housekeeping measures:

   a. Conduct an inventory of the products used and/or expected to be used and the end products that are produced and/or expected to be produced. This does not include materials and equipment that are designed to be outdoors and exposed to environmental conditions (i.e. poles, equipment pads, cabinets, conductors, insulators, bricks, etc.).

   b. Cover and berm loose stockpiled construction materials that are not actively being used (i.e. soil, spoils, aggregate, fly-ash, stucco, hydrated lime, etc.).

c. Store chemicals in watertight containers (with appropriate secondary containment to prevent any spillage or leakage) or in a storage shed (completely enclosed).

d. Minimize exposure of construction materials to precipitation. This does not include materials and equipment that are designed to be outdoors and exposed to environmental conditions (i.e. poles, equipment pads, cabinets, conductors, insulators, bricks, etc.).

e. Implement BMPs to prevent the off-site tracking of loose construction and landscape materials.

2. Risk Level 3 dischargers shall implement good housekeeping measures for waste management, which, at a minimum, shall consist of the following:

a. Prevent disposal of any rinse or wash waters or materials on impervious or pervious site surfaces or into the storm drain system.

b. Ensure the containment of sanitation facilities (e.g., portable toilets) to prevent discharges of pollutants to the storm water drainage system or receiving water.

c. Clean or replace sanitation facilities and inspecting them regularly for leaks and spills.

d. Cover waste disposal containers at the end of every business day and during a rain event.

e. Prevent discharges from waste disposal containers to the storm water drainage system or receiving water.

f. Contain and securely protecting stockpiled waste material from wind and rain at all times unless actively being used.

g. Implement procedures that effectively address hazardous and non-hazardous spills.

h. Develop a spill response and implementation element of the SWPPP prior to commencement of construction activities. The SWPPP shall require that:

i. Equipment and materials for cleanup of spills shall be available on site and that spills and leaks shall be cleaned up immediately and disposed of properly; and

ii. Appropriate spill response personnel are assigned and trained.

i. Ensure the containment of concrete washout areas and other washout areas that may contain additional pollutants so there is no discharge into the underlying soil and onto the surrounding areas.

3. Risk Level 3 dischargers shall implement good housekeeping for vehicle storage and maintenance, which, at a minimum, shall consist of the following:

   a. Prevent oil, grease, or fuel to leak in to the ground, storm drains or surface waters.

   b. Place all equipment or vehicles, which are to be fueled, maintained and stored in a designated area fitted with appropriate BMPs.

   c. Clean leaks immediately and disposing of leaked materials properly.

4. Risk Level 3 dischargers shall implement good housekeeping for landscape materials, which, at a minimum, shall consist of the following:

   a. Contain stockpiled materials such as mulches and topsoil when they are not actively being used.

   b. Contain fertilizers and other landscape materials when they are not actively being used.

   c. Discontinuing the application of any erodible landscape material within 2 days before a forecasted rain event or during periods of precipitation.

   d. Applying erodible landscape material at quantities and application rates according to manufacture recommendations or based on written specifications by knowledgeable and experienced field personnel.

   e. Stacking erodible landscape material on pallets and covering or storing such materials when not being used or applied.

5. Risk Level 3 dischargers shall conduct an assessment and create a list of potential pollutant sources and identify any areas of the site where additional BMPs are necessary to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. This potential pollutant list shall be kept with the SWPPP and shall identify

all non-visible pollutants which are known, or should be known, to occur on the construction site. At a minimum, when developing BMPs, Risk Level 3 dischargers shall do the following:

a. Consider the quantity, physical characteristics (e.g., liquid, powder, solid), and locations of each potential pollutant source handled, produced, stored, recycled, or disposed of at the site.

b. Consider the degree to which pollutants associated with those materials may be exposed to and mobilized by contact with storm water.

c. Consider the direct and indirect pathways that pollutants may be exposed to storm water or authorized non-storm water discharges. This shall include an assessment of past spills or leaks, non-storm water discharges, and discharges from adjoining areas.

d. Ensure retention of sampling, visual observation, and inspection records.

e. Ensure effectiveness of existing BMPs to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges.

6. Risk Level 3 dischargers shall implement good housekeeping measures on the construction site to control the air deposition of site materials and from site operations. Such particulates can include, but are not limited to, sediment, nutrients, trash, metals, bacteria, oil and grease and organics.

7. **Additional Risk Level 3 Requirement:** Risk Level 3 dischargers shall document all housekeeping BMPs in the SWPPP and REAP(s) in accordance with the nature and phase of the construction project. Construction phases at traditional land development projects include Grading and Land Development Phase, Streets and Utilities, or Vertical Construction for traditional land development projects.

C. Non-Storm Water Management

1. Risk Level 3 dischargers shall implement measures to control all non-storm water discharges during construction.

2. Risk Level 3 dischargers shall wash vehicles in such a manner as to prevent non-storm water discharges to surface waters or MS4 drainage systems.

3. Risk Level 3 dischargers shall clean streets in such a manner as to prevent unauthorized non-storm water discharges from reaching surface water or MS4 drainage systems.

D. Erosion Control

1. Risk Level 3 dischargers shall implement effective wind erosion control.

2. Risk Level 3 dischargers shall provide effective soil cover for inactive[1] areas and all finished slopes, open space, utility backfill, and completed lots.

3. Dischargers shall limit the use of plastic materials when more sustainable, environmentally friendly alternatives exist. Where plastic materials are deemed necessary, the discharger shall consider the use of plastic materials resistant to solar degradation.

E. Sediment Controls

1. Risk Level 3 dischargers shall establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from the site.

2. On sites where sediment basins are to be used, Risk Level 3 dischargers shall, at minimum, design sediment basins according to the method provided in CASQA's Construction BMP Guidance Handbook.

3. **Additional Risk Level 3 Requirement:** Risk Level 3 dischargers shall implement appropriate erosion control BMPs (runoff control and soil stabilization) in conjunction with sediment control BMPs for areas under active[2] construction.

4. **Additional Risk Level 3 Requirement:** Risk Level 3 dischargers shall apply linear sediment controls along the toe of the slope, face of the slope, and at the grade breaks of exposed slopes to comply with sheet flow lengths[3] in accordance with Table 1.

[1] Inactive areas of construction are areas of construction activity that have been disturbed and are not scheduled to be re-disturbed for at least 14 days.
[2] Active areas of construction are areas undergoing land surface disturbance. This includes construction activity during the preliminary stage, mass grading stage, streets and utilities stage and the vertical construction stage
[3] Sheet flow length is the length that shallow, low velocity flow travels across a site.

Table 1 - Critical Slope/Sheet Flow Length Combinations

Slope Percentage	Sheet flow length not to exceed
0-25%	20 feet
25-50%	15 feet
Over 50%	10 feet

5. **Additional Risk Level 3 Requirement:** Risk Level 3 dischargers shall ensure that construction activity traffic to and from the project is limited to entrances and exits that employ effective controls to prevent offsite tracking of sediment.

6. **Additional Risk Level 3 Requirement:** Risk Level 3 dischargers shall ensure that all storm drain inlets and perimeter controls, runoff control BMPs, and pollutant controls at entrances and exits (e.g. tire washoff locations) are maintained and protected from activities that reduce their effectiveness.

7. **Additional Risk Level 3 Requirement:** Risk Level 3 dischargers shall inspect on a daily basis all immediate access roads daily. At a minimum daily (when necessary) and prior to any rain event, the discharger shall remove any sediment or other construction activity-related materials that are deposited on the roads (by vacuuming or sweeping).

8. **Additional Risk Level 3 Requirement:** The Regional Water Board may require Risk Level 3 dischargers to implement additional site-specific sediment control requirements if the implementation of the other requirements in this section are not adequately protecting the receiving waters.

F. Run-on and Run-off Controls

Risk Level 3 dischargers shall effectively manage all run-on, all runoff within the site and all runoff that discharges off the site. Run-on from off site shall be directed away from all disturbed areas or shall collectively be in compliance with the effluent limitations in this General Permit.

G. Inspection, Maintenance and Repair

1. Risk Level 3 dischargers shall ensure that all inspection, maintenance repair and sampling activities at the project location shall be performed or supervised by a Qualified SWPPP Practitioner (QSP) representing the discharger. The QSP may delegate any or all of these activities to an employee appropriately trained to do the task(s).

2. Risk Level 3 dischargers shall perform weekly inspections and observations, and at least once each 24-hour period during extended storm events, to identify and record BMPs that need maintenance to operate effectively, that have failed, or that could fail to operate as intended. Inspectors shall be the QSP or be trained by the QSP.

3. Upon identifying failures or other shortcomings, as directed by the QSP, Risk Level 3 dischargers shall begin implementing repairs or design changes to BMPs within 72 hours of identification and complete the changes as soon as possible.

4. For each inspection required, Risk Level 3 dischargers shall complete an inspection checklist, using a form provided by the State Water Board or Regional Water Board or in an alternative format.

5. Risk Level 3 dischargers shall ensure that checklists shall remain onsite with the SWPPP and at a minimum, shall include:

    a. Inspection date and date the inspection report was written.

    b. Weather information, including presence or absence of precipitation, estimate of beginning of qualifying storm event, duration of event, time elapsed since last storm, and approximate amount of rainfall in inches.

    c. Site information, including stage of construction, activities completed, and approximate area of the site exposed.

    d. A description of any BMPs evaluated and any deficiencies noted.

    e. If the construction site is safely accessible during inclement weather, list the observations of all BMPs: erosion controls, sediment controls, chemical and waste controls, and non-storm water controls. Otherwise, list the results of visual inspections at all relevant outfalls, discharge points, downstream locations and any projected maintenance activities.

    f. Report the presence of noticeable odors or of any visible sheen on the surface of any discharges.

    g. Any corrective actions required, including any necessary changes to the SWPPP and the associated implementation dates.

    h. Photographs taken during the inspection, if any.

i. Inspector's name, title, and signature.

H. Rain Event Action Plan

1. **Additional Risk Level 3 Requirement:** The discharger shall ensure a QSP develop a Rain Event Action Plan (REAP) 48 hours prior to any likely precipitation event. A likely precipitation event is any weather pattern that is forecast to have a 50% or greater probability of producing precipitation in the project area. The QSP shall obtain a printed copy of precipitation forecast information from the National Weather Service Forecast Office (e.g., by entering the zip code of the project's location at http://www.srh.noaa.gov/forecast).

2. **Additional Risk Level 3 Requirement:** The discharger shall ensure a QSP develop the REAPs for all phases of construction (i.e., Grading and Land Development, Streets and Utilities, Vertical Construction, Final Landscaping and Site Stabilization).

3. **Additional Risk Level 3 Requirement:** The discharger shall ensure a QSP ensure that the REAP include, at a minimum, the following site information:

   a. Site Address.
   b. Calculated Risk Level (2 or 3).
   c. Site Storm Water Manager Information including the name, company, and 24-hour emergency telephone number.
   d. Erosion and Sediment Control Provider information including the name, company, and 24-hour emergency telephone number.
   e. Storm Water Sampling Agent information including the name, company, and 24-hour emergency telephone number.

4. **Additional Risk Level 3 Requirement:** The QSP shall include in the REAP, at a minimum, the following project phase information:

   a. Activities associated with each construction phase.
   b. Trades active on the construction site during each construction phase.
   c. Trade contractor information.
   d. Suggested actions for each project phase.

5. **Additional Risk Level 3 Requirement:** The QSP shall develop additional REAPs for project sites where construction activities are indefinitely halted or postponed (Inactive Construction). At a minimum, Inactive Construction REAPs must include:

a. Site Address.
b. Calculated Risk Level (2 or 3).
c. Site Storm Water Manager Information including the name, company, and 24-hour emergency telephone number.
d. Erosion and Sediment Control Provider information including the name, company, and 24-hour emergency telephone number.
e. Storm Water Sampling Agent information including the name, company, and 24-hour emergency telephone number.
f. Trades active on site during Inactive Construction.
g. Trade contractor information.
h. Suggested actions for inactive construction sites.

6. **Additional Risk Level 3 Requirement:** The discharger shall ensure a QSP begin implementation and make the REAP available onsite no later than 24 hours prior to the likely precipitation event.

7. **Additional Risk Level 3 Requirement:** The discharger shall ensure a QSP maintain onsite a paper copy of each REAP onsite in compliance with the record retention requirements of the Special Provisions in this General Permit.

I. Risk Level 3 Monitoring and Reporting Requirements

Table 2- Summary of Monitoring Requirements

Risk Level	Visual Inspections					Sample Collection	
	Quarterly Non-storm Water Discharge	Pre-storm Event		Daily Storm BMP	Post Storm	Storm Water Discharge	Receiving Water
		Baseline	REAP				
3	X	X	X	X	X	X	X[4]

1. Construction Site Monitoring Program Requirements

   a. Pursuant to Water Code Sections 13383 and 13267, all dischargers subject to this General Permit shall develop and implement a written site-specific Construction Site Monitoring Program (CSMP) in accordance with the requirements of this Section. The CSMP shall include all monitoring procedures and instructions, location maps, forms, and checklists as required in this section. The CSMP shall be developed prior to the commencement of construction activities, and revised as necessary to reflect project revisions. The CSMP shall be a part of the Storm Water Pollution Prevention Plan (SWPPP), included as an appendix or separate SWPPP chapter.

   b. Existing dischargers registered under the State Water Board Order No. 99-08-DWQ shall make and implement necessary revisions to their Monitoring Program to reflect the changes in this General Permit in a timely manner, but no later than July 1, 2010. Existing dischargers shall continue to implement their existing Monitoring Program in compliance with State Water Board Order No. 99-08-DWQ until the necessary revisions are completed according to the schedule above.

   c. When a change of ownership occurs for all or any portion of the construction site prior to completion or final stabilization, the new discharger shall comply with these requirements as of the date the ownership change occurs.

2. **Objectives**

   The CSMP shall be developed and implemented to address the following objectives:

[4] When receiving water monitoring trigger is exceeded

a. To demonstrate that the site is in compliance with the Discharge Prohibitions and applicable Numeric Action Levels (NALs) of this General Permit.

b. To determine whether non-visible pollutants are present at the construction site and are causing or contributing to exceedances of water quality objectives.

c. To determine whether immediate corrective actions, additional Best Management Practice (BMP) implementation, or SWPPP revisions are necessary to reduce pollutants in storm water discharges and authorized non-storm water discharges.

d. To determine whether BMPs included in the SWPPP/Rain Event Action Plan (REAP) are effective in preventing or reducing pollutants in storm water discharges and authorized non-storm water discharges.

3. **Risk Level 3 – Visual Monitoring (Inspection) Requirements for Qualifying Rain Events**

a. Risk Level 3 dischargers shall visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event.

b. Risk Level 3 dischargers shall visually observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Stored or contained storm water that will likely discharge after operating hours due to anticipated precipitation shall be observed prior to the discharge during operating hours.

c. Risk Level 3 dischargers shall conduct visual observations (inspections) during business hours only.

d. Risk Level 3 dischargers shall record the time, date and rain gauge reading of all qualifying rain events.

e. Within 2 business days (48 hours) prior to each qualifying rain event, Risk Level 3 dischargers shall visually observe (inspect):

i. all storm water drainage areas to identify any spills, leaks, or uncontrolled pollutant sources. If needed, the discharger shall implement appropriate corrective actions.

ii. all BMPs to identify whether they have been properly implemented in accordance with the SWPPP/REAP. If needed, the discharger shall implement appropriate corrective actions.

iii. any storm water storage and containment areas to detect leaks and ensure maintenance of adequate freeboard.

f. For the visual observations (inspections) described in c.i. and c.iii above, Risk Level 3 dischargers shall observe the presence or absence of floating and suspended materials, a sheen on the surface, discolorations, turbidity, odors, and source(s) of any observed pollutants.

g. Within two business days (48 hours) after each qualifying rain event, Risk Level 3 dischargers shall conduct post rain event visual observations (inspections) to (1) identify whether BMPs were adequately designed, implemented, and effective, and (2) identify additional BMPs and revise the SWPPP accordingly.

h. Risk Level 3 dischargers shall maintain on-site records of all visual observations (inspections), personnel performing the observations, observation dates, weather conditions, locations observed, and corrective actions taken in response to the observations.

4. **Risk Level 3 – Water Quality Sampling and Analysis**

a. Risk Level 3 dischargers shall collect storm water grab samples from sampling locations, as defined in Section I.5. The storm water grab sample(s) obtained shall be representative of the flow and characteristics of the discharge.

b. At minimum, Risk Level 3 dischargers shall collect 3 samples per day of the qualifying event.

c. Risk Level 3 dischargers shall ensure that the grab samples collected of stored or contained storm water are from discharges subsequent to a qualifying rain event (producing precipitation of ½ inch or more at the time of discharge).

<u>Storm Water Effluent Monitoring Requirements</u>

d. Risk Level 3 dischargers shall analyze their effluent samples for:

i. pH and turbidity.

ii. Any additional parameters for which monitoring is required by the Regional Water Board.

e. Risk 3 dischargers shall electronically submit all storm event sampling results to the State Water Board no later than 10 days after the conclusion of the storm event.

Receiving Water Monitoring Requirements

f. In the event that a Risk Level 3 discharger's effluent exceeds the daily average receiving water monitoring trigger of 500 NTU turbidity or the daily average pH range 6.0-9.0 contained in this General Permit and has a direct discharge into receiving waters, the Risk Level 3 discharger shall subsequently sample receiving waters (RWs) for turbidity, pH (if applicable), and SSC for the duration of coverage under this General Permit. If a Risk Level 3 discharger utilizing ATS with direct discharges into receiving waters discharges effluent that exceeds the NELs in this permit, the discharger shall subsequently sample RWs for turbidity, pH (if applicable), and SSC for the duration of coverage under this General Permit.

g. Risk Level 3 dischargers disturbing 30 acres or more of the landscape and with direct discharges into receiving waters shall conduct or participate in benthic macroinvertebrate bioassessment of RWs prior to commencement of construction activity (See Appendix 3).

h. Risk Level 3 dischargers shall obtain RW samples in accordance with the Receiving Water sampling location section (Section I.5), below.

5. **Risk Level 3 – Storm Water Discharge Water Quality Sampling Locations**

Effluent Sampling Locations

a. Risk Level 3 dischargers shall perform sampling and analysis of storm water discharges to characterize discharges associated with construction activity from the entire project disturbed area.

b. Risk Level 3 dischargers shall collect effluent samples at all discharge points where storm water is discharged off-site.

c. Risk Level 3 dischargers shall ensure that storm water discharge collected and observed represent[5] the effluent in each drainage area based on visual observation of the water and upstream conditions.

d. Risk Level 3 dischargers shall monitor and report site run-on from surrounding areas if there is reason to believe run-on may contribute to an exceedance of NALs.

e. Risk Level 3 dischargers who deploy an ATS on their site, or a portion on their site, shall collect ATS effluent samples and measurements from the discharge pipe or another location representative of the nature of the discharge.

f. Risk Level 3 dischargers shall select analytical test methods from the list provided in Table 3 below.

g. All storm water sample collection preservation and handling shall be conducted in accordance with Section I.7 "Storm Water Sample Collection and Handling Instructions" below.

Receiving Water Sampling Locations

h. **Upstream/up-gradient RW samples**: Risk Level 3 dischargers shall obtain any required upstream/up-gradient receiving water samples from a representative and accessible location as close as possible and upstream from the effluent discharge point.

i. **Downstream/down-gradient RW samples**: Risk Level 3 dischargers shall obtain any required downstream/down-gradient receiving water samples from a representative and accessible location as close as possible and downstream from the effluent discharge point.

j. If two or more discharge locations discharge to the same receiving water, Risk Level 3 dischargers may sample the receiving water at a single upstream and downstream location.

[5] For example, if there has been concrete work recently in an area, or drywall scrap is exposed to the rain, a pH sample shall be taken of drainage from the relevant work area. Similarly, if sediment-laden water is flowing through some parts of a silt fence, samples shall be taken of the sediment laden water even if most water flowing through the fence is clear.

6. **Risk Level 3 – Visual Observation and Sample Collection Exemptions**

   a. Risk Level 3 dischargers shall be prepared to collect samples and conduct visual observation (inspections) until the minimum requirements of Sections I.3 and I.4 above are completed. Risk Level 3 dischargers are not required to physically collect samples or conduct visual observation (inspections) under the following conditions:

      i. During dangerous weather conditions such as flooding and electrical storms.

      ii. Outside of scheduled site business hours.

   b. If no required samples or visual observation (inspections) are collected due to these exceptions, Risk Level 3 dischargers shall include an explanation in their SWPPP and in the Annual Report documenting why the sampling or visual observation (inspections) were not conducted.

7. **Risk Level 3 – Storm Water Sample Collection and Handling Instructions**

   a. Risk Level 3 dischargers shall refer to Table 3 below for test methods, detection limits, and reporting units.

   b. Risk Level 3 dischargers shall ensure that testing laboratories will receive samples within 48 hours of the physical sampling (unless otherwise required by the laboratory), and shall use only the sample containers provided by the laboratory to collect and store samples.

   c. Risk Level 3 dischargers shall designate and train personnel to collect, maintain, and ship samples in accordance with the Surface Water Ambient Monitoring Program's (SWAMP) 2008 Quality Assurance Program Plan (QAPrP).[6]

[6] Additional information regarding SWAMP's QAPrP can be found at http://www.waterboards.ca.gov/water_issues/programs/swamp/.
QAPrP:http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/qapp/swamp_qapp_master090108a.pdf

8. **Risk Level 3 – Monitoring Methods**

   a. Risk Level 3 dischargers shall include a description of the following items in the CSMP:

      i. Visual observation locations, visual observation procedures, and visual observation follow-up and tracking procedures.

      ii. Sampling locations, and sample collection and handling procedures. This shall include detailed procedures for sample collection, storage, preservation, and shipping to the testing lab to assure that consistent quality control and quality assurance is maintained. Dischargers shall attach to the monitoring program an example Chain of Custody form used when handling and shipping samples.

      iii. Identification of the analytical methods and related method detection limits (if applicable) for each parameter required in Section I.4 above.

   b. Risk Level 3 dischargers shall ensure that all sampling and sample preservation are in accordance with the current edition of "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association). All monitoring instruments and equipment (including a discharger's own field instruments for measuring pH and turbidity) should be calibrated and maintained in accordance with manufacturers' specifications to ensure accurate measurements. Risk Level 3 dischargers shall ensure that all laboratory analyses are conducted according to test procedures under 40 CFR Part 136, unless other test procedures have been specified in this General Permit or by the Regional Water Board. With the exception of field analysis conducted by the discharger for turbidity and pH, all analyses should be sent to and conducted at a laboratory certified for such analyses by the State Department of Health Services (SSC exception). Risk Level 3 dischargers shall conduct their own field analysis of pH and may conduct their own field analysis of turbidity if the discharger has sufficient capability (qualified and trained employees, properly calibrated and maintained field instruments, etc.) to adequately perform the field analysis.

9. **Risk Level 3 – Analytical Methods**

   a. Risk Level 3 dischargers shall refer to Table 3 below for test methods, detection limits, and reporting units.

b. **pH**: Risk Level 3 dischargers shall perform pH analysis on-site with a calibrated pH meter or a pH test kit. Risk Level 3 dischargers shall record pH monitoring results on paper and retain these records in accordance with Section I.14, below.

c. **Turbidity**: Risk Level 3 dischargers shall perform turbidity analysis using a calibrated turbidity meter (turbidimeter), either on-site or at an accredited lab. Acceptable test methods include Standard Method 2130 or USEPA Method 180.1. The results will be recorded in the site log book in Nephelometric Turbidity Units (NTU).

d. **Suspended sediment concentration (SSC)**: Risk Level 3 dischargers that exceed the turbidity Receiving Water Monitoring Trigger shall perform SSC analysis using ASTM Method D3977-97.

e. **Bioassessment**: Risk Level 3 dischargers shall perform bioassessment sampling and analysis according to Appendix 3 of this General Permit.

10. **Risk Level 3 - Non-Storm Water Discharge Monitoring Requirements**

a. Visual Monitoring Requirements:

i. Risk Level 3 dischargers shall visually observe (inspect) each drainage area for the presence of (or indications of prior) unauthorized and authorized non-storm water discharges and their sources.

ii. Risk Level 3 dischargers shall conduct one visual observation (inspection) quarterly in each of the following periods: January-March, April-June, July-September, and October-December. Visual observation (inspections) are only required during daylight hours (sunrise to sunset).

iii. Risk Level 3 dischargers shall ensure that visual observations (inspections) document the presence or evidence of any non-storm water discharge (authorized or unauthorized), pollutant characteristics (floating and suspended material, sheen, discoloration, turbidity, odor, etc.), and source. Risk Level 3 dischargers shall maintain on-site records indicating the personnel performing the visual observation (inspections), the dates and approximate time each drainage area and non-storm water discharge was observed, and the response taken to eliminate unauthorized non-storm water discharges and to

reduce or prevent pollutants from contacting non-storm water discharges.

b. Effluent Sampling Locations:

i. Risk Level 3 dischargers shall sample effluent at all discharge points where non-storm water and/or authorized non-storm water is discharged off-site.

ii. Risk Level 3 dischargers shall send all non-storm water sample analyses to a laboratory certified for such analyses by the State Department of Health Services.

iii. Risk Level 3 dischargers shall monitor and report run-on from surrounding areas if there is reason to believe run-on may contribute to an exceedance of NALs.

11. **Risk Level 3 – Non-Visible Pollutant Monitoring Requirements**

a. Risk Level 3 dischargers shall collect one or more samples during any breach, malfunction, leakage, or spill observed during a visual inspection which could result in the discharge of pollutants to surface waters that would not be visually detectable in storm water.

b. Risk Level 3 dischargers shall ensure that water samples are large enough to characterize the site conditions.

c. Risk Level 3 dischargers shall collect samples at all discharge locations that can be safely accessed.

d. Risk Level 3 dischargers shall collect samples during the first two hours of discharge from rain events that occur during business hours and which generate runoff.

e. Risk Level 3 dischargers shall analyze samples for all non-visible pollutant parameters (if applicable) - parameters indicating the presence of pollutants identified in the pollutant source assessment required (Risk Level 3 dischargers shall modify their CSMPs to address these additional parameters in accordance with any updated SWPPP pollutant source assessment).

f. Risk Level 3 dischargers shall collect a sample of storm water that has not come in contact with the disturbed soil or the materials stored or used on-site (uncontaminated sample) for comparison with the discharge sample.

g. Risk Level 3 dischargers shall compare the uncontaminated sample to the samples of discharge using field analysis or through laboratory analysis.[7]

h. Risk Level 3 dischargers shall keep all field /or analytical data in the SWPPP document.

12. **Risk Level 3 – Watershed Monitoring Option**

Risk Level 3 dischargers who are part of a qualified regional watershed-based monitoring program may be eligible for relief from the requirements in Sections I.5. The Regional Water Board may approve proposals to substitute an acceptable watershed-based monitoring program by determining if the watershed-based monitoring program will provide substantially similar monitoring information in evaluating discharger compliance with the requirements of this General Permit.

13. **Risk Level 3 – Particle Size Analysis for Project Risk Justification**

Risk Level 3 dischargers justifying an alternative project risk shall report a soil particle size analysis used to determine the RUSLE K-Factor. ASTM D-422 (Standard Test Method for Particle-Size Analysis of Soils), as revised, shall be used to determine the percentages of sand, very fine sand, silt, and clay on the site.

14. **Risk Level 3 – Records**

Risk Level 3 dischargers shall retain records of all storm water monitoring information and copies of all reports (including Annual Reports) for a period of at least three years. Risk Level 3 dischargers shall retain all records on-site while construction is ongoing. These records include:

a. The date, place, time of facility inspections, sampling, visual observation (inspections), and/or measurements, including precipitation.

b. The individual(s) who performed the facility inspections, sampling, visual observation (inspections), and or measurements.

c. The date and approximate time of analyses.

[7] For laboratory analysis, all sampling, sample preservation, and analyses must be conducted according to test procedures under 40 CFR Part 136. Field discharge samples shall be collected and analyzed according to the specifications of the manufacturer of the sampling devices employed.

d. The individual(s) who performed the analyses.

e. A summary of all analytical results from the last three years, the method detection limits and reporting units, the analytical techniques or methods used, and the chain of custody forms.

f. Rain gauge readings from site inspections.

g. Quality assurance/quality control records and results.

h. Non-storm water discharge inspections and visual observation (inspections) and storm water discharge visual observation records (see Sections I.3 and I.10 above).

i. Visual observation and sample collection exception records (see Section I.6 above).

j. The records of any corrective actions and follow-up activities that resulted from analytical results, visual observation (inspections), or inspections.

15. **Risk Level 3 – NAL Exceedance Report**

a. Risk Level 3 dischargers shall electronically submit all storm event sampling results to the State Water Board no later than 10 days after the conclusion of the storm event. The Regional Boards have the authority to require the submittal of an NAL Exceedance Report.

b. Risk Level 3 dischargers shall certify each NAL Exceedance Report in accordance with the Special Provisions for Construction Activity In this General Permit.

c. Risk Level 3 dischargers shall retain an electronic or paper copy of each NAL Exceedance Report for a minimum of three years after the date the annual report is filed.

d. Risk Level 3 dischargers shall include in the NAL Exceedance Report:

i. The analytical method(s), method reporting unit(s), and method detection limit(s) of each analytical parameter (analytical results that are less than the method detection limit shall be reported as “less than the method detection limit”).

ii. The date, place, time of sampling, visual observation (inspections), and/or measurements, including precipitation.

iii. A description of the current BMPs associated with the effluent sample that exceeded the NAL and the proposed corrective actions taken.

16. **Risk Level 3 – Bioassessment**

a. Risk Level 3 dischargers with a total project-related ground disturbance exceeding 30 acres shall:

i. Conduct bioassessment monitoring, as described in Appendix 3.

ii. Include the collection and reporting of specified in stream biological data and physical habitat.

iii. Use the bioassessment sample collection and Quality Assurance & Quality Control (QA/QC) protocols developed by the State of California's Surface Water Ambient Monitoring Program (SWAMP).[8]

b. Risk Level 3 dischargers qualifying for bioassessment, where construction commences out of an index period for the site location shall:

i. Receive Regional Board approval for the sampling exception.

ii. Conduct bioassessment monitoring, as described in Appendix 3.

iii. Include the collection and reporting of specified instream biological data and physical habitat.

iv. Use the bioassessment sample collection and Quality Assurance & Quality Control (QA/QC) protocols developed by the State of California's Surface Water Ambient Monitoring Program (SWAMP).

OR

v. Make a check payable to: Cal State Chico Foundation (SWAMP Bank Account) or San Jose State Foundation (SWAMP Bank Account) and include the WDID# on the check for the amount calculated for the exempted project.

[8] http://www.waterboards.ca.gov/water_issues/programs/swamp/.

vi. Send a copy of the check to the Regional Water Board office for the site's region.

vii. Invest $**7,500.00 X The number of samples required** into the SWAMP program as compensation (upon regional board approval).

Table 3 – Risk Level 3 Test Methods, Detection Limits, Reporting Units and Applicable NALs

Parameter	Test Method / Protocol	Discharge Type	Min. Detection Limit	Reporting Units	Numeric Action Level	Numeric Effluent Limitation	Receiving Water Monitoring Trigger
pH	Field test with calibrated portable instrument	Risk Level 3 Discharges	0.2	pH units	lower NAL = 6.5 upper NAL = 8.5	N/A	lower limit = 6.0 upper limit = 9.0
Turbidity	EPA 0180.1 and/or field test with calibrated portable instrument	Risk Level 3 Discharges other than ATS	1	NTU	250 NTU	N/A	500 NTU
		For ATS discharges	1	NTU	N/A	10 NTU for Daily Weighted Average & 20 NTU for Any Single Sample	10 NTU for Daily Weighted Average & 20 NTU for Any Single Sample
SSC	ASTM Method D 3977-97[9]	Risk Level 3 (if Receiving Water Monitoring Trigger exceeded)	5	mg/L	N/A	N/A	N/A
Bioassessment	(STE) Level I of (SAFIT),[10] fixed-count of 600 org/sample	Risk Level 3 projects> 30 acres	N/A	N/A	N/A	N/A	N/A

[9] ASTM, 1999, Standard Test Method for Determining Sediment Concentration in Water Samples: American Society of Testing and Materials, D 3977-97, Vol. 11.02, pp. 389-394.

[10] The current SAFIT STEs (28 November 2006) list requirements for both the Level I and Level II taxonomic effort, and are located at: http://www.swrcb.ca.gov/swamp/docs/safit/ste_list.pdf. When new editions are published by SAFIT, they will supersede all previous editions. All editions will be posted at the State Water Board's SWAMP website.

ATTACHMENT F:
Active Treatment System (ATS) Requirements

Table 1 – Numeric Effluent Limitations, Numeric Action Levels, Test Methods, Detection Limits, and Reporting Units

Parameter	Test Method	Discharge Type	Min. Detection Limit	Units	Numeric Action Level	Numeric Effluent Limitation
Turbidity	EPA 0180.1 and/or field test with a calibrated portable instrument	For ATS discharges	1	NTU	N/A	10 NTU for Daily Flow-Weighted Average & 20 NTU for Any Single Sample

A. Dischargers choosing to implement an Active Treatment System (ATS) on their site shall comply with all of the requirements in this Attachment.

B. The discharger shall maintain a paper copy of each ATS specification onsite in compliance with the record retention requirements in the Special Provisions of this General Permit.

C. ATS Design, Operation and Submittals

1. The ATS shall be designed and approved by a Certified Professional in Erosion and Sediment Control (CPESC), a Certified Professional in Storm Water Quality (CPSWQ); a California registered civil engineer; or any other California registered engineer.

2. The discharger shall ensure that the ATS is designed in a manner to preclude the accidental discharge of settled floc[1] during floc pumping or related operations.

3. The discharger shall design outlets to dissipate energy from concentrated flows.

4. The discharger shall install and operate an ATS by assigning a lead person (or project manager) who has either a minimum of five years construction storm

[1] Floc is defined as a clump of solids formed by the chemical action in ATS systems.

water experience or who is a licensed contractors specifically holding a California Class A Contractors license.[2]

5. The discharger shall prepare an ATS Plan that combines the site-specific data and treatment system information required to safely and efficiently operate an ATS. The ATS Plan shall be electronically submitted to the State Water Board at least 14 days prior to the planned operation of the ATS and a paper copy shall be available onsite during ATS operation. At a minimum, the ATS Plan shall include:

   a. ATS Operation and Maintenance Manual for All Equipment.

   b. ATS Monitoring, Sampling & Reporting Plan, including Quality Assurance/Quality Control (QA/QC).

   c. ATS Health and Safety Plan.

   d. ATS Spill Prevention Plan.

6. The ATS shall be designed to capture and treat (within a 72-hour period) a volume equivalent to the runoff from a 10-year, 24-hour storm event using a watershed runoff coefficient of 1.0.

D. Treatment – Chemical Coagulation/Flocculation

1. Jar tests shall be conducted using water samples selected to represent typical site conditions and in accordance with ASTM D2035-08 (2003).

2. The discharger shall conduct, at minimum, six site-specific jar tests (per polymer with one test serving as a control) for each project to determine the proper polymer and dosage levels for their ATS.

3. Single field jar tests may also be conducted during a project if conditions warrant, for example if construction activities disturb changing types of soils, which consequently cause change in storm water and runoff characteristics.

E. Residual Chemical and Toxicity Requirements

1. The discharger shall utilize a residual chemical test method that has a method detection limit (MDL) of 10% or less than the maximum allowable threshold

[2] Business and Professions Code Division 3, Chapter 9, Article 4, Class A Contractor: A general engineering contractor is a contractor whose principal contracting business is in connection with fixed works requiring specialized engineering knowledge and skill. [http://www.cslb.ca.gov/General-Information/library/licensing-classifications.asp].

concentration[3] (MATC) for the specific coagulant in use and for the most sensitive species of the chemical used.

2. The discharger shall utilize a residual chemical test method that produces a result within one hour of sampling.

3. The discharger shall have a California State certified laboratory validate the selected residual chemical test. Specifically the lab will review the test protocol, test parameters, and the detection limit of the coagulant. The discharger shall electronically submit this documentation as part of the ATS Plan.

4. If the discharger cannot utilize a residual chemical test method that meets the requirements above, the discharger shall operate the ATS in Batch Treatment[4] mode.

5. A discharger planning to operate in Batch Treatment mode shall perform toxicity testing in accordance with the following:

   a. The discharger shall initiate acute toxicity testing on effluent samples representing effluent from each batch prior to discharge[5]. All bioassays shall be sent to a laboratory certified by the Department of Health Services (DHS) Environmental Laboratory Accreditation Program (ELAP). The required field of testing number for Whole Effluent Toxicity (WET) testing is E113.[6]

   b. Acute toxicity tests shall be conducted with the following species and protocols. The methods to be used in the acute toxicity testing shall be those outlined for a 96-hour acute test in "Methods for Measuring the Acute Toxicity of Effluents and Receiving Water to Freshwater and Marine Organisms, USEPA-841-R-02-012" for Fathead minnow, *Pimephales promelas* (fathead minnow). Acute toxicity for *Oncorhynchus mykiss* (Rainbow Trout) may be used as a substitute for testing fathead minnows.

   c. All toxicity tests shall meet quality assurance criteria and test acceptability criteria in the most recent versions of the EPA test method for WET testing.

   d. The discharger shall electronically report all acute toxicity testing.

[3] The Maximum Allowable Threshold Concentration (MATC) is the allowable concentration of residual, or dissolved, coagulant/flocculant in effluent. The MATC shall be coagulant/flocculant-specific, and based on toxicity testing conducted by an independent, third-party laboratory. A typical MATC would be:
The MATC is equal to the geometric mean of the NOEC (No Observed Effect Concentration) and LOEC (Lowest Observed Effect Concentration) Acute and Chronic toxicity results for most sensitive species determined for the specific coagulant. The most sensitive species test shall be used to determine the MATC.

[4] Batch Treatment mode is defined as holding or recirculating the treated water in a holding basin or tank(s) until treatment is complete or the basin or storage tank(s) is full.

[5] This requirement only requires that the test be initiated prior to discharge.

[6] http://www.dhs.ca.gov/ps/ls/elap/pdf/FOT_Desc.pdf.

F. Filtration

1. The ATS shall include a filtration step between the coagulant treatment train and the effluent discharge. This is commonly provided by sand, bag, or cartridge filters, which are sized to capture suspended material that might pass through the clarifier tanks.

2. Differential pressure measurements shall be taken to monitor filter loading and confirm that the final filter stage is functioning properly.

G. Residuals Management

1. Sediment shall be removed from the storage or treatment cells as necessary to ensure that the cells maintain their required water storage (i.e., volume) capability.

2. Handling and disposal of all solids generated during ATS operations shall be done in accordance with all local, state, and federal laws and regulations.

H. ATS Instrumentation

1. The ATS shall be equipped with instrumentation that automatically measures and records effluent water quality data and flow rate.

2. The minimum data recorded shall be consistent with the Monitoring and Reporting requirements below, and shall include:

    a. Influent Turbidity

    b. Effluent Turbidity

    c. Influent pH

    d. Effluent pH

    e. Residual Chemical

    f. Effluent Flow rate

    g. Effluent Flow volume

3. Systems shall be equipped with a data recording system, such as data loggers or webserver-based systems, which records each measurement on a frequency no longer than once every 15 minutes.

4. Cumulative flow volume shall be recorded daily. The data recording system shall have the capacity to record a minimum of seven days continuous data.

5. Instrumentation systems shall be interfaced with system control to provide auto shutoff or recirculation in the event that effluent measurements exceed turbidity or pH.

6. The system shall also assure that upon system upset, power failure, or other catastrophic event, the ATS will default to a recirculation mode or safe shut down.

7. Instrumentation (flow meters, probes, valves, streaming current detectors, controlling computers, etc.) shall be installed and maintained per manufacturer's recommendations, which shall be included in the QA/QC plan.

8. The QA/QC plan shall also specify calibration procedures and frequencies, instrument method detection limit or sensitivity verification, laboratory duplicate procedures, and other pertinent procedures.

9. The instrumentation system shall include a method for controlling coagulant dose, to prevent potential overdosing. Available technologies include flow/turbidity proportional metering, periodic jar testing and metering pump adjustment, and ionic charge measurement controlling the metering pump.

I. ATS Effluent Discharge

1. ATS effluent shall comply with all provisions and prohibitions in this General Permit, specifically the NELs.

2. NELs for discharges from an ATS:

   a. Turbidity of all ATS discharges shall be less than 10 NTU for daily flow-weighted average of all samples and 20 NTU for any single sample.

   b. Residual Chemical shall be < 10% of MATC[7] for the most sensitive species of the chemical used.

[7] The Maximum Allowable Threshold Concentration (MATC) is the allowable concentration of residual, or dissolved, coagulant/flocculant in effluent. The MATC shall be coagulant/flocculant-specific, and based on toxicity testing conducted by an independent, third-party laboratory. The MATC is equal to the geometric mean of the NOEC (No Observed Effect Concentration) and LOEC (Lowest Observed Effect Concentration) Acute and Chronic toxicity results for most sensitive species determined for the specific coagulant. The most sensitive species test shall be used to determine the MATC.

3. If an analytical effluent sampling result exceeds the turbidity NEL (as listed in Table 1), the discharger is in violation of this General Permit and shall electronically file the results in violation within 24-hours of obtaining the results.

4. If ATS effluent is authorized to discharge into a sanitary sewer system, the discharger shall comply with any pre-treatment requirements applicable for that system. The discharger shall include any specific criteria required by the municipality in the ATS Plan.

5. Compliance Storm Event:

   Discharges of storm water from ATS shall comply with applicable NELs (above) unless the storm event causing the discharges is determined after the fact to be equal to or larger than the Compliance Storm Event (expressed in inches of rainfall). The Compliance Storm Event for ATS discharges is the 10 year, 24 hour storm, as determined using these maps:

   http://www.wrcc.dri.edu/pcpnfreq/nca10y24.gif
   http://www.wrcc.dri.edu/pcpnfreq/sca10y24.gif

   This exemption is dependent on the submission of rain gauge data verifying the storm event is equal to or larger than the Compliance Storm.

J. Operation and Maintenance Plan

1. Each Project shall have a site-specific Operation and Maintenance (O&M) Manual covering the procedures required to install, operate and maintain the ATS.[8]

2. The O&M Manual shall only be used in conjunction with appropriate project-specific design specifications that describe the system configuration and operating parameters.

3. The O&M Manual shall have operating manuals for specific pumps, generators, control systems,and other equipment.

K. Sampling and Reporting Quality Assurance/ Quality Check (QA/QC) Plan

4. A project-specific QA/QC Plan shall be developed for each project. The QA/QC Plan shall include at a minimum:

   a. Calibration – Calibration methods and frequencies for all system and field instruments shall be specified.

[8] The manual is typically in a modular format covering generalized procedures for each component that is utilized in a particular system.

b. Method Detection Limits (MDLs) – The methods for determining MDLs shall be specified for each residual coagulant measurement method. Acceptable minimum MDLs for each method, specific to individual coagulants, shall be specified.

c. Laboratory Duplicates – Requirements for monthly laboratory duplicates for residual coagulant analysis shall be specified.

L. Personnel Training

1. Operators shall have training specific to using an ATS and liquid coagulants for storm water discharges in California.

2. The training shall be in the form of a formal class with a certificate and requirements for testing and certificate renewal.

3. Training shall include a minimum of eight hours classroom and 32 hours field training. The course shall cover the following topics:

   a. Coagulation Basics –Chemistry and physical processes

   b. ATS System Design and Operating Principles

   c. ATS Control Systems

   d. Coagulant Selection – Jar testing, dose determination, etc.

   e. Aquatic Safety/Toxicity of Coagulants, proper handling and safety

   f. Monitoring, Sampling, and Analysis

   g. Reporting and Recordkeeping

   h. Emergency Response

M. Active Treatment System (ATS) Monitoring Requirements

Any discharger who deploys an ATS on their site shall conduct the following:

1. Visual Monitoring

   a. A designated responsible person shall be on site daily at all times during treatment operations.

b. Daily on-site visual monitoring of the system for proper performance shall be conducted and recorded in the project data log.

   i. The log shall include the name and phone number of the person responsible for system operation and monitoring.

   ii. The log shall include documentation of the responsible person's training.

2. Operational and Compliance Monitoring

   a. Flow shall be continuously monitored and recorded at not greater than 15-minute intervals for total volume treated and discharged.

   b. Influent and effluent pH must be continuously monitored and recorded at not greater than 15-minute intervals.

   c. Influent and effluent turbidity (expressed in NTU) must be continuously monitored and recorded at not greater than 15-minute intervals.

   d. The type and amount of chemical used for pH adjustment, if any, shall be monitored and recorded.

   e. Dose rate of chemical used in the ATS system (expressed in mg/L) shall be monitored and reported 15-minutes after startup and every 8 hours of operation.

   f. Laboratory duplicates – monthly laboratory duplicates for residual coagulant analysis must be performed and records shall be maintained onsite.

   g. Effluent shall be monitored and recorded for residual chemical/additive levels.

   h. If a residual chemical/additive test does not exist and the ATS is operating in a batch treatment mode of operation refer to the toxicity monitoring requirements below.

3. Toxicity Monitoring

   A discharger operating in batch treatment mode shall perform toxicity testing in accordance with the following:

   a. The discharger shall initiate acute toxicity testing on effluent samples representing effluent from each batch prior to discharge.[9] All bioassays shall be sent to a laboratory certified by the Department of Health Services (DHS)

[9] This requirement only requires that the test be initiated prior to discharge.

Environmental Laboratory Accreditation Program (ELAP). The required field of testing number for Whole Effluent Toxicity (WET) testing is E113.[10]

b. Acute toxicity tests shall be conducted with the following species and protocols. The methods to be used in the acute toxicity testing shall be those outlined for a 96-hour acute test in "Methods for Measuring the Acute Toxicity of Effluents and Receiving Water to Freshwater and Marine Organisms, USEPA-841-R-02-012" for Fathead minnow, *Pimephales promelas or* Rainbow trout *Oncorhynchus mykiss* may be used as a substitute for fathead minnow.

c. All toxicity tests shall meet quality assurance criteria and test acceptability criteria in the most recent versions of the EPA test method for WET testing.[11]

4. Reporting and Recordkeeping

At a minimum, every 30 days a LRP representing the discharger shall access the State Water Boards Storm Water Mulit-Application and Report Tracking system (SMARTS) and electronically upload field data from the ATS. Records must be kept for three years after the project is completed .

5. Non-compliance Reporting

a. Any indications of toxicity or other violations of water quality objectives shall be reported to the appropriate regulatory agency as required by this General Permit.

b. Upon any measurements that exceed water quality standards, the system operator shall immediately notify his supervisor or other responsible parties, who shall notify the Regional Water Board.

c. If any monitoring data exceeds any applicable NEL in this General Permit, the discharger shall electronically submit a NEL Violation Report to the State Water Board within 24 hours after the NEL exceedance has been identified.

i. ATS dischargers shall certify each NEL Violation Report in accordance with the Special Provisions for Construction Activity in this General Permit.

ii. ATS dischargers shall retain an electronic or paper copy of each NEL Violation Report for a minimum of three years after the date the annual report is filed.

iii. ATS dischargers shall include in the NEL Violation Report:

[10] http://www.dhs.ca.gov/ps/ls/elap/pdf/FOT_Desc.pdf.
[11] http://www.epa.gov/waterscience/methods/wet/.

(1) The analytical method(s), method reporting unit(s), and method detection limit(s) of each analytical parameter (analytical results that are less than the method detection limit shall be reported as “less than the method detection limit”);

(2) The date, place, time of sampling, visual observation (inspections), and/or measurements, including precipitation; and

(3) A description of the current onsite BMPs, and the proposed corrective actions taken to manage the NEL exceedance.

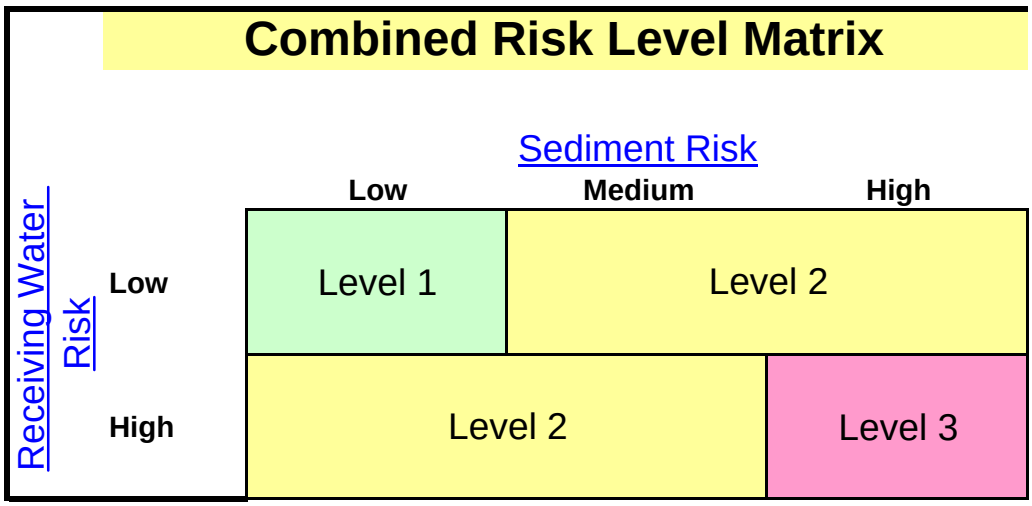
iv. Compliance Storm Exemption - In the event that an applicable NEL has been exceeded during a storm event equal to or larger than the Compliance Storm Event, ATS dischargers shall report the on-site rain gauge reading and nearby governmental rain gauge readings for verification.

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Version 8/17/2011												
2		**Risk Determination Worksheet**											
3													
4			**Step 1**	Determine Sediment Risk via one of the options listed:									
5				1. GIS Map Method - EPA Rainfall Erosivity Calculator & GIS map									
6				2. Individual Method - EPA Rainfall Erosivity Calculator & Individual Data									
7			**Step 2**	Determine Receiving Water Risk via one of the options listed:									
8				1. GIS map of Sediment Sensitive Watersheds provided									
9				2. Site Specific Analysis (support documentation required)									
10			**Step 3**	Determine Combined Risk Level									
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													

	A	B	C
1	**Sediment Risk Factor Worksheet**		**Entry**
2	**A) R Factor**		
3	Analyses of data indicated that when factors other than rainfall are held constant, soil loss is directly proportional to a rainfall factor composed of total storm kinetic energy (E) times the maximum 30-min intensity (I30) (Wischmeier and Smith, 1958). The numerical value of R is the average annual sum of EI30 for storm events during a rainfall record of at least 22 years. "Isoerodent" maps were developed based on R values calculated for more than 1000 locations in the Western U.S. Refer to the link below to determine the R factor for the project site.		
4	http://cfpub.epa.gov/npdes/stormwater/LEW/lewCalculator.cfm		
5	**R Factor Value**		0
6	**B) K Factor (weighted average, by area, for all site soils)**		
7	The soil-erodibility factor K represents: (1) susceptibility of soil or surface material to erosion, (2) transportability of the sediment, and (3) the amount and rate of runoff given a particular rainfall input, as measured under a standard condition Fine-textured soils that are high in clay have low K values (about 0.05 to 0.15) because the particles are resistant to detachment. Coarse-textured soils, such as sandy soils, also have low K values (about 0.05 to 0.2) because of high infiltration resulting in low runoff even though these particles are easily detached. Medium-textured soils, such as a silt loam, have moderate K values (about 0.25 to 0.45) because they are moderately susceptible to particle detachment and they produce runoff at moderate rates. Soils having a high silt content are especially susceptible to erosion and have high K values, which can exceed 0.45 and can be as large as 0.65. Silt-size particles are easily detached and tend to crust, producing high rates and large volumes of runoff. Use Site-specific data must be submitted.		
8	Site-specific K factor guidance		
9	**K Factor Value**		0
10	**C) LS Factor (weighted average, by area, for all slopes)**		
11	The effect of topography on erosion is accounted for by the LS factor, which combines the effects of a hillslope-length factor, L, and a hillslope-gradient factor, S. Generally speaking, as hillslope length and/or hillslope gradient increase, soil loss increases. As hillslope length increases, total soil loss and soil loss per unit area increase due to the progressive accumulation of runoff in the downslope direction. As the hillslope gradient increases, the velocity and erosivity of runoff increases. Use the LS table located in separate tab of this spreadsheet to determine LS factors. Estimate the weighted LS for the site prior to construction.		
12	LS Table		
13	**LS Factor Value**		0
14			
15	**Watershed Erosion Estimate (=RxKxLS) in tons/acre**		0
16	**Site Sediment Risk Factor**		**Low**
17	Low Sediment Risk: < 15 tons/acre		
18	Medium Sediment Risk: >=15 and <75 tons/acre		
19	High Sediment Risk: >= 75 tons/acre		
20			
21			
22			
23	**GIS Map Method:**		
24	**1.** The R factor for the project is calculated using the online calculator at:		
25	http://cfpub.epa.gov/npdes/stormwater/LEW/lewCalculator.cfm		
26			
27	**2.** The K and LS factors may be obtained by accessing the GIS maps located on the State Water Board FTP website at:		
28	ftp://swrcb2a.waterboards.ca.gov/pub/swrcb/dwq/cgp/Risk/		
29			

Receiving Water (RW) Risk Factor Worksheet	Entry	Score
A. Watershed Characteristics	**yes/no**	
A.1. Does the disturbed area discharge (either directly or indirectly) to a **303(d)-listed waterbody impaired by sediment** (For help with impaired waterbodies please visit the link below) or has a **USEPA approved TMDL implementation plan for sediment**?:	**no**	**Low**
http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml		
OR		
A.2. Does the disturbed area discharge to a waterbody with designated beneficial uses of SPAWN & COLD & MIGRATORY? (For help please review the appropriate Regional Board Basin Plan)		
http://www.waterboards.ca.gov/waterboards_map.shtml		
Region 1 Basin Plan		
Region 2 Basin Plan		
Region 3 Basin Plan		
Region 4 Basin Plan		
Region 5 Basin Plan		
Region 6 Basin Plan		
Region 7 Basin Plan		
Region 8 Basin Plan		
Region 9 Basin Plan		

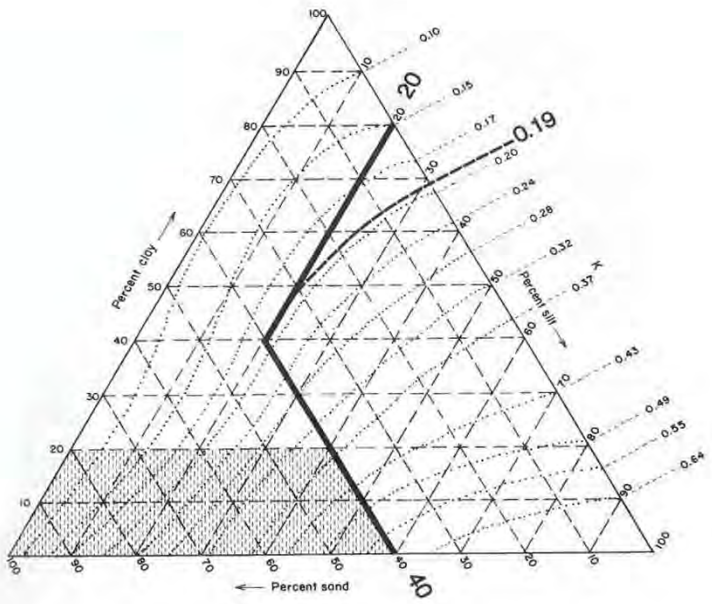
Combined Risk Level Matrix



Project Sediment Risk:	**Low**
Project RW Risk:	**Low**
Project Combined Risk:	**Level 1**

Soil Erodibility Factor (K)

The K factor can be determined by using the nomograph method, which requires that a particle size analysis (ASTM D-422) be done to determine the percentages of sand, very fine sand, silt and clay. Use the figure below to determine appropriate K value.



Erickson triangular nomograph used to estimate soil erodibility (K) factor.
The figure above is the USDA nomograph used to determine the K factor for a soil, based on its texture (% silt plus very fine sand, % sand, % organic matter, soil structure, and permeability). *Nomograph from Erickson 1977 as referenced in Goldman et. al., 1986.*

Sheet Flow Length (ft)	Average Watershed Slope (%)																		
	0.2	**0.5**	**1.0**	**2.0**	**3.0**	**4.0**	**5.0**	**6.0**	**8.0**	**10.0**	**12.0**	**14.0**	**16.0**	**20.0**	**25.0**	**30.0**	**40.0**	**50.0**	**60.0**
<3	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32	0.35	0.36	0.38	0.39	0.41	0.45	0.48	0.53	0.58	0.63
6	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32	0.37	0.41	0.45	0.49	0.56	0.64	0.72	0.85	0.97	1.07
9	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32	0.38	0.45	0.51	0.56	0.67	0.80	0.91	1.13	1.31	1.47
12	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32	0.39	0.47	0.55	0.62	0.76	0.93	1.08	1.37	1.62	1.84
15	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32	0.40	0.49	0.58	0.67	0.84	1.04	1.24	1.59	1.91	2.19
25	0.05	0.07	0.10	0.16	0.21	0.26	0.31	0.36	0.45	0.57	0.71	0.85	0.98	1.24	1.56	1.86	2.41	2.91	3.36
50	0.05	0.08	0.13	0.21	0.30	0.38	0.46	0.54	0.70	0.91	1.15	1.40	1.64	2.10	2.67	3.22	4.24	5.16	5.97
75	0.05	0.08	0.14	0.25	0.36	0.47	0.58	0.69	0.91	1.20	1.54	1.87	2.21	2.86	3.67	4.44	5.89	7.20	8.37
100	0.05	0.09	0.15	0.28	0.41	0.55	0.68	0.82	1.10	1.46	1.88	2.31	2.73	3.57	4.59	5.58	7.44	9.13	10.63
150	0.05	0.09	0.17	0.33	0.50	0.68	0.86	1.05	1.43	1.92	2.51	3.09	3.68	4.85	6.30	7.70	10.35	12.75	14.89
200	0.06	0.10	0.18	0.37	0.57	0.79	1.02	1.25	1.72	2.34	3.07	3.81	4.56	6.04	7.88	9.67	13.07	16.16	18.92
250	0.06	0.10	0.19	0.40	0.64	0.89	1.16	1.43	1.99	2.72	3.60	4.48	5.37	7.16	9.38	11.55	15.67	19.42	22.78
300	0.06	0.10	0.20	0.43	0.69	0.98	1.28	1.60	2.24	3.09	4.09	5.11	6.15	8.23	10.81	13.35	18.17	22.57	26.51
400	0.06	0.11	0.22	0.48	0.80	1.14	1.51	1.90	2.70	3.75	5.01	6.30	7.60	10.24	13.53	16.77	22.95	28.60	33.67
600	0.06	0.12	0.24	0.56	0.96	1.42	1.91	2.43	3.52	4.95	6.67	8.45	10.26	13.94	18.57	23.14	31.89	39.95	47.18
800	0.06	0.12	0.26	0.63	1.10	1.65	2.25	2.89	4.24	6.03	8.17	10.40	12.69	17.35	23.24	29.07	40.29	50.63	59.93
1000	0.06	0.13	0.27	0.69	1.23	1.86	2.55	3.30	4.91	7.02	9.57	12.23	14.96	20.57	27.66	34.71	48.29	60.84	72.15

LS Factors for Construction Sites. *Table from Renard et. al., 1997.*

APPENDIX 2:
Post-Construction Water Balance Performance Standard Spreadsheet

The discharger shall submit with their Notice of Intent (NOI) the following information to demonstrate compliance with the New and Re-Development Water Balance Performance Standard.

Map Instructions

The discharger must submit a small-scale topographic map of the site to show the existing contour elevations, pre- and post-construction drainage divides, and the total length of stream in each watershed area. Recommended scales include 1 in. = 20 ft., 1 in. = 30 ft., 1 in. = 40 ft., or 1 in = 50 ft. The suggested contour interval is usually 1 to 5 feet, depending upon the slope of the terrain. The contour interval may be increased on steep slopes. Other contour intervals and scales may be appropriate given the magnitude of land disturbance.

Spreadsheet Instructions

The intent of the spreadsheet is to help dischargers calculate the project-related increase in runoff volume and select impervious area and runoff reduction credits to reduce the project-related increase in runoff volume to pre-project levels.

The discharger has the option of using the spreadsheet (**Appendix 2.1)** or a more sophisticated, watershed process-based model (e.g. Storm Water Management Model, Hydrological Simulation Program Fortran) to determine the project-related increase in runoff volume.

In* Appendix 4.1**, ***you must complete the worksheet for each land use/soil type combination for each project sub-watershed.

Steps 1 through 9 pertain specifically to the Runoff Volume Calculator:

Step 1: Enter the county where the project is located in cell H3.

Step 2: Enter the soil type in cell H6.

Step 3: Enter the existing pervious (dominant) land use type in cell H7.

Step 4: Enter the proposed pervious (dominant) land use type in cell H8.

Step 5: Enter the total project site area in cell H11 or J11.

Step 6: Enter the sub-watershed area in cell H12 or J12.

Step 7: Enter the existing rooftop area in cell H17 or J17, the existing non-rooftop impervious area in cell H18 or J18, the proposed rooftop area in cell H19 or J19, and the proposed non-rooftop impervious area in cell H20 or J20

Step 8: Work through each of the impervious area reduction credits and claim credits where applicable. Volume that cannot be addressed using non-structural practices must be captured in structural practices and approved by the Regional Water Board.

Step 9: Work through each of the impervious volume reduction credits and claim credits where applicable. Volume that cannot be addressed using non-structural practices must be captured in structural practices and approved by the Regional Water Board.

Non-structural Practices Available for Crediting

- ***Porous Pavement***
- ***Tree Planting***
- ***Downspout Disconnection***
- ***Impervious Area Disconnection***
- ***Green Roof***
- ***Stream Buffer***
- ***Vegetated Swales***
- ***Rain Barrels and Cisterns***
- ***Landscaping Soil Quality***

Post-Construction Water Balance Calculator

User may make changes from any cell that is orange or brown in color (similar to the cells to the immediate right). Cells in green are calculated for you.

(Step 1a) If you know the 85th percentile storm event for your location enter it in the box below

(Step 1b) If you can not answer 1a then select the county where the project is located (click on the cell to the right for drop-down): This will determine the average 85th percentile 24 hr. storm event for your site, which will appear under precipitation to left.

SACRAMENTO

(Step 1c) If you would like a more percise value select the location closest to your site. If you do not recgonize any of these locations, leave this drop-down menu at location. The average value for the County will be used.

SACRAMENTO FAA ARPT

Project Information

Project Name:	***Optional***
Waste Discharge Identification (WDID):	***Optional***
Date:	***Optional***
Sub Drainage Area Name (from map):	***Optional***

Runoff Curve Numbers

Existing Pervious Runoff Curve Number	**82**
Proposed Development Pervious Runoff Curve Number	**74**

Design Storm

Based on the County you indicated above, we have included the 85 percentile average 24 hr event - P85 (in)^ for your area.	**0.62**	**in**
The Amount of rainfall needed for runoff to occur (Existing runoff curve number -P from existing RCN (in)^)	**0.44**	**In**
P used for calculations (in) (the greater of the above two criteria)	**0.62**	**In**

^Available at www.cabmphandbooks.com

Pre-Project Runoff Volume (cu ft)	**247**	**Cu.Ft.**
Project-Related Runoff Volume Increase w/o credits (cu ft)	**0**	**Cu.Ft.**
Project-Related Volume Increase with Credits (cu ft)	**0**	**Cu.Ft.**

You have achieved your minimum requirements

Runoff Calculations

(Step 2) Indicate the Soil Type (dropdown menu to right):

Group C Soils

Low infiltration. Sandy clay loam. Infiltration rate 0.05 to 0.15 inch/hr when wet.

(Step 3) Indicate the existing **dominant** non-built land Use Type (dropdown menu to right):

Wood & Grass: <50% ground cover

(Step 4) Indicate the proposed **dominant** non-built land Use Type (dropdown menu to right):

Lawn, Grass, or Pasture covering more than 75% of the open space

	Complete Either Sq Ft	Acres	Acres
(Step 5) Total Project Site Area:		5.00	5.00
(Step 6) Sub-watershed Area:		5.00	5.00
Percent of total project :		100%	

(Step 7) Sub-watershed Conditions	Complete Either Sq Ft	Acres	Calculated Acres
Sub-watershed Area (acres)			5.00
Existing Rooftop Impervious Coverage		0	0.00
Existing Non-Rooftop Impervious Coverage		0	0.00
Proposed Rooftop Impervious Coverage		0	0.00
Proposed Non-Rooftop Impervious Coverage		0	0.00

Credits	Acres	Square Feet
Porous Pavement	0.00	0
Tree Planting	0.00	0
Downspout Disconnection	0.00	0
Impervious Area Disconnection	0.00	0
Green Roof	0.00	0
Stream Buffer	0.00	0
Vegetated Swales	0.00	0
Subtotal	0.00	0
Subtotal Runoff Volume Reduction Credit	0 Cu. Ft.	

(Step 9) Impervious Volume Reduction Credits	Volume (cubic feet)
Rain Barrels/Cisterns	0 Cu. Ft.
Soil Quality	0 Cu. Ft.
Subtotal Runoff Volume Reduction	0 Cu. Ft.
Total Runoff Volume Reduction Credit	0 Cu. Ft.

Porous Pavement Credit Worksheet

Please fill out a porous pavement credit worksheet for each project sub-watershed.

For the PROPOSED Development:

Proposed Porous Pavement	Runoff Reduction*	Fill in either Acres or SqFt In SqFt.	In Acres	Equivalent Acres
Area of **Brick without Grout** on less than 12 inches of base with at least 20% void space over soil	0.45			0.00
Area of **Brick without Grout** on more than 12 inches of base with at least 20% void space over soil	0.90			0.00
Area of **Cobbles** less than 12 inches deep and over soil	0.30			0.00
Area of **Cobbles** less than 12 inches deep and over soil	0.60			0.00
Area of **Reinforced Grass Pavement** on less than 12 inches of base with at least 20% void space over soil	0.45			0.00
Area of **Reinforced Grass Pavement** on at least 12 inches of base with at least 20% void space over soil	0.90			0.00
Area of **Porous Gravel Pavement** on less than 12 inches of base with at least 20% void space over soil	0.38			0.00
Area of **Porous Gravel Pavement** on at least 12 inches of base with at least 20% void space over soil	0.75			0.00
Area of **Poured Porous Concrete or Asphalt Pavement** with less than 4 inches of gravel base (washed stone)	0.40			0.00
Area of **Poured Porous Concrete or Asphalt Pavement** with 4 to 8 inches of gravel base (washed stone)	0.60			0.00
Area of **Poured Porous Concrete or Asphalt Pavement** with 8 to 12 inches of gravel base (washed stone)	0.80			0.00
Area of **Poured Porous Concrete or Asphalt Pavement** with 12 or more inches of gravel base (washed stone)	1.00			0.00

*=1-Rv**

Return to Calculator

**Using Site Design Techniques to meet Development Standards for Stormwater Quality (BASMAA 2003)

**NCDENR Stormwater BMP Manual (2007)

Tree Planting Credit Worksheet

Please fill out a tree canopy credit worksheet for each project sub-watershed.

Tree Canopy Credit Criteria	Number of Trees Planted	Credit (acres)
Number of proposed evergreen trees to be planted (credit = number of trees x 0.005)*	0	0.00
Number of proposed deciduous trees to be planted (credit = number of trees x 0.0025)*		0.00
	Square feet Under Canopy	
Square feet under an existing tree canopy, that will remain on the property, with an average diameter at 4.5 ft above grade (i.e., diameter at breast height or DBH) is LESS than 12 in diameter.		0.00
Square feet under an existing tree canopy that will remain on the property, with an average diameter at 4.5 ft above grade (i.e., diameter at breast height or DBH) is 12 in diameter or GREATER.		0.00
Please describe below how the project will ensure that these trees will be maintained.		

0

Return to Calculator

* credit amount based on credits from Stormwater Quality Design Manual for the Sacramento and South Placer Regions

Downspout Disconnection Credit Worksheet

Please fill out a downspout disconnection credit worksheet for each project subwatershed. If you answer yes to all questions, all rooftop area draining to each downspout will be subtracted from your proposed rooftop impervious coverage.

Downspout Disconnection Credit Criteria		
Do downspouts and any extensions extend at least six feet from a basement and two feet from a crawl space or concrete slab?	○ Yes	◉ No
Is the area of rooftop connecting to each disconnected downspout 600 square feet or less?	○ Yes	◉ No
Is the roof runoff from the design storm event fully contained in a raised bed or planter box or does it drain as sheet flow to a landscaped area large enough to contain the roof runoff from the design storm event?	○ Yes	◉ No
The Stream Buffer and/or Vegetated Swale credits **will not** be taken in this sub-watershed area?	○ Yes	◉ No

Percentage of existing	0.00	Acres	of rooftop surface has disconnected downspouts	
Percentage of the proposed	0.00	Acres	of rooftop surface has disconnected downspouts	50

Return to Calculator

Impervious Area Disconnection Credit Worksheet

Please fill out an impervious area disconnection credit worksheet for each project sub-watershed. If you answer yes to all questions, all non-rooftop impervious surface area will be subtracted from your proposed non-rooftop impervious coverage.

Non-Rooftop Disconnection Credit Criteria	Response
Is the maximum contributing impervious flow path length less than 75 feet or, if equal or greater than 75 feet, is a storage device (e.g. French drain, bioretention area, gravel trench) implemented to achieve the required disconnection length?	◉ Yes ○ No
Is the impervious area to any one discharge location less than 5,000 square feet?	◉ Yes ○ No
The Stream Buffer credit **will not** be taken in this sub-watershed area?	◉ Yes ○ No

Percentage of existing	0.00	Acres non-rooftop surface area disconnected	
Percentage of the proposed	0.00	Acres non-rooftop surface area disconnected	70

Return to Calculator

Green Roof Credit Worksheet

Please fill out a greenroof credit worksheet for each project sub-watershed. If you answer yes to all questions, 70% of the greenroof area will be subtracted from your proposed rooftop impervious coverage.

Green Roof Credit Criteria				Response
Is the roof slope less than 15% or does it have a grid to hold the substrate in place until it forms a thick vegetation mat?				◉ Yes ○ No
Has a professional engineer assessed the necessary load reserves and designed a roof structure to meet state and local codes?				◉ Yes ○ No
Is the irrigation needed for plant establishment and/or to sustain the green roof during extended dry periods, is the source from stored, recycled, reclaimed, or reused water?				◉ Yes ○ No
Percentage of existing	0.00	Acres	rooftop surface area in greenroof	
Percentage of the proposed	0.00	Acres	rooftop surface area in greenroof	

Return to Calculator

Stream Buffer Credit Worksheet

Please fill out a stream buffer credit worksheet for each project sub-watershed. If you answer yes to all questions, you may subtract all impervious surface draining to each stream buffer that has not been addressed using the Downspout and/or Impervious Area Disconnection credits.

Stream Buffer Credit Criteria				Response
Does runoff enter the floodprone width* or within 500 feet (whichever is larger) of a stream channel as sheet flow**?				○ Yes ◉ No
Is the contributing overland slope 5% or less, or if greater than 5%, is a level spreader used?				○ Yes ◉ No
Is the buffer area protected from vehicle or other traffic barriers to reduce compaction?				○ Yes ◉ No
Will the stream buffer be maintained in an ungraded and uncompacted condition and will the vegetation be maintained in a natural condition?				○ Yes ◉ No
Percentage of existing	0.00	Acres	impervious surface area draining into a stream buffer:	
Percentage of the proposed	0.00	Acres	impervious surface area that will drain into a stream buffer:	
Please describe below how the project will ensure that the buffer areas will remain in ungraded and uncompacted condition and that the vegetation will be maintained in a natural condition.				

Return to Calculator

* floodprone width is the width at twice the bankfull depth.
** the maximum contributing length shall be 75 feet for impervious area

Vegetated Swale Credit Worksheet

Please fill out a vegetated swale worksheet for each project subwatershed. If you answer yes to all questions, you may subtract all impervious surface draining to each stream buffer that has not been addressed using the Downspout Disconnection credit.

Vegetated Swale Credit Criteria

Have all vegetated swales been designed in accordance with Treatment Control BMP 30 (TC-30 - Vegetated Swale) from the California Stormwater BMP Handbook, New Development and Redevelopment (available at www.cabmphandbooks.com)?	○ Yes ◉ No
Is the maximum flow velocity for runoff from the design storm event less than or equal to 1.0 foot per second?	○ Yes ◉ No

Percentage of existing	0.00	Acres of impervious area draining to a vegetated swale	
Percentage of the proposed	0.00	Acres of impervious area draining to a vegetated swale	

Return to Calculator

Rain Barrel/Cistern Credit Worksheet

Please fill out a rain barrel/cistern worksheet for each project sub-watershed.

Rain Barrel/Cistern Credit Criteria	Response
Total number of rain barrel(s)/cisterns	
Average capacity of rain barrel(s)/cistern(s) (in gallons)	
Total capacity rain barrel(s)/cistern(s) (in cu ft) [1]	0

[1] accounts for 10% loss

Return to Calculator

Please fill out a soil quality worksheet for each project sub-watershed.

	Response
Will the landscaped area be lined with an impervious membrane?	
Will the soils used for landscaping meet the ideal bulk densities listed in Table 1 below? [1]	○ Yes ◉ No
If you answered yes to the question above, and you know the area-weighted bulk density within the top 12 inches for soils used for landscaping (in g/cm^3)* , fill in the cell to the right and skip to cell G11. If not select from the drop-down menu in G10.	1.3
If you answered yes to the question above, but you do not know the exact bulk density, which of the soil types in the drop down menu to the right best describes the top 12 inches for soils used for landscaping (in g/cm^3).	Sandy loams, loams
What is the average depth of your landscaped soil media meeting the above criteria (inches)?	12
What is the total area of the landscaped areas meeting the above criteria (in acres)?	2.97

Return to Calculator

Table 1

Sands, loamy sands	<1.6
Sandy loams, loams	<1.4
Sandy clay loams, loams, clay loams	<1.4
Silts, silt loams	<1.3
Silt loams, silty clay loams	<1.1
Sandy clays, silty clays, some clay loams (35-45% clay)	<1.1
Clays (>45% clay)	<1.1

Porosity (%) 50.94%

Mineral grains in many soils are mainly quartz and feldspar, so 2.65 a good average for particle density. To determine percent porosity, use the formula: Porosity (%) = (1-Bulk Density/2.65) X 100

[1] USDA NRCS. "Soil Quality Urban Technical Note No.2-Urban Soil Compaction". March 2000. http://soils.usda.gov/sqi/management/files/sq_utn_2.pdf

* To determine how to calculate density see: http://www.globe.gov/tctg/bulkden.pdf?sectionID=94

APPENDIX 3
Bioassessment Monitoring Guidelines

Bioassessment monitoring is required for projects that meet all of the following criteria:

1. The project is rated Risk Level 3 or LUP Type 3
2. The project directly discharges runoff to a freshwater wadeable stream (or streams) that is either: (a) listed by the State Water Board or USEPA as impaired due to sediment, and/or (b) tributary to any downstream water body that is listed for sediment; and/or have the beneficial use SPAWN & COLD & MIGRATORY
3. Total project-related ground disturbance exceeds 30 acres.

For all such projects, the discharger shall conduct bioassessment monitoring, as described in this section, to assess the effect of the project on the biological integrity of receiving waters.
Bioassessment shall include:

1. The collection and reporting of specified instream biological data
2. The collection and reporting of specified instream physical habitat data

<u>Bioassessment Exception</u>
If a site qualifies for bioassessment, but construction commences out of an index period for the site location, the discharger shall:

1. Receive Regional Water Board approval for the sampling exception
2. Make a check payable to: Cal State Chico Foundation (SWAMP Bank Account) or San Jose State Foundation (SWAMP Bank Account) and include the WDID# on the check for the amount calculated for the exempted project.
3. Send a copy of the check to the Regional Water Board office for the site's region
4. Invest **7,500.00 X The number of samples required** into the SWAMP program as compensation (upon Regional Water Board approval).
5. Conduct bioassessment monitoring, as described in Appendix 4
6. Include the collection and reporting of specified instream biological data and physical habitat
7. Use the bioassessment sample collection and Quality Assurance & Quality Control (QA/QC) protocols developed by the State of California's Surface Water Ambient Monitoring Program (SWAMP)

<u>Site Locations and Frequency</u>
Macroinvertebrate samples shall be collected both before ground disturbance is initiated and after the project is completed. The "after" sample(s) shall be collected after at least one winter season resulting in surface runoff has transpired after project-related ground disturbance has ceased. "Before" and "after" samples shall be collected both upstream and downstream of the project's

discharge. Upstream samples should be taken immediately before the sites outfall and downstream samples should be taken immediately after the outfall (when safe to collect the samples). Samples should be collected for each freshwater wadeable stream that is listed as impaired due to sediment, or tributary to a water body that is listed for sediment. Habitat assessment data shall be collected concurrently with all required macroinvertebrate samples.

Index Period (Timing of Sample Collection)
Macroinvertebrate sampling shall be conducted during the time of year (i.e., the "index period") most appropriate for bioassessment sampling, depending on ecoregion. This map is posted on the State Water Board's Website: http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml

Field Methods for Macroinvertebrate Collections
In collecting macroinvertebrate samples, the discharger shall use the "Reachwide Benthos (Multi-habitat) Procedure" specified in *Standard Operating Procedures for Collecting Benthic Macroinvertebrate Samples and Associated Physical and Chemical Data for Ambient Bioassessments in California* (Ode 2007).[1]

Physical - Habitat Assessment Methods
The discharger shall conduct, concurrently with all required macroinvertebrate collections, the "Full" suite of physical habitat characterization measurements as specified in *Standard Operating Procedures for Collecting Benthic Macroinvertebrate Samples and Associated Physical and Chemical Data for Ambient Bioassessments in California* (Ode 2007), and as summarized in the Surface Water Ambient Monitoring Program's *Stream Habitat Characterization Form — Full Version*.

Laboratory Methods
Macroinvertebrates shall be identified and classified according to the Standard Taxonomic Effort (STE) Level I of the Southwestern Association of Freshwater Invertebrate Taxonomists (SAFIT),[2] and using a fixed-count of 600 organisms per sample.

Quality Assurance
The discharger or its consultant(s) shall have and follow a quality assurance (QA) plan that covers the required bioassessment monitoring. The QA plan shall include, or be supplemented to include, a specific requirement for external QA checks (i.e., verification of taxonomic identifications and correction of data where

[1] This document is available on the Internet at: ~~http://www.swrcb.ca.gov/swamp/docs/phab_sopr6.pdf~~. http://swamp.mpsl.mlml.calstate.edu/wp-content/uploads/2009/04/swamp_sop_bioassessment_collection_020107.pdf.

[2] The current SAFIT STEs (28 November 2006) list requirements for both the Level I and Level II taxonomic effort, and are located at: ~~http://www.swrcb.ca.gov/swamp/docs/safit/ste_list.pdf~~ http://www.safit.org/Docs/ste_list.pdf. When new editions are published by SAFIT, they will supersede all previous editions. All editions will be posted at the State Water Board's SWAMP website.

errors are identified). External QA checks shall be performed on one of the discharger's macroinvertebrate samples collected per calendar year, or ten percent of the samples per year (whichever is greater). QA samples shall be randomly selected. The external QA checks shall be paid for by the discharger, and performed by the California Department of Fish and Game's Aquatic Bioassessment Laboratory. An alternate laboratory with equivalent or better expertise and performance may be used if approved in writing by State Water Board staff.

Sample Preservation and Archiving

The original sample material shall be stored in 70 percent ethanol and retained by the discharger until: 1) all QA analyses specified herein and in the relevant QA plan are completed; and 2) any data corrections and/or re-analyses recommended by the external QA laboratory have been implemented. The remaining subsampled material shall be stored in 70 percent ethanol and retained until completeness checks have been performed according to the relevant QA plan. The identified organisms shall be stored in 70 percent ethanol, in separate glass vials for each final ID taxon. (For example, a sample with 45 identified taxa would be archived in a minimum of 45 vials, each containing all individuals of the identified taxon.) Each of the vials containing identified organisms shall be labeled with taxonomic information (i.e., taxon name, organism count) and collection information (i.e., site name/site code, waterbody name, date collected, method of collection). The identified organisms shall be archived (i.e., retained) by the discharger for a period of not less than three years from the date that all QA steps are completed, and shall be checked at least once per year and "topped off" with ethanol to prevent desiccation. The identified organisms shall be relinquished to the State Water Board upon request by any State Water Board staff.

Data Submittal

The macroinvertebrate results (i.e., taxonomic identifications consistent with the specified SAFIT STEs, and number of organisms within each taxa) shall be submitted to the State Water Board in electronic format. The State Water Board's Surface Water Ambient Monitoring Program (SWAMP) is currently developing standardized formats for reporting bioassessment data. All bioassessment data collected after those formats become available shall be submitted using the SWAMP formats. Until those formats are available, the biological data shall be submitted in MS-Excel (or equivalent) format.[3]

The physical/habitat data shall be reported using the standard format titled *SWAMP Stream Habitat Characterization Form — Full Version*.[4]

[3] Any version of Excel, 2000 or later, may be used.
[4] Available at: http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/reports/fieldforms_fullversion052908.pdf

Invasive Species Prevention

In conducting the required bioassessment monitoring, the discharger and its consultants shall take precautions to prevent the introduction or spread of aquatic invasive species. At minimum, the discharger and its consultants shall follow the recommendations of the California Department of Fish and Game to minimize the introduction or spread of the New Zealand mudsnail.[5]

[5] Instructions for controlling the spread of NZ mudsnails, including decontamination methods, can be found at: http://www.dfg.ca.gov/invasives/mudsnail/
More information on AIS More information on AIS
http://www.waterboards.ca.gov/water_issues/programs/swamp/ais/

Appendix 4 Non Sediment TMDLs

Region 1 Lost River-DIN and CBOD

Region 1 Source: Cal Trans Construction TMDL Completion Date: 12 30 2008 TMDL Type: River, Lake Watershed Area= 2996 mi^2	**Pollutant Stressors/WLA**	
	Dissolved inorganic nitrogen (DIN) (metric tons/yr)	**Carbonaceous biochemical oxygen demand (CBOD) (metric tons/yr)**
Lost River from the Oregon border to Tule Lake	.1	.2
Tule Lake Refuge	.1	.2
Lower Klamath Refuge	.1	.2

Region 2 San Francisco Bay-Mercury

Region 2 Source:Non-Urban Stormwater Runoff TMDL Type: Bay	**Name**	**Pollutant Stressor/WLA**	**TMDL Completion Date**
	San Francisco Bay	Mercury 25 kg/year	08 09 2006

Region 4 Ballona Creek-Metals and Selenium

Region 4 Source: NPDES General Construction TMDL Completion Date: 12 22 2005 TMDL Type: Creek	**Pollutant Stressors/WLA**							
	Copper (Cu)		**Lead (Pb)**		**Selenium (Se)**		**Zinc (Zn)**	
	g/day	g/day/acre	g/day	g/day/acre	g/day	g/day/acre	g/day	g/day/acre
Ballona Creek	4.94E-07 x Daily storm volume (L)	2.20E-10 x Daily storm volume (L)	1.62E-06 x Daily storm volume (L)	7.20E-10 x Daily storm volume (L)	1.37E-07 x Daily storm volume (L)	6.10E-11 x Daily storm volume (L)	3.27E-06 x Daily storm volume (L)	1.45E-09 x Daily storm volume (L)

General Construction Storm Water Permits:
Waste load allocations will be incorporated into the State Board general permit upon renewal or into a watershed-specific general permit developed by the Regional Board.

- Dry-weather Implementation Non-storm water flows authorized by the General Permit for Storm Water Discharges Associated with Construction Activity (Water Quality Order No. 99-08 DWQ), or any successor order, are exempt from the dry-weather waste load allocation equal to zero as long as they comply with the provisions of sections C.3 and A.9 of the Order No. 99-08 DWQ, which state that these authorized non-storm discharges shall be:
  (1) infeasible to eliminate
  (2) comply with BMPs as described in the Storm Water Pollution Prevention Plan prepared by the permittee, and
  (3) not cause or contribute to a violation of water quality standards, or comparable provisions in any successor order.
  Unauthorized non-storm water flows are already prohibited by Order No. 99-08 DWQ.
- Wet-weather Implementation Within seven years of the effective date of the TMDL, the construction industry will submit the results of BMP effectiveness studies to determine BMPs that will achieve compliance with the final waste load allocations assigned to construction storm water permittees.
- Regional Board staff will bring the recommended BMPs before the Regional Board for consideration within eight years of the effective date of the TMDL.
- General construction storm water permittees will be considered in compliance with final waste load allocations if they implement these Regional Board approved BMPs. All permittees must implement the approved BMPs within nine years of the effective date of the TMDL. If no effectiveness studies are conducted and no BMPs are approved by the Regional Board within eight years of the effective date of the TMDL, each general construction storm water permit holder will be subject to site-specific BMPs and monitoring requirements to demonstrate compliance with final waste load allocations.

Region 4 Calleaguas Creek-OC Pesticides, PCBs, and Siltation

Interim Requirements

Region 4 Calleaguas Creek Source: Minor NPDES point sources/WDRs TMDL Completion Date: 3 14 2006 TMDL Type:Creek	**Pollutant Stressor**	**WLA Daily Max (µg/L)**	**WLA Monthly Ave (µg/L)**
	Chlordane	1.2	0.59
	4,4-DDD	1.7	0.84
	4,4-DDE	1.2	0.59
	4,4-DDT	1.2	0.59
	Dieldrin	0.28	0.14
	PCB’s	0.34	0.17
	Toxaphene	0.33	0.16

Final WLA (ng/g)							
Region 4 Calleaguas Creek Source: Stormwater Permittees TMDL Completion Date: 3 14 2006 TMDL Type:Creek	Chlordane	4,4-DDD	4,4-DDE	4,4-DDT	Dieldrin	PCB's	Toxaphene
Mugu Lagoon*	3.3	2.0	2.2	0.3	4.3	180.0	360.0
Callegaus Creek	3.3	2.0	1.4	0.3	0.2	120.0	0.6
Revolon Slough (SW)*	0.9	2.0	1.4	0.3	0.1	130.0	1.0
Arroyo Las posas(SW)*	3.3	2.0	1.4	0.3	0.2	120.0	0.6
Arroyo Simi	3.3	2.0	1.4	0.3	0.2	120.0	0.6
Conejo Creek	3.3	2.0	1.4	0.3	0.2	120.0	0.6
Interim Requirements (ng/g)							
Mugu Lagoon*	25.0	69.0	300.0	39.0	19.0	180.	22900.0
Callegaus Creek	17.0	66.0	470.0	110.0	3.0	3800.0	260.0
Revolon Slough (SW)*	48.0	400.0	1600.0	690.0	5.7	7600.0	790.0
Arroyo Las posas(SW)*	3.3	290.0	950.0	670.0	1.1	25700.0	230.0
Arroyo Simi	3.3	14.0	170.0	25.0	1.1	25700.0	230.0
Conejo Creek	3.4	5.3	20.0	2.0	3.0	3800.0	260.0

*(SW)=Subwatershed

*Mugu Lagoon includes Duck pond/Agricultural Drain/Mugu/Oxnard Drain #2

Compliance with sediment based WLAs is measured as an instream annual average at the base of each subwatershed where the discharges are located.

Region 4 Calleguas Creek-Salts

Final Dry Weather Pollutant WLA (mg/L)					
Region 4 Calleaguas Creek Source Permitted Stormwater Dischargers TMDL Completion Date: 12 2 2008 TMDL Type:Creek	**Critical Condition Flow Rate (mgd)**	**Chloride (lb/day)**	**TDS (lb/day)**	**Sulfate (lb/day)**	**Boron (lb/day)**
Simi	1.39	1738.0	9849.0	2897.0	12.0
Las Posas	0.13	157.0	887.0	261.0	N/A
Conejo	1.26	1576.0	8931.0	2627.0	N/A

Camarillo	0.06	72.0	406.0	119.0	N/A
Pleasant Valley (Calleguas)	0.12	150.0	850.0	250.0	N/A
Pleasant Valley (Revolon)	0.25	314.0	1778.0	523.0	2.0

Dry Weather Interim Pollutant WLA (mg/L)				
	Chloride (mg/L)	**TDS (mg/L)**	**Sulfate (mg/L)**	**Boron (mg/L)**
Simi	230.0	1720.0	1289.0	1.3
Las Posas	230.0	1720.0	1289.0	1.3
Conejo	230.0	1720.0	1289.0	1.3
Camarillo	230.0	1720.0	1289.0	1.3
Pleasant Valley (Calleguas)	230.0	1720.0	1289.0	1.3
Pleasant Valley (Revolon)	230.0	1720.0	1289.0	1.3

- General Construction permittees are assigned a dry weather wasteload allocation equal to the average dry weather critical condition flow rate multiplied by the numeric target for each constituent. Waste load allocations apply in the receiving water at the base of each subwatershed. Dry weather allocations apply when instream flow rates are below the 86th percentile flow and there has been no measurable precipitation in the previous 24 hours.
- Because wet weather flows transport a large mass of salts at low concentrations, these dischargers meet water quality objectives during wet weather.
- Interim limits are assigned for dry weather discharges from areas covered by NPDES stormwater permits to allow time to implement appropriate actions. The interim limits are assigned as concentration based receiving water limits set to the 95th percentile of the discharger data as a monthly average limit except for chloride. The 95th percentile for chloride was 267 mg/L which is higher than the recommended criteria set forth in the Basin Plan for protection of sensitive beneficial uses including aquatic life. Therefore, the interim limit for chloride for Permitted Stormwater Dischargers is set equal to 230 mg/L to ensure protection of sensitive beneficial uses in the Calleguas Creek watershed.

Region 4 San Gabriel River and Tributaries-Metals and Selenium

Region 4 San Gabriel River and Tributaries Source: Construction Stormwater Dischargers TMDL Completion Date: 3 2007 TMDL Type: Creek	**Pollutant Stressor**	**Wet weather Allocations**	**Dry Weather Allocations**	**% of Watershed**

San Gabriel Reach 2	Lead (Pb)	0.7% * 166 µg/l * Daily Storm Vol	N/A	0.7%
San Gabriel Reach 2	Lead (Pb) Mass based	0.8 kg/d	N/A	0.7%
Coyote Creek	Copper (Cu)	0.285 kg/d	0	5.0%
Coyote Creek	Lead (Pb)	1.70 kg/d	N/A	5.0%
Coyote Creek	Zinc (Zn)	2.4 kg/d	N/A	5.0%
San Jose Creek Reach 1 and 2	Selenium	5 µg/L	5 µg/L	5.0%

Wet-weather allocations for lead in San Gabriel River Reach 2. Concentration-based allocations apply to non-stormwater NPDES discharges. Stormwater allocations are expressed as a percent of load duration curve. Mass-based values presented in table are based on a flow of 260 cfs (daily storm volume = 6.4 $x10^{8}$ liters).

There are 1555 acres of water in the entire watershed, 37.4 acres of water in the Reach 1 subwatershed (2.4%), and 269 acres in the Coyote Creek subwatershed (17%).

General Construction Storm Water Permits

Waste load allocations for the general construction storm water permits may be incorporated into the State Board general permit upon renewal or into a watershed-specific general permit developed by the Regional Board. An estimate of direct atmospheric deposition is developed based on the percent area of surface water in the watershed. Approximately 0.4% of the watershed area draining to San Gabriel River Reach 2 is comprised of water and approximately 0.2% of the watershed area draining to Coyote Creek is comprised of water.

Region 4 The Harbor Beaches of Ventura County-Bacteria

The TMDL has a multi-part numeric target based on the bacteriological water quality objectives for marine water to protect the water contact recreation use. These targets are the most appropriate indicators of public health risk in recreational waters. Bacteriological objectives are set forth in Chapter 3 of the Basin Plan. The objectives are based on four bacteria indicators and include both geometric mean limits and single sample limits. The Basin Plan objectives that serve as the numeric targets for this TMDL are:

The General NPDES Construction permit is seen as a minor contributor and is given no allocation

General NPDES permits, individual NPDES permits, the Statewide Industrial Storm Water General Permit, the Statewide Construction Activity Storm Water General Permit, and WDR permittees in the Channel Islands Harbor subwatershed are assigned WLAs of zero (0) days of allowable exceedances for all three time periods and for the single sample limits and the rolling 30-day geometric mean. Any future enrollees under a general NPDES permit, individual NPDES permit, the Statewide Industrial Storm Water General Permit, the Statewide Construction Activity Storm Water General Permit, and WDR will also be subject to a WLA of zero (0) days of allowable exceedances.

Region 4 Resolution No. 03-009 Los Angeles River and Tributaries-Nutrients

Minor Point Sources
Waste loads are allocated to minor point sources enrolled under NPDES or WDR permits including but not limited to Tapia WRP, Whittier Narrows WRP, Los Angeles Zoo WRP, industrial and construction stormwater, and municipal storm water and urban runoff from municipal separate storm sewer systems (MS4s)

Region 4 Minor Point Sources for NPDES/WDR Permits TMDL Completion Date: 7 10 2003 TMDL Type: River	Pollutant Stressor/WLA				
	Total Ammonia (NH_3)		**Nitrate-nitrogen (NO_3-N)**	**Nitrite-nitrogen (NO_2-N)**	**NO_3-N + NO_3-N**
	1 Hr Ave mg/l	30 Day Ave mg/l	30 Day Ave mg/l		30 Day Ave mg/l
LA River Above Los Angeles-Glendale WRP (LAG)	4.7	1.6	8.0	1.0	8.0
LA River Below LAG	8.7	2.4	8.0	1.0	8.0
Los Angeles Tributaries	10.1	2.3	8.0	1.0	8.0

Malibu Creek Attachment A to Resolution No. 2004-019R-Bacteria

12 13 2004 The WLAs for permittees under the NPDES General Stormwater Construction Permit are zero (0) days of allowable exceedances for all three time periods and for the single sample limits and the rolling 30-day geometric mean.

Region 4 Marina del Rey Harbor, Mothers' Beach and Back Basins

Attachment A to Resolution No. 2003-012-Bacteria

8 7 2003 As discussed in "Source Analysis", discharges from general NPDES permits, general industrial storm water permits and general construction storm water permits are not expected to be a significant source of bacteria. Therefore, the WLAs for these discharges are zero (0) days of allowable exceedances for all three time periods and for the single sample limits and the rolling 30-day geometric mean. Any future enrollees under a general NPDES permit, general industrial storm water permit or general construction storm water permit within the MdR Watershed will also be subject to a WLA of zero days of allowable exceedances.

Region 4 San Gabriel River and Tributaries-Metals and Selenium

Dry Weather Selenium WLA
A zero WLA is assigned to the industrial and construction stormwater permits during dry weather. Non-storm water discharges are already prohibited or restricted by existing general permits.

Region 4 General Construction Permittees TMDL Completion Date: 7 13 2006 TMDL Type: River	**Total Recoverable Metals (kg/day)**		
	Copper (Cu) Kg/day	**Lead (Pb) Kg/day**	**Zinc (Zn) Kg/day**
San Gabriel River Reach 2 and upstream reaches/tributaries	**XXXX**	Daily storm volume x 1.24 µg/L	**XXXX**
Coyote Creek and Tributaries	Daily storm volume x 0.7 µg/L	Daily storm volume x 4.3 µg/L	Daily storm volume x 6.2 µg/L

Each enrollee under the general construction stormwater permit receives a WLA on a per acre basis

Region 4 General Construction Permittees TMDL Completion Date: 7 13 2006 TMDL Type: River	**Total Recoverable Metals (kg/day/acre)**		
	Copper (Cu) Kg/acre/day	**Lead (Pb) Kg/acre/day**	**Zinc (Zn) Kg/acre/day**
San Gabriel River Reach 2 and upstream reaches/tributaries	**XXXX**	Daily storm volume x 0.56 µg/L	**XXXX**

Coyote Creek and Tributaries	Daily storm volume x 0.12 µg/L	Daily storm volume x 0.70 µg/L	Daily storm volume x 1.01 µg/L

For the general industrial and construction storm water permits, the daily storm volume is measured at USGS station 11085000 for discharges to Reach 2 and above and at LACDPW flow gauge station F354-R for discharges to Coyote Creek.

General construction storm water permits
WLAs will be incorporated into the State Board general permit upon renewal or into a watershed-specific general permit developed by the Regional Board.

Dry-weather implementation
Non-storm water flows authorized by the General Permit for Storm Water Discharges Associated with Construction Activity (NPDES Permit No. CAS000002), or any successor permit, are exempt from the dry-weather WLA equal to zero as long as they comply with the provisions of sections C.3.and A.9 of the Order No. 99-08 DWQ, which state that these authorized non-storm discharges shall be (1) infeasible to eliminate (2) comply with BMPs as described in the Storm Water Pollution Prevention Plan prepared by the permittee, and (3) not cause or contribute to a violation of water quality standards, or comparable provisions in any successor order. Unauthorized non-storm water flows are already prohibited by Permit No. CAS000002.

Upon permit issuance, renewal, or re-opener
Non-storm water flows not authorized by Order No. 99-08 DWQ, or any successor order, shall achieve dry-weather WLAs. WLAs shall be expressed as NPDES water quality-based effluent limitations specified in accordance with federal regulations and state policy on water quality control. Effluent limitations may be expressed as permit conditions, such as the installation, maintenance, and monitoring of Regional Board-approved BMPs.

Six years from the effective date of the TMDL
The construction industry will submit the results of wet-weather BMP effectiveness studies to the Los Angeles Regional Board for consideration. In the event that no effectiveness studies are conducted and no BMPs are approved, permittees shall be subject to site-specific BMPs and monitoring to demonstrate BMP effectiveness.

Seven years from the effective date of the TMDL
The Los Angeles Regional Board will consider results of the wet weather BMP effectiveness studies and consider approval of BMPs.

Eight years from the effective date of the TMDL
All general construction storm water permittees shall implement Regional Board-approved BMPs.

Total Maximum Daily Loads (TMDLs) for San Diego Creek,
Upper and Lower Newport Bay, Orange County, California

Region 8 NPDES Construction Permit TMDL Completion Date: 1 24 1995 TMDL Type: River. Cr, Bay	Organochlorine Compounds							
	Total DDT		**Chlordane**		**Total PCBs**		**Toxaphene**	
	g/day	g/yr	g/day	g/yr	g/day	g/yr	g/day	g/yr
San Diego Creek	.27	99.8	**.18***	**64.3***	**.09***	**31.5***	.004	1.5
Upper Newport Bay	.11	40.3	.06	23.4	.06	23.2	**X**	**X**
Lower Newport Bay	.04	14.9	.02	8.6	.17	60.7	**X**	**X**

*Red= Informational WLA only, not for enforcement purposes

Organochlorine Compounds TMDLs Implementation Tasks and Schedule

Regional Board staff shall develop a SWPPP Improvement Program that identifies the Regional Board's expectations with respect to the content of SWPPPs, including documentation regarding the selection and implementation of BMPs, and a sampling and analysis plan. The Improvement Program shall include specific guidance regarding the development and implementation of monitoring plans, including the constituents to be monitored, sampling frequency and analytical protocols. The SWPPP Improvement Program shall be completed by (*the date of OAL approval of this BPA*). ***No later than two months*** from completion of the Improvement Program, Board staff shall assure that the requirements of the Program are communicated to interested parties, including dischargers with existing authorizations under the General Construction Permit. Existing, authorized dischargers shall revise their project SWPPPs as needed to address the Program requirements as soon as possible but ***no later than (three months of completion of the SWPPP Improvement Program)***. Applicable SWPPPs that do not adequately address the Program requirements shall be considered inadequate and enforcement by the Regional Board shall proceed accordingly. The Caltrans and Orange County MS4 permits shall be revised as needed to assure that the permittees communicate the Regional Board's SWPPP expectations, based on the SWPPP Improvement Program, with the Standard Conditions of Approval.

Appendix 4 Sediment TMDLs

Implemented Sediment TMDLs in California. Construction was listed as a source in all fo these TMDLs in relation to road construction. Although construction was mentioned as a source, it was not given a specific allocation amount. The closest allocation amount would be for the road activity management WLA. **Implementation Phase** – Adoption process by the Regional Board, the State Water Resources Control Board, the Office of Administrative Law, and the US Environmental Protection Agency completed and TMDL being implemented.

A. Region	**Type**	**Name**	**Pollutant Stressor**	**Potential Sources**	**TMDL Completion Date**	**Watershed Acres**	**WLA** tons mi^2 yr
1 R1.epa.albionfinaltmdl	R	Albion River	Sedimentation	Road Construction	2001	43 acres	See A (table 6)

B Region	**Type**	**Name**	**Pollutant Stressor**	**Potential Sources**	**TMDL Completion Date**	**Watershed Acres**	**WLA** tons mi^2 yr
1 R1.epa.EelR-middle.mainSed.temp	R	Middle Main Eel River and Tributaries (from Dos Rios to the South Fork)	Sedimentation	Road Construction	2005-2006	521 mi^2	100

C Region	**Type**	**Name**	**Pollutant Stressor**	**Potential Sources**	**TMDL Completion Date**	**Watershed Acres**	**WLA** tons mi^2 yr
1 R1.epa.EelRsouth.sed.temp	R	South Fork Eel River	Sedimentation	Road Construction	12 1999	See chart	473

D Region	**Type**	**Name**	**Pollutant Stressor**	**Potential Sources**	**TMDL Completion Date**	**Watershed Acres**	**WLA** tons mi^2 yr
1 R1.epa.bigfinaltmdl	R	Big River	Sedimentation	Road Construction	12 2001	181 mi^2 watershed drainage	TMDL = loading capacity = nonpoint sources + background =

							393 t mi2 yr

E Region	**Type**	**Name**	**Pollutant Stressor**	**Potential Sources**	**TMDL Completion Date**	**Watershed Acres**	**WLA** tons mi^2 yr
1 R1.epa.EelR-lower.Sed.temp-121807-signed	R	Lower Eel River	Sedimentation	Road Construction	12 2007	300 square-mile watershed	898

F Region	**Type**	**Name**	**Pollutant Stressor**	**Potential Sources**	**TMDL Completion Date**	**Watershed Acres**	**WLA** tons mi^2 yr
1 R1.epa.EelR-middle.Sed.temp-	R	Middle Fork Eel River	Sedimentation	Road Construction	12 2003	753 mi^2 (approx. 482,000 acres)	82

G Region	**Type**	**Name**	**Pollutant Stressor**	**Potential Sources**	**TMDL Completion Date**	**Watershed Acres** Mi^2	**WLA** tons mi^2 yr
1 R1.epa.EelRnorth-Sed.temp.final-121807-signed	R	North Fork Eel River	Sedimentation	Road Construction	12 30 2002	289 (180,020 acres)	20

H Region	**Type**	**Name**	**Pollutant Stressor**	**Potential Sources**	**TMDL Completion Date**	**Watershed Acres** Mi^2	**WLA** tons mi^2 yr
1 R1.epa.EelR-upper.mainSed.temp-	R	Upper Main Eel River and Tributaries (including Tomki Creek, Outlet Creek and Lake Pillsbury)	Sedimentation	Road Construction	12 29 2004	688 (approx. 440,384 acres)	14

I Region	**Type**	**Name**	**Pollutant Stressor**	**Potential Sources**	**TMDL Completion Date**	**Watershed Acres**	**WLA** tons mi^2 yr
1 R1.epa.gualalafinaltmdl	R	Gualala River	Sedimentation	Road Construction	Not sure	300 (191,145 acres)	7

J Region	**Type**	**Name**	**Pollutant Stressor**	**Potential Sources**	**TMDL Completion Date**	**Watershed Acres** mi^2	**WLA** tons mi^2 yr
1 R1.epa.Mad-sed.turbidity	R	Mad River	Sedimentation	Road Construction	12 21 2007	480	174

K Region	**Type**	**Name**	**Pollutant Stressor**	**Potential Sources**	**TMDL Completion Date**	**Watershed Acres** mi^2	**WLA** tons mi^2 yr
1 R1.epa.mattole.sediment	R	Mattole River	Sedimentation	Road Construction	12 30 2003	296	27 or 520+27 = 547

L Region	**Type**	**Name**	**Pollutant Stressor**	**Potential Sources**	**TMDL Completion Date**	**Watershed Acres** mi^2	**WLA** tons mi^2 yr
1 R1.epa.navarro.sed.temp	R	Navarro River	Sedimentation	Road Construction	Not sure	315 (201,600 acres).	50

M Region	**Type**	**Name**	**Pollutant Stressor**	**Potential Sources**	**TMDL Completion Date**	**Watershed Acres** mi^2	**WLA** tons mi^2 yr
1 R1.epa.noyo.sediment	R	Noyo River	Sedimentation	Road Construction	12 16 1999	113 (72,323 acres)	68 (three areas measured) Table 16 in the TMDL

N Region	**Type**	**Name**	**Pollutant Stressor**	**Potential Sources**	**TMDL Completion Date**	**Watershed Acres** mi^2	**WLA** tons mi^2 yr
1 R1.epa.RedwoodCk.sed	Cr	Redwood Creek	Sedimentation	Road Construction	12 30 1998	278	1900 Total allocation

O Region	**Type**	**Name**	**Pollutant Stressor**	**Potential Sources**	**TMDL Completion Date**	**Watershed Acres** mi^2	**WLA – Roads** tons mi^2 yr
1 R1.epa.tenmile.sed	R	Ten Mile River	Sedimentation	Road Construction	2000	120	9

P Region	**Type**	**Name**	**Pollutant Stressor**	**Potential Sources**	**TMDL Completion Date**	**Watershed Acres** mi^2	**WLA management** tons mi^2 yr
1 R1.epa.trinity.sed	R	Trinity River	Sedimentation	Road Construction	12 20 2001	2000 of 3000 covered in this TMDL	See rows below
1	Cr	Horse Linto Creek	Sedimentation	Road Construction	12 20 2001	64	528
1	Cr	Mill creek and Tish Tang	Sedimentation	Road Construction	12 20 2001	39	210
1	Cr	Willow Creek	Sedimentation	Road Construction	12 20 2001	43	94
1	Cr	Campbell Creek and Supply Creek	Sedimentation	Road Construction	12 20 2001	11	1961
1	Cr	Lower Mainstem and Coon Creek	Sedimentation	Road Construction	12 20 2001	32	63
1	R	Reference	Sedimentation	Road	12 20 2001	434	24

		Subwatershed [1]		Construction			
1	Cr	Canyon Creek	Sedimentation	Road Construction	12 20 2001	64	326
1	R	Upper Tributaries[2]	Sedimentation	Road Construction	12 20 2001	72	67
1	R	Middle Tributaries[3]	Sedimentation	Road Construction	12 20 2001	54	53
1	R	Lower Tributaries[4]	Sedimentation	Road Construction	12 20 2001	96	55
1	Cr	Weaver and Rush Creeks	Sedimentation	Road Construction	12 20 2001	72	169
1	Cr	Deadwood Creek Hoadley Gulch Poker Bar	Sedimentation	Road Construction	12 20 2001	47	68
1	L	Lewiston Lake	Sedimentation	Road Construction	12 20 2001	25	49
1	Cr	Grassvalley Creek	Sedimentation	Road Construction	12 20 2001	37	44
1	Cr	Indian Creek	Sedimentation	Road Construction	12 20 2001	34	81
1	Cr	Reading and Browns Creek	Sedimentation	Road Construction	12 20 2001	104	66
1	Cr	Reference Subwatersheds[5]	Sedimentation	Road Construction	12 20 2001	235	281
1	L, Cr	Westside tributaries[6]	Sedimentation	Road Construction	12 20 2001	93	105
1	R, Cr, G	Upper trinity[7]	Sedimentation	Road Construction	12 20 2001	161	690
1	R, Cr, G	East Fork Tributaries[8]	Sedimentation	Road Construction	12 20 2001	115	65

1
2
3
4
5
6
7
8

1	R, L	Eastside Tributaries[9]	Sedimentation	Road Construction	12 20 2001	89	60

1 New River, Big French, Manzanita, North Fork, East Fork, North Fork
2 Dutch, Soldier, Oregon gulch, Conner Creek
3 Big Bar, Prairie Creek, Little French Creek
4 Swede, Italian, Canadian, Cedar Flat, Mill, McDonald, Hennessy, Quimby, Hawkins, Sharber
5 Stuarts Fork, Swift Creek, Coffee Creek
6 Stuart Arm, Stoney Creek, Mule Creek, East Fork, Stuart Fork, West Side Trinity Lake, Hatchet Creek, Buckeye Creek,
7 Upper Trinity River, Tangle Blue, Sunflower, Graves, Bear Upper Trinity Mainstream, Ramshorn Creek, Ripple Creek, Minnehaha Creek, Snowslide Gulch, Scorpion Creek
8 East Fork Trinity, Cedar Creek, Squirrel Gulch
9 East Side Tributaries, Trinity Lake

Q Region	**Type**	**Name**	**Pollutant Stressor**	**Potential Sources**	**TMDL Completion Date**	**Watershed Acres** mi^2	**WLA** tons mi^2 yr
1 R1.epa.trinity.so.sed	R, Cr	South Fork Trinity River and Hayfork Creek	Sedimentation	Road Construction	12 1998	Not given, 19 miles long	33 (road total)

R Region	**Type**	**Name**	**Pollutant Stressor**	**Potential Sources**	**TMDL Completion Date**	**Watershed Acres** mi^2	**WLA** tons mi^2 yr
1 R1.epa.vanduzen.sed	R, Cr	Van Duzen River and Yager Creek	Sedimentation	Various	12 16 1999	429	1353 total allocation
1		Upper Basin	Sedimentation	Road Construction			7
1		Middle Basin	Sedimentation	Road Construction			22
1		Lower Basin	Sedimentation	Road Construction			20

S Region	**Type**	**Name**	**Pollutant Stressor**	**Potential**	**TMDL**	**Watershed**	**WLA** tons mi^2

[9] 2009-0009-DWQ as amended by 2010-0014-DWQ & 2012-0006-DWQ

				Sources	**Completion Date**	**Acres** mi^2	yr
6 R6.blackwood.sed	Cr	Blackwood Creek (Placer County)	Bedded Sediment	Various	9 2007	11	17272 total

T Region	**Type**	**Name**	**Pollutant Stressor**	**Potential Sources**	**TMDL Completion Date**	**Watershed Acres** mi^2	**WLA** tons mi^2 yr
6 R6.SquawCk.sed	R	Squaw Creek (Placer County)	Sedimentation /controllable sources	Various – basin plan amendment	4 13 2006	8.2	10,900

Adopted TMDLs for Construction Sediment Sources

Region	Type	Name	Pollutant Stressor	Potential Sources	**TMDL Completion Date**	**Watershed Area** mi^2	Waste load Allocation tons mi^2 yr
8	R	Newport Bay San Diego Creek Watershed	Sedimentation	Construction Land Development	1999	2.24 (1432 acres)	125,000 tons per Year (no more than 13,000 tons per year from construction sites)

APPENDIX 5:
Glossary

Active Areas of Construction
All areas subject to land surface disturbance activities related to the project including, but not limited to, project staging areas, immediate access areas and storage areas. All previously active areas are still considered active areas until final stabilization is complete. [The construction activity Phases used in this General Permit are the Preliminary Phase, Grading and Land Development Phase, Streets and Utilities Phase, and the Vertical Construction Phase.]

Active Treatment System (ATS)
A treatment system that employs chemical coagulation, chemical flocculation, or electrocoagulation to aid in the reduction of turbidity caused by fine suspended sediment.

Acute Toxicity Test
A chemical stimulus severe enough to rapidly induce a negative effect; in aquatic toxicity tests, an effect observed within 96 hours or less is considered acute.

Air Deposition
Airborne particulates from construction activities.

Approved Signatory
A person who has been authorized by the Legally Responsible Person to sign, certify, and electronically submit Permit Registration Documents, Notices of Termination, and any other documents, reports, or information required by the General Permit, the State or Regional Water Board, or U.S. EPA. The Approved Signatory must be one of the following:

1. For a corporation or limited liability company: a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (a) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation or limited liability company; or (b) the manager of the facility if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

2. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

3. For a municipality, State, Federal, or other public agency: a principal executive officer, ranking elected official, city manager, council president, or any other authorized public employee with managerial responsibility over the

construction or land disturbance project (including, but not limited to, project manager, project superintendent, or resident engineer);

4. For the military: any military officer or Department of Defense civilian, acting in an equivalent capacity to a military officer, who has been designated;

5. For a public university: an authorized university official;

6. For an individual: the individual, because the individual acts as both the Legally Responsible Person and the Approved Signatory; or

7. For any type of entity not listed above (e.g. trusts, estates, receivers): an authorized person with managerial authority over the construction or land disturbance project.

Beneficial Uses
As defined in the California Water Code, beneficial uses of the waters of the state that may be protected against quality degradation include, but are not limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.

Best Available Technology Economically Achievable (BAT)
As defined by USEPA, BAT is a technology-based standard established by the Clean Water Act (CWA) as the most appropriate means available on a national basis for controlling the direct discharge of toxic and nonconventional pollutants to navigable waters. The BAT effluent limitations guidelines, in general, represent the best existing performance of treatment technologies that are economically achievable within an industrial point source category or subcategory.

Best Conventional Pollutant Control Technology (BCT)
As defined by USEPA, BCT is a technology-based standard for the discharge from existing industrial point sources of conventional pollutants including biochemical oxygen demand (BOD), total suspended sediment (TSS), fecal coliform, pH, oil and grease.

Best Professional Judgment (BPJ)
The method used by permit writers to develop technology-based NPDES permit conditions on a case-by-case basis using all reasonably available and relevant data.

Best Management Practices (BMPs)
BMPs are scheduling of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants. BMPs also include treatment requirements, operating procedures,

and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Chain of Custody (COC)
Form used to track sample handling as samples progress from sample collection to the analytical laboratory. The COC is then used to track the resulting analytical data from the laboratory to the client. COC forms can be obtained from an analytical laboratory upon request.

Coagulation
The clumping of particles in a discharge to settle out impurities, often induced by chemicals such as lime, alum, and iron salts.

Common Plan of Development
Generally a contiguous area where multiple, distinct construction activities may be taking place at different times under one plan. A plan is generally defined as any piece of documentation or physical demarcation that indicates that construction activities may occur on a common plot. Such documentation could consist of a tract map, parcel map, demolition plans, grading plans or contract documents. Any of these documents could delineate the boundaries of a common plan area. However, broad planning documents, such as land use master plans, conceptual master plans, or broad-based CEQA or NEPA documents that identify potential projects for an agency or facility are not considered common plans of development.

Daily Average Discharge
The discharge of a pollutant measured during any 24-hour period that reasonably represents a calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged during the day. For pollutants with limitations expressed in other units of measurement (e.g., concentration) the daily discharge is calculated as the average measurement of the pollutant throughout the day (40 CFR 122.2). In the case of pH, the pH must first be converted from a log scale.

Debris
Litter, rubble, discarded refuse, and remains of destroyed inorganic anthropogenic waste.

Direct Discharge
A discharge that is routed directly to waters of the United States by means of a pipe, channel, or ditch (including a municipal storm sewer system), or through surface runoff.

Discharger
The Legally Responsible Person (see definition) or entity subject to this General Permit.

Dose Rate (for ATS)
In exposure assessment, dose (e.g. of a chemical) per time unit (e.g. mg/day), sometimes also called dosage.

Drainage Area
The area of land that drains water, sediment, pollutants, and dissolved materials to a common outlet.

Effluent
Any discharge of water by a discharger either to the receiving water or beyond the property boundary controlled by the discharger.

Effluent Limitation
Any numeric or narrative restriction imposed on quantities, discharge rates, and concentrations of pollutants which are discharged from point sources into waters of the United States, the waters of the contiguous zone, or the ocean.

Erosion
The process, by which soil particles are detached and transported by the actions of wind, water, or gravity.

Erosion Control BMPs
Vegetation, such as grasses and wildflowers, and other materials, such as straw, fiber, stabilizing emulsion, protective blankets, etc., placed to stabilize areas of disturbed soils, reduce loss of soil due to the action of water or wind, and prevent water pollution.

Field Measurements
Testing procedures performed in the field with portable field-testing kits or meters.

Final Stabilization
All soil disturbing activities at each individual parcel within the site have been completed in a manner consistent with the requirements in this General Permit.

First Order Stream
Stream with no tributaries.

Flocculants
Substances that interact with suspended particles and bind them together to form flocs.

Good Housekeeping BMPs
BMPs designed to reduce or eliminate the addition of pollutants to construction site runoff through analysis of pollutant sources, implementation of proper handling/disposal practices, employee education, and other actions.

Grading Phase (part of the Grading and Land Development Phase)
Includes reconfiguring the topography and slope including; alluvium removals; canyon cleanouts; rock undercuts; keyway excavations; land form grading; and stockpiling of select material for capping operations.

Hydromodification
Hydromodification is the alteration of the hydrologic characteristics of coastal and non-coastal waters, which in turn could cause degradation of water resources. Hydromodification can cause excessive erosion and/or sedimentation rates, causing excessive turbidity, channel aggradation and/or degradation.

Identified Organisms
Organisms within a sub-sample that is specifically identified and counted.

Inactive Areas of Construction
Areas of construction activity that are not active and those that have been active and are not scheduled to be re-disturbed for at least 14 days.

Index Period
The period of time during which bioassessment samples must be collected to produce results suitable for assessing the biological integrity of streams and rivers. Instream communities naturally vary over the course of a year,and sampling during the index period ensures that samples are collected during a time frame when communities are stable so that year-to-year consistency is obtained. The index period approach provides a cost-effective alternative to year-round sampling. Furthermore, sampling within the appropriate index period will yield results that are comparable to the assessment thresholds or criteria for a given region, which are established for the same index period. Because index periods differ for different parts of the state, it is essential to know the index period for your area.

K Factor
The soil erodibility factor used in the Revised Universal Soil Loss Equation (RUSLE). It represents the combination of detachability of the soil, runoff potential of the soil, and the transportability of the sediment eroded from the soil.

Legally Responsible Person
The Legally Responsible Person (LRP) will typically be the project proponent. The categories of persons or entities that are eligible to serve as the LRP are set forth below. For any construction or land disturbance project where multiple persons or entities are eligible to serve as the LRP, those persons or entities

shall select a single LRP. In exceptional circumstances, a person or entity that qualifies as the LRP may provide written authorization to another person or entity to serve as the LRP. In such a circumstance, the person or entity that provides the authorization retains all responsibility for compliance with the General Permit. Except as provided in category 2(d), a contractor who does not satisfy the requirements of any of the categories below is not qualified to be an LRP.

The following persons or entities may serve as an LRP:

1. A person, company, agency, or other entity that possesses a real property interest (including, but not limited to, fee simple ownership, easement, leasehold, or other rights of way) in the land upon which the construction or land disturbance activities will occur for the regulated site.

2. In addition to the above, the following persons or entities may also serve as an LRP:

    a. For linear underground/overhead projects, the utility company, municipality, or other public or private company or agency that owns or operates the LUP;

    b. For land controlled by an estate or similar entity, the person who has day-to-day control over the land (including, but not limited to, a bankruptcy trustee, receiver, or conservator);

    c. For pollution investigation and remediation projects, any potentially responsible party that has received permission to conduct the project from the holder of a real property interest in the land; or

    d. For U.S. Army Corp of Engineers projects, the U.S. Army Corps of Engineers may provide written authorization to its bonded contractor to serve as the LRP, provided, however, that the U.S. Army Corps of Engineers is also responsible for compliance with the general permit, as authorized by the Clean Water Act or the Federal Facilities Compliance Act.

Likely Precipitation Event
Any weather pattern that is forecasted to have a 50% or greater chance of producing precipitation in the project area. The discharger shall obtain likely precipitation forecast information from the National Weather Service Forecast Office (e.g., by entering the zip code of the project's location at http://www.srh.noaa.gov/forecast).

Maximum Allowable Threshold Concentration (MATC)
The allowable concentration of residual, or dissolved, coagulant/flocculant in effluent. The MATC shall be coagulant/flocculant-specific, and based on toxicity

testing conducted by an independent, third-party laboratory. A typical MATC would be:

The MATC is equal to the geometric mean of the NOEC (No Observed Effect Concentration) and LOEC (Lowest Observed Effect Concentration) Acute and Chronic toxicity results for most sensitive species determined for the specific coagulant. The most sensitive species test shall be used to determine the MATC.

Natural Channel Evolution
The physical trend in channel adjustments following a disturbance that causes the river to have more energy and degrade or aggrade more sediment. Channels have been observed to pass through 5 to 9 evolution types. Once they pass though the suite of evolution stages, they will rest in a new state of equilibrium.

Non-Storm Water Discharges
Discharges are discharges that do not originate from precipitation events. They can include, but are not limited to, discharges of process water, air conditioner condensate, non-contact cooling water, vehicle wash water, sanitary wastes, concrete washout water, paint wash water, irrigation water, or pipe testing water.

Non-Visible Pollutants
Pollutants associated with a specific site or activity that can have a negative impact on water quality, but cannot be seen though observation (ex: chlorine). Such pollutants being discharged are not authorized.

Numeric Action Level (NAL)
Level is used as a warning to evaluate if best management practices are effective and take necessary corrective actions. Not an effluent limit.

Original Sample Material
The material (i.e., macroinvertebrates, organic material, gravel, etc.) remaining after the subsample has been removed for identification.

pH
Unit universally used to express the intensity of the acid or alkaline condition of a water sample. The pH of natural waters tends to range between 6 and 9, with neutral being 7. Extremes of pH can have deleterious effects on aquatic systems.

Post-Construction BMPs
Structural and non-structural controls which detain, retain, or filter the release of pollutants to receiving waters after final stabilization is attained.

Preliminary Phase (Pre-Construction Phase - Part of the Grading and Land Development Phase)
Construction stage including rough grading and/or disking, clearing and grubbing operations, or any soil disturbance prior to mass grading.

Project

Qualified SWPPP Developer
Individual who is authorized to develop and revise SWPPPs.

Qualified SWPPP Practitioner
Individual assigned responsibility for non-storm water and storm water visual observations, sampling and analysis, and responsibility to ensure full compliance with the permit and implementation of all elements of the SWPPP, including the preparation of the annual compliance evaluation and the elimination of all unauthorized discharges.

Qualifying Rain Event
Any event that produces 0.5 inches or more precipitation with a 48 hour or greater period between rain events.

R Factor
Erosivity factor used in the Revised Universal Soil Loss Equation (RUSLE). The R factor represents the erosivity of the climate at a particular location. An average annual value of R is determined from historical weather records using erosivity values determined for individual storms. The erosivity of an individual storm is computed as the product of the storm's total energy, which is closely related to storm amount, and the storm's maximum 30-minute intensity.

Rain Event Action Plan (REAP)
Written document, specific for each rain event, that when implemented is designed to protect all exposed portions of the site within 48 hours of any likely precipitation event.

Remaining Sub sampled Material
The material (e.g., organic material, gravel, etc.) that remains after the organisms to be identified have been removed from the subsample for identification. (Generally, no macroinvertebrates are present in the remaining subsampled material, but the sample needs to be checked and verified using a complete Quality Assurance (QA) plan)

Routine Maintenance
Activities intended to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

Runoff Control BMPs
Measures used to divert runon from offsite and runoff within the site.

Run-on
Discharges that originate offsite and flow onto the property of a separate project site.

Revised Universal Soil Loss Equation (RUSLE)
Empirical model that calculates average annual soil loss as a function of rainfall and runoff erosivity, soil erodibility, topography, erosion controls, and sediment controls.

Sampling and Analysis Plan
Document that describes how the samples will be collected, under what conditions, where and when the samples will be collected, what the sample will be tested for, what test methods and detection limits will be used, and what methods/procedures will be maintained to ensure the integrity of the sample during collection, storage, shipping and testing (i.e., quality assurance/quality control protocols).

Sediment
Solid particulate matter, both mineral and organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water, gravity, or ice and has come to rest on the earth's surface either above or below sea level.

Sedimentation
Process of deposition of suspended matter carried by water, wastewater, or other liquids, by gravity. It is usually accomplished by reducing the velocity of the liquid below the point at which it can transport the suspended material.

Sediment Control BMPs
Practices that trap soil particles after they have been eroded by rain, flowing water, or wind. They include those practices that intercept and slow or detain the flow of storm water to allow sediment to settle and be trapped (e.g., silt fence, sediment basin, fiber rolls, etc.).

Settleable Solids (SS)
Solid material that can be settled within a water column during a specified time frame. It is typically tested by placing a water sample into an Imhoff settling cone and then allowing the solids to settle by gravity for a given length of time. Results are reported either as a volume (mL/L) or a mass (mg/L) concentration.

Sheet Flow
Flow of water that occurs overland in areas where there are no defined channels where the water spreads out over a large area at a uniform depth.

Site

Soil Amendment
Any material that is added to the soil to change its chemical properties, engineering properties, or erosion resistance that could become mobilized by storm water.

Streets and Utilities Phase
Construction stage including excavation and street paving, lot grading, curbs, gutters and sidewalks, public utilities, public water facilities including fire hydrants, public sanitary sewer systems, storm sewer system and/or other drainage improvements.

Structural Controls
Any structural facility designed and constructed to mitigate the adverse impacts of storm water and urban runoff pollution

Suspended Sediment Concentration (SSC)
The measure of the concentration of suspended solid material in a water sample by measuring the dry weight of all of the solid material from a known volume of a collected water sample. Results are reported in mg/L.

Total Suspended Solids (TSS)
The measure of the suspended solids in a water sample includes inorganic substances, such as soil particles and organic substances, such as algae, aquatic plant/animal waste, particles related to industrial/sewage waste, etc. The TSS test measures the concentration of suspended solids in water by measuring the dry weight of a solid material contained in a known volume of a sub-sample of a collected water sample. Results are reported in mg/L.

Toxicity
The adverse response(s) of organisms to chemicals or physical agents ranging from mortality to physiological responses such as impaired reproduction or growth anomalies.

Turbidity
The cloudiness of water quantified by the degree to which light traveling through a water column is scattered by the suspended organic and inorganic particles it contains. The turbidity test is reported in Nephelometric Turbidity Units (NTU) or Jackson Turbidity Units (JTU).

Vertical Construction Phase
The Build out of structures from foundations to roofing, including rough landscaping.

Waters of the United States
Generally refers to surface waters, as defined by the federal Environmental Protection Agency in 40 C.F.R. § 122.2.[1]

Water Quality Objectives (WQO)
Water quality objectives are defined in the California Water Code as limits or levels of water quality constituents or characteristics, which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area.

[1] The application of the definition of "waters of the United States" may be difficult to determine; there are currently several judicial decisions that create some confusion. If a landowner is unsure whether the discharge must be covered by this General Permit, the landowner may wish to seek legal advice.

APPENDIX 6:
Acronym List

ASBS	Areas of Special Biological Significance
ASTM	American Society of Testing and Materials; Standard Test Method for Particle-Size Analysis of Soils
ATS	Active Treatment System
BASMAA	Bay Area Storm water Management Agencies Association
BAT	Best Available Technology Economically Achievable
BCT	Best Conventional Pollutant Control Technology
BMP	Best Management Practices
BOD	Biochemical Oxygen Demand
BPJ	Best Professional Judgment
CAFO	Confined Animal Feeding Operation
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CGP	NPDES General Permit for Storm Water Discharges Associated with Construction Activities
CIWQS	California Integrated Water Quality System
CKD	Cement Kiln Dust
COC	Chain of Custody
CPESC	Certified Professional in Erosion and Sediment Control
CPSWQ	Certified Professional in Storm Water Quality
CSMP	Construction Site Monitoring Program
CTB	Cement Treated Base
CTR	California Toxics Rule
CWA	Clean Water Act
CWC	California Water Code
CWP	Center for Watershed Protection
DADMAC	Diallyldimethyl-ammonium chloride
DDNR	Delaware Department of Natural Resources
DFG	Department of Fish and Game
DHS	Department of Health Services
DWQ	Division of Water Quality
EC	Electrical Conductivity
ELAP	Environmental Laboratory Accreditation Program
EPA	Environmental Protection Agency
ESA	Environmentally Sensitive Area
ESC	Erosion and Sediment Control
HSPF	Hydrologic Simulation Program Fortran
JTU	Jackson Turbidity Units
LID	Low Impact Development
LOEC	Lowest Observed Effect Concentration
LRP	Legally Responsible Person
LUP	Linear Underground/Overhead Projects

MATC	Maximum Allowable Threshold Concentration
MDL	Method Detection Limits
MRR	Monitoring and Reporting Requirements
MS4	Municipal Separate Storm Sewer System
MUSLE	Modified Universal Soil Loss Equation
NAL	Numeric Action Level
NEL	Numeric Effluent Limitation
NICET	National Institute for Certification in Engineering Technologies
NOAA	National Oceanic and Atmospheric Administration
NOEC	No Observed Effect Concentration
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NTR	National Toxics Rule
NTU	Nephelometric Turbidity Units
O&M	Operation and Maintenance
PAC	Polyaluminum chloride
PAM	Polyacrylamide
PASS	Polyaluminum chloride Silica/sulfate
POC	Pollutants of Concern
PoP	Probability of Precipitation
POTW	Publicly Owned Treatment Works
PRDs	Permit Registration Documents
PWS	Planning Watershed
QAMP	Quality Assurance Management Plan
QA/QC	Quality Assurance/Quality Control
REAP	Rain Event Action Plan
Regional Board	Regional Water Quality Control Board
ROWD	Report of Waste Discharge
RUSLE	Revised Universal Soil Loss Equation
RW	Receiving Water
SMARTS	Storm water Multi Application Reporting and Tracking System
SS	Settleable Solids
SSC	Suspended Sediment Concentration
SUSMP	Standard Urban Storm Water Mitigation Plan
SW	Storm Water
SWARM	Storm Water Annual Report Module
SWAMP	Surface Water Ambient Monitoring Program
SWMM	Storm Water Management Model
SWMP	Storm Water Management Program
SWPPP	Storm Water Pollution Prevention Plan
TC	Treatment Control
TDS	Total Dissolved Solids

TMDL	Total Maximum Daily Load
TSS	Total Suspended Solids
USACOE	U.S. Army Corps of Engineers
USC	United States Code
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
WDID	Waste Discharge Identification Number
WDR	Waste Discharge Requirements
WLA	Waste Load Allocation
WET	Whole Effluent Toxicity
WRCC	Western Regional Climate Center
WQBEL	Water Quality Based Effluent Limitation
WQO	Water Quality Objective
WQS	Water Quality Standard

APPENDIX 7:
State and Regional Water Resources Control Board Contacts

NORTH COAST REGION (1)
5550 Skylane Blvd, Ste. A
Santa Rose, CA 95403
(707) 576-2220 FAX: (707)523-0135

SAN FRANCISCO BAY REGION (2)
1515 Clay Street, Ste. 1400
Oakland, CA 94612
(510) 622-2300 FAX: (510) 622-2640

CENTRAL COAST REGION (3)
895 Aerovista Place, Ste 101
San Luis Obispo, CA 93401
(805) 549-3147 FAX: (805) 543-0397

LOS ANGELES REGION (4)
320 W. 4th Street, Ste. 200
Los Angeles, CA 90013
(213) 576-6600 FAX: (213) 576-6640

CENTRAL VALLEY REGION (5S)
11020 Sun Center Dr., #200
Rancho Cordova, CA 95670-6114
(916) 464-3291 FAX: (916) 464-4645

FRESNO BRANCH OFFICE (5F)
1685 E St.
Fresno, CA 93706
(559) 445-5116 FAX: (559) 445-5910

REDDING BRANCH OFFICE (5R)
364 Knollcrest Drive, Ste. 205
Redding, CA 96002
(530) 224-4845 FAX: (530) 224-4857

LAHONTAN REGION (6 SLT)
2501 Lake Tahoe Blvd.
South Lake Tahoe, CA 96150
(530) 542-5400 FAX: (530) 544-2271

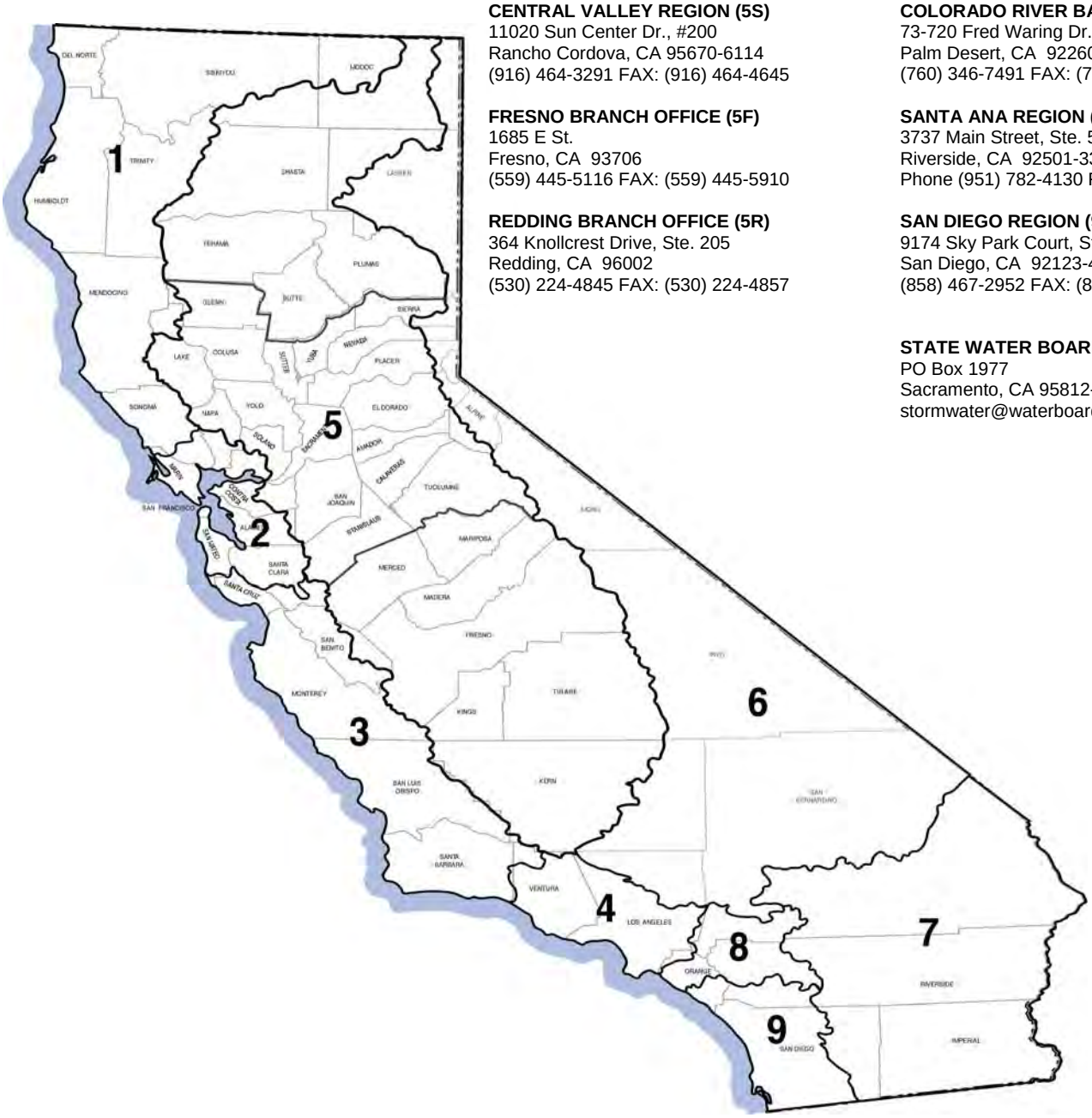
VICTORVILLE OFFICE (6V)
14440 Civic Drive, Ste. 200
Victorville, CA 92392-2383
(760) 241-6583 FAX: (760) 241-7308

COLORADO RIVER BASIN REGION (7)
73-720 Fred Waring Dr., Ste. 100
Palm Desert, CA 92260
(760) 346-7491 FAX: (760) 341-6820

SANTA ANA REGION (8)
3737 Main Street, Ste. 500
Riverside, CA 92501-3339
Phone (951) 782-4130 FAX: (951) 781-6288

SAN DIEGO REGION (9)
9174 Sky Park Court, Ste. 100
San Diego, CA 92123-4340
(858) 467-2952 FAX: (858) 571-6972

STATE WATER BOARD
PO Box 1977
Sacramento, CA 95812-1977
stormwater@waterboards.ca.gov



Appendix C-2. Site Risk Analysis

United States Environmental Protection Agency

National Pollutant Discharge Elimination System (NPDES)

Rainfall Erosivity Factor Calculator for Small Construction Sites

EPA's stormwater regulations allow NPDES permitting authorities to waive NPDES permitting requirements for stormwater discharges from small construction sites if:

- the construction site disturbs less than five acres, and
- the rainfall erosivity factor ("R" in the revised universal soil loss equation, or RUSLE) value is less than five during the period of construction activity.

If your small construction project is located in an area where EPA is the permitting authority and your R factor is less than five, you qualify for a low erosivity waiver (LEW) from NPDES stormwater permitting. LEW certifications are submitted through the electronic Notice of Intent (eNOI) system. Several states that are authorized to implement the NPDES permitting program also accept LEWs. Check with your state NPDES permitting authority for more information.

- List of states, Indian country, and territories where EPA's 2012 Construction General Permit (CGP) and Multi-Sector General Permit (MSGP) Apply
- EPA's 2012 CGP eNOI System

The period during which small construction sites qualify for the waiver generally occurs during a relatively short time in arid and semi-arid areas. If your small construction project does not qualify for a waiver, then NPDES stormwater permit coverage is required.

To use the Rainfall Erosivity Factor Calculator to determine your eligibility for the LEW, you will need your project's location (either latitude/longitude or address) and the estimated start and end dates of construction. The period of construction activity begins at initial earth disturbance and ends with final stabilization.

- Construction Rainfall Erosivity Waiver Fact Sheet
- Appendix C of the 2012 CGP – Small Construction Waivers and Instructions

For questions or comments, email EPA's 2012 CGP staff at cgp@epa.gov.

Facility Information

- Start Date: 06/13/2016
- End Date: 10/14/2016
- Latitude: 37.804722222222
- Longitude: -121.52916666667

Erosivity Index Calculator Results

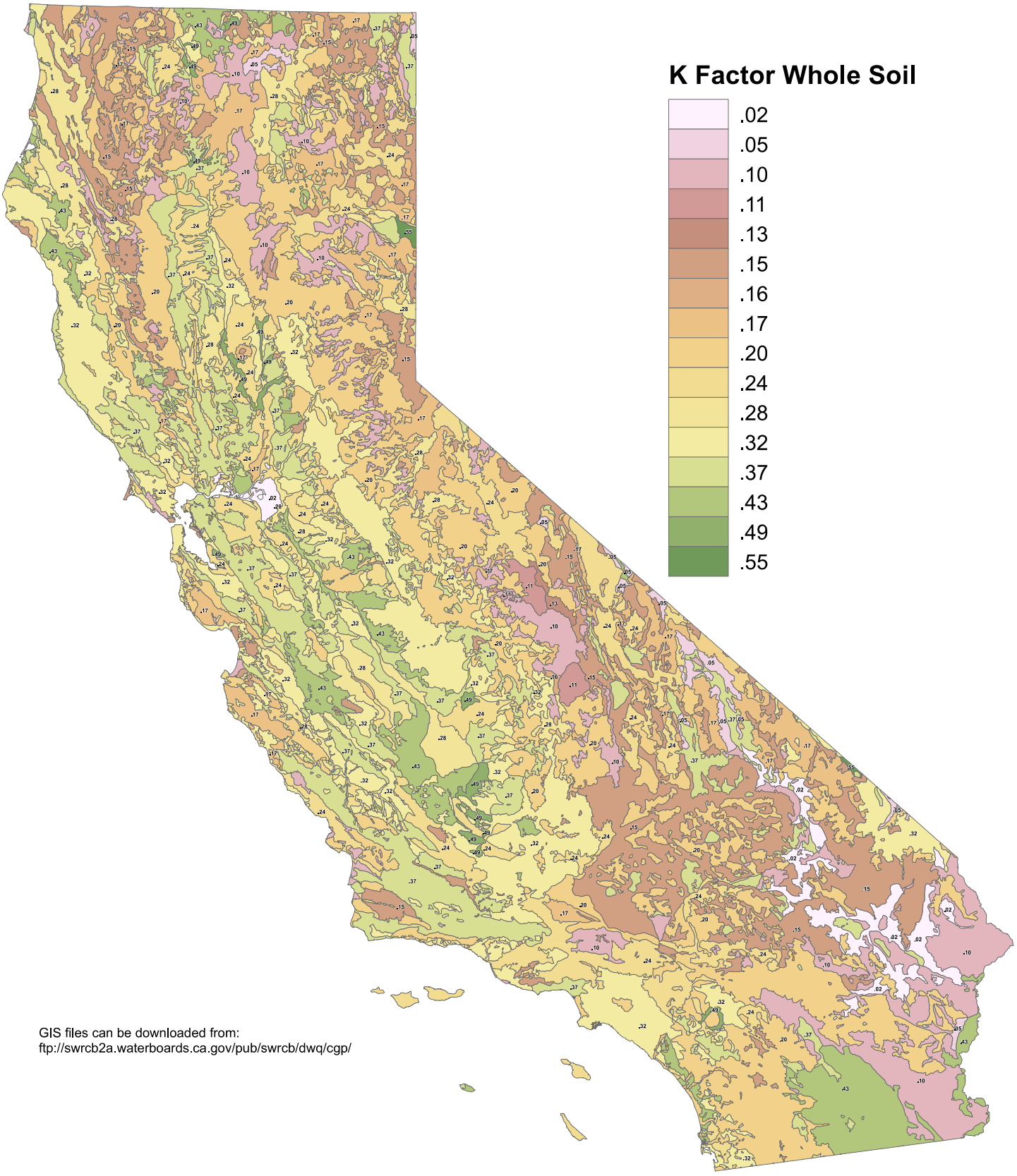
AN EROSIVITY INDEX VALUE OF **1.50** HAS BEEN DETERMINED FOR THE CONSTRUCTION PERIOD OF **06/13/2016 - 10/14/2016**.

A rainfall erosivity factor of less than 5.0 has been calculated for your site and period of construction. Contact your permitting authority to determine if you are eligible for a waiver from NPDES permitting requirements. If you are covered under EPA's construction general permit then you can use eNOI to submit your low erosivity waiver certification.

If your construction activity extends past the project completion date you specified above, you must recalculate the R factor using the original start date and a new project completion date. If the recalculated R factor is still less than 5.0, a new waiver certification form must be submitted before the end of the original construction period. If the new R factor is 5.0 or greater, the operator must submit a Notice of Intent to be covered by the Construction General Permit before the original project completion date.

Start Over

RUSLE K Values



GIS files can be downloaded from:
ftp://swrcb2a.waterboards.ca.gov/pub/swrcb/dwq/cgp/

Water Boards

Data Source: *Natural Resources Conservation Service, U.S. Dept. of Agriculture and State Water Resources Control Board*

RUSLE K Factor Watershed Map Methodology

Objective:
To provide guidance for determining the Revised Universal Soil Loss Equation (RUSLE) K Factor with regards to the Construction General Permit. The K factor represents the combination of detachability of the soil, runoff potential of the soil, and the transportability of the sediment eroded from the soil. Using the methodology, a discharger will be able to identify the appropriate, areally-weighted K Factor value for a construction project.

Background:
The soil-erodibility factor (K) represents: (1) the susceptibility of soil or surface material to erosion, (2) the transportability of the sediment, and (3) the amount and rate of runoff given a particular rainfall input, as measured under a standard condition. Fine-textured soils that are high in clay have low K values (about 0.05 to 0.15) because the particles are resistant to detachment. Coarse-textured soils, such as sandy soils, also have low K values (about 0.05 to 0.2) because of high infiltration resulting in low runoff, although these particles are easily detached. Medium-textured soils, such as a silt loam, have moderate K values (about 0.25 to 0.45) because they are moderately susceptible to particle detachment and they produce runoff at moderate rates. Soils having a high silt content are especially susceptible to erosion and have high K values, which can exceed 0.45 and can be as large as 0.65. Silt-size particles are easily detached and tend to crust, producing high runoff rates and large runoff volumes. For more information on the Construction General Permit and references for the RUSLE, please visit:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml

Data and Method:
Soil data was acquired from the Natural Resources Conservation Service (NRCS) and was used in conjunction with an NRCS Microsoft Access template and the NRCS Soil Data Viewer. The Microsoft Access template was used in conjunction with the data received from the Soil Data Mart to produce the background data needed to create the K Factor values (for whole soil) in ArcMap.

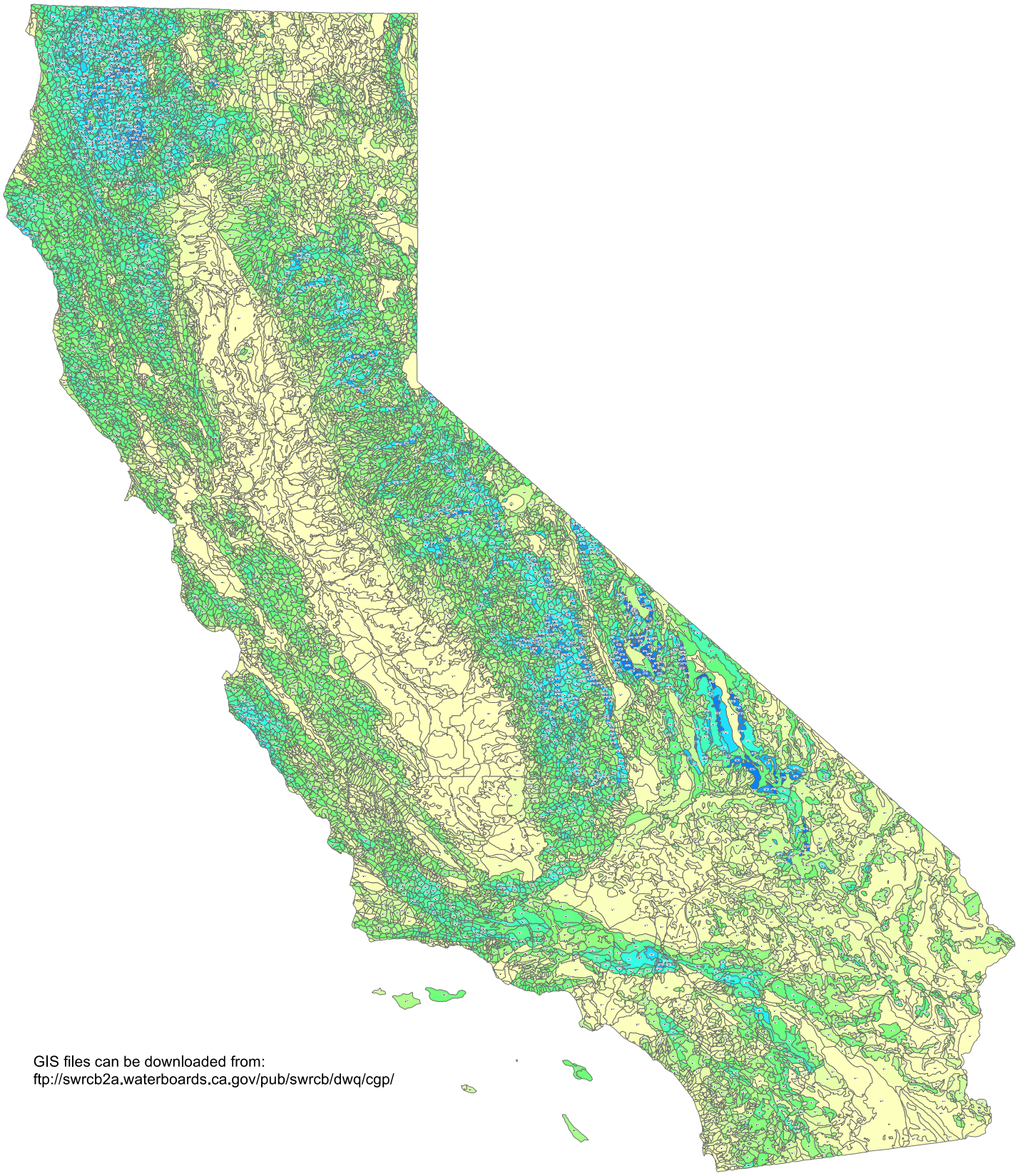
- The California subset of the U.S. General Soils Map dataset can be downloaded from: http://soildatamart.nrcs.usda.gov/Default.aspx
- The Microsoft Access template needed to produce K Factor values can be downloaded from: http://soildatamart.nrcs.usda.gov/Templates.aspx
- The GIS extension “Soil Data Viewer” used in creating this data can be downloaded from: http://soils.usda.gov/sdv/download.html

For a complete list of NRCS soil survey data and methods please visit:
- http://soildatamart.nrcs.usda.gov/SSURGOMetadata.aspx

Contact:
Please contact the Storm Water help desk with any questions or comments:
- Phone: 916-341-5537
- Email: stormwater@waterboards.ca.gov

Geographic Information System (GIS) Data can be accessed at:
ftp://swrcb2a.waterboards.ca.gov/pub/swrcb/dwq/cgp/Risk/

RUSLE LS Values



GIS files can be downloaded from:
ftp://swrcb2a.waterboards.ca.gov/pub/swrcb/dwq/cgp/

Water Boards

0 25 50 100 Miles

Data Source:*State Water Resources Control Board*

	A	B	C
1	**Sediment Risk Factor Worksheet**		**Entry**
2	**A) R Factor**		
3	Analyses of data indicated that when factors other than rainfall are held constant, soil loss is directly proportional to a rainfall factor composed of total storm kinetic energy (E) times the maximum 30-min intensity (I30) (Wischmeier and Smith, 1958). The numerical value of R is the average annual sum of EI30 for storm events during a rainfall record of at least 22 years. "Isoerodent" maps were developed based on R values calculated for more than 1000 locations in the Western U.S. Refer to the link below to determine the R factor for the project site.		
4	https://www.epa.gov/npdes/rainfall-erosivity-factor-calculator-small-construction-sites#getTool		
5	**R Factor Value**		1.5
6	**B) K Factor (weighted average, by area, for all site soils)**		
7	The soil-erodibility factor K represents: (1) susceptibility of soil or surface material to erosion, (2) transportability of the sediment, and (3) the amount and rate of runoff given a particular rainfall input, as measured under a standard condition. Fine-textured soils that are high in clay have low K values (about 0.05 to 0.15) because the particles are resistant to detachment. Coarse-textured soils, such as sandy soils, also have low K values (about 0.05 to 0.2) because of high infiltration resulting in low runoff even though these particles are easily detached. Medium-textured soils, such as a silt loam, have moderate K values (about 0.25 to 0.45) because they are moderately susceptible to particle detachment and they produce runoff at moderate rates. Soils having a high silt content are especially susceptible to erosion and have high K values, which can exceed 0.45 and can be as large as 0.65. Silt-size particles are easily detached and tend to crust, producing high rates and large volumes of runoff. Use Site-specific data must be submitted.		
8	Site-specific K factor guidance		
9	**K Factor Value**		0.32
10	**C) LS Factor (weighted average, by area, for all slopes)**		
11	The effect of topography on erosion is accounted for by the LS factor, which combines the effects of a hillslope-length factor, L, and a hillslope-gradient factor, S. Generally speaking, as hillslope length and/or hillslope gradient increase, soil loss increases. As hillslope length increases, total soil loss and soil loss per unit area increase due to the progressive accumulation of runoff in the downslope direction. As the hillslope gradient increases, the velocity and erosivity of runoff increases. Use the LS table located in separate tab of this spreadsheet to determine LS factors. Estimate the weighted LS for the site prior to construction.		
12	LS Table		
13	**LS Factor Value**		5.03
14			
15	**Watershed Erosion Estimate (=RxKxLS) in tons/acre**		2.4144
16	**Site Sediment Risk Factor**		**Low**
17	Low Sediment Risk: < 15 tons/acre		
18	Medium Sediment Risk: >=15 and <75 tons/acre		
19	High Sediment Risk: >= 75 tons/acre		
20			

SAN MATEO COASTAL BASIN

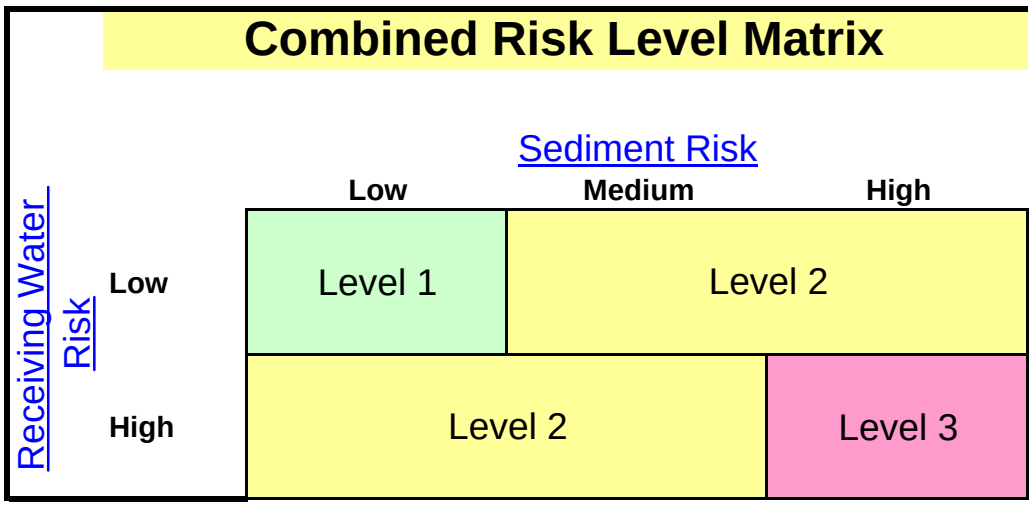
	← Human Consumptive Uses →						← Aquatic Life Uses →									→ Wildlife Use	→ Recreational Uses		
COUNTY Waterbody	AGR	MUN	FRSH	GWR	IND	PROC	COMM	SHELL	COLD	EST	MAR	MIGR	RARE	SPWN	WARM	WILD	REC-1	REC-2	NAV
SAN FRANCISCO COUNTY																			
Pacific Ocean (San Mateo, San Francisco Counties)					E		E	E			E	E	E	E		E	E[1]	E	E
Lake Merced		P					E		E					E	E	E	E	E	
SAN MATEO COUNTY																			
Milagra Creek												E	E		E	E	E	E	
Calera Creek (San Mateo)													E		E	E	E	E	
San Pedro Creek		E							E			E	E	E	E	E	E	E	
San Vicente Creek	E	E							E			E	E	E	E	E	E	E	
Denniston Creek	E	E							E			E	E	E	E	E	E	E	
Arroyo de en Medio									E						E	E	E	E	
Frenchmans Creek	E								E			E	E	E	E	E	E	E	
Pilarcitos Creek	E	E							E			E	E	E	E	E	E	E	
Arroyo Leon Creek									E						E	E	E	E	
Mills Creek (San Mateo)									E				E		E	E	E	E	
Apanolio Creek									E				E	E	E	E	E	E	
Corinda Los Trancos Creek									E				E		E	E	E	E	
Pilarcitos Reservoir		E							E				E	E	E	E	E*	E	
Purisima Creek	E								E			E	E	E		E	E	E	
Lobitos Creek	E								E			E	E	E		E	E	E	
Tunitas Creek	E	E							E			E	E	E	E	E	E	E	
San Gregorio Creek	E								E			E	E	E	E	E	E	E	
Clear Creek									E						E	E	E	E	
El Corte de Madera Creek									E			P	E	P	E	E	E	E	
Bogess Creek									E			E	E	E	E	E	E	E	
Harrington Creek									E			E	E	E	E	E	E	E	
La Honda Creek									E			E	E	E	E	E	E	E	

[1] REC-1 applies within a zone bounded by the shoreline and a distance of 1000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline. This distance is consistent with the applicability of water-contact standards in the Water Quality Plan for the Ocean Waters of California.

E: Existing beneficial use E*: Water quality objectives apply; water contact recreation is prohibited or limited to protect public health P: Potential beneficial use

Receiving Water (RW) Risk Factor Worksheet	Entry	Score
A. Watershed Characteristics	**yes/no**	
A.1. Does the disturbed area discharge (either directly or indirectly) to a **303(d)-listed waterbody impaired by sediment** (For help with impaired waterbodies please visit the link below) or has a **USEPA approved TMDL implementation plan for sediment**?:	**no**	**Low**
http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml		
OR		
A.2. Does the disturbed area discharge to a waterbody with designated beneficial uses of SPAWN & COLD & MIGRATORY? (For help please review the appropriate Regional Board Basin Plan)		
http://www.waterboards.ca.gov/waterboards_map.shtml		
Region 1 Basin Plan		
Region 2 Basin Plan		
Region 3 Basin Plan		
Region 4 Basin Plan		
Region 5 Basin Plan		
Region 6 Basin Plan		
Region 7 Basin Plan		
Region 8 Basin Plan		
Region 9 Basin Plan		

Combined Risk Level Matrix



Project Sediment Risk:	**Low**
Project RW Risk:	**Low**
Project Combined Risk:	**Level 1**

Appendix C-3. SWPPP Amendment Log

STORM WATER POLLUTION PREVENTION PLAN

Lendrum Court – Phase 1
San Francisco, California

AMENDMENT LOG

Project Name: Lendrum Court – Phase 1

Project Number: _____

Amendment No.	Date	Brief Description of Amendment, include section and page number	Prepared and Approved By
			Name: QSD#
			Name: QSD#
			Name: QSD#
			Name: QSD#
			Name: QSD#
			Name: QSD#
			Name: QSD#
			Name: QSD#
			Name: QSD#
			Name: QSD#
			Name: QSD#
			Name: QSD#

LENDRUM COURT - PHASE 1 CONSTRUCTION
DISTURBED AREA AMENDMENT FORM

Reason for Amendment:

_____

_____

_____

_____

_____

_____

Date Amendment Implemented _____

What Specifically was Amended in SWPPP:

_____

_____

_____

_____

_____

_____

I certify this SWPPP Amendment is being made by the responsible corporate officer or the authorized representative. A copy of the required delegation letter is included in the SWPPP.

Signature: _____ Date: _____

Printed Name: _____

Appendix C-4. Non-Compliance Documentation

NOTIFICATION OF ANTICIPATED NON-COMPLIANCE
(Store Completed Forms in Appendix XVII)

This form will be used to report instances of anticipated non-compliance. The LRP must provide advanced notice to the local Regional Water Quality Control Board and local Storm Water Management Agency (see Appendix XIII for the relevant contact information).

WDID Number:_____

In accordance/compliance with the **State Water Resources Control Board** (SWRCB) Order No. 2009-0009-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002 Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities, the following discharge is anticipated:

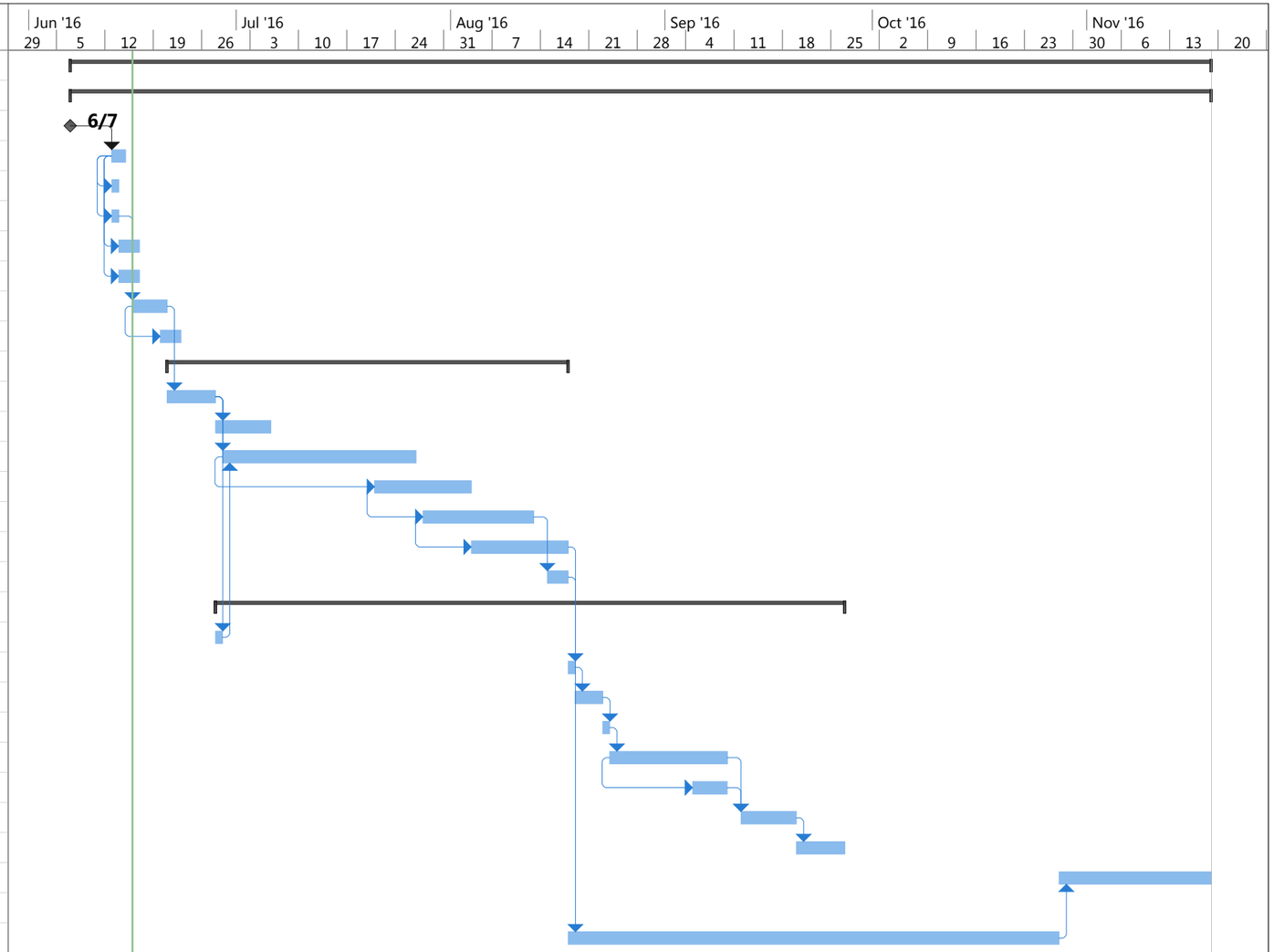
Nature of planned change in construction activity that may result in non-compliance with CGP requirements:

Date, time, and location of anticipated discharge:

Name of LRP or Approved Signatory	Title
Company	Telephone Number
Signature	Date

Appendix C-5. Construction Schedule

ID	Task Mode	Task Name	Duration	Start	Finish
1		**PT-2015-051 Lendrum Court**	**117 days?**	**Tue 6/7/16**	**Fri 11/18/16**
2		**ERRG**	**117 days**	**Tue 6/7/16**	**Fri 11/18/16**
3		Receipt of NTP	0 days	Tue 6/7/16	Tue 6/7/16
4		Mobilization	2 days	Mon 6/13/16	Tue 6/14/16
5		Initial Temp Fence Install	1 day	Mon 6/13/16	Mon 6/13/16
6		Prepare Lincoln Laydown Area	1 day	Mon 6/13/16	Mon 6/13/16
7		Initial Construction BMP Install	3 days	Tue 6/14/16	Thu 6/16/16
8		Prepare Nike	3 days	Tue 6/14/16	Thu 6/16/16
9		Clearing and Grubbing	3 days	Thu 6/16/16	Mon 6/20/16
10		Stump Grinding	3 days	Mon 6/20/16	Wed 6/22/16
11		**East Side**	**41 days**	**Tue 6/21/16**	**Wed 8/17/16**
12		Remedial Excavation	5 days	Tue 6/21/16	Mon 6/27/16
13		TPZ Hand Work	5 days	Tue 6/28/16	Tue 7/5/16
14		Rough Grading	20 days	Wed 6/29/16	Tue 7/26/16
15		Gopher Wire Install	10 days	Thu 7/21/16	Wed 8/3/16
16		Place and Compact Fill	12 days	Thu 7/28/16	Fri 8/12/16
17		Finish Grading	10 days	Thu 8/4/16	Wed 8/17/16
18		AB Pads	3 days	Mon 8/15/16	Wed 8/17/16
19		**West Side**	**63 days**	**Tue 6/28/16**	**Mon 9/26/16**
20		Remedial Excavation - Stockpile Area	1 day	Tue 6/28/16	Tue 6/28/16
21		Hard Scape Demo	1 day	Thu 8/18/16	Thu 8/18/16
22		Remedial Excavation - Remaining Area	2 days	Fri 8/19/16	Mon 8/22/16
23		Hot Spot Removal	1 day	Tue 8/23/16	Tue 8/23/16
24		Rough Grading	13 days	Wed 8/24/16	Fri 9/9/16
25		Gopher Wire Install	5 days	Mon 9/5/16	Fri 9/9/16
26		Place and Compact Fill	6 days	Mon 9/12/16	Mon 9/19/16
27		Finish Grading	5 days	Tue 9/20/16	Mon 9/26/16
28		Restoration and Demobilization	16 days	Fri 10/28/16	Fri 11/18/16
29		**M&H**			
30		Schedule TBD, work is approximately 2.5 months. Potentially starting with East Side in late August	50 days	Thu 8/18/16	Thu 10/27/16



Project: Lendrum2016_Baseline
Date: Thu 6/16/16

Task	Project Summary	Manual Task	Start-only	Deadline
Split	Inactive Task	Duration-only	Finish-only	Progress
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress
Summary	Inactive Summary	Manual Summary	External Milestone

Appendix C-6. Construction Activities, Materials Used and Associated Pollutants

Materials Used and Associated Pollutants

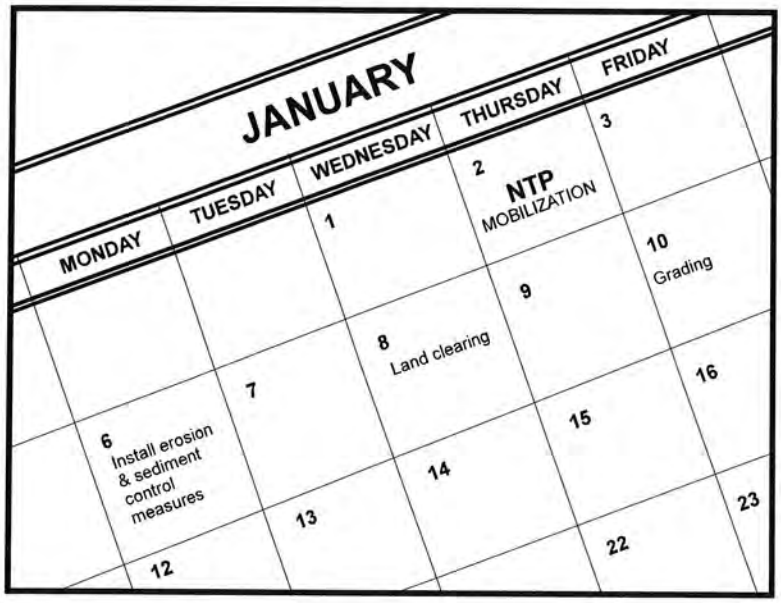
Material Type	Pollutant	Visually Observable	Potential Location
Diesel fuel	Petroleum distillates, naphthalene, xylene	Sheen/stain	Site
Gasoline	Benzene, toluene, xylene, MTBE	Sheen/stain	Site
Hydraulic oil	Mineral oil, trace additives	Sheen/stain	Site
Engine oil	Mineral oil, additives, combustion byproducts	Sheen/stain	Site
Transmission oil	Mineral oil, trace additives	Sheen/stain	Site
Engine coolant	Ethylene and propylene glycol, heavy metals	Green/red	Site
Grease	Petroleum hydrocarbons	Sheen/stain	Site
Concrete (wet)	Nitrogen, phosphorus	No	Not Applicable
Concrete coring slurry	Flyash, heavy metals, Portland cement	White solid	Not Applicable
Concrete sawing slurry	Turbidity and pH	Gray liquid	Not Applicable
Cement	Turbidity and pH	Gray powder	Not Applicable
Drywall joint compound	Pigment, vinyl acetate	White putty	Not Applicable
Grout	Silica sand, Portland cement	White powder	Not Applicable
Paint	Ethylene glycol, titanium oxide, VOCs	Colored liquid	Not Applicable
Sealers	Diacetone alcohol		Site
Adhesives		White/yellow	Site
Sanitary waste	Human waste	Blue liquid	Site
Asphalt	Asphalt fumes, cutback asphalt	Black material	Site
Curing compounds	Glass oxide, urea extended phenol	Creamy white	Site
Waste wash water		Suds, foam, froth	Site
Cleaning solvents	Methylene chloride	Varies	Site
Sediment	Soil, turbidity	Muddy	Site
Vegetation		Yes	Site
Solid Waste	Wood and paper packaging	Yes	Site
	Scrap metal	Yes	Site
	Rubber	Yes	Site
	Plastic	Yes	Site
	Glass	Yes	Site
		Yes	Site

MTBE = Methel tert-butyl ether
VOCs = Volatile organic compounds

Appendix C-7. BMP Fact Sheets

Scheduling

EC-1



Categories

EC	Erosion Control	☑
SE	Sediment Control	☒
TC	Tracking Control	☒
WE	Wind Erosion Control	☒
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

Description and Purpose

Scheduling is the development of a written plan that includes sequencing of construction activities and the implementation of BMPs such as erosion control and sediment control while taking local climate (rainfall, wind, etc.) into consideration. The purpose is to reduce the amount and duration of soil exposed to erosion by wind, rain, runoff, and vehicle tracking, and to perform the construction activities and control practices in accordance with the planned schedule.

Suitable Applications

Proper sequencing of construction activities to reduce erosion potential should be incorporated into the schedule of every construction project especially during rainy season. Use of other, more costly yet less effective, erosion and sediment control BMPs may often be reduced through proper construction sequencing.

Limitations

- Environmental constraints such as nesting season prohibitions reduce the full capabilities of this BMP.

Implementation

- Avoid rainy periods. Schedule major grading operations during dry months when practical. Allow enough time before rainfall begins to stabilize the soil with vegetation or physical means or to install sediment trapping devices.
- Plan the project and develop a schedule showing each phase

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of construction. Clearly show how the rainy season relates to soil disturbing and re-stabilization activities. Incorporate the construction schedule into the SWPPP.

- Include on the schedule, details on the rainy season implementation and deployment of:
  - Erosion control BMPs
  - Sediment control BMPs
  - Tracking control BMPs
  - Wind erosion control BMPs
  - Non-stormwater BMPs
  - Waste management and materials pollution control BMPs
- Include dates for activities that may require non-stormwater discharges such as dewatering, sawcutting, grinding, drilling, boring, crushing, blasting, painting, hydro-demolition, mortar mixing, pavement cleaning, etc.
- Work out the sequencing and timetable for the start and completion of each item such as site clearing and grubbing, grading, excavation, paving, foundation pouring utilities installation, etc., to minimize the active construction area during the rainy season.
  - Sequence trenching activities so that most open portions are closed before new trenching begins.
  - Incorporate staged seeding and re-vegetation of graded slopes as work progresses.
  - Schedule establishment of permanent vegetation during appropriate planting time for specified vegetation.
- Non-active areas should be stabilized as soon as practical after the cessation of soil disturbing activities or one day prior to the onset of precipitation.
- Monitor the weather forecast for rainfall.
- When rainfall is predicted, adjust the construction schedule to allow the implementation of soil stabilization and sediment treatment controls on all disturbed areas prior to the onset of rain.
- Be prepared year round to deploy erosion control and sediment control BMPs. Erosion may be caused during dry seasons by un-seasonal rainfall, wind, and vehicle tracking. Keep the site stabilized year round, and retain and maintain rainy season sediment trapping devices in operational condition.
- Apply permanent erosion control to areas deemed substantially complete during the project's defined seeding window.

Costs

Construction scheduling to reduce erosion may increase other construction costs due to reduced economies of scale in performing site grading. The cost effectiveness of scheduling techniques should be compared with the other less effective erosion and sedimentation controls to achieve a cost effective balance.

Inspection and Maintenance

- Verify that work is progressing in accordance with the schedule. If progress deviates, take corrective actions.
- Amend the schedule when changes are warranted.
- Amend the schedule prior to the rainy season to show updated information on the deployment and implementation of construction site BMPs.

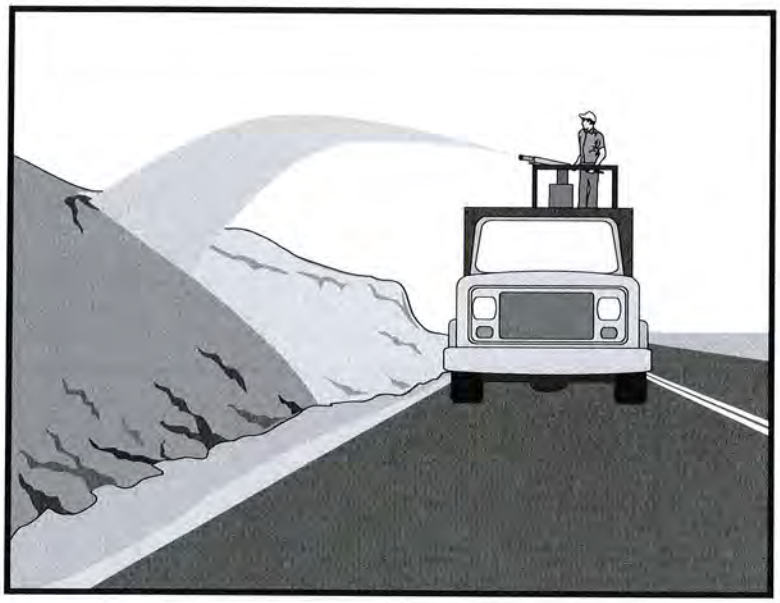
References

Stormwater Quality Handbooks Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management for Construction Activities Developing Pollution Prevention Plans and Best Management Practices (EPA 832-R-92-005), U.S. Environmental Protection Agency, Office of Water, September 1992.

Straw Mulch

EC-6



Categories

EC	Erosion Control	☑
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	☒
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Category**

☒ **Secondary Category**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

EC-3 Hydraulic Mulch

EC-4 Hydroseeding

EC-5 Soil Binders

EC-7 Geotextiles and Mats

EC-8 Wood Mulching

EC-14 Compost Blanket

Description and Purpose

Straw mulch consists of placing a uniform layer of straw and incorporating it into the soil with a studded roller or crimper, or anchoring it with a tackifier or stabilizing emulsion. Straw mulch protects the soil surface from the impact of rain drops, preventing soil particles from becoming dislodged.

Suitable Applications

Straw mulch is suitable for disturbed areas requiring temporary protection until permanent stabilization is established. Straw mulch can be specified for the following applications:

- As a stand-alone BMP on disturbed areas until soils can be prepared for permanent vegetation. The longevity of straw mulch is typically less than six months.
- Applied in combination with temporary seeding strategies
- Applied in combination with permanent seeding strategies to enhance plant establishment and final soil stabilization
- Applied around containerized plantings to control erosion until the plants become established to provide permanent stabilization

Limitations

- Availability of straw and straw blowing equipment may be limited just prior to the rainy season and prior to storms due to high demand.

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- There is a potential for introduction of weed seed and unwanted plant material if weed-free agricultural straw is not specified.
- Straw mulch applied by hand is more time intensive and potentially costly.
- Wind may limit application of straw and blow straw into undesired locations.
- May have to be removed prior to permanent seeding or prior to further earthwork.
- "Punching" of straw does not work in sandy soils, necessitating the use of tackifiers.
- Potential fugitive dust control issues associated with straw applications can occur. Application of a stabilizing emulsion or a water stream at the same time straw is being blown can reduce this problem.
- Use of plastic netting should be avoided in areas where wildlife may be entrapped and may be prohibited for projects in certain areas with sensitive wildlife species, especially reptiles and amphibians.

Implementation

- Straw should be derived from weed-free wheat, rice, or barley. Where required by the plans, specifications, permits, or environmental documents, native grass straw should be used.
- Use tackifier to anchor straw mulch to the soil on slopes.
- Crimping, punch roller-type rollers, or track walking may also be used to incorporate straw mulch into the soil on slopes. Track walking can be used where other methods are impractical.
- Avoid placing straw onto roads, sidewalks, drainage channels, sound walls, existing vegetation, etc.
- Straw mulch with tackifier should not be applied during or immediately before rainfall.
- Additional guidance on the comparison and selection of temporary slope stabilization methods is provided in Appendix F of the Handbook.

Application Procedures

- When using a tackifier to anchor the straw mulch, roughen embankment or fill areas by rolling with a crimping or punching-type roller or by track walking before placing the straw mulch. Track walking should only be used where rolling is impractical.
- Apply straw at a rate of between 3,000 and 4,000 lb/acre, either by machine or by hand distribution and provide 100% ground cover. A lighter application is used for flat surfaces and a heavier application is used for slopes.
- Evenly distribute straw mulch on the soil surface.
- Anchoring straw mulch to the soil surface by "punching" it into the soil mechanically (incorporating) can be used in lieu of a tackifier.

- Methods for holding the straw mulch in place depend upon the slope steepness, accessibility, soil conditions, and longevity.
  - A tackifier acts to glue the straw fibers together and to the soil surface. The tackifier should be selected based on longevity and ability to hold the fibers in place. A tackifier is typically applied at a rate of 125 lb/acre. In windy conditions, the rates are typically 180 lb/acre.
  - On very small areas, a spade or shovel can be used to punch in straw mulch.
  - On slopes with soils that are stable enough and of sufficient gradient to safely support construction equipment without contributing to compaction and instability problems, straw can be "punched" into the ground using a knife blade roller or a straight bladed coulter, known commercially as a "crimper."

Costs

Average annual cost for installation and maintenance is included in the table below. Application by hand is more time intensive and potentially more costly.

BMP	Unit Cost per Acre
Straw mulch, crimped or punched	$2,458-$5,375
Straw mulch with tackifier	$1,823-$4,802

Source: Caltrans Soil Stabilization BMP Research for Erosion and Sediment Controls, July 2007

Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Areas where erosion is evident should be repaired and BMPs re-applied as soon as possible. Care should be exercised to minimize the damage to protected areas while making repairs, as any area damaged will require re-application of BMPs.
- The key consideration in inspection and maintenance is that the straw needs to last long enough to achieve erosion control objectives. Straw mulch as a stand-alone BMP is temporary and is not suited for long-term erosion control.
- Maintain an unbroken, temporary mulched ground cover while disturbed soil areas are inactive. Repair any damaged ground cover and re-mulch exposed areas.
- Reapplication of straw mulch and tackifier may be required to maintain effective soil stabilization over disturbed areas and slopes.

References

Soil Stabilization BMP Research for Erosion and Sediment Controls: Cost Survey Technical Memorandum, State of California Department of Transportation (Caltrans), July 2007.

Erosion and Sediment Control Manual, Oregon Department of Environmental Quality, February 2005.

Controlling Erosion of Construction Sites, Agricultural Information Bulletin #347, U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) (formerly Soil Conservation Service – SCS).

Guides for Erosion and Sediment Control in California, USDA Soils Conservation Service, January 1991.

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Soil Erosion by Water, Agricultural Information Bulletin #513, U.S. Department of Agriculture, Soil Conservation Service.

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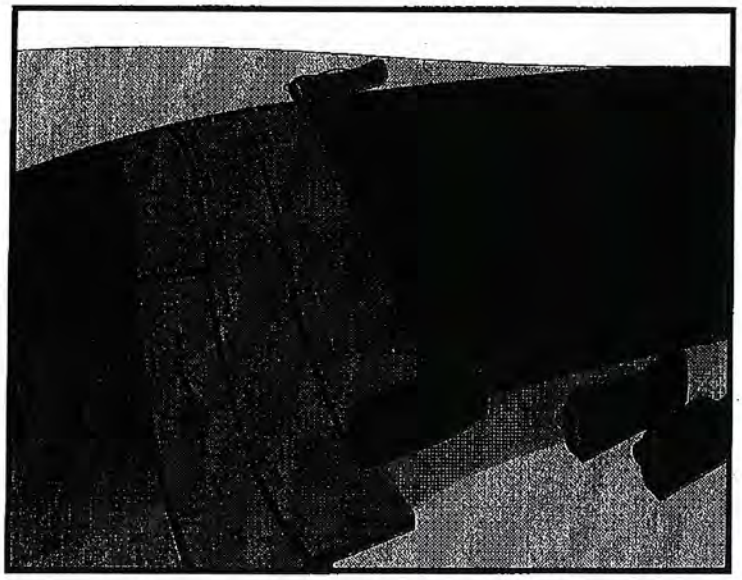
Water Quality Management Plan for the Lake Tahoe Region, Volume II, Handbook of Management Practices, Tahoe Regional Planning Agency, November 1988.

Geotextiles and Mats EC-7



Categories		
EC	Erosion Control	☑
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	☒
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Targeted Constituents	
Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

EC-3 Hydraulic Mulch

EC-4 Hydroseeding

If User/Subscriber modifies this fact sheet in any way, the CASQA name/logo and footer below must be removed from each page and not appear on the modified version.

Description and Purpose

Mattings, or Rolled Erosion Control Products (RECPs), can be made of natural or synthetic materials or a combination of the two. RECPs are used to cover the soil surface to reduce erosion from rainfall impact, hold soil in place, and absorb and hold moisture near the soil surface. Additionally, RECPs may be used to stabilize soils until vegetation is established or to reinforce non-woody surface vegetation.

Suitable Applications

RECPs are typically applied on slopes where erosion hazard is high and vegetation will be slow to establish. Mattings are also used on stream banks, swales and other drainage channels where moving water at velocities between 3 ft/s and 6 ft/s are likely to cause scour and wash out new vegetation, and in areas where the soil surface is disturbed and where existing vegetation has been removed. RECPs may also be used when seeding cannot occur (e.g., late season construction and/or the arrival of an early rain season). RECPs should be considered when the soils are fine grained and potentially erosive. RECPs should be considered in the following situations.

- Steep slopes, generally steeper than 3:1 (H:V)
- Slopes where the erosion potential is high
- Slopes and disturbed soils where mulch must be anchored
- Disturbed areas where plants are slow to develop

- Channels with flows exceeding 3.3 ft/s
- Channels to be vegetated
- Stockpiles
- Slopes adjacent to water bodies

Limitations

- RECP installed costs are generally higher than other erosion control BMPs, limiting their use to areas where other BMPs are ineffective (e.g. channels, steep slopes).
- RECPs may delay seed germination, due to reduction in soil temperature.
- RECPs are generally not suitable for excessively rocky sites or areas where the final vegetation will be mowed (since staples and netting can catch in mowers). If a staple or pin cannot be driven into the soil because the underlying soil is too hard or rocky, then an alternative BMP should be selected.
- If used for temporary erosion control, RECPs should be removed and disposed of prior to application of permanent soil stabilization measures.
- The use of plastic should be limited to covering stockpiles or very small graded areas for short periods of time (such as through one imminent storm event) until more environmentally friendly measures, such as seeding and mulching, may be installed.
    - Plastic sheeting is easily vandalized, easily torn, photodegradable, and must be disposed of at a landfill.
    - Plastic sheeting results in 100% runoff, which may cause serious erosion problems in the areas receiving the increased flow.
- RECPs may have limitations based on soil type, slope gradient, or channel flow rate; consult the manufacturer for proper selection.
- Not suitable for areas that have foot traffic (tripping hazard) – e.g., pad areas around buildings under construction.
- RECPs that incorporate a plastic netting (e.g. straw blanket typically uses a plastic netting to hold the straw in place) may not be suitable near known wildlife habitat. Wildlife can become trapped in the plastic netting.
- RECPs may have limitations in extremely windy climates. However, when RECPs are properly trenched at the top and bottom and stapled in accordance with the manufacturer's recommendations, problems with wind can be minimized.

Implementation

Material Selection

- Natural RECPs have been found to be effective where re-vegetation will be provided by re-seeding. The choice of material should be based on the size of area, side slopes, surface conditions such as hardness, moisture, weed growth, and availability of materials.
- Additional guidance on the comparison and selection of temporary slope stabilization methods is provided in Appendix F of the Handbook.
- The following natural and synthetic RECPs are commonly used:

Geotextiles

- Material can be a woven or a non-woven polypropylene fabric with minimum thickness of 0.06 in., minimum width of 12 ft and should have minimum tensile strength of 150 lbs (warp), 80 lbs (fill) in conformance with the requirements in ASTM Designation: D 4632. The permittivity of the fabric should be approximately 0.07 sec^{-1} in conformance with the requirements in ASTM Designation: D4491. The fabric should have an ultraviolet (UV) stability of 70 percent in conformance with the requirements in ASTM designation: D4355. Geotextile blankets must be secured in place with wire staples or sandbags and by keying into tops of slopes to prevent infiltration of surface waters under geotextile. Staples should be made of minimum 11 gauge steel wire and should be U-shaped with 8 in. legs and 2 in. crown.
- Geotextiles may be reused if they are suitable for the use intended.

Plastic Covers

- Generally plastic sheeting should only be used as stockpile covering or for very small graded areas for short periods of time (such as through one imminent storm event). If plastic sheeting must be used, choose a plastic that will withstand photo degradation.
- Plastic sheeting should have a minimum thickness of 6 mils, and must be keyed in at the top of slope (when used as a temporary slope protection) and firmly held in place with sandbags or other weights placed no more than 10 ft apart. Seams are typically taped or weighted down their entire length, and there should be at least a 12 in. to 24 in. overlap of all seams. Edges should be embedded a minimum of 6 in. in soil (when used as a temporary slope protection).
- All sheeting must be inspected periodically after installation and after significant rainstorms to check for erosion, undermining, and anchorage failure. Any failures must be repaired immediately. If washout or breakages occur, the material should be re-installed after repairing the damage to the slope.

Erosion Control Blankets/Mats

- Biodegradable RECPs are typically composed of jute fibers, curled wood fibers, straw, coconut fiber, or a combination of these materials. In order for an RECP to be considered 100% biodegradable, the netting, sewing or adhesive system that holds the biodegradable mulch fibers together must also be biodegradable. See typical installation details at the end of this fact sheet.

- **Jute** is a natural fiber that is made into a yarn that is loosely woven into a biodegradable mesh. The performance of jute as a stand-alone RECP is low. Most other RECPs outperform jute as a temporary erosion control product and therefore jute is not commonly used. It is designed to be used in conjunction with vegetation. The material is supplied in rolled strips, which should be secured to the soil with U-shaped staples or stakes in accordance with manufacturers' recommendations.

- **Excelsior** (curled wood fiber) blanket material should consist of machine produced mats of curled wood excelsior with 80 percent of the fiber 6 in. or longer. The excelsior blanket should be of consistent thickness. The wood fiber must be evenly distributed over the entire area of the blanket. The top surface of the blanket should be covered with a photodegradable extruded plastic mesh. The blanket should be smolder resistant without the use of chemical additives and should be non-toxic and non-injurious to plant and animal life. Excelsior blankets should be furnished in rolled strips, a minimum of 48 in. wide, and should have an average weight of 0.8 lb/yd^2, ±10 percent, at the time of manufacture. Excelsior blankets must be secured in place with wire staples. Staples should be made of minimum 11 gauge steel wire and should be U-shaped with 8 in. legs and 2 in. crown.

- **Straw blanket** should be machine produced mats of straw with a lightweight biodegradable netting top layer. The straw should be attached to the netting with biodegradable thread or glue strips. The straw blanket should be of consistent thickness. The straw should be evenly distributed over the entire area of the blanket. Straw blanket should be furnished in rolled strips a minimum of 6.5 ft wide, a minimum of 80 ft long and a minimum of 0.5 lb/yd^2. Straw blankets must be secured in place with wire staples. Staples should be made of minimum 11 gauge steel wire and should be U-shaped with 8 in. legs and 2 in. crown.

- **Wood fiber blanket** is composed of biodegradable fiber mulch with extruded plastic netting held together with adhesives. The material is designed to enhance re-vegetation. The material is furnished in rolled strips, which must be secured to the ground with U-shaped staples or stakes in accordance with manufacturers' recommendations.

- **Coconut fiber blanket** should be a machine produced mat of 100 percent coconut fiber with biodegradable netting on the top and bottom. The coconut fiber should be attached to the netting with biodegradable thread or glue strips. The coconut fiber blanket should be of consistent thickness. The coconut fiber should be evenly distributed over the entire area of the blanket. Coconut fiber blanket should be furnished in rolled strips with a minimum of 6.5 ft wide, a minimum of 80 ft. long and a minimum of 0.5 lb/yd^2. Coconut fiber blankets must be secured in place with wire staples. Staples should be made of minimum 11 gauge steel wire and should be U-shaped with 8 in. legs and 2 in. crown.

- **Coconut fiber mesh** is a thin permeable membrane made from coconut or corn fiber that is spun into a yarn and woven into a biodegradable mat. It is designed to be used in conjunction with vegetation and typically has longevity of several years. The material is supplied in rolled strips, which must be secured to the soil with U-shaped staples or stakes in accordance with manufacturers' recommendations.

- **Straw coconut fiber blanket** should be machine produced mats of 70 percent straw and 30 percent coconut fiber with a biodegradable netting top layer and a biodegradable bottom net. The straw and coconut fiber should be attached to the netting with biodegradable thread or glue strips. The straw coconut fiber blanket should be of consistent thickness. The straw and coconut fiber should be evenly distributed over the entire area of the blanket. Straw coconut fiber blanket should be furnished in rolled strips a minimum of 6.5 ft wide, a minimum of 80 ft long and a minimum of 0.5 lb/yd^2. Straw coconut fiber blankets must be secured in place with wire staples. Staples should be made of minimum 11 gauge steel wire and should be U-shaped with 8 in. legs and 2 in. crown.

- Non-biodegradable RECPs are typically composed of polypropylene, polyethylene, nylon or other synthetic fibers. In some cases, a combination of biodegradable and synthetic fibers is used to construct the RECP. Netting used to hold these fibers together is typically non-biodegradable as well.

  - **Plastic netting** is a lightweight biaxially oriented netting designed for securing loose mulches like straw or paper to soil surfaces to establish vegetation. The netting is photodegradable. The netting is supplied in rolled strips, which must be secured with U-shaped staples or stakes in accordance with manufacturers' recommendations.

  - **Plastic mesh** is an open weave geotextile that is composed of an extruded synthetic fiber woven into a mesh with an opening size of less than ¼ in. It is used with re-vegetation or may be used to secure loose fiber such as straw to the ground. The material is supplied in rolled strips, which must be secured to the soil with U-shaped staples or stakes in accordance with manufacturers' recommendations.

  - **Synthetic fiber with netting** is a mat that is composed of durable synthetic fibers treated to resist chemicals and ultraviolet light. The mat is a dense, three dimensional mesh of synthetic (typically polyolefin) fibers stitched between two polypropylene nets. The mats are designed to be re-vegetated and provide a permanent composite system of soil, roots, and geomatrix. The material is furnished in rolled strips, which must be secured with U-shaped staples or stakes in accordance with manufacturers' recommendations.

  - **Bonded synthetic fibers** consist of a three dimensional geomatrix nylon (or other synthetic) matting. Typically it has more than 90 percent open area, which facilitates root growth. It's tough root reinforcing system anchors vegetation and protects against hydraulic lift and shear forces created by high volume discharges. It can be installed over prepared soil, followed by seeding into the mat. Once vegetated, it becomes an invisible composite system of soil, roots, and geomatrix. The material is furnished in rolled strips that must be secured with U-shaped staples or stakes in accordance with manufacturers' recommendations.

  - **Combination synthetic and biodegradable RECPs** consist of biodegradable fibers, such as wood fiber or coconut fiber, with a heavy polypropylene net stitched to the top and a high strength continuous filament geomatrix or net stitched to the bottom. The material is designed to enhance re-vegetation. The material is furnished in rolled strips,

which must be secured with U-shaped staples or stakes in accordance with manufacturers' recommendations.

Site Preparation

- Proper soil preparation is essential to ensure complete contact of the RECP with the soil. Soil Roughening is not recommended in areas where RECPs will be installed.
- Grade and shape the area of installation.
- Remove all rocks, clods, vegetation or other obstructions so that the installed blankets or mats will have complete, direct contact with the soil.
- Prepare seedbed by loosening 2 to 3 in. of topsoil.

Seeding/Planting

Seed the area before blanket installation for erosion control and re-vegetation. Seeding after mat installation is often specified for turf reinforcement application. When seeding prior to blanket installation, all areas disturbed during blanket installation must be re-seeded. Where soil filling is specified for turf reinforcement mats (TRMs), seed the matting and the entire disturbed area after installation and prior to filling the mat with soil.

Fertilize and seed in accordance with seeding specifications or other types of landscaping plans. The protective matting can be laid over areas where grass has been planted and the seedlings have emerged. Where vines or other ground covers are to be planted, lay the protective matting first and then plant through matting according to design of planting.

Check Slots

Check slots shall be installed as required by the manufacturer.

Laying and Securing Matting

- Before laying the matting, all check slots should be installed and the seedbed should be friable, made free from clods, rocks, and roots. The surface should be compacted and finished according to the requirements of the manufacturer's recommendations.
- Mechanical or manual lay down equipment should be capable of handling full rolls of fabric and laying the fabric smoothly without wrinkles or folds. The equipment should meet the fabric manufacturer's recommendations or equivalent standards.

Anchoring

- U-shaped wire staples, metal geotextile stake pins, or triangular wooden stakes can be used to anchor mats and blankets to the ground surface.
- Wire staples should be made of minimum 11 gauge steel wire and should be U-shaped with 8 in. legs and 2 in. crown.
- Metal stake pins should be 0.188 in. diameter steel with a 1.5 in. steel washer at the head of the pin, and 8 in. in length.
- Wire staples and metal stakes should be driven flush to the soil surface.

Installation on Slopes

Installation should be in accordance with the manufacturer's recommendations. In general, these will be as follows:

- Begin at the top of the slope and anchor the blanket in a 6 in. deep by 6 in. wide trench. Backfill trench and tamp earth firmly.
- Unroll blanket down slope in the direction of water flow.
- Overlap the edges of adjacent parallel rolls 2 to 3 in. and staple every 3 ft (or greater, per manufacturer's specifications).
- When blankets must be spliced, place blankets end over end (shingle style) with 6 in. overlap. Staple through overlapped area, approximately 12 in. apart.
- Lay blankets loosely and maintain direct contact with the soil. Do not stretch.
- Staple blankets sufficiently to anchor blanket and maintain contact with the soil. Staples should be placed down the center and staggered with the staples placed along the edges. Steep slopes, 1:1 (H:V) to 2:1 (H:V), require a minimum of 2 staples/yd^2. Moderate slopes, 2:1 (H:V) to 3:1 (H:V), require a minimum of 1 ½ staples/yd^2. Check manufacturer's specifications to determine if a higher density staple pattern is required.

Installation in Channels

Installation should be in accordance with the manufacturer's recommendations. In general, these will be as follows:

- Dig initial anchor trench 12 in. deep and 6 in. wide across the channel at the lower end of the project area.
- Excavate intermittent check slots, 6 in. deep and 6 in. wide across the channel at 25 to 30 ft intervals along the channels.
- Cut longitudinal channel anchor trenches 4 in. deep and 4 in. wide along each side of the installation to bury edges of matting, whenever possible extend matting 2 to 3 in. above the crest of the channel side slopes.
- Beginning at the downstream end and in the center of the channel, place the initial end of the first roll in the anchor trench and secure with fastening devices at 12 in. intervals. Note: matting will initially be upside down in anchor trench.
- In the same manner, position adjacent rolls in anchor trench, overlapping the preceding roll a minimum of 3 in.
- Secure these initial ends of mats with anchors at 12 in. intervals, backfill and compact soil.
- Unroll center strip of matting upstream. Stop at next check slot or terminal anchor trench. Unroll adjacent mats upstream in similar fashion, maintaining a 3 in. overlap.

- Fold and secure all rolls of matting snugly into all transverse check slots. Lay mat in the bottom of the slot then fold back against itself. Anchor through both layers of mat at 12 in. intervals, then backfill and compact soil. Continue rolling all mat widths upstream to the next check slot or terminal anchor trench.
- Alternate method for non-critical installations: Place two rows of anchors on 6 in. centers at 25 to 30 ft. intervals in lieu of excavated check slots.
- Staple shingled lap spliced ends a minimum of 12 in. apart on 12 in. intervals.
- Place edges of outside mats in previously excavated longitudinal slots; anchor using prescribed staple pattern, backfill, and compact soil.
- Anchor, fill, and compact upstream end of mat in a 12 in. by 6 in. terminal trench.
- Secure mat to ground surface using U-shaped wire staples, geotextile pins, or wooden stakes.
- Seed and fill turf reinforcement matting with soil, if specified.

Soil Filling (if specified for turf reinforcement mat (TRM))

Installation should be in accordance with the manufacturer's recommendations. Typical installation guidelines are as follows:

- After seeding, spread and lightly rake ½-3/4 inches of fine topsoil into the TRM apertures to completely fill TRM thickness. Use backside of rake or other flat implement.
- Alternatively, if allowed by product specifications, spread topsoil using lightweight loader, backhoe, or other power equipment. Avoid sharp turns with equipment.
- Always consult the manufacturer's recommendations for installation.
- Do not drive tracked or heavy equipment over mat.
- Avoid any traffic over matting if loose or wet soil conditions exist.
- Use shovels, rakes, or brooms for fine grading and touch up.
- Smooth out soil filling just exposing top netting of mat.

Temporary Soil Stabilization Removal

- Temporary soil stabilization removed from the site of the work must be disposed of if necessary.

Costs

Installed costs can be relatively high compared to other BMPs. Approximate costs for installed materials are shown below:

Rolled Erosion Control Products		Installed Cost per Acre (2004)[1]	Estimated Cost per Acre (2009)[2]
Biodegradable	Jute Mesh	$6,000-$7,000	$6,600-$7,700
	Curled Wood Fiber	$8,000-$10,500	$8,800-$11,050
	Straw	$8,000-$10,500	$8,800-$11,050
	Wood Fiber	$8,000-$10,500	$8,800-$11,050
	Coconut Fiber	$13,000-$14,000	$14,300-$15,400
	Coconut Fiber Mesh	$30,000-$33,000	$33,000-$36,300
	Straw Coconut Fiber	$10,000-$12,000	$11,000-$13,200
Non-Biodegradable	Plastic Netting	$2,000-$2,200	$2,200-$2,220
	Plastic Mesh	$3,000-$3,500	$3,300-$3,850
	Synthetic Fiber with Netting	$34,000-$40,000	$37,400-$44,000
	Bonded Synthetic Fibers	$45,000-$55,000	$49,500-$60,500
	Combination with Biodegradable	$30,000-$36,000	$33,000-$39,600

1. Source: Cost information received from individual product manufacturers solicited by Geosyntec Consultants (2004).
2. 2009 costs reflect a 10% escalation over year 2004 costs. Escalation based on informal survey of industry trends. Note: Expected cost increase is offset by competitive economic conditions.

Inspection and Maintenance

- RECPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Areas where erosion is evident shall be repaired and BMPs reapplied as soon as possible. Care should be exercised to minimize the damage to protected areas while making repairs, as any area damaged will require reapplication of BMPs.
- If washout or breakage occurs, re-install the material after repairing the damage to the slope or channel.
- Make sure matting is uniformly in contact with the soil.
- Check that all the lap joints are secure.
- Check that staples are flush with the ground.

References

Erosion and Sediment Control Manual, Oregon Department of Environmental Quality, February 2005

Erosion Control Pilot Study Report, State of California Department of Transportation (Caltrans), June 2000.

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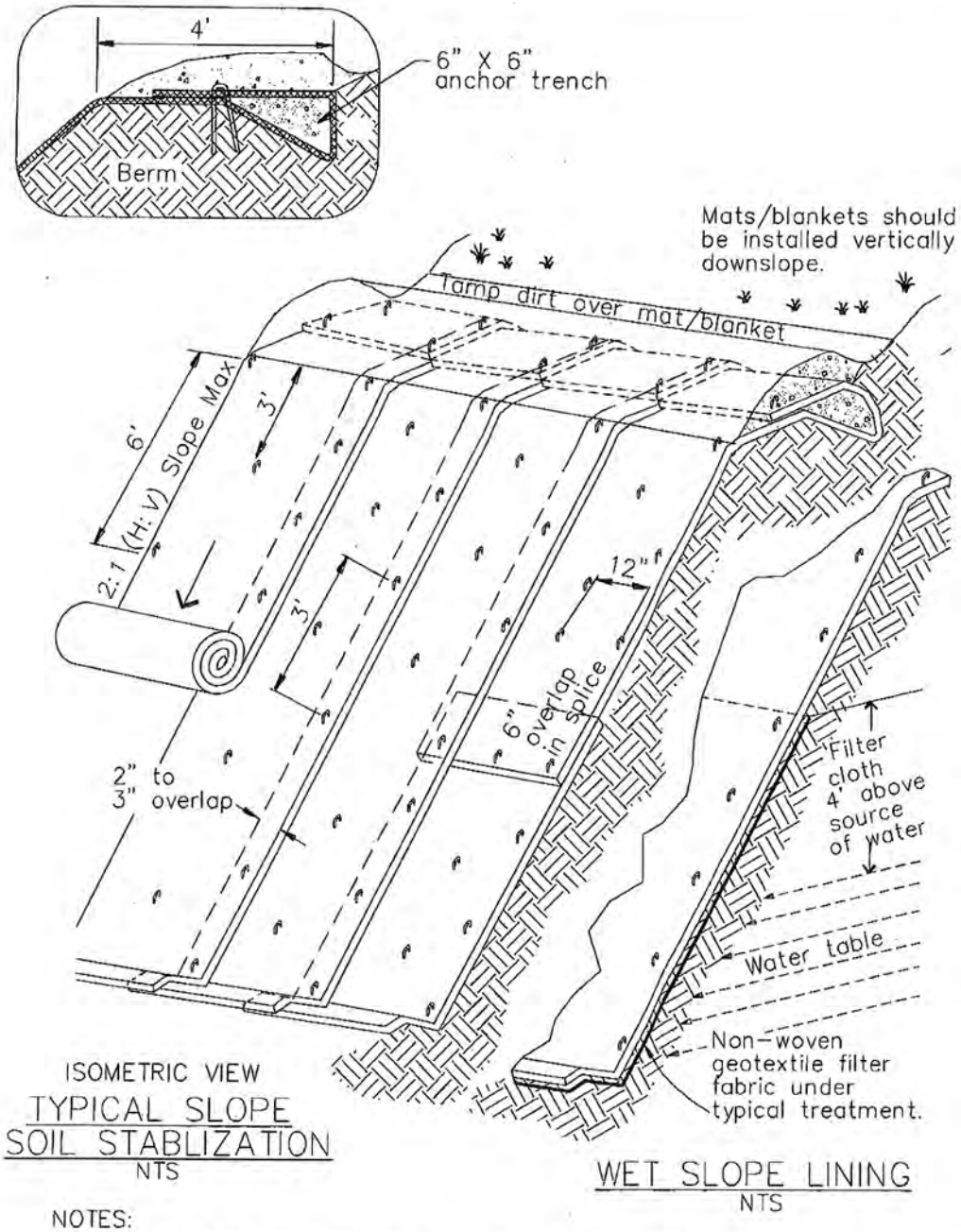


ISOMETRIC VIEW

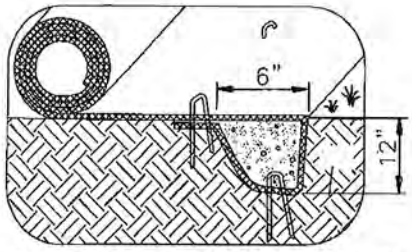
TYPICAL SLOPE
SOIL STABLIZATION
NTS

WET SLOPE LINING
NTS

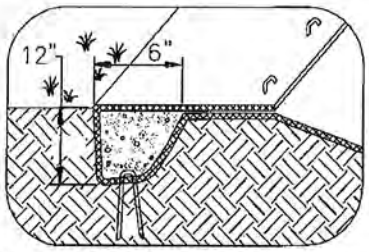
NOTES:

1. Slope surface shall be free of rocks, clods, sticks and grass. Mats/blankets shall have good soil contact.
2. Lay blankets loosely and stake or staple to maintain direct contact with the soil. Do not stretch.
3. Install per manufacturer's recommendations

TYPICAL INSTALLATION DETAIL



INITIAL CHANNEL ANCHOR TRENCH
NTS



TERMINAL SLOPE AND CHANNEL ANCHOR TRENCH
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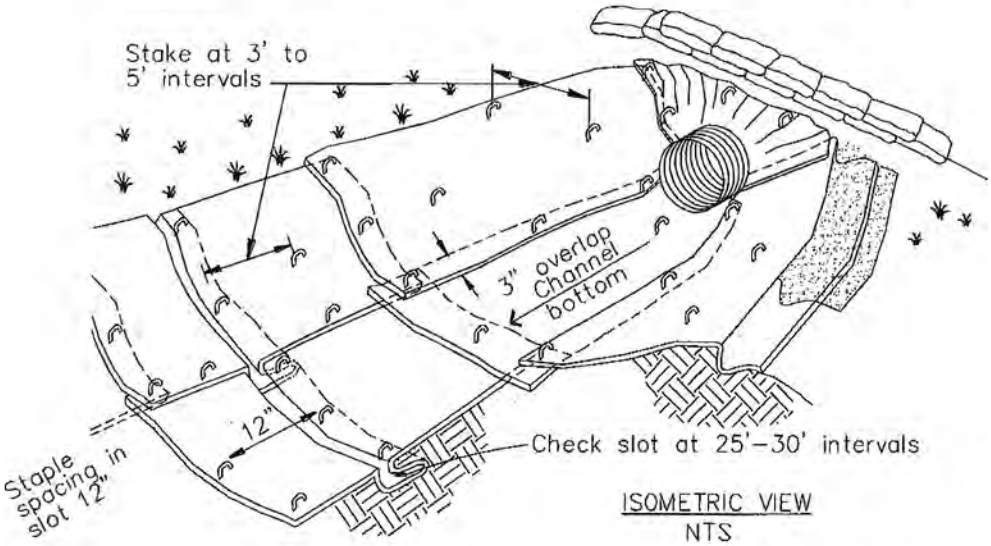
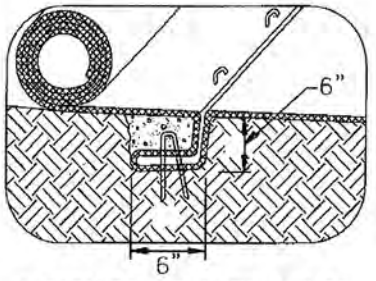


ISOMETRIC VIEW
NTS



INTERMITTENT CHECK SLOT
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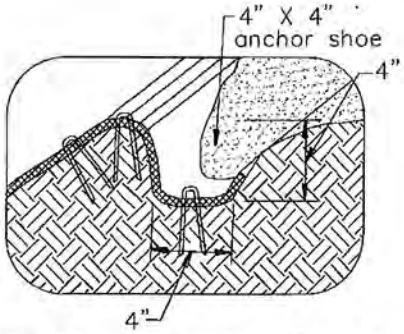

LONGITUDINAL ANCHOR TRENCH
NTS

NOTES:
1. Check slots to be constructed per manufacturers specifications.
2. Staking or stapling layout per manufacturers specifications.
3. Install per manufacturer's recommendations

TYPICAL INSTALLATION DETAIL

Soil Preparation/Roughening EC-15

Categories

EC	Erosion Control	☑
SE	Sediment Control	☒
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Category**

☒ **Secondary Category**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

EC-3 Hydraulic Mulch

EC-5 Soil Binders

EC-7 Geotextiles and Mats

Description and Purpose

Soil Preparation/Roughening involves assessment and preparation of surface soils for BMP installation. This can include soil testing (for seed base, soil characteristics, or nutrients), as well as roughening surface soils by mechanical methods (including sheepsfoot rolling, track walking, scarifying, stair stepping, and imprinting) to prepare soil for additional BMPs, or to break up sheet flow. Soil Preparation can also involve tilling topsoil to prepare a seed bed and/or incorporation of soil amendments, to enhance vegetative establishment.

Suitable Applications

Soil preparation: Soil preparation is essential to proper vegetative establishment. In particular, soil preparation (i.e. tilling, raking, and amendment) is suitable for use in combination with any soil stabilization method, including RECPs or sod. Soil preparation should not be confused with roughening.

Roughening: Soil roughening is generally referred to as track walking (sometimes called imprinting) a slope, where treads from heavy equipment run parallel to the contours of the slope and act as mini terraces. Soil preparation is most effective when used in combination with erosion controls. Soil Roughening is suitable for use as a complementary process for controlling erosion on a site. Roughening is not intended to be used as a stand-alone BMP, and should be used with perimeter controls, additional erosion control measures, grade breaks, and vegetative establishment for maximum effectiveness. Roughening is intended to only affect surface soils and should not compromise slope stability or overall compaction. Suitable applications for soil roughening include:

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- Along any disturbed slopes, including temporary stockpiles, sediment basins, or compacted soil diversion berms and swales.
- Roughening should be used in combination with hydraulically applied stabilization methods, compost blanket, or straw mulch; but should not be used in combination with RECPs or sod because roughening is intended to leave terraces on the slope.

Limitations

- Preparation and roughening must take place prior to installing other erosion controls (such as hydraulically applied stabilizers) or sediment controls (such as fiber rolls) on the faces of slopes.
- In such cases where slope preparation is minimal, erosion control/revegetation BMPs that do not require extensive soil preparation - such as hydraulic mulching and seeding applications - should be employed.
- Consideration should be given to the type of erosion control BMP that follows surface preparation, as some BMPs are not designed to be installed over various types of tillage/roughening, i.e., RECPs (erosion control blankets) should not be used with soil roughening due to a "bridging" effect, which suspends the blanket above the seed bed.
- Surface roughness has an effect on the amount of mulch material that needs to be applied, which shows up as a general increase in mulch material due to an increase in surface area (Topographic Index -see EC-3 Hydraulic Mulching).

Implementation

- Additional guidance on the comparison and selection of temporary slope stabilization methods is provided in Appendix F of the Handbook.

General

A roughened surface can significantly reduce erosion. Based on tests done at the San Diego State Erosion Research Laboratory, various roughening techniques on slopes can result in a 12 - 76% reduction in the erosion rate versus smooth slopes.

Materials

Minimal materials are required unless amendments and/or seed are added to the soil. The majority of soil roughening/preparation can be done with equipment that is on hand at a normal construction site, such as bull dozers and compaction equipment.

Installation Guidelines

Soil Preparation

- Where appropriate or feasible, soil should be prepared to receive the seed by disking or otherwise scarifying the surface to eliminate crust, improve air and water infiltration and create a more favorable environment for germination and growth.
- Based upon soil testing conducted, apply additional soil amendments (e.g. fertilizers, additional seed) to the soil to help with germination. Follow EC-4, Hydroseeding, when selecting and applying seed and fertilizers.

Cut Slope Roughening:

- Stair-step grade or groove the cut slopes that are steeper than 3:1.
- Use stair-step grading on any erodible material soft enough to be ripped with a bulldozer. Slopes consisting of soft rock with some subsoil are particularly suited to stair-step grading.
- Make the vertical cut distance less than the horizontal distance, and slightly slope the horizontal position of the "step" in toward the vertical wall.
- Do not make individual vertical cuts more than 2 feet (0.6 m) high in soft materials or more than 3 feet (0.9 m) high in rocky materials.
- Groove the slope using machinery to create a series of ridges and depressions that run across the slope, on the contour.

Fill Slope Roughening:

- Place on fill slopes with a gradient steeper than 3:1 in lifts not to exceed 8 inches (0.2 m), and make sure each lift is properly compacted.
- Ensure that the face of the slope consists of loose, uncompacted fill 4-6 inches (0.1-0.2 m) deep.
- Use grooving or tracking to roughen the face of the slopes, if necessary.
- Do not blade or scrape the final slope face.

Roughening for Slopes to be Mowed:

- Slopes which require mowing activities should not be steeper than 3:1.
- Roughen these areas to shallow grooves by track walking, scarifying, sheepsfoot rolling, or imprinting.
- Make grooves close together (less than 10 inches), and not less than 1 inch deep, and perpendicular to the direction of runoff (i.e., parallel to the slope contours).
- Excessive roughness is undesirable where mowing is planned.

Roughening With Tracked Machinery:

- Limit roughening with tracked machinery to soils with a sandy textural component to avoid undue compaction of the soil surface.
- Operate tracked machinery up and down the slope to leave horizontal depressions in the soil. Do not back-blade during the final grading operation.
- Seed and mulch roughened areas as soon as possible to obtain optimum seed germination and growth.

Costs

Costs are based on the additional labor of tracking or preparation of the slope plus the cost of any required soil amendment materials.

Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Check the seeded slopes for signs of erosion such as rills and gullies. Fill these areas slightly above the original grade, then reseed and mulch as soon as possible.
- Inspect BMPs weekly during normal operations, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.

References

Soil Stabilization BMP Research for Erosion and Sediment Controls: Cost Survey Technical Memorandum, State of California Department of Transportation (Caltrans), July 2007.

Erosion and Sediment Control Manual, Oregon Department of Environmental Quality, February 2005.

Water Conservation Practices NS-1

Categories		
EC	Erosion Control	☒
SE	Sediment Control	☒
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☑
WM	Waste Management and Materials Pollution Control	

Legend:
☑ **Primary Objective**
☒ **Secondary Objective**

Targeted Constituents	
Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

Description and Purpose

Water conservation practices are activities that use water during the construction of a project in a manner that avoids causing erosion and the transport of pollutants offsite. These practices can reduce or eliminate non-stormwater discharges.

Suitable Applications

Water conservation practices are suitable for all construction sites where water is used, including piped water, metered water, trucked water, and water from a reservoir.

Limitations

- None identified.

Implementation

- Keep water equipment in good working condition.
- Stabilize water truck filling area.
- Repair water leaks promptly.
- Washing of vehicles and equipment on the construction site is discouraged.
- Avoid using water to clean construction areas. If water must be used for cleaning or surface preparation, surface should be swept and vacuumed first to remove dirt. This will minimize amount of water required.

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- Direct construction water runoff to areas where it can soak into the ground or be collected and reused.
- Authorized non-stormwater discharges to the storm drain system, channels, or receiving waters are acceptable with the implementation of appropriate BMPs.
- Lock water tank valves to prevent unauthorized use.

Costs

The cost is small to none compared to the benefits of conserving water.

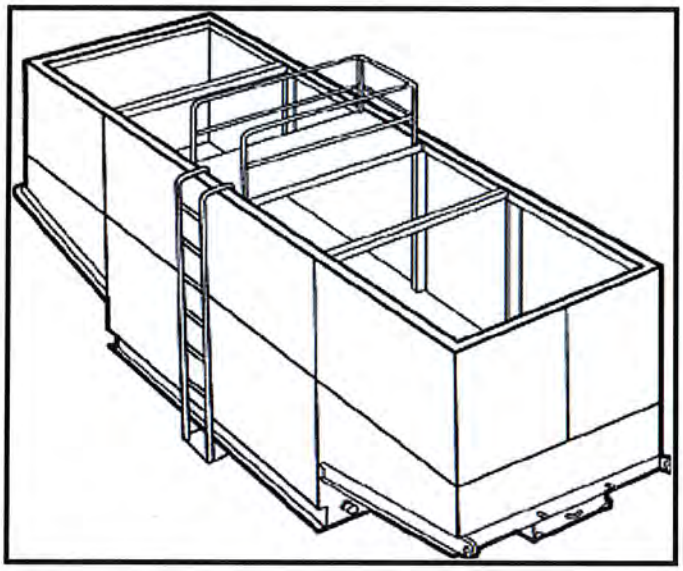
Inspection and Maintenance

- Inspect and verify that activity based BMPs are in place prior to the commencement of authorized non-stormwater discharges.
- Inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Inspect BMPs subject to non-stormwater discharges daily while non-stormwater discharges are occuring.
- Repair water equipment as needed to prevent unintended discharges.
  - Water trucks
  - Water reservoirs (water buffalos)
  - Irrigation systems
  - Hydrant connections

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Dewatering Operations NS-2



Categories		
EC	Erosion Control	
SE	Sediment Control	☒
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☑
WM	Waste Management and Materials Pollution Control	

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Targeted Constituents	
Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	☑
Organics	

Potential Alternatives

SE-5: Fiber Roll

SE-6: Gravel Bag Berm

Description and Purpose

Dewatering operations are practices that manage the discharge of pollutants when non-stormwater and accumulated precipitation (stormwater) must be removed from a work location to proceed with construction work or to provide vector control.

The General Permit incorporates Numeric Effluent Limits (NEL) and Numeric Action Levels (NAL) for turbidity (see Section 2 of this handbook to determine your project's risk level and if you are subject to these requirements).

Discharges from dewatering operations can contain high levels of fine sediment and other pollutants that, if not properly treated, could lead to exceedences of the General Permit requirements or Basin Plan standards.

Suitable Applications

These practices are implemented for discharges of non-stormwater from construction sites. Non-stormwaters include, but are not limited to, groundwater, water from cofferdams, water diversions, and waters used during construction activities that must be removed from a work area to facilitate construction.

Practices identified in this section are also appropriate for implementation when managing the removal of accumulated precipitation (stormwater) from depressed areas at a construction site.

Stormwater mixed with non-stormwater should be managed as non-stormwater.

Limitations

- Dewatering operations will require, and should comply with applicable local and project-specific permits and regulations. In some areas, all dewatering activities, regardless of the discharge volume, require a dewatering permit.
- Site conditions will dictate design and use of dewatering operations.
- The controls discussed in this fact sheet primarily address sediment. Other secondary pollutant removal benefits are discussed where applicable.
- The controls detailed in this fact sheet only allow for minimal settling time for sediment particles. Use only when site conditions restrict the use of the other control methods.
- Avoid dewatering discharges where possible by using the water for dust control.

Implementation

- A Construction Site Monitoring Plan (CSMP) should be included in the project Stormwater Pollution Prevention Plan (SWPPP).
- Regional Water Quality Control Board (RWQCB) Regions may require notification and approval prior to any discharge of water from construction sites.
- The destination of discharge from dewatering activities will typically determine the type of permit required by the discharger. For example, when discharging to a water of the U.S., a dewatering permit may be required from the site's governing RWQCB. When discharging to a sanitary sewer or Municipal Separate Storm Sewer System (MS4), a permit may need to be obtained through the owner of the sanitary sewer or MS4 in addition to obtaining an RWQCB dewatering permit. Additional permits or permissions from other agencies may be required for dewatering cofferdams or diversions.
- Dewatering discharges should not cause erosion at the discharge point. Appropriate BMPs should be implemented to maintain compliance with all applicable permits.
- Maintain dewatering records in accordance with all local and project-specific permits and regulations.

Sediment Treatment

A variety of methods can be used to treat water during dewatering operations. Several devices are presented below and provide options to achieve sediment removal. The sediment particle size and permit or receiving water limitations on sediment or turbidity are key considerations for selecting sediment treatment option(s); in some cases, the use of multiple devices may be appropriate. Use of other enhanced treatment methods (i.e., introduction of chemicals or electric current to enhance flocculation and removal of sediment) must comply with: 1) for storm drain or surface water discharges, the requirements for Active Treatment Systems (see SE-11); or 2) for sanitary sewer discharges, the requirements of applicable sanitary sewer discharge permits.

Sediment Basin (see also SE-2)

Description:

- A sediment basin is a temporary basin with a controlled release structure that is formed by excavation or construction of an embankment to detain sediment-laden runoff and allow sediment to settle out before discharging. Sediment basins are generally larger than Sediment Traps (SE-3) and have a designed outlet structure.

Appropriate Applications:

- Effective for the removal of trash, gravel, sand, silt, some metals that settle out with the sediment.

Implementation:

- Excavation and construction of related facilities is required.
- Temporary sediment basins should be fenced if safety is a concern.
- Outlet protection is required to prevent erosion at the outfall location.

Maintenance:

- Maintenance is required for safety fencing, vegetation, embankment, inlet and outlet, as well as other features.
- Removal of sediment is required when the storage volume is reduced by one-third.

Sediment Trap (See also SE-3)

Description:

- A sediment trap is a temporary basin formed by excavation and/or construction of an earthen embankment across a waterway or low drainage area to detain sediment-laden runoff and allow sediment to settle out before discharging. Sediment traps are generally smaller than Sediment Basins (SE-2) and do not have a designed outlet (but do have a spillway or overflow).

Appropriate Applications:

Effective for the removal of large and medium sized particles (sand and gravel) and some metals that settle out with the sediment.

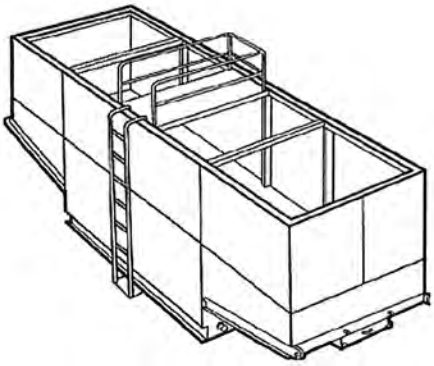
Implementation:

- Excavation and construction of related facilities is required.
- Trap inlets should be located to maximize the travel distance to the trap outlet.
- Use rock or vegetation to protect the trap outlets against erosion.

Maintenance:

- Maintenance is required for vegetation, embankment, inlet and outfall structures, as well as other features.
- Removal of sediment is required when the storage volume is reduced by one-third.

Weir Tanks



Description:

- A weir tank separates water and waste by using weirs. The configuration of the weirs (over and under weirs) maximizes the residence time in the tank and determines the waste to be removed from the water, such as oil, grease, and sediments.

Appropriate Applications:

- The tank removes trash, some settleable solids (gravel, sand, and silt), some visible oil and grease, and some metals (removed with sediment). To achieve high levels of flow, multiple tanks can be used in parallel. If additional treatment is desired, the tanks can be placed in series or as pre-treatment for other methods.

Implementation:

- Tanks are delivered to the site by the vendor, who can provide assistance with set-up and operation.
- Tank size will depend on flow volume, constituents of concern, and residency period required. Vendors should be consulted to appropriately size tank.
- Treatment capacity (i.e., volume and number of tanks) should provide at a minimum the required volume for discrete particle settling for treatment design flows.

Maintenance:

- Periodic cleaning is required based on visual inspection or reduced flow.
- Oil and grease disposal should be conducted by a licensed waste disposal company.

Dewatering Tanks

Description:

- A dewatering tank removes debris and sediment. Flow enters the tank through the top, passes through a fabric filter, and is discharged through the bottom of the tank. The filter separates the solids from the liquids.

Appropriate Applications:

- The tank removes trash, gravel, sand, and silt, some visible oil and grease, and some metals (removed with sediment). To achieve high levels of flow, multiple tanks can be used in parallel. If additional treatment is desired, the tanks can be placed in series or as pre-treatment for other methods.

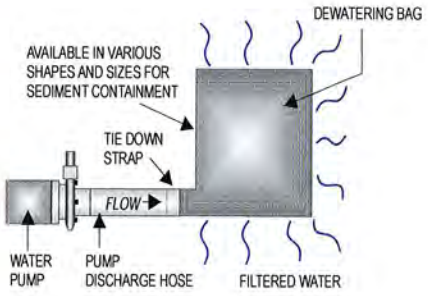
Implementation:

- Tanks are delivered to the site by the vendor, who can provide assistance with set-up and operation.
- Tank size will depend on flow volume, constituents of concern, and residency period required. Vendors should be consulted to appropriately size tank.

Maintenance:

- Periodic cleaning is required based on visual inspection or reduced flow.
- Oil and grease disposal should be conducted by licensed waste disposal company.

Gravity Bag Filter



Description:

- A gravity bag filter, also referred to as a dewatering bag, is a square or rectangular bag made of non-woven geotextile fabric that collects gravel, sand, silt, and fines.

Appropriate Applications:

- Effective for the removal of sediments (gravel, sand, silt, and fines). Some metals are removed with the sediment.

Implementation:

- Water is pumped into one side of the bag and seeps through the top, bottom, and sides of the bag.
- Place filter bag on pavement or a gravel bed or paved surface. Avoid placing a dewatering bag on unprotected bare soil. If placing the bag on bare soil is unavoidable, a secondary barrier should be used, such as a rock filter bed placed beneath and beyond the edges of the bag to, prevent erosion and capture sediments that escape the bag.
- Perimeter control around the downstream end of the bag should be implemented. Secondary sediment controls are important especially in the initial stages of discharge, which tend to allow fines to pass through the bag.

Maintenance:

- Inspection of the flow conditions, bag condition, bag capacity, and the secondary barrier (as applicable) is required.
- Replace the bag when it no longer filters sediment or passes water at a reasonable rate.
- Caution should be taken when removing and disposing of the bag, to prevent the release of captured sediment
- Properly dispose of the bag offsite. If sediment is removed from the bag prior to disposal (bags can potentially be reused depending upon their condition), dispose of sediment in accordance with the general maintenance procedures described at the end of this BMP Fact Sheet.

Sand Media Particulate Filter

Description:

- Water is treated by passing it through canisters filled with sand media. Generally, sand filters provide a final level of treatment. They are often used as a secondary or higher level of treatment after a significant amount of sediment and other pollutants have been removed using other methods.

Appropriate Applications:

- Effective for the removal of trash, gravel, sand, and silt and some metals, as well as the reduction of biochemical oxygen demand (BOD) and turbidity.
- Sand filters can be used for stand-alone treatment or in conjunction with bag and cartridge filtration if further treatment is required.
- Sand filters can also be used to provide additional treatment to water treated via settling or basic filtration.

Implementation:

- The filters require delivery to the site and initial set up. The vendor can provide assistance with installation and operation.

Maintenance:

- The filters require regular service to monitor and maintain the level of the sand media. If subjected to high loading rates, filters can plug quickly.
- Venders generally provide data on maximum head loss through the filter. The filter should be monitored daily while in use, and cleaned when head loss reaches target levels.
- If cleaned by backwashing, the backwash water may need to be hauled away for disposal, or returned to the upper end of the treatment train for another pass through the series of dewatering BMPs.

Pressurized Bag Filter

Pressurized Bag Filter

Description:

- A pressurized bag filter is a unit composed of single filter bags made from polyester felt material. The water filters through the unit and is discharged through a header. Vendors provide bag filters in a variety of configurations. Some units include a combination of bag filters and cartridge filters for enhanced contaminant removal.

Appropriate Applications:

- Effective for the removal of sediment (sand and silt) and some metals, as well as the reduction of BOD, turbidity, and hydrocarbons. Oil absorbent bags are available for hydrocarbon removal.
- Filters can be used to provide secondary treatment to water treated via settling or basic filtration.

Implementation:

- The filters require delivery to the site and initial set up. The vendor can provide assistance with installation and operation.

Maintenance:

- The filter bags require replacement when the pressure differential equals or exceeds the manufacturer's recommendation.

Cartridge Filter

Description:

- Cartridge filters provide a high degree of pollutant removal by utilizing a number of individual cartridges as part of a larger filtering unit. They are often used as a secondary or higher (polishing) level of treatment after a significant amount of sediment and other pollutants are removed. Units come with various cartridge configurations (for use in series with bag filters) or with a larger single cartridge filtration unit (with multiple filters within).

Appropriate Applications:

- Effective for the removal of sediment (sand, silt, and some clays) and metals, as well as the reduction of BOD, turbidity, and hydrocarbons. Hydrocarbons can effectively be removed with special resin cartridges.
- Filters can be used to provide secondary treatment to water treated via settling or basic filtration.

Implementation:

- The filters require delivery to the site and initial set up. The vendor can provide assistance.

Maintenance:

- The cartridges require replacement when the pressure differential equals or exceeds the manufacturer's recommendation.

Costs

- Sediment control costs vary considerably depending on the dewatering and sediment treatment system that is selected. Pressurized filters tend to be more expensive than gravity settling, but are often more effective. Simple tanks are generally rented on a long-term basis (one or more months) and can range from $360 per month for a 1,000 gallon tank to $2,660 per month for a 10,000 gallon tank. Mobilization and demobilization costs vary considerably.

Inspection and Maintenance

- Inspect and verify that dewatering BMPs are in place and functioning prior to the commencement of activities requiring dewatering.
- Inspect dewatering BMPs daily while dewatering activities are being conducted.

- Inspect all equipment before use. Monitor dewatering operations to ensure they do not cause offsite discharge or erosion.
- Sample dewatering discharges as required by the General Permit.
- Unit-specific maintenance requirements are included with the description of each unit.
- Sediment removed during the maintenance of a dewatering device may be either spread onsite and stabilized, or disposed of at a disposal site as approved by the owner.
- Sediment that is commingled with other pollutants should be disposed of in accordance with all applicable laws and regulations and as approved by the owner.

References

Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003; Updated March 2004.

Stormwater Management for Construction Activities, Developing Pollution Prevention Plans and Best Management Practices, EPA 832-R-92005; USEPA, April 1992.

Labor Surcharge & Equipment Rental Rates, April 1, 2002 through March 31, 2003, California Department of Transportation (Caltrans).

Erosion and Sediment Control Manual, Oregon Department of Environmental Quality, February 2005.

Illicit Connection/Discharge NS-6

Categories		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☑
WM	Waste Management and Materials Pollution Control	

Legend:
☑ **Primary Objective**
☒ **Secondary Objective**

Targeted Constituents	
Sediment	
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	☑
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

Description and Purpose

Procedures and practices designed for construction contractors to recognize illicit connections or illegally dumped or discharged materials on a construction site and report incidents.

Suitable Applications

This best management practice (BMP) applies to all construction projects. Illicit connection/discharge and reporting is applicable anytime an illicit connection or discharge is discovered or illegally dumped material is found on the construction site.

Limitations

Illicit connections and illegal discharges or dumping, for the purposes of this BMP, refer to discharges and dumping caused by parties other than the contractor. If pre-existing hazardous materials or wastes are known to exist onsite, they should be identified in the SWPPP and handled as set forth in the SWPPP.

Implementation

Planning

- Review the SWPPP. Pre-existing areas of contamination should be identified and documented in the SWPPP.
- Inspect site before beginning the job for evidence of illicit connections, illegal dumping or discharges. Document any pre-existing conditions and notify the owner.
- Inspect site regularly during project execution for evidence

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of illicit connections, illegal dumping or discharges.

- Observe site perimeter for evidence for potential of illicitly discharged or illegally dumped material, which may enter the job site.

Identification of Illicit Connections and Illegal Dumping or Discharges

- **General** – unlabeled and unidentifiable material should be treated as hazardous.
- **Solids** - Look for debris, or rubbish piles. Solid waste dumping often occurs on roadways with light traffic loads or in areas not easily visible from the traveled way.
- **Liquids** - signs of illegal liquid dumping or discharge can include:
  - Visible signs of staining or unusual colors to the pavement or surrounding adjacent soils
  - Pungent odors coming from the drainage systems
  - Discoloration or oily substances in the water or stains and residues detained within ditches, channels or drain boxes
  - Abnormal water flow during the dry weather season
- **Urban Areas** - Evidence of illicit connections or illegal discharges is typically detected at storm drain outfall locations or at manholes. Signs of an illicit connection or illegal discharge can include:
  - Abnormal water flow during the dry weather season
  - Unusual flows in sub drain systems used for dewatering
  - Pungent odors coming from the drainage systems
  - Discoloration or oily substances in the water or stains and residues detained within ditches, channels or drain boxes
  - Excessive sediment deposits, particularly adjacent to or near active offsite construction projects
- **Rural Areas** - Illicit connections or illegal discharges involving irrigation drainage ditches are detected by visual inspections. Signs of an illicit discharge can include:
  - Abnormal water flow during the non-irrigation season
  - Non-standard junction structures
  - Broken concrete or other disturbances at or near junction structures

Reporting

Notify the owner of any illicit connections and illegal dumping or discharge incidents at the time of discovery. For illicit connections or discharges to the storm drain system, notify the local stormwater management agency. For illegal dumping, notify the local law enforcement agency.

Cleanup and Removal

The responsibility for cleanup and removal of illicit or illegal dumping or discharges will vary by location. Contact the local stormwater management agency for further information.

Costs

Costs to look for and report illicit connections and illegal discharges and dumping are low. The best way to avoid costs associated with illicit connections and illegal discharges and dumping is to keep the project perimeters secure to prevent access to the site, to observe the site for vehicles that should not be there, and to document any waste or hazardous materials that exist onsite before taking possession of the site.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Inspect the site regularly to check for any illegal dumping or discharge.
- Prohibit employees and subcontractors from disposing of non-job related debris or materials at the construction site.
- Notify the owner of any illicit connections and illegal dumping or discharge incidents at the time of discovery.

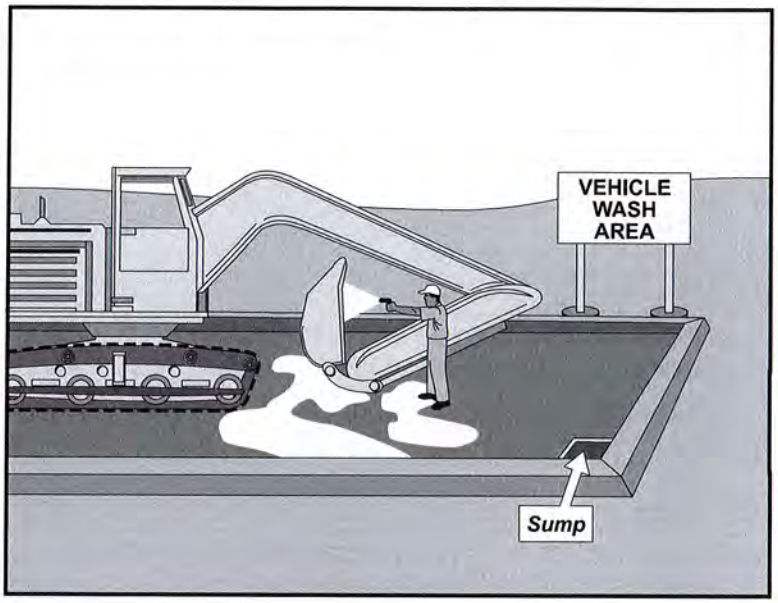
References

Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management for Construction Activities, Developing Pollution Prevention Plans and Best Management Practices, EPA 832-R-92005; USEPA, April 1992.

Vehicle and Equipment Cleaning NS-8



Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☑
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

Targeted Constituents

Sediment	☑
Nutrients	☑
Trash	
Metals	
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

Description and Purpose

Vehicle and equipment cleaning procedures and practices eliminate or reduce the discharge of pollutants to stormwater from vehicle and equipment cleaning operations. Procedures and practices include but are not limited to: using offsite facilities; washing in designated, contained areas only; eliminating discharges to the storm drain by infiltrating the wash water; and training employees and subcontractors in proper cleaning procedures.

Suitable Applications

These procedures are suitable on all construction sites where vehicle and equipment cleaning is performed.

Limitations

Even phosphate-free, biodegradable soaps have been shown to be toxic to fish before the soap degrades. Sending vehicles/equipment offsite should be done in conjunction with TC-1, Stabilized Construction Entrance/Exit.

Implementation

Other options to washing equipment onsite include contracting with either an offsite or mobile commercial washing business. These businesses may be better equipped to handle and dispose of the wash waters properly. Performing this work offsite can also be economical by eliminating the need for a separate washing operation onsite.

If washing operations are to take place onsite, then:

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- Use phosphate-free, biodegradable soaps.
- Educate employees and subcontractors on pollution prevention measures.
- Do not permit steam cleaning onsite. Steam cleaning can generate significant pollutant concentrates.
- Cleaning of vehicles and equipment with soap, solvents or steam should not occur on the project site unless resulting wastes are fully contained and disposed of. Resulting wastes should not be discharged or buried, and must be captured and recycled or disposed according to the requirements of WM-10, Liquid Waste Management or WM-6, Hazardous Waste Management, depending on the waste characteristics. Minimize use of solvents. Use of diesel for vehicle and equipment cleaning is prohibited.
- All vehicles and equipment that regularly enter and leave the construction site must be cleaned offsite.
- When vehicle and equipment washing and cleaning must occur onsite, and the operation cannot be located within a structure or building equipped with appropriate disposal facilities, the outside cleaning area should have the following characteristics:
  - Located away from storm drain inlets, drainage facilities, or watercourses
  - Paved with concrete or asphalt and bermed to contain wash waters and to prevent runon and runoff
  - Configured with a sump to allow collection and disposal of wash water
  - No discharge of wash waters to storm drains or watercourses
  - Used only when necessary
- When cleaning vehicles and equipment with water:
  - Use as little water as possible. High-pressure sprayers may use less water than a hose and should be considered
  - Use positive shutoff valve to minimize water usage
  - Facility wash racks should discharge to a sanitary sewer, recycle system or other approved discharge system and must not discharge to the storm drainage system, watercourses, or to groundwater

Costs

Cleaning vehicles and equipment at an offsite facility may reduce overall costs for vehicle and equipment cleaning by eliminating the need to provide similar services onsite. When onsite cleaning is needed, the cost to establish appropriate facilities is relatively low on larger, long-duration projects, and moderate to high on small, short-duration projects.

Inspection and Maintenance

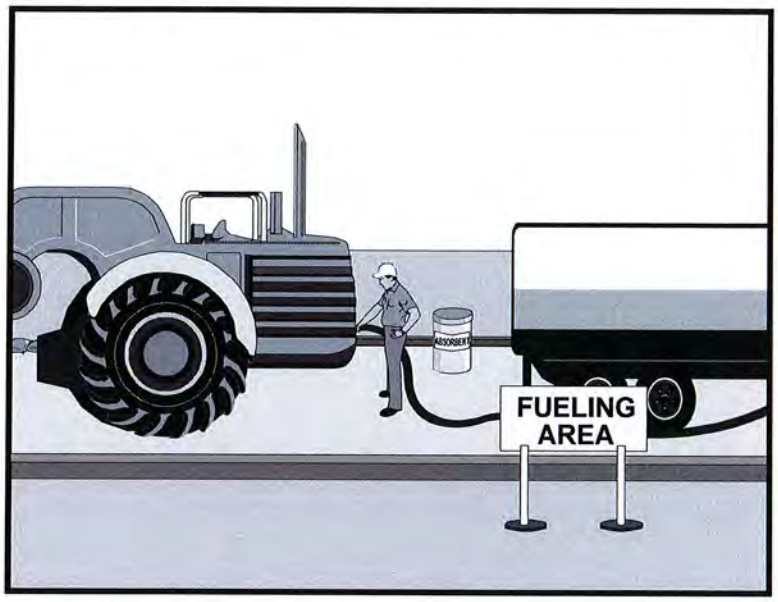
- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Inspect BMPs subject to non-stormwater discharges daily while non-stormwater discharges occur.
- Inspection and maintenance is minimal, although some berm repair may be necessary.
- Monitor employees and subcontractors throughout the duration of the construction project to ensure appropriate practices are being implemented.
- Inspect sump regularly and remove liquids and sediment as needed.
- Prohibit employees and subcontractors from washing personal vehicles and equipment on the construction site.

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Swisher, R.D. Surfactant Biodegradation, Marcel Decker Corporation, 1987.

Vehicle and Equipment Fueling NS-9



Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☑
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

Targeted Constituents

Sediment	
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	☑
Organics	

Potential Alternatives

None

Description and Purpose

Vehicle equipment fueling procedures and practices are designed to prevent fuel spills and leaks, and reduce or eliminate contamination of stormwater. This can be accomplished by using offsite facilities, fueling in designated areas only, enclosing or covering stored fuel, implementing spill controls, and training employees and subcontractors in proper fueling procedures.

Suitable Applications

These procedures are suitable on all construction sites where vehicle and equipment fueling takes place.

Limitations

Onsite vehicle and equipment fueling should only be used where it is impractical to send vehicles and equipment offsite for fueling. Sending vehicles and equipment offsite should be done in conjunction with TC-1, Stabilized Construction Entrance/ Exit.

Implementation

- Use offsite fueling stations as much as possible. These businesses are better equipped to handle fuel and spills properly. Performing this work offsite can also be economical by eliminating the need for a separate fueling area at a site.
- Discourage "topping-off" of fuel tanks.
- Absorbent spill cleanup materials and spill kits should be available in fueling areas and on fueling trucks, and should

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be disposed of properly after use.

- Drip pans or absorbent pads should be used during vehicle and equipment fueling, unless the fueling is performed over an impermeable surface in a dedicated fueling area.
- Use absorbent materials on small spills. Do not hose down or bury the spill. Remove the adsorbent materials promptly and dispose of properly.
- Avoid mobile fueling of mobile construction equipment around the site; rather, transport the equipment to designated fueling areas. With the exception of tracked equipment such as bulldozers and large excavators, most vehicles should be able to travel to a designated area with little lost time.
- Train employees and subcontractors in proper fueling and cleanup procedures.
- When fueling must take place onsite, designate an area away from drainage courses to be used. Fueling areas should be identified in the SWPPP.
- Dedicated fueling areas should be protected from stormwater runon and runoff, and should be located at least 50 ft away from downstream drainage facilities and watercourses. Fueling must be performed on level-grade areas.
- Protect fueling areas with berms and dikes to prevent runon, runoff, and to contain spills.
- Nozzles used in vehicle and equipment fueling should be equipped with an automatic shutoff to control drips. Fueling operations should not be left unattended.
- Use vapor recovery nozzles to help control drips as well as air pollution where required by Air Quality Management Districts (AQMD).
- Federal, state, and local requirements should be observed for any stationary above ground storage tanks.

Costs

- All of the above measures are low cost except for the capital costs of above ground tanks that meet all local environmental, zoning, and fire codes.

Inspection and Maintenance

- Inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Vehicles and equipment should be inspected each day of use for leaks. Leaks should be repaired immediately or problem vehicles or equipment should be removed from the project site.
- Keep ample supplies of spill cleanup materials onsite.

- Immediately clean up spills and properly dispose of contaminated soil and cleanup materials.

References

Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance, Working Group Working Paper; USEPA, April 1992.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

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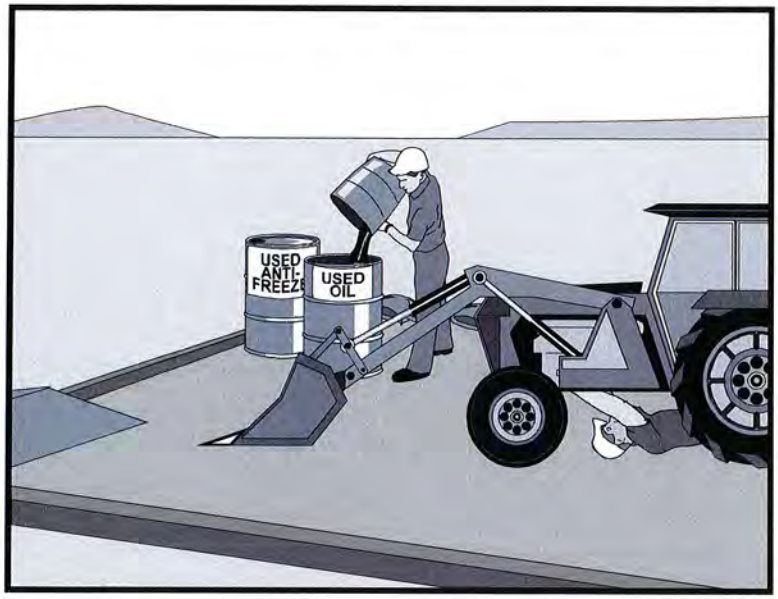
Vehicle & Equipment Maintenance NS-10



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Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

Targeted Constituents

Sediment	
Nutrients	☑
Trash	☑
Metals	
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

Description and Purpose

Prevent or reduce the contamination of stormwater resulting from vehicle and equipment maintenance by running a "dry and clean site". The best option would be to perform maintenance activities at an offsite facility. If this option is not available then work should be performed in designated areas only, while providing cover for materials stored outside, checking for leaks and spills, and containing and cleaning up spills immediately. Employees and subcontractors must be trained in proper procedures.

Suitable Applications

These procedures are suitable on all construction projects where an onsite yard area is necessary for storage and maintenance of heavy equipment and vehicles.

Limitations

Onsite vehicle and equipment maintenance should only be used where it is impractical to send vehicles and equipment offsite for maintenance and repair. Sending vehicles/equipment offsite should be done in conjunction with TC-1, Stabilized Construction Entrance/Exit.

Outdoor vehicle or equipment maintenance is a potentially significant source of stormwater pollution. Activities that can contaminate stormwater include engine repair and service, changing or replacement of fluids, and outdoor equipment storage and parking (engine fluid leaks). For further information on vehicle or equipment servicing, see NS-8, Vehicle and Equipment Cleaning, and NS-9, Vehicle and

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Equipment Fueling.

Implementation

- Use offsite repair shops as much as possible. These businesses are better equipped to handle vehicle fluids and spills properly. Performing this work offsite can also be economical by eliminating the need for a separate maintenance area.
- If maintenance must occur onsite, use designated areas, located away from drainage courses. Dedicated maintenance areas should be protected from stormwater runon and runoff, and should be located at least 50 ft from downstream drainage facilities and watercourses.
- Drip pans or absorbent pads should be used during vehicle and equipment maintenance work that involves fluids, unless the maintenance work is performed over an impermeable surface in a dedicated maintenance area.
- Place a stockpile of spill cleanup materials where it will be readily accessible.
- All fueling trucks and fueling areas are required to have spill kits and/or use other spill protection devices.
- Use adsorbent materials on small spills. Remove the absorbent materials promptly and dispose of properly.
- Inspect onsite vehicles and equipment daily at startup for leaks, and repair immediately.
- Keep vehicles and equipment clean; do not allow excessive build-up of oil and grease.
- Segregate and recycle wastes, such as greases, used oil or oil filters, antifreeze, cleaning solutions, automotive batteries, hydraulic and transmission fluids. Provide secondary containment and covers for these materials if stored onsite.
- Train employees and subcontractors in proper maintenance and spill cleanup procedures.
- Drip pans or plastic sheeting should be placed under all vehicles and equipment placed on docks, barges, or other structures over water bodies when the vehicle or equipment is planned to be idle for more than 1 hour.
- For long-term projects, consider using portable tents or covers over maintenance areas if maintenance cannot be performed offsite.
- Consider use of new, alternative greases and lubricants, such as adhesive greases, for chassis lubrication and fifth-wheel lubrication.
- Properly dispose of used oils, fluids, lubricants, and spill cleanup materials.
- Do not place used oil in a dumpster or pour into a storm drain or watercourse.
- Properly dispose of or recycle used batteries.
- Do not bury used tires.

- Repair leaks of fluids and oil immediately.

Listed below is further information if you must perform vehicle or equipment maintenance onsite.

Safer Alternative Products

- Consider products that are less toxic or hazardous than regular products. These products are often sold under an "environmentally friendly" label.
- Consider use of grease substitutes for lubrication of truck fifth-wheels. Follow manufacturers label for details on specific uses.
- Consider use of plastic friction plates on truck fifth-wheels in lieu of grease. Follow manufacturers label for details on specific uses.

Waste Reduction

Parts are often cleaned using solvents such as trichloroethylene, trichloroethane, or methylene chloride. Many of these cleaners are listed in California Toxic Rule as priority pollutants. These materials are harmful and must not contaminate stormwater. They must be disposed of as a hazardous waste. Reducing the number of solvents makes recycling easier and reduces hazardous waste management costs. Often, one solvent can perform a job as well as two different solvents. Also, if possible, eliminate or reduce the amount of hazardous materials and waste by substituting non-hazardous or less hazardous materials. For example, replace chlorinated organic solvents with non-chlorinated solvents. Non-chlorinated solvents like kerosene or mineral spirits are less toxic and less expensive to dispose of properly. Check the list of active ingredients to see whether it contains chlorinated solvents. The "chlor" term indicates that the solvent is chlorinated. Also, try substituting a wire brush for solvents to clean parts.

Recycling and Disposal

Separating wastes allows for easier recycling and may reduce disposal costs. Keep hazardous wastes separate, do not mix used oil solvents, and keep chlorinated solvents (like,-trichloroethane) separate from non-chlorinated solvents (like kerosene and mineral spirits). Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around. Provide cover and secondary containment until these materials can be removed from the site.

Oil filters can be recycled. Ask your oil supplier or recycler about recycling oil filters.

Do not dispose of extra paints and coatings by dumping liquid onto the ground or throwing it into dumpsters. Allow coatings to dry or harden before disposal into covered dumpsters.

Store cracked batteries in a non-leaking secondary container. Do this with all cracked batteries, even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

Costs

All of the above are low cost measures. Higher costs are incurred to setup and maintain onsite maintenance areas.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Inspect BMPs subject to non-stormwater discharges daily while non-stormwater discharges occur.
- Keep ample supplies of spill cleanup materials onsite.
- Maintain waste fluid containers in leak proof condition.
- Vehicles and equipment should be inspected on each day of use. Leaks should be repaired immediately or the problem vehicle(s) or equipment should be removed from the project site.
- Inspect equipment for damaged hoses and leaky gaskets routinely. Repair or replace as needed.

References

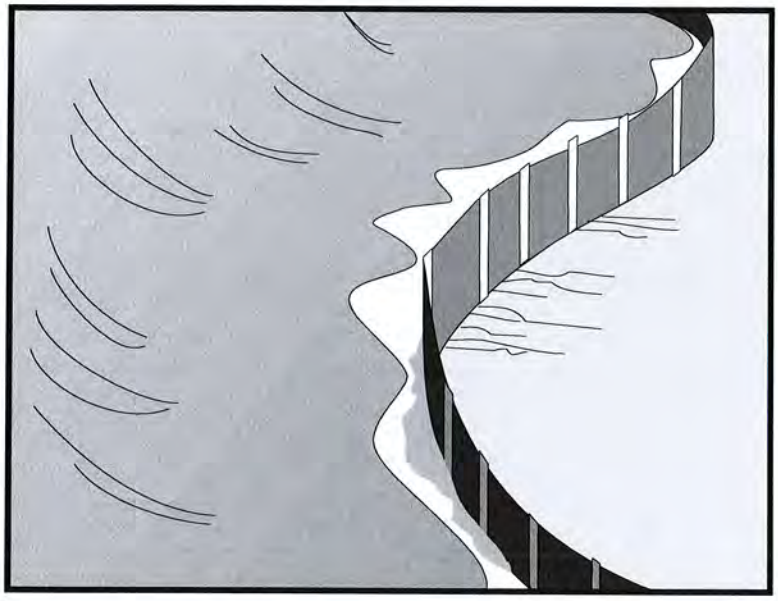
Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Coastal Nonpoint Pollution Control Program; Program Development and Approval Guidance, Working Group, Working Paper; USEPA, April 1992.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Silt Fence

SE-1



Description and Purpose

A silt fence is made of a woven geotextile that has been entrenched, attached to supporting poles, and sometimes backed by a plastic or wire mesh for support. The silt fence detains sediment-laden water, promoting sedimentation behind the fence.

Suitable Applications

Silt fences are suitable for perimeter control, placed below areas where sheet flows discharge from the site. They could also be used as interior controls below disturbed areas where runoff may occur in the form of sheet and rill erosion and around inlets within disturbed areas (SE-10). Silt fences are generally ineffective in locations where the flow is concentrated and are only applicable for sheet or overland flows. Silt fences are most effective when used in combination with erosion controls. Suitable applications include:

- Along the perimeter of a project.
- Below the toe or down slope of exposed and erodible slopes.
- Along streams and channels.
- Around temporary spoil areas and stockpiles.
- Around inlets.
- Below other small cleared areas.

Categories

EC	Erosion Control	
SE	Sediment Control	☑
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Category**

☒ **Secondary Category**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

SE-5 Fiber Rolls

SE-6 Gravel Bag Berm

SE-8 Sandbag Barrier

SE-10 Storm Drain Inlet Protection

SE-14 Biofilter Bags

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Limitations

- Do not use in streams, channels, drain inlets, or anywhere flow is concentrated.
- Do not use in locations where ponded water may cause a flooding hazard. Runoff typically ponds temporarily on the upstream side of silt fence.
- Do not use silt fence to divert water flows or place across any contour line. Fences not constructed on a level contour, or fences used to divert flow will concentrate flows resulting in additional erosion and possibly overtopping or failure of the silt fence.
- Improperly installed fences are subject to failure from undercutting, overtopping, or collapsing.
- Not effective unless trenched and keyed in.
- Not intended for use as mid-slope protection on slopes greater than 4:1 (H:V).
- Do not use on slopes subject to creeping, slumping, or landslides.

Implementation

General

A silt fence is a temporary sediment barrier consisting of woven geotextile stretched across and attached to supporting posts, trenched-in, and, depending upon the strength of fabric used, supported with plastic or wire mesh fence. Silt fences trap sediment by intercepting and detaining small amounts of sediment-laden runoff from disturbed areas in order to promote sedimentation behind the fence.

The following layout and installation guidance can improve performance and should be followed:

- Use principally in areas where sheet flow occurs.
- Install along a level contour, so water does not pond more than 1.5 ft at any point along the silt fence.
- The maximum length of slope draining to any point along the silt fence should be 200 ft or less.
- The maximum slope perpendicular to the fence line should be 1:1.
- Provide sufficient room for runoff to pond behind the fence and to allow sediment removal equipment to pass between the silt fence and toes of slopes or other obstructions. About 1200 ft^2 of ponding area should be provided for every acre draining to the fence.
- Turn the ends of the filter fence uphill to prevent stormwater from flowing around the fence.
- Leave an undisturbed or stabilized area immediately down slope from the fence where feasible.

- Silt fences should remain in place until the disturbed area is permanently stabilized, after which, the silt fence should be removed and properly disposed.
- Silt fence should be used in combination with erosion source controls up slope in order to provide the most effective sediment control.
- Be aware of local regulations regarding the type and installation requirements of silt fence, which may differ from those presented in this fact sheet.

Design and Layout

The fence should be supported by a plastic or wire mesh if the fabric selected does not have sufficient strength and bursting strength characteristics for the planned application (as recommended by the fabric manufacturer). Woven geotextile material should contain ultraviolet inhibitors and stabilizers to provide a minimum of six months of expected usable construction life at a temperature range of 0 °F to 120 °F.

- Layout in accordance with attached figures.
- For slopes steeper than 2:1 (H:V) and that contain a high number of rocks or large dirt clods that tend to dislodge, it may be necessary to install additional protection immediately adjacent to the bottom of the slope, prior to installing silt fence. Additional protection may be a chain link fence or a cable fence.
- For slopes adjacent to sensitive receiving waters or Environmentally Sensitive Areas (ESAs), silt fence should be used in conjunction with erosion control BMPs.

Standard vs. Heavy Duty Silt Fence

Standard Silt Fence

- Generally applicable in cases where the slope of area draining to the silt fence is 4:1 (H:V) or less.
- Used for shorter durations, typically 5 months or less
- Area draining to fence produces moderate sediment loads.

Heavy Duty Silt Fence

- Use is generally limited to 8 months or less.
- Area draining to fence produces moderate sediment loads.
- Heavy duty silt fence usually has 1 or more of the following characteristics, not possessed by standard silt fence.
  - Fence fabric has higher tensile strength.
  - Fabric is reinforced with wire backing or additional support.
  - Posts are spaced closer than pre-manufactured, standard silt fence products.
  - Posts are metal (steel or aluminum)

Materials

Standard Silt Fence

- Silt fence material should be woven geotextile with a minimum width of 36 in. and a minimum tensile strength of 100 lb force. The fabric should conform to the requirements in ASTM designation D4632 and should have an integral reinforcement layer. The

reinforcement layer should be a polypropylene, or equivalent, net provided by the manufacturer. The permittivity of the fabric should be between 0.1 sec^{-1} and 0.15 sec^{-1} in conformance with the requirements in ASTM designation D4491.

- Wood stakes should be commercial quality lumber of the size and shape shown on the plans. Each stake should be free from decay, splits or cracks longer than the thickness of the stake or other defects that would weaken the stakes and cause the stakes to be structurally unsuitable.

- Staples used to fasten the fence fabric to the stakes should be not less than 1.75 in. long and should be fabricated from 15 gauge or heavier wire. The wire used to fasten the tops of the stakes together when joining two sections of fence should be 9 gauge or heavier wire. Galvanizing of the fastening wire will not be required.

Heavy-Duty Silt Fence

- Some silt fence has a wire backing to provide additional support, and there are products that may use prefabricated plastic holders for the silt fence and use metal posts or bar reinforcement instead of wood stakes. If bar reinforcement is used in lieu of wood stakes, use number four or greater bar. Provide end protection for any exposed bar reinforcement for health and safety purposes.

Installation Guidelines – Traditional Method

Silt fences are to be constructed on a level contour. Sufficient area should exist behind the fence for ponding to occur without flooding or overtopping the fence.

- A trench should be excavated approximately 6 in. wide and 6 in. deep along the line of the proposed silt fence (trenches should not be excavated wider or deeper than necessary for proper silt fence installation).

- Bottom of the silt fence should be keyed-in a minimum of 12 in.

- Posts should be spaced a maximum of 6 ft apart and driven securely into the ground a minimum of 18 in. or 12 in. below the bottom of the trench.

- When standard strength geotextile is used, a plastic or wire mesh support fence should be fastened securely to the upslope side of posts using heavy–duty wire staples at least 1 in. long. The mesh should extend into the trench.

- When extra-strength geotextile and closer post spacing are used, the mesh support fence may be eliminated.

- Woven geotextile should be purchased in a long roll, then cut to the length of the barrier. When joints are necessary, geotextile should be spliced together only at a support post, with a minimum 6 in. overlap and both ends securely fastened to the post.

- The trench should be backfilled with native material and compacted.

- Construct silt fences with a setback of at least 3 ft from the toe of a slope. Where, due to specific site conditions, a 3 ft setback is not available, the silt fence may be constructed at the

toe of the slope, but should be constructed as far from the toe of the slope as practicable. Silt fences close to the toe of the slope will be less effective and more difficult to maintain.

- Construct the length of each reach so that the change in base elevation along the reach does not exceed 1/3 the height of the barrier; in no case should the reach exceed 500 ft.
- Cross barriers should be a minimum of $^1/_3$ and a maximum of ½ the height of the linear barrier.
- See typical installation details at the end of this fact sheet.

Installation Guidelines - Static Slicing Method

- Static Slicing is defined as insertion of a narrow blade pulled behind a tractor, similar to a plow blade, at least 10 inches into the soil while at the same time pulling silt geotextile fabric into the ground through the opening created by the blade to the depth of the blade. Once the gerotextile is installed, the soil is compacted using tractor tires.
- This method will not work with pre-fabricated, wire backed silt fence.
- Benefits:
    - Ease of installation (most often done with a 2 person crew). In addition, installation using static slicing has been found to be more efficient on slopes, in rocky soils, and in saturated soils.
    - Minimal soil disturbance.
    - Greater level of compaction along fence, leading to higher performance (i.e. greater sediment retention).
    - Uniform installation.
    - Less susceptible to undercutting/undermining.

Costs

- It should be noted that costs vary greatly across regions due to available supplies and labor costs.
- Average annual cost for installation using the traditional silt fence installation method (assumes 6 month useful life) is $7 per linear foot based on vendor research. Range of cost is $3.50 - $9.10 per linear foot.
- In tests, the slicing method required 0.33 man hours per 100 linear feet, while the trenched based systems required as much as 1.01 man hours per linear foot.

Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Repair undercut silt fences.

- Repair or replace split, torn, slumping, or weathered fabric. The lifespan of silt fence fabric is generally 5 to 8 months.
- Silt fences that are damaged and become unsuitable for the intended purpose should be removed from the site of work, disposed, and replaced with new silt fence barriers.
- Sediment that accumulates in the BMP should be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches one-third of the barrier height.
- Silt fences should be left in place until the upstream area is permanently stabilized. Until then, the silt fence should be inspected and maintained regularly.
- Remove silt fence when upgradient areas are stabilized. Fill and compact post holes and anchor trench, remove sediment accumulation, grade fence alignment to blend with adjacent ground, and stabilize disturbed area.

References

Manual of Standards of Erosion and Sediment Control Measures, Association of Bay Area Governments, May 1995.

National Management Measures to Control Nonpoint Source Pollution from Urban Areas, United States Environmental Protection Agency, 2002.

Proposed Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters, Work Group-Working Paper, USEPA, April 1992.

Sedimentation and Erosion Control Practices, and Inventory of Current Practices (Draft), UESPA, 1990.

Southeastern Wisconsin Regional Planning Commission (SWRPC). Costs of Urban Nonpoint Source Water Pollution Control Measures. Technical Report No. 31. Southeastern Wisconsin Regional Planning Commission, Waukesha, WI. 1991

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Stormwater Management Manual for The Puget Sound Basin, Washington State Department of Ecology, Public Review Draft, 1991.

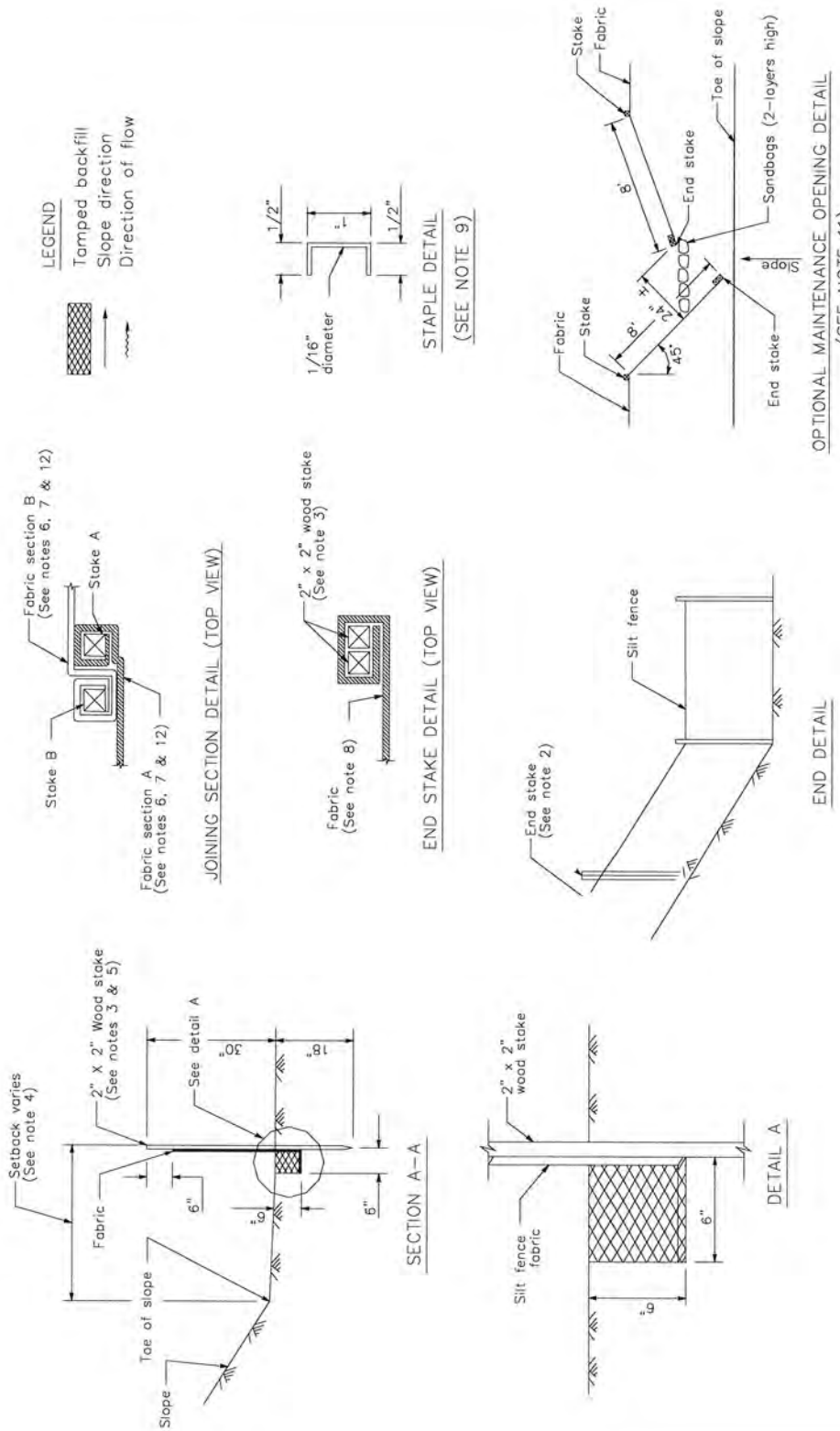
U.S. Environmental Protection Agency (USEPA). Stormwater Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices. U.S. Environmental Protection Agency, Office of Water, Washington, DC, 1992.

Water Quality Management Plan for the Lake Tahoe Region, Volume II, Handbook of Management Practices, Tahoe Regional Planning Agency, November 1988.Soil Stabilization BMP Research for Erosion and Sediment Controls: Cost Survey Technical Memorandum, State of California Department of Transportation (Caltrans), July 2007.

Erosion and Sediment Control Manual, Oregon Department of Environmental Quality, February 2005.

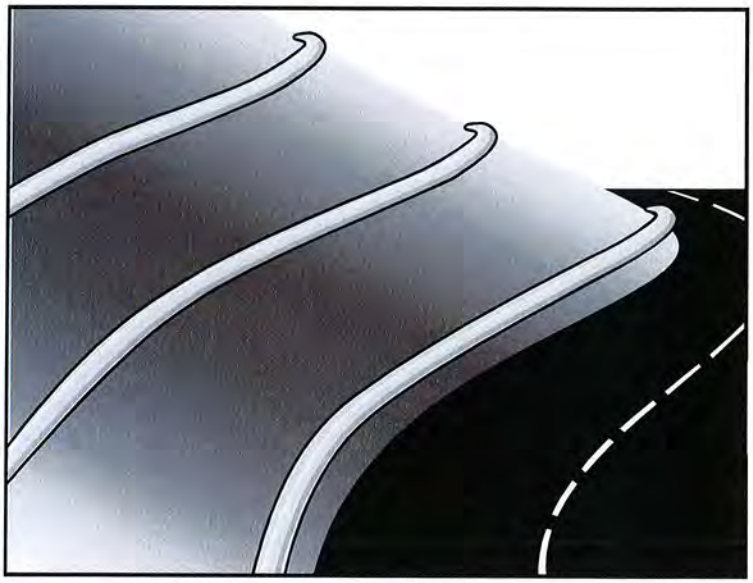
NOTES

1. Construct the length of each reach so that the change in base elevation along the reach does not exceed 1/3 the height of the linear barrier. In no case shall the reach length exceed 500'.
2. The last 8'-0" of fence shall be turned up slope.
3. Stake dimensions are nominal.
4. Dimension may vary to fit field condition.
5. Stakes shall be spaced at 8'-0" maximum and shall be positioned on downstream side of fence.
6. Stakes to overlap and fence fabric to fold around each stake one full turn. Secure fabric to stake with 4 staples.
7. Stakes shall be driven tightly together to prevent potential flow-through of sediment at joint. The tops of the stakes shall be secured with wire.
8. For end stake, fence fabric shall be folded around two stakes one full turn and secured with 4 staples.
9. Minimum 4 staples per stake. Dimensions shown are typical.
10. Cross barriers shall be a minimum of 1/3 and a maximum of 1/2 the height of the linear barrier.
11. Maintenance openings shall be constructed in a manner to ensure sediment remains behind silt fence.
12. Joining sections shall not be placed at sump locations.
13. Sandbag rows and layers shall be offset to eliminate gaps.
14. Add 3-4 bags to cross barrier on downgradient side of silt fence as needed to prevent bypass or undermining and as allowable based on site limits of disturbance.


LEGEND
Tamped backfill
Slope direction
Direction of flow
1/2"
1/16" diameter
1"
1/2"
STAPLE DETAIL
(SEE NOTE 9)
Stake
Fabric
8'
End stake
Toe of slope
Sandbags (2-layers high)
Slope
Fabric
Stake
8"
24"
4"
8"
45°
End stake
OPTIONAL MAINTENANCE OPENING DETAIL
(SEE NOTE 11)
Fabric section B
(See notes 6, 7 & 12)
Stake A
Stake B
Fabric section A
(See notes 6, 7 & 12)
JOINING SECTION DETAIL (TOP VIEW)
2" x 2" wood stake
(See note 3)
Fabric
(See note 8)
END STAKE DETAIL (TOP VIEW)
Silt fence
End stake
(See note 2)
END DETAIL
Setback varies
(See note 4)
2" X 2" Wood stake
(See notes 3 & 5)
See detail A
30"
18"
Fabric
6"
6"
Toe of slope
Slope
SECTION A-A
2" x 2"
wood stake
Silt fence
fabric
6"
6"
DETAIL A

Fiber Rolls

SE-5



Categories

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Legend:

☑ **Primary Category**

☒ **Secondary Category**

Description and Purpose

A fiber roll consists of straw, coir, or other biodegradable materials bound into a tight tubular roll wrapped by netting, which can be photodegradable or natural. Additionally, gravel core fiber rolls are available, which contain an imbedded ballast material such as gravel or sand for additional weight when staking the rolls are not feasible (such as use as inlet protection). When fiber rolls are placed at the toe and on the face of slopes along the contours, they intercept runoff, reduce its flow velocity, release the runoff as sheet flow, and provide removal of sediment from the runoff (through sedimentation). By interrupting the length of a slope, fiber rolls can also reduce sheet and rill erosion until vegetation is established.

Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

SE-1 Silt Fence

SE-6 Gravel Bag Berm

SE-8 Sandbag Barrier

SE-14 Biofilter Bags

Suitable Applications

Fiber rolls may be suitable:

- Along the toe, top, face, and at grade breaks of exposed and erodible slopes to shorten slope length and spread runoff as sheet flow.
- At the end of a downward slope where it transitions to a steeper slope.
- Along the perimeter of a project.
- As check dams in unlined ditches with minimal grade.
- Down-slope of exposed soil areas.
- At operational storm drains as a form of inlet protection.

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- Around temporary stockpiles.

Limitations

- Fiber rolls are not effective unless trenched in and staked.
- Not intended for use in high flow situations.
- Difficult to move once saturated.
- If not properly staked and trenched in, fiber rolls could be transported by high flows.
- Fiber rolls have a very limited sediment capture zone.
- Fiber rolls should not be used on slopes subject to creep, slumping, or landslide.
- Rolls typically function for 12-24 months depending upon local conditions.

Implementation

Fiber Roll Materials

- Fiber rolls should be prefabricated.
- Fiber rolls may come manufactured containing polyacrylamide (PAM), a flocculating agent within the roll. Fiber rolls impregnated with PAM provide additional sediment removal capabilities and should be used in areas with fine, clayey or silty soils to provide additional sediment removal capabilities. Monitoring may be required for these installations.
- Fiber rolls are made from weed free rice straw, flax, or a similar agricultural material bound into a tight tubular roll by netting.
- Typical fiber rolls vary in diameter from 9 in. to 20 in. Larger diameter rolls are available as well.

Installation

- Locate fiber rolls on level contours spaced as follows:
  - Slope inclination of 4:1 (H:V) or flatter: Fiber rolls should be placed at a maximum interval of 20 ft.
  - Slope inclination between 4:1 and 2:1 (H:V): Fiber Rolls should be placed at a maximum interval of 15 ft. (a closer spacing is more effective).
  - Slope inclination 2:1 (H:V) or greater: Fiber Rolls should be placed at a maximum interval of 10 ft. (a closer spacing is more effective).
- Prepare the slope before beginning installation.
- Dig small trenches across the slope on the contour. The trench depth should be ¼ to 1/3 of the thickness of the roll, and the width should equal the roll diameter, in order to provide area to backfill the trench.

- It is critical that rolls are installed perpendicular to water movement, and parallel to the slope contour.
- Start building trenches and installing rolls from the bottom of the slope and work up.
- It is recommended that pilot holes be driven through the fiber roll. Use a straight bar to drive holes through the roll and into the soil for the wooden stakes.
- Turn the ends of the fiber roll up slope to prevent runoff from going around the roll.
- Stake fiber rolls into the trench.
  - Drive stakes at the end of each fiber roll and spaced 4 ft maximum on center.
  - Use wood stakes with a nominal classification of 0.75 by 0.75 in. and minimum length of 24 in.
- If more than one fiber roll is placed in a row, the rolls should be overlapped, not abutted.
- See typical fiber roll installation details at the end of this fact sheet.

Removal

- Fiber rolls can be left in place or removed depending on the type of fiber roll and application (temporary vs. permanent installation). Typically, fiber rolls encased with plastic netting are used for a temporary application because the netting does not biodegrade. Fiber rolls used in a permanent application are typically encased with a biodegradeable material and are left in place. Removal of a fiber roll used in a permanent application can result in greater disturbance.
- Temporary installations should only be removed when up gradient areas are stabilized per General Permit requirements, and/or pollutant sources no longer present a hazard. But, they should also be removed before vegetation becomes too mature so that the removal process does not disturb more soil and vegetation than is necessary.

Costs

Material costs for regular fiber rolls range from $20 - $30 per 25 ft roll.

Material costs for PAM impregnated fiber rolls range between 7.00-$9.00 per linear foot, based upon vendor research.

Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Repair or replace split, torn, unraveling, or slumping fiber rolls.
- If the fiber roll is used as a sediment capture device, or as an erosion control device to maintain sheet flows, sediment that accumulates in the BMP should be periodically removed

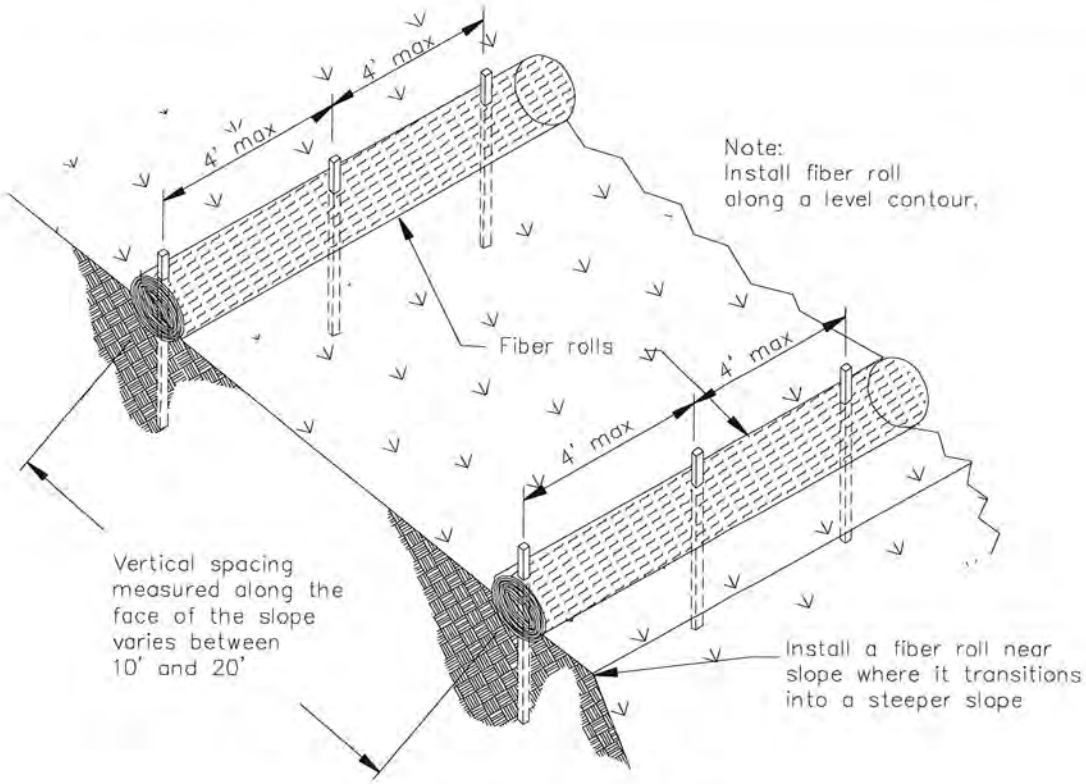
in order to maintain BMP effectiveness. Sediment should be removed when sediment accumulation reaches one-third the designated sediment storage depth.

- If fiber rolls are used for erosion control, such as in a check dam, sediment removal should not be required as long as the system continues to control the grade. Sediment control BMPs will likely be required in conjunction with this type of application.
- Repair any rills or gullies promptly.

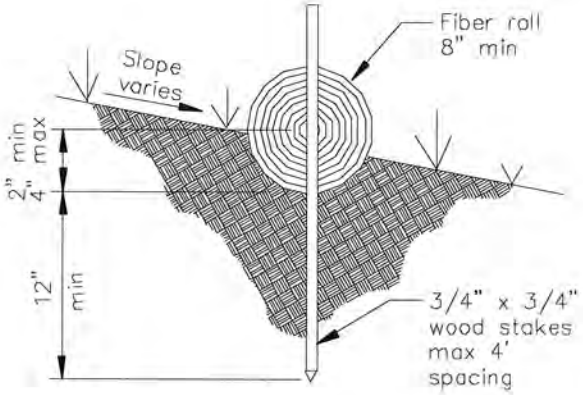
References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Erosion and Sediment Control Manual, Oregon Department of Environmental Quality, February 2005.



TYPICAL FIBER ROLL INSTALLATION
N.T.S.



ENTRENCHMENT DETAIL
N.T.S.

Street Sweeping and Vacuuming SE-7

Categories		
EC	Erosion Control	
SE	Sediment Control	☒
TC	Tracking Control	☑
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:
☑ **Primary Objective**
☒ **Secondary Objective**

Targeted Constituents	
Sediment	☑
Nutrients	
Trash	☑
Metals	
Bacteria	
Oil and Grease	☑
Organics	

Potential Alternatives

None

Description and Purpose

Street sweeping and vacuuming includes use of self-propelled and walk-behind equipment to remove sediment from streets and roadways, and to clean paved surfaces in preparation for final paving. Sweeping and vacuuming prevents sediment from the project site from entering storm drains or receiving waters.

Suitable Applications

Sweeping and vacuuming are suitable anywhere sediment is tracked from the project site onto public or private paved streets and roads, typically at points of egress. Sweeping and vacuuming are also applicable during preparation of paved surfaces for final paving.

Limitations

Sweeping and vacuuming may not be effective when sediment is wet or when tracked soil is caked (caked soil may need to be scraped loose).

Implementation

- Controlling the number of points where vehicles can leave the site will allow sweeping and vacuuming efforts to be focused, and perhaps save money.
- Inspect potential sediment tracking locations daily.
- Visible sediment tracking should be swept or vacuumed on a daily basis.
- Do not use kick brooms or sweeper attachments. These tend to spread the dirt rather than remove it.

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- If not mixed with debris or trash, consider incorporating the removed sediment back into the project

Costs

Rental rates for self-propelled sweepers vary depending on hopper size and duration of rental. Expect rental rates from $58/hour (3 yd^3 hopper) to $88/hour (9 yd^3 hopper), plus operator costs. Hourly production rates vary with the amount of area to be swept and amount of sediment. Match the hopper size to the area and expect sediment load to minimize time spent dumping.

Inspection and Maintenance

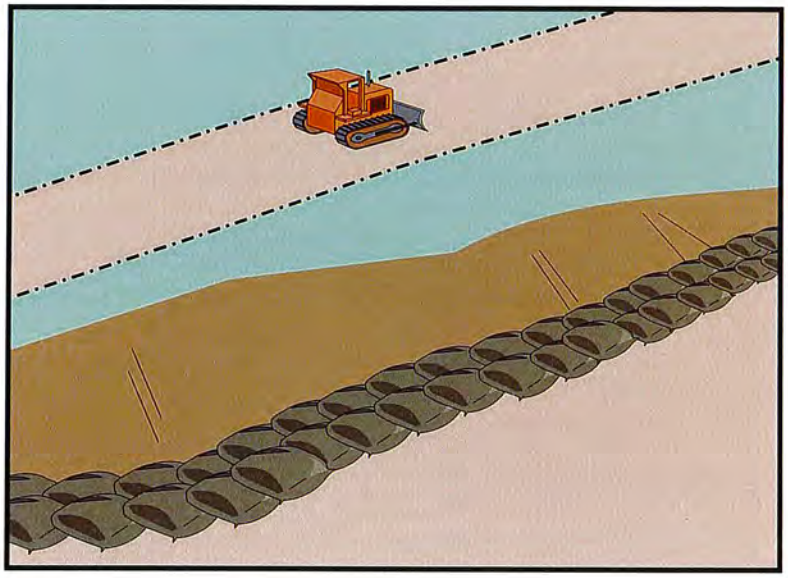
- Inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- When actively in use, points of ingress and egress must be inspected daily.
- When tracked or spilled sediment is observed outside the construction limits, it must be removed at least daily. More frequent removal, even continuous removal, may be required in some jurisdictions.
- Be careful not to sweep up any unknown substance or any object that may be potentially hazardous.
- Adjust brooms frequently; maximize efficiency of sweeping operations.
- After sweeping is finished, properly dispose of sweeper wastes at an approved dumpsite.

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Labor Surcharge and Equipment Rental Rates, State of California Department of Transportation (Caltrans), April 1, 2002 – March 31, 2003.

Sandbag Barrier SE-8



Categories

EC	Erosion Control	☒
SE	Sediment Control	☑
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Description and Purpose

A sandbag barrier is a series of sand-filled bags placed on a level contour to intercept or to divert sheet flows. Sandbag barriers placed on a level contour pond sheet flow runoff, allowing sediment to settle out.

Suitable Applications

Sandbag barriers may be suitable:

- As a linear sediment control measure:
  - Below the toe of slopes and erodible slopes.
  - As sediment traps at culvert/pipe outlets.
  - Below other small cleared areas.
  - Along the perimeter of a site.
  - Down slope of exposed soil areas.
  - Around temporary stockpiles and spoil areas.
  - Parallel to a roadway to keep sediment off paved areas.
  - Along streams and channels.
- As linear erosion control measure:
  - Along the face and at grade breaks of exposed and erodible slopes to shorten slope length and spread runoff as sheet flow.

Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

SE-1 Silt Fence

SE-5 Fiber Rolls

SE-6 Gravel Bag Berm

SE-12 Temporary Silt Dike

SE-14 Biofilter Bags

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- At the top of slopes to divert runoff away from disturbed slopes.
- As check dams across mildly sloped construction roads.

Limitations

- It is necessary to limit the drainage area upstream of the barrier to 5 acres.
- Sandbags are not intended to be used as filtration devices.
- Easily damaged by construction equipment.
- Degraded sandbags may rupture when removed, spilling sand.
- Sand is easily transported by runoff if bag is damaged or ruptured.
- Installation can be labor intensive.
- Durability of sandbags is somewhat limited and bags may need to be replaced when installation is required for longer than 6 months. When used to detain concentrated flows, maintenance requirements increase.
- Burlap should not be used for sandbags.

Implementation

General

A sandbag barrier consists of a row of sand-filled bags placed on a level contour. When appropriately placed, a sandbag barrier intercepts and slows sheet flow runoff, causing temporary ponding. The temporary ponding allows sediment to settle. Sand-filled bags have limited porosity, which is further limited as the fine sand tends to quickly plug with sediment, limiting or completely blocking the rate of flow through the barrier. If a porous barrier is desired, consider SE-1, Silt Fence, SE-5, Fiber Rolls, SE-6, Gravel Bag Berms or SE-14, Biofilter Bags. Sandbag barriers also interrupt the slope length and thereby reduce erosion by reducing the tendency of sheet flows to concentrate into rivulets which erode rills, and ultimately gullies, into disturbed, sloped soils. Sandbag barriers are similar to gravel bag berms, but less porous. Generally, sandbag barriers should be used in conjunction with temporary soil stabilization controls up slope to provide effective erosion and sediment control.

Design and Layout

- Locate sandbag barriers on a level contour.
- When used for slope interruption, the following slope/sheet flow length combinations apply:
  - Slope inclination of 4:1 (H:V) or flatter: Sandbags should be placed at a maximum interval of 20 ft, with the first row near the slope toe.
  - Slope inclination between 4:1 and 2:1 (H:V): Sandbags should be placed at a maximum interval of 15 ft. (a closer spacing is more effective), with the first row near the slope toe.

    Slope inclination 2:1 (H:V) or greater: Sandbags should be placed at a maximum interval of 10 ft. (a closer spacing is more effective), with the first row near the slope toe.

- Turn the ends of the sandbag barrier up slope to prevent runoff from going around the barrier.
- Allow sufficient space up slope from the barrier to allow ponding, and to provide room for sediment storage.
- For installation near the toe of the slope, sand bag barriers should be set back from the slope toe to facilitate cleaning. Where specific site conditions do not allow for a set-back, the sand bag barrier may be constructed on the toe of the slope. To prevent flows behind the barrier, bags can be placed perpendicular to a berm to serve as cross barriers.
- Drainage area should not exceed 5 acres.
- Stack sandbags at least three bags high.
- Butt ends of bags tightly.
- Overlap butt joints of row beneath with each successive row.
- Use a pyramid approach when stacking bags.
- In non-traffic areas
  - Height = 18 in. maximum
  - Top width = 24 in. minimum for three or more layer construction
  - Side slope = 2:1 (H:V) or flatter
- In construction traffic areas
  - Height = 12 in. maximum
  - Top width = 24 in. minimum for three or more layer construction.
  - Side slopes = 2:1 (H:V) or flatter.
- See typical sandbag barrier installation details at the end of this fact sheet.

Materials

- ***Sandbag Material:*** Sandbag should be woven polypropylene, polyethylene or polyamide fabric, minimum unit weight of 4 ounces/yd^2, Mullen burst strength exceeding 300 lb/in^2 in conformance with the requirements in ASTM designation D3786, and ultraviolet stability exceeding 70% in conformance with the requirements in ASTM designation D4355. Use of burlap is not an acceptable substitute, as sand can more easily mobilize out of burlap.
- ***Sandbag Size:*** Each sand-filled bag should have a length of 18 in., width of 12 in., thickness of 3 in., and mass of approximately 33 lbs. Bag dimensions are nominal, and may vary based on locally available materials.

- ***Fill Material:*** All sandbag fill material should be non-cohesive, Class 3 (Caltrans Standard Specification, Section 25) permeable material free from clay and deleterious material, such as recycled concrete or asphalt..

Costs

Empty sandbags cost $0.25 - $0.75. Average cost of fill material is $8 per yd^3. Additional labor is required to fill the bags. Pre-filled sandbags are more expensive at $1.50 - $2.00 per bag. These costs are based upon vendor research.

Inspection and Maintenance

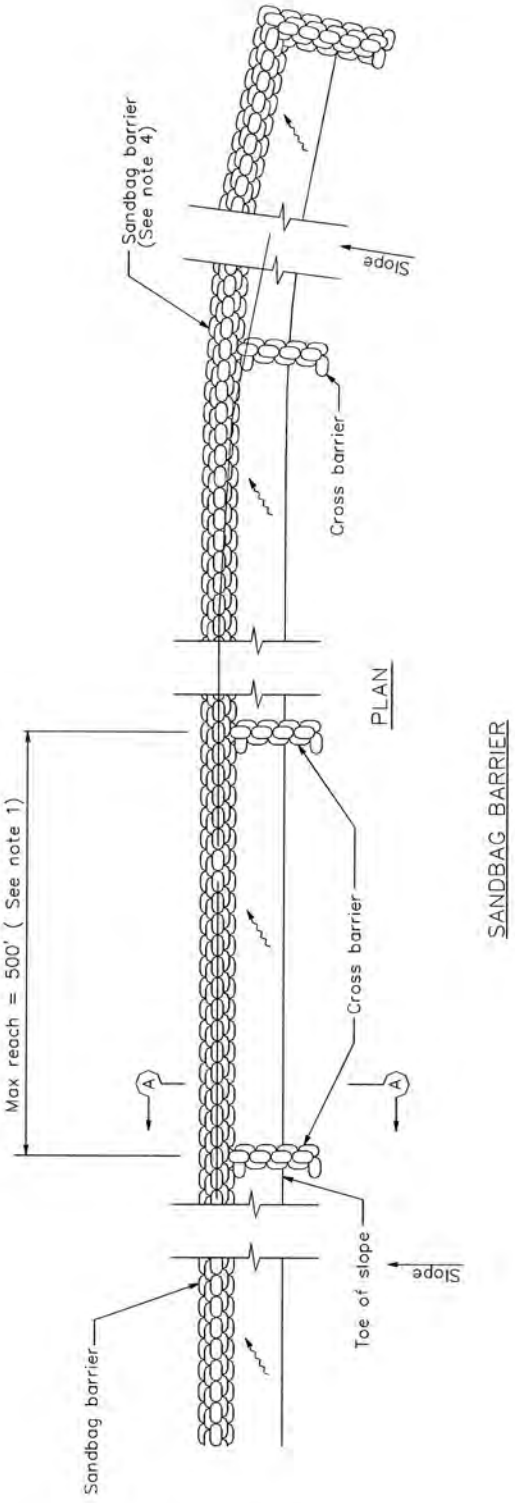
- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Sandbags exposed to sunlight will need to be replaced every two to three months due to degradation of the bags.
- Reshape or replace sandbags as needed.
- Repair washouts or other damage as needed.
- Sediment that accumulates behind the BMP should be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches one-third of the barrier height.
- Remove sandbags when no longer needed and recycle sand fill whenever possible and properly dispose of bag material. Remove sediment accumulation, and clean, re-grade, and stabilize the area.

References

Standard Specifications for Construction of Local Streets and Roads, California Department of Transportation (Caltrans), July 2002.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

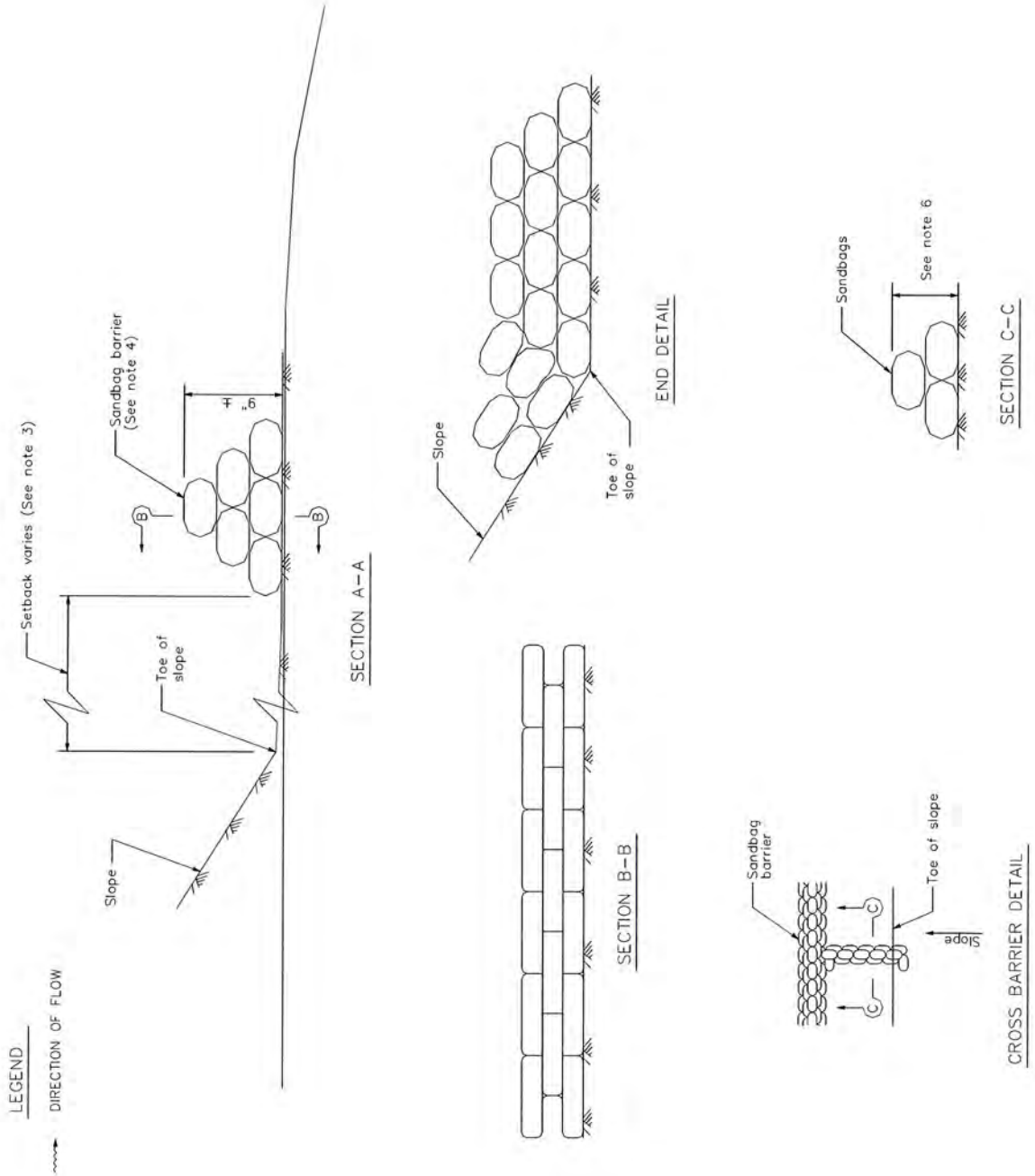
Erosion and Sediment Control Manual, Oregon Department of Environmental Quality, February 2005.



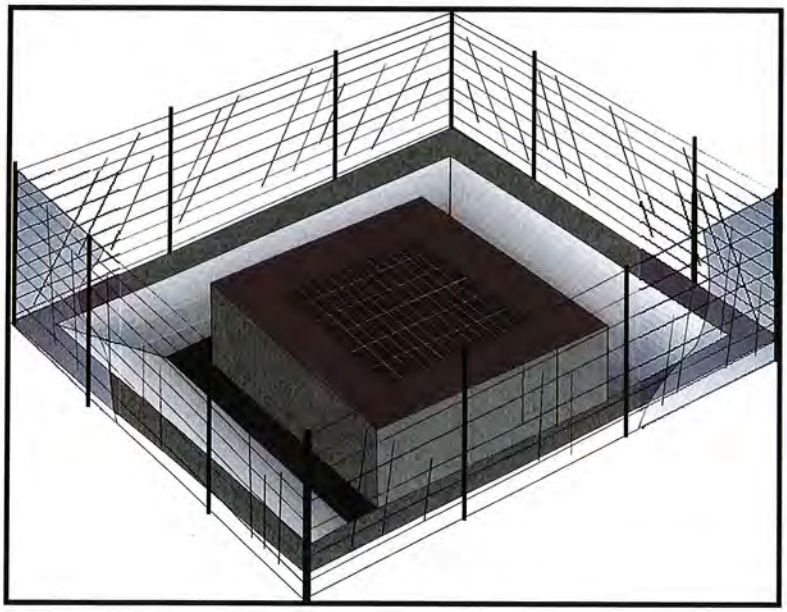
SANDBAG BARRIER

NOTES

1. Construct the length of each reach so that the change in base elevation along the reach does not exceed 1/2 the height of the linear barrier. In no case shall the reach length exceed 500'.
2. Place sandbags tightly.
3. Dimension may vary to fit field condition.
4. Sandbag barrier shall be a minimum of 3 bags high.
5. The end of the barrier shall be turned up slope.
6. Cross barriers shall be a min of 1/2 and a max of 2/3 the height of the linear barrier.
7. Sandbag rows and layers shall be staggered to eliminate gaps.


LEGEND
DIRECTION OF FLOW
Setback varies (See note 3)
Sandbag barrier (See note 4)
9"
Toe of slope
Slope
B
SECTION A-A
Slope
Toe of slope
END DETAIL
SECTION B-B
Sandbags
See note 6
SECTION C-C
Sandbag barrier
Toe of slope
Slope
C
CROSS BARRIER DETAIL

Storm Drain Inlet Protection SE-10



Categories

EC	Erosion Control	
SE	Sediment Control	☑
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Category**

☒ **Secondary Category**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	☒
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

SE-1 Silt Fence

SE-5 Fiber Rolls

SE-6 Gravel Bag Berm

SE-8 Sandbag Barrier

SE-14 Biofilter Bags

Description and Purpose

Storm drain inlet protection consists of a sediment filter or an impounding area in, around or upstream of a storm drain, drop inlet, or curb inlet. Storm drain inlet protection measures temporarily pond runoff before it enters the storm drain, allowing sediment to settle. Some filter configurations also remove sediment by filtering, but usually the ponding action results in the greatest sediment reduction. Temporary geotextile storm drain inserts attach underneath storm drain grates to capture and filter storm water.

Suitable Applications

Every storm drain inlet receiving runoff from unstabilized or otherwise active work areas should be protected. Inlet protection should be used in conjunction with other erosion and sediment controls to prevent sediment-laden stormwater and non-stormwater discharges from entering the storm drain system.

Limitations

- Drainage area should not exceed 1 acre.
- In general straw bales should not be used as inlet protection.
- Requires an adequate area for water to pond without encroaching into portions of the roadway subject to traffic.

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- Sediment removal may be inadequate to prevent sediment discharges in high flow conditions or if runoff is heavily sediment laden. If high flow conditions are expected, use other onsite sediment trapping techniques in conjunction with inlet protection.
- Frequent maintenance is required.
- Limit drainage area to 1 acre maximum. For drainage areas larger than 1 acre, runoff should be routed to a sediment-trapping device designed for larger flows. See BMPs SE-2, Sediment Basin, and SE-3, Sediment Traps.
- Excavated drop inlet sediment traps are appropriate where relatively heavy flows are expected, and overflow capability is needed.

Implementation

General

Inlet control measures presented in this handbook should not be used for inlets draining more than one acre. Runoff from larger disturbed areas should be first routed through SE-2, Sediment Basin or SE-3, Sediment Trap and/or used in conjunction with other drainage control, erosion control, and sediment control BMPs to protect the site. Different types of inlet protection are appropriate for different applications depending on site conditions and the type of inlet. Alternative methods are available in addition to the methods described/shown herein such as prefabricated inlet insert devices, or gutter protection devices.

Design and Layout

Identify existing and planned storm drain inlets that have the potential to receive sediment-laden surface runoff. Determine if storm drain inlet protection is needed and which method to use.

- The key to successful and safe use of storm drain inlet protection devices is to know where runoff that is directed toward the inlet to be protected will pond or be diverted as a result of installing the protection device.
  - Determine the acceptable location and extent of ponding in the vicinity of the drain inlet. The acceptable location and extent of ponding will influence the type and design of the storm drain inlet protection device.
  - Determine the extent of potential runoff diversion caused by the storm drain inlet protection device. Runoff ponded by inlet protection devices may flow around the device and towards the next downstream inlet. In some cases, this is acceptable; in other cases, serious erosion or downstream property damage can be caused by these diversions. The possibility of runoff diversions will influence whether or not storm drain inlet protection is suitable; and, if suitable, the type and design of the device.
- The location and extent of ponding, and the extent of diversion, can usually be controlled through appropriate placement of the inlet protection device. In some cases, moving the inlet protection device a short distance upstream of the actual inlet can provide more efficient sediment control, limit ponding to desired areas, and prevent or control diversions.

- Six types of inlet protection are presented below. However, it is recognized that other effective methods and proprietary devices exist and may be selected.
  - Silt Fence: Appropriate for drainage basins with less than a 5% slope, sheet flows, and flows under 0.5 cfs.
  - Excavated Drop Inlet Sediment Trap: An excavated area around the inlet to trap sediment (SE-3).
  - Gravel bag barrier: Used to create a small sediment trap upstream of inlets on sloped, paved streets. Appropriate for sheet flow or when concentrated flow may exceed 0.5 cfs, and where overtopping is required to prevent flooding.
  - Block and Gravel Filter: Appropriate for flows greater than 0.5 cfs.
  - Temporary Geotextile Storm drain Inserts: Different products provide different features. Refer to manufacturer details for targeted pollutants and additional features.
  - Biofilter Bag Barrier: Used to create a small retention area upstream of inlets and can be located on pavement or soil. Biofilter bags slowly filter runoff allowing sediment to settle out. Appropriate for flows under 0.5 cfs.
- Select the appropriate type of inlet protection and design as referred to or as described in this fact sheet.
- Provide area around the inlet for water to pond without flooding structures and property.
- Grates and spaces around all inlets should be sealed to prevent seepage of sediment-laden water.
- Excavate sediment sumps (where needed) 1 to 2 ft with 2:1 side slopes around the inlet.

Installation

- ***DI Protection Type 1 - Silt Fence*** - Similar to constructing a silt fence; see BMP SE-1, Silt Fence. Do not place fabric underneath the inlet grate since the collected sediment may fall into the drain inlet when the fabric is removed or replaced and water flow through the grate will be blocked resulting in flooding. See typical Type 1 installation details at the end of this fact sheet.

  1. Excavate a trench approximately 6 in. wide and 6 in. deep along the line of the silt fence inlet protection device.
  2. Place 2 in. by 2 in. wooden stakes around the perimeter of the inlet a maximum of 3 ft apart and drive them at least 18 in. into the ground or 12 in. below the bottom of the trench. The stakes should be at least 48 in.
  3. Lay fabric along bottom of trench, up side of trench, and then up stakes. See SE-1, Silt Fence, for details. The maximum silt fence height around the inlet is 24 in.
  4. Staple the filter fabric (for materials and specifications, see SE-1, Silt Fence) to wooden stakes. Use heavy-duty wire staples at least 1 in. in length.

5. Backfill the trench with gravel or compacted earth all the way around.

- ***DI Protection Type 2 - Excavated Drop Inlet Sediment Trap*** - Install filter fabric fence in accordance with DI Protection Type 1. Size excavated trap to provide a minimum storage capacity calculated at the rate 67 yd^3/acre of drainage area. See typical Type 2 installation details at the end of this fact sheet.

- ***DI Protection Type 3 - Gravel bag*** - Flow from a severe storm should not overtop the curb. In areas of high clay and silts, use filter fabric and gravel as additional filter media. Construct gravel bags in accordance with SE-6, Gravel Bag Berm. Gravel bags should be used due to their high permeability. See typical Type 3 installation details at the end of this fact sheet.

  1. Construct on gently sloping street.
  2. Leave room upstream of barrier for water to pond and sediment to settle.
  3. Place several layers of gravel bags – overlapping the bags and packing them tightly together.
  4. Leave gap of one bag on the top row to serve as a spillway. Flow from a severe storm (e.g., 10 year storm) should not overtop the curb.

- ***DI Protection Type 4 – Block and Gravel Filter*** - Block and gravel filters are suitable for curb inlets commonly used in residential, commercial, and industrial construction. See typical Type 4 installation details at the end of this fact sheet.

  1. Place hardware cloth or comparable wire mesh with 0.5 in. openings over the drop inlet so that the wire extends a minimum of 1 ft beyond each side of the inlet structure. If more than one strip is necessary, overlap the strips. Place woven geotextile over the wire mesh.
  2. Place concrete blocks lengthwise on their sides in a single row around the perimeter of the inlet, so that the open ends face outward, not upward. The ends of adjacent blocks should abut. The height of the barrier can be varied, depending on design needs, by stacking combinations of blocks that are 4 in., 8 in., and 12 in. wide. The row of blocks should be at least 12 in. but no greater than 24 in. high.
  3. Place wire mesh over the outside vertical face (open end) of the concrete blocks to prevent stone from being washed through the blocks. Use hardware cloth or comparable wire mesh with 0.5 in. opening.
  4. Pile washed stone against the wire mesh to the top of the blocks. Use 0.75 to 3 in.

- ***DI Protection Type 5 – Temporary Geotextile Insert (proprietary)*** – Many types of temporary inserts are available. Most inserts fit underneath the grate of a drop inlet or inside of a curb inlet and are fastened to the outside of the grate or curb. These inserts are removable and many can be cleaned and reused. Installation of these inserts differs between manufacturers. Please refer to manufacturer instruction for installation of proprietary devices.

- ***DI Protection Type 6 - Biofilter bags*** – Biofilter bags may be used as a substitute for gravel bags in low-flow situations. Biofilter bags should conform to specifications detailed in SE-14, Biofilter bags.

  1. Construct in a gently sloping area.
  2. Biofilter bags should be placed around inlets to intercept runoff flows.
  3. All bag joints should overlap by 6 in.
  4. Leave room upstream for water to pond and for sediment to settle out.
  5. Stake bags to the ground as described in the following detail. Stakes may be omitted if bags are placed on a paved surface.

Costs

- Average annual cost for installation and maintenance of DI Type 1-4 and 6 (one year useful life) is $200 per inlet.
- Temporary geotextile inserts are proprietary and cost varies by region. These inserts can often be reused and may have greater than 1 year of use if maintained and kept undamaged. Average cost per insert ranges from $50-75 plus installation, but costs can exceed $100. This cost does not include maintenance.

Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Silt Fences. If the fabric becomes clogged, torn, or degrades, it should be replaced. Make sure the stakes are securely driven in the ground and are in good shape (i.e., not bent, cracked, or splintered, and are reasonably perpendicular to the ground). Replace damaged stakes. At a minimum, remove the sediment behind the fabric fence when accumulation reaches one-third the height of the fence or barrier height.
- Gravel Filters. If the gravel becomes clogged with sediment, it should be carefully removed from the inlet and either cleaned or replaced. Since cleaning gravel at a construction site may be difficult, consider using the sediment-laden stone as fill material and put fresh stone around the inlet. Inspect bags for holes, gashes, and snags, and replace bags as needed. Check gravel bags for proper arrangement and displacement.
- Sediment that accumulates in the BMP should be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches one-third of the barrier height.
- Inspect and maintain temporary geotextile insert devices according to manufacturer's specifications.
- Remove storm drain inlet protection once the drainage area is stabilized.

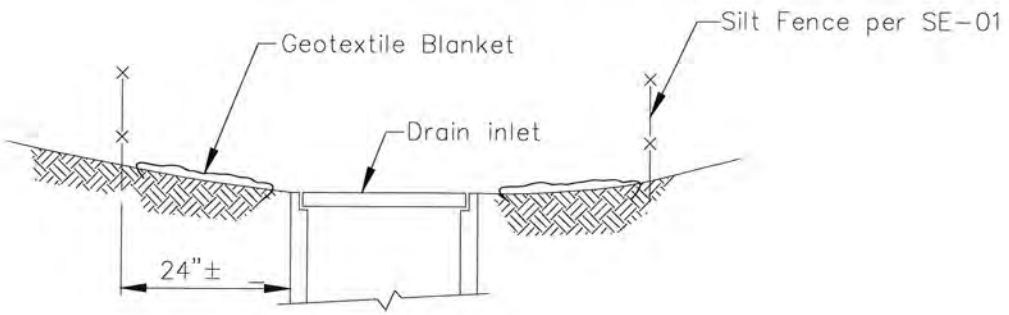
- Clean and regrade area around the inlet and clean the inside of the storm drain inlet, as it should be free of sediment and debris at the time of final inspection.

References

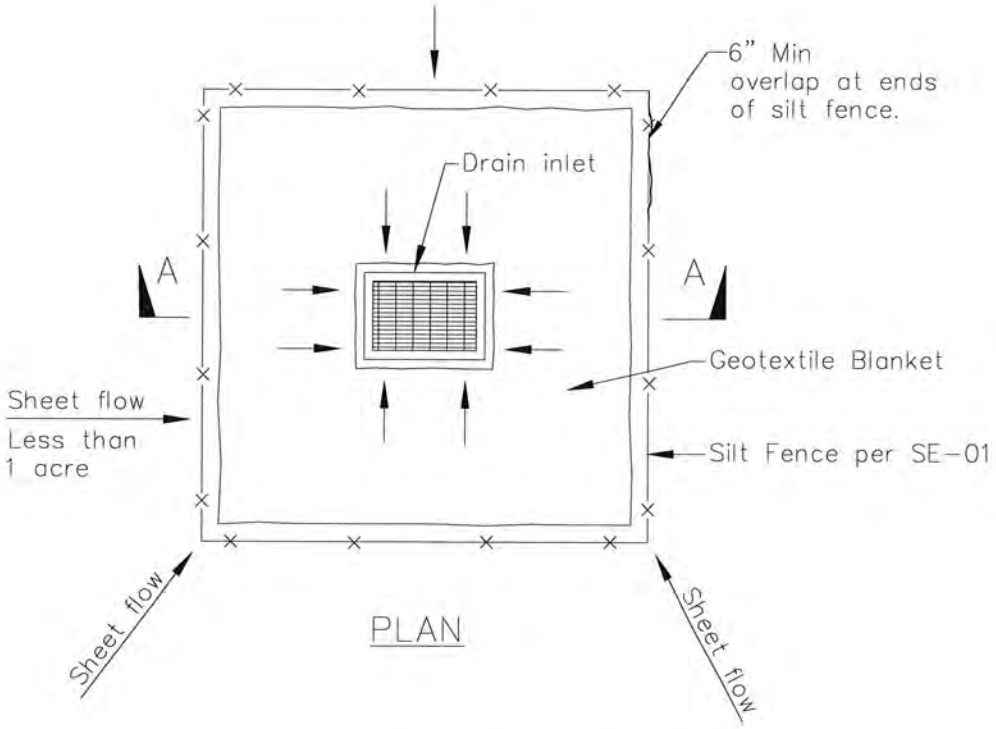
Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Stormwater Management Manual for The Puget Sound Basin, Washington State Department of Ecology, Public Review Draft, 1991.

Erosion and Sediment Control Manual, Oregon Department of Environmental Quality, February 2005.



SECTION A–A

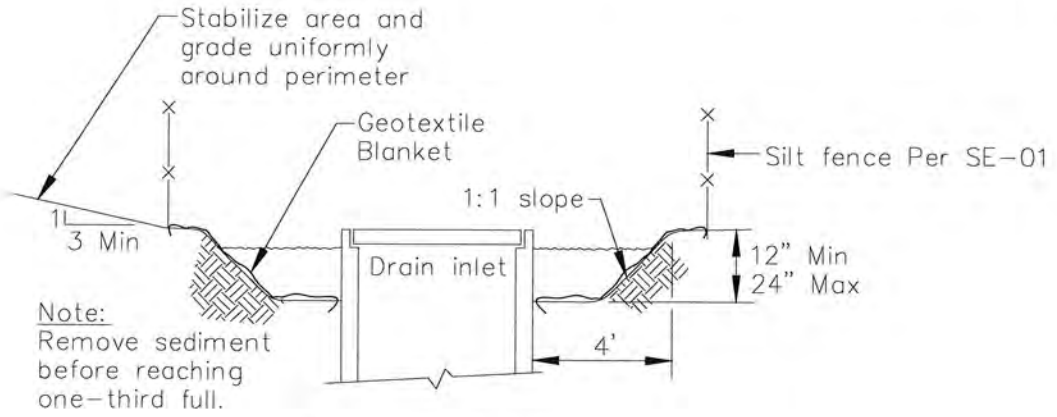


PLAN

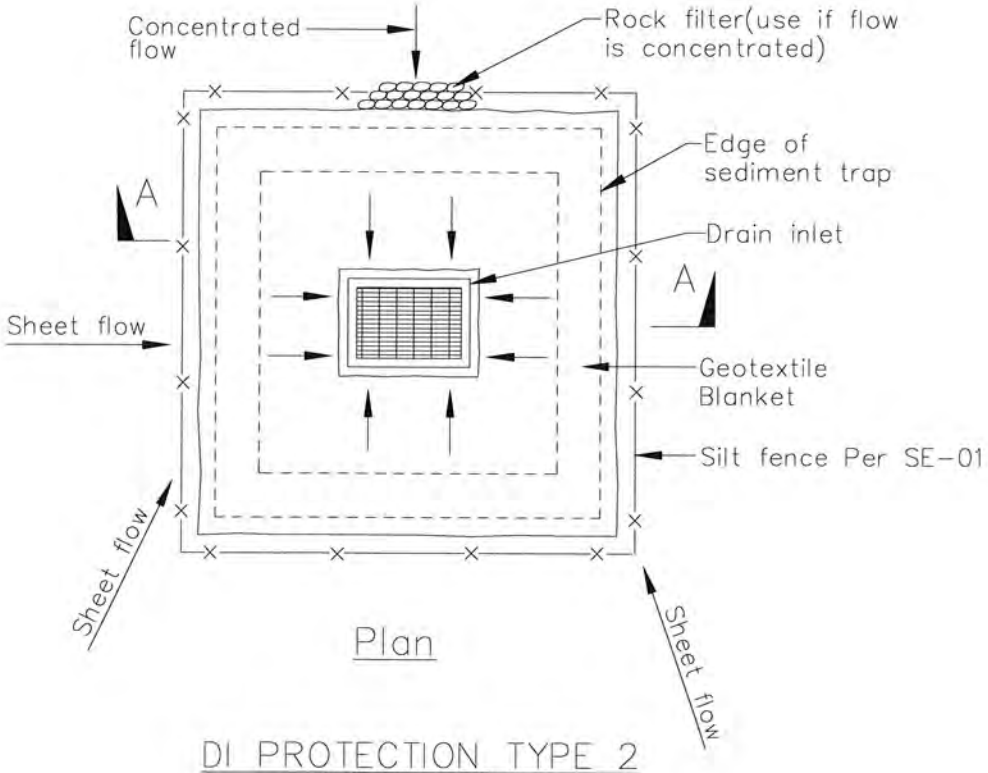
DI PROTECTION TYPE 1
NOT TO SCALE

NOTES:

1. For use in areas where grading has been completed and final soil stabilization and seeding are pending.
2. Not applicable in paved areas.
3. Not applicable with concentrated flows.



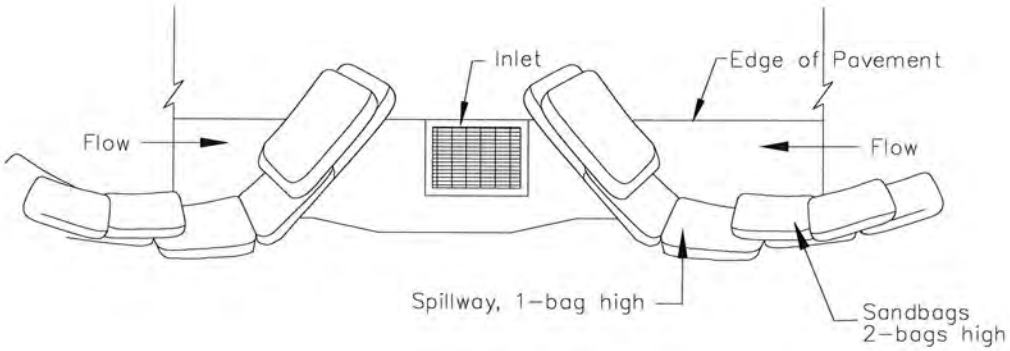
Section A-A



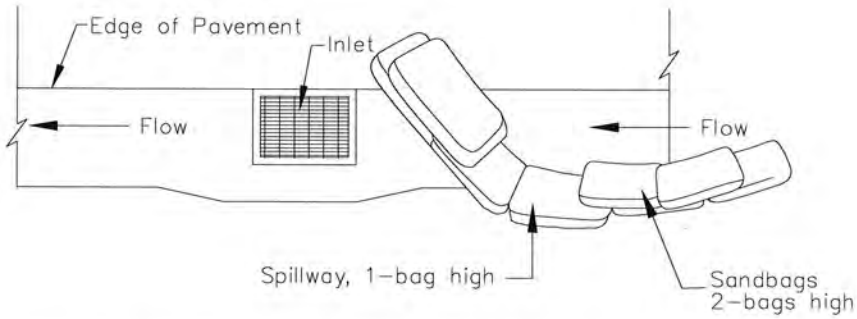
Plan

DI PROTECTION TYPE 2
NOT TO SCALE

Notes
1. For use in cleared and grubbed and in graded areas.
2. Shape basin so that longest inflow area faces longest length of trap.
3. For concentrated flows, shape basin in 2:1 ratio with length oriented towards direction of flow.



TYPICAL PROTECTION FOR INLET ON SUMP

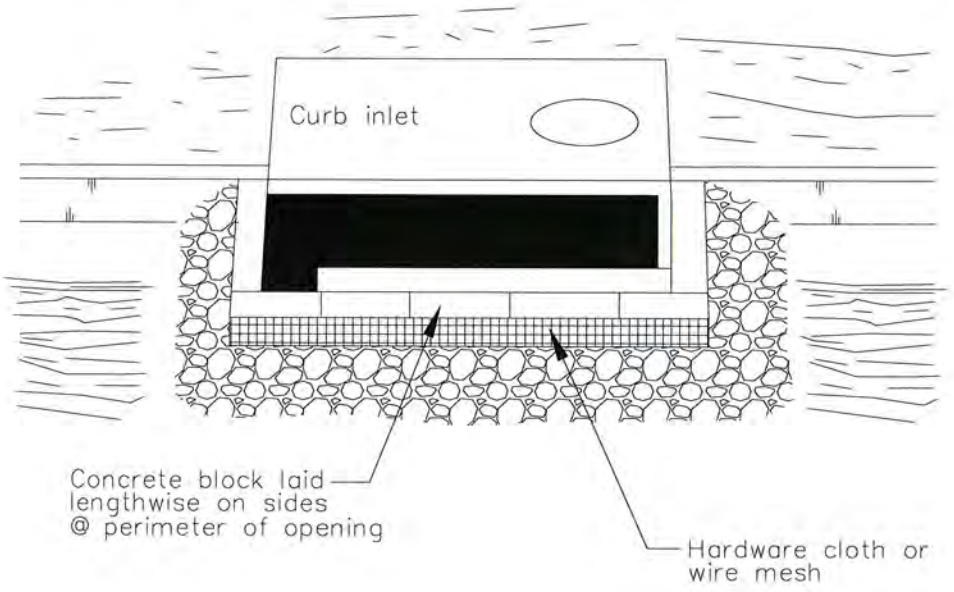


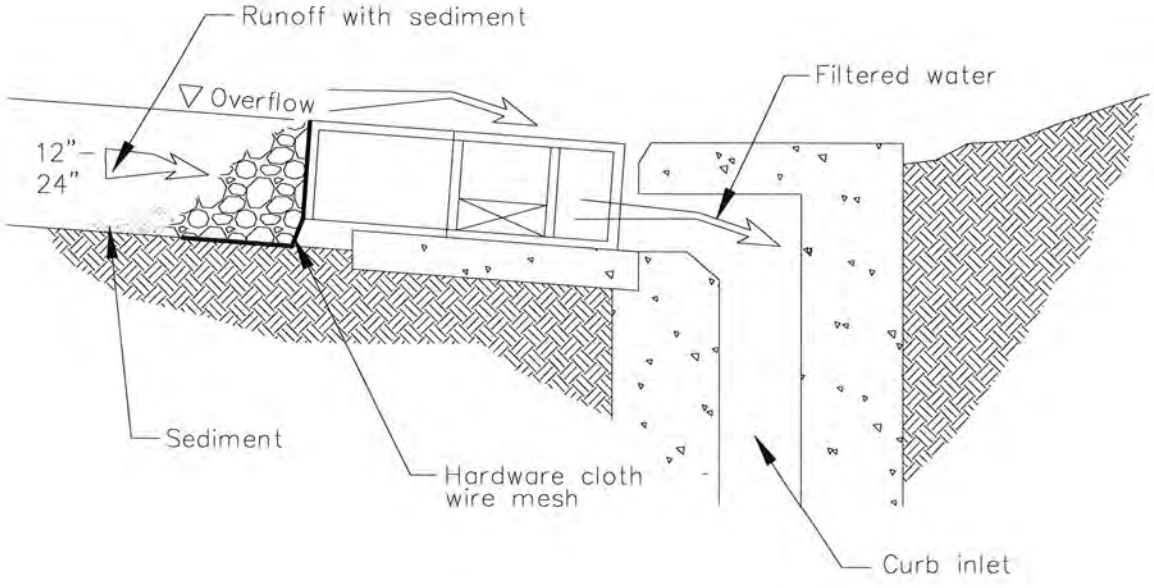
TYPICAL PROTECTION FOR INLET ON GRADE

NOTES:

1. Intended for short-term use.
2. Use to inhibit non-storm water flow.
3. Allow for proper maintenance and cleanup.
4. Bags must be removed after adjacent operation is completed
5. Not applicable in areas with high silts and clays without filter fabric.

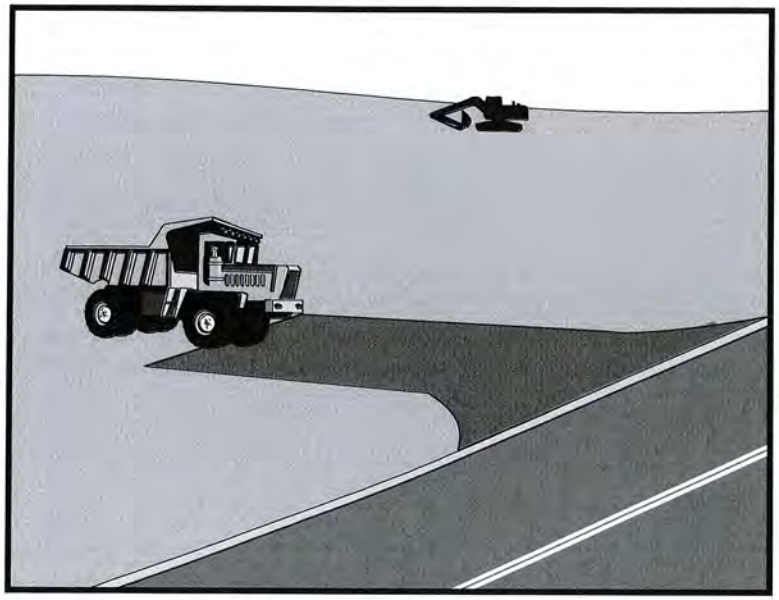
DI PROTECTION TYPE 3
NOT TO SCALE





DI PROTECTION – TYPE 4
NOT TO SCALE

Stabilized Construction Entrance/Exit TC-1



Categories		
EC	Erosion Control	☒
SE	Sediment Control	☒
TC	Tracking Control	☑
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:
☑ **Primary Objective**
☒ **Secondary Objective**

Description and Purpose

A stabilized construction access is defined by a point of entrance/exit to a construction site that is stabilized to reduce the tracking of mud and dirt onto public roads by construction vehicles.

Suitable Applications

Use at construction sites:

- Where dirt or mud can be tracked onto public roads.
- Adjacent to water bodies.
- Where poor soils are encountered.
- Where dust is a problem during dry weather conditions.

Limitations

- Entrances and exits require periodic top dressing with additional stones.
- This BMP should be used in conjunction with street sweeping on adjacent public right of way.
- Entrances and exits should be constructed on level ground only.
- Stabilized construction entrances are rather expensive to construct and when a wash rack is included, a sediment trap of some kind must also be provided to collect wash water runoff.

Targeted Constituents	
Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives
None

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Stabilized Construction Entrance/Exit TC-1

Implementation

General

A stabilized construction entrance is a pad of aggregate underlain with filter cloth located at any point where traffic will be entering or leaving a construction site to or from a public right of way, street, alley, sidewalk, or parking area. The purpose of a stabilized construction entrance is to reduce or eliminate the tracking of sediment onto public rights of way or streets. Reducing tracking of sediments and other pollutants onto paved roads helps prevent deposition of sediments into local storm drains and production of airborne dust.

Where traffic will be entering or leaving the construction site, a stabilized construction entrance should be used. NPDES permits require that appropriate measures be implemented to prevent tracking of sediments onto paved roadways, where a significant source of sediments is derived from mud and dirt carried out from unpaved roads and construction sites.

Stabilized construction entrances are moderately effective in removing sediment from equipment leaving a construction site. The entrance should be built on level ground. Advantages of the Stabilized Construction Entrance/Exit is that it does remove some sediment from equipment and serves to channel construction traffic in and out of the site at specified locations. Efficiency is greatly increased when a washing rack is included as part of a stabilized construction entrance/exit.

Design and Layout

- Construct on level ground where possible.
- Select 3 to 6 in. diameter stones.
- Use minimum depth of stones of 12 in. or as recommended by soils engineer.
- Construct length of 50 ft or maximum site will allow, and 10 ft minimum width or to accommodate traffic.
- Rumble racks constructed of steel panels with ridges and installed in the stabilized entrance/exit will help remove additional sediment and to keep adjacent streets clean.
- Provide ample turning radii as part of the entrance.
- Limit the points of entrance/exit to the construction site.
- Limit speed of vehicles to control dust.
- Properly grade each construction entrance/exit to prevent runoff from leaving the construction site.
- Route runoff from stabilized entrances/exits through a sediment trapping device before discharge.
- Design stabilized entrance/exit to support heaviest vehicles and equipment that will use it.

Stabilized Construction Entrance/Exit TC-1

- Select construction access stabilization (aggregate, asphaltic concrete, concrete) based on longevity, required performance, and site conditions. Do not use asphalt concrete (AC) grindings for stabilized construction access/roadway.
- If aggregate is selected, place crushed aggregate over geotextile fabric to at least 12 in. depth, or place aggregate to a depth recommended by a geotechnical engineer. A crushed aggregate greater than 3 in. but smaller than 6 in. should be used.
- Designate combination or single purpose entrances and exits to the construction site.
- Require that all employees, subcontractors, and suppliers utilize the stabilized construction access.
- Implement SE-7, Street Sweeping and Vacuuming, as needed.
- All exit locations intended to be used for more than a two-week period should have stabilized construction entrance/exit BMPs.

Inspection and Maintenance

- Inspect and verify that activity–based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMPs are under way, inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Inspect local roads adjacent to the site daily. Sweep or vacuum to remove visible accumulated sediment.
- Remove aggregate, separate and dispose of sediment if construction entrance/exit is clogged with sediment.
- Keep all temporary roadway ditches clear.
- Check for damage and repair as needed.
- Replace gravel material when surface voids are visible.
- Remove all sediment deposited on paved roadways within 24 hours.
- Remove gravel and filter fabric at completion of construction

Costs

Average annual cost for installation and maintenance may vary from $1,200 to $4,800 each, averaging $2,400 per entrance. Costs will increase with addition of washing rack, and sediment trap. With wash rack, costs range from $1,200 - $6,000 each, averaging $3,600 per entrance.

References

Manual of Standards of Erosion and Sediment Control Measures, Association of Bay Area Governments, May 1995.

National Management Measures to Control Nonpoint Source Pollution from Urban Areas, USEPA Agency, 2002.

Proposed Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters, Work Group Working Paper, USEPA, April 1992.

Stormwater Quality Handbooks Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

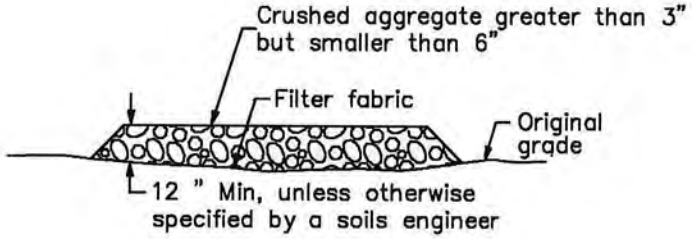
Stormwater Management of the Puget Sound Basin, Technical Manual, Publication #91-75, Washington State Department of Ecology, February 1992.

Virginia Erosion and Sedimentation Control Handbook, Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation, 1991.

Guidance Specifying Management Measures for Nonpoint Pollution in Coastal Waters, EPA 840-B-9-002, USEPA, Office of Water, Washington, DC, 1993.

Water Quality Management Plan for the Lake Tahoe Region, Volume II, Handbook of Management Practices, Tahoe Regional Planning Agency, November 1988.

Stabilized Construction Entrance/Exit TC-1



SECTION B–B
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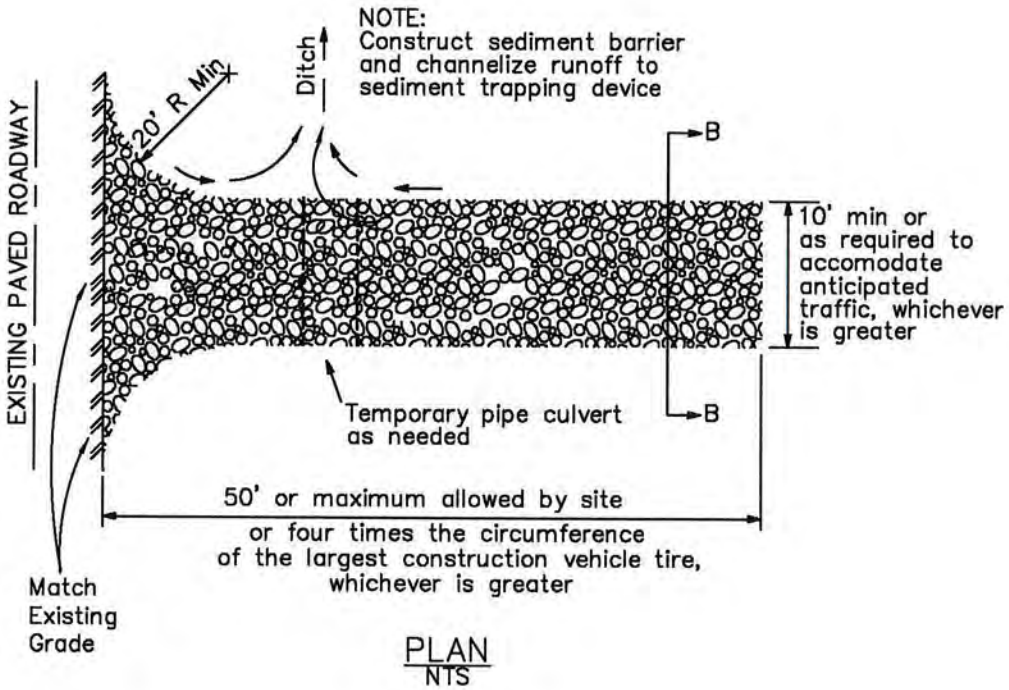

PLAN
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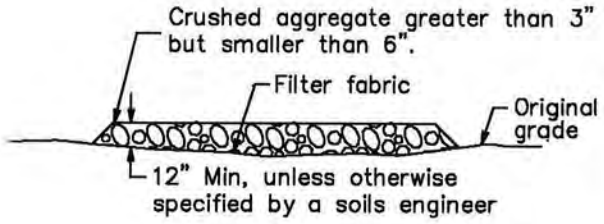
Stabilized Construction Entrance/Exit TC-1



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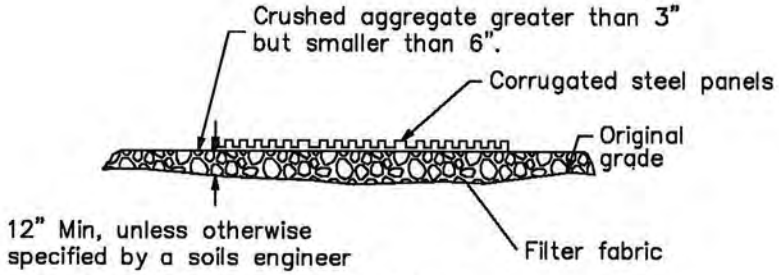

SECTION A–A
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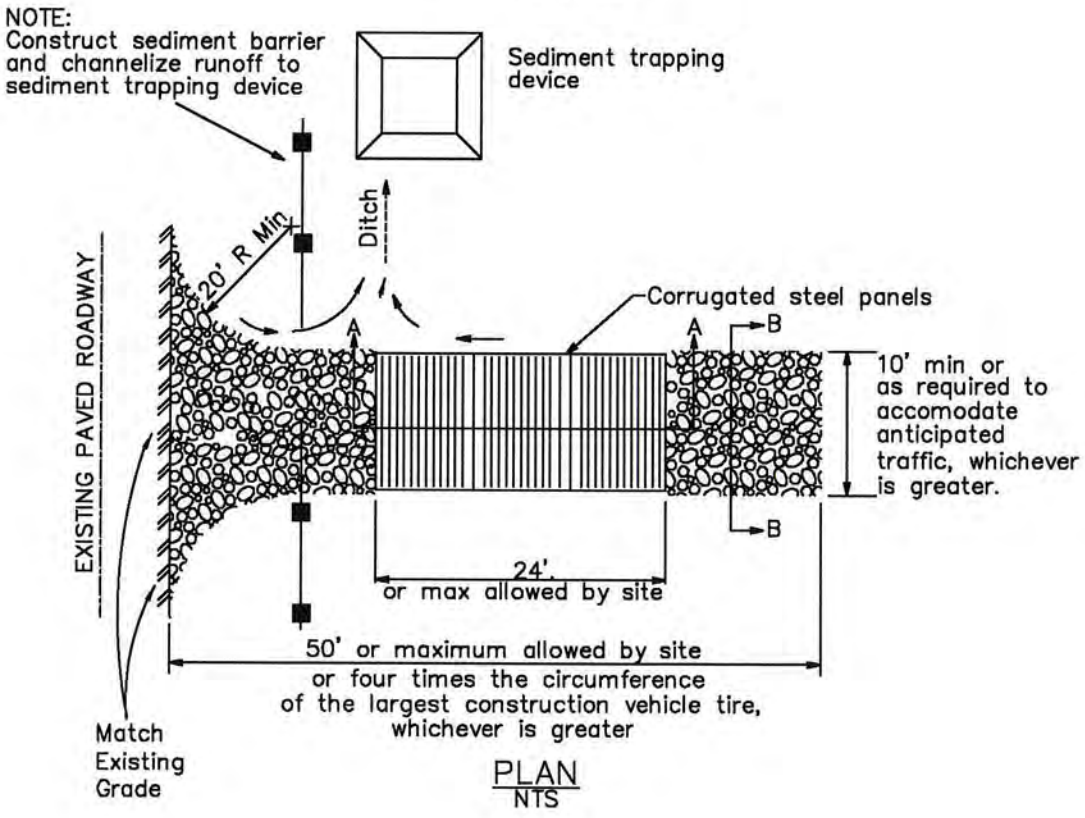

PLAN
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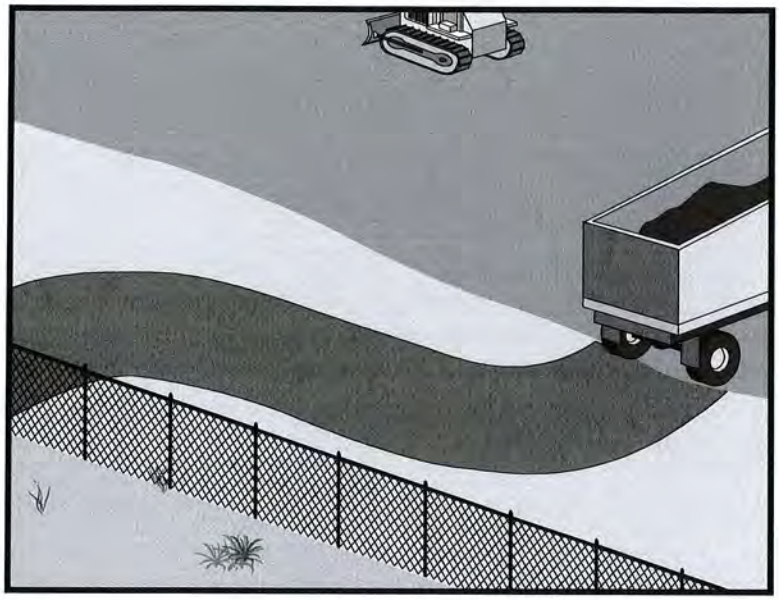
Stabilized Construction Roadway TC-2



Categories

EC	Erosion Control	☒
SE	Sediment Control	☒
TC	Tracking Control	☑
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

Description and Purpose

Access roads, subdivision roads, parking areas, and other onsite vehicle transportation routes should be stabilized immediately after grading, and frequently maintained to prevent erosion and control dust.

Suitable Applications

This BMP should be applied for the following conditions:

- Temporary Construction Traffic:
  - Phased construction projects and offsite road access
  - Construction during wet weather
- Construction roadways and detour roads:
  - Where mud tracking is a problem during wet weather
  - Where dust is a problem during dry weather
  - Adjacent to water bodies
  - Where poor soils are encountered

Limitations

- The roadway must be removed or paved when construction is complete.
- Certain chemical stabilization methods may cause stormwater or soil pollution and should not be used. See WE-1, Wind Erosion Control.

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- Management of construction traffic is subject to air quality control measures. Contact the local air quality management agency.
- Materials will likely need to be removed prior to final project grading and stabilization.
- Use of this BMP may not be applicable to very short duration projects.

Implementation

General

Areas that are graded for construction vehicle transport and parking purposes are especially susceptible to erosion and dust. The exposed soil surface is continually disturbed, leaving no opportunity for vegetative stabilization. Such areas also tend to collect and transport runoff waters along their surfaces. During wet weather, they often become muddy quagmires that generate significant quantities of sediment that may pollute nearby streams or be transported offsite on the wheels of construction vehicles. Dirt roads can become so unstable during wet weather that they are virtually unusable.

Efficient construction road stabilization not only reduces onsite erosion but also can significantly speed onsite work, avoid instances of immobilized machinery and delivery vehicles, and generally improve site efficiency and working conditions during adverse weather

Installation/Application Criteria

Permanent roads and parking areas should be paved as soon as possible after grading. As an alternative where construction will be phased, the early application of gravel or chemical stabilization may solve potential erosion and stability problems. Temporary gravel roadway should be considered during the rainy season and on slopes greater than 5%.

Temporary roads should follow the contour of the natural terrain to the maximum extent possible. Slope should not exceed 15%. Roadways should be carefully graded to drain transversely. Provide drainage swales on each side of the roadway in the case of a crowned section or one side in the case of a super elevated section. Simple gravel berms without a trench can also be used.

Installed inlets should be protected to prevent sediment laden water from entering the storm sewer system (SE-10, Storm Drain Inlet Protection). In addition, the following criteria should be considered.

- Road should follow topographic contours to reduce erosion of the roadway.
- The roadway slope should not exceed 15%.
- Chemical stabilizers or water are usually required on gravel or dirt roads to prevent dust (WE-1, Wind Erosion Control).
- Properly grade roadway to prevent runoff from leaving the construction site.
- Design stabilized access to support heaviest vehicles and equipment that will use it.

- Stabilize roadway using aggregate, asphalt concrete, or concrete based on longevity, required performance, and site conditions. The use of cold mix asphalt or asphalt concrete (AC) grindings for stabilized construction roadway is not allowed.
- Coordinate materials with those used for stabilized construction entrance/exit points.
- If aggregate is selected, place crushed aggregate over geotextile fabric to at least 12 in. depth. A crushed aggregate greater than 3 in. but smaller than 6 in. should be used.

Inspection and Maintenance

- Inspect and verify that activity–based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Keep all temporary roadway ditches clear.
- When no longer required, remove stabilized construction roadway and re-grade and repair slopes.
- Periodically apply additional aggregate on gravel roads.
- Active dirt construction roads are commonly watered three or more times per day during the dry season.

Costs

Gravel construction roads are moderately expensive, but cost is often balanced by reductions in construction delay. No additional costs for dust control on construction roads should be required above that needed to meet local air quality requirements.

References

Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Coastal Nonpoint Pollution Control Program; Program Development and Approval Guidance, Working Group, Working Paper; USEPA, April 1992.

Manual of Standards of Erosion and Sediment Control Measures, Association of Bay Area Governments, May 1995.

Stormwater Quality Handbooks Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

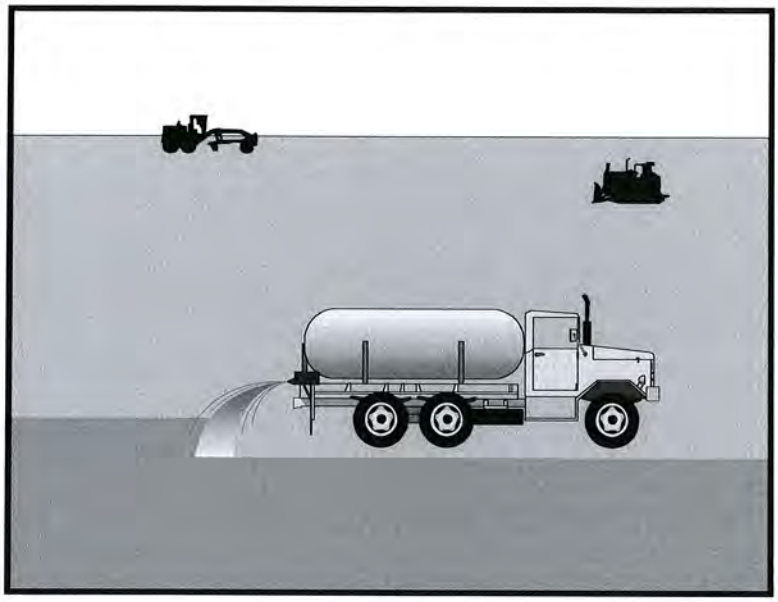
Stormwater Management for Construction Activities, Developing Pollution Prevention Plans and Best Management Practices, EPA 832-R-92005; USEPA, April 1992.

Stormwater Management of the Puget Sound Basin, Technical Manual, Publication #91-75, Washington State Department of Ecology, February 1992.

Virginia Erosion and Sedimentation Control Handbook, Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation, 1991.

Water Quality Management Plan for the Lake Tahoe Region, Volume II, Handbook of Management Practices, Tahoe Regional Planning Agency, November 1988.

Wind Erosion Control WE-1



Categories

EC	Erosion Control	
SE	Sediment Control	☒
TC	Tracking Control	
WE	Wind Erosion Control	☑
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

EC-5 Soil Binders

Description and Purpose

Wind erosion or dust control consists of applying water or other chemical dust suppressants as necessary to prevent or alleviate dust nuisance generated by construction activities. Covering small stockpiles or areas is an alternative to applying water or other dust palliatives.

California's Mediterranean climate, with a short "wet" season and a typically long, hot "dry" season, allows the soils to thoroughly dry out. During the dry season, construction activities are at their peak, and disturbed and exposed areas are increasingly subject to wind erosion, sediment tracking and dust generated by construction equipment. Site conditions and climate can make dust control more of an erosion problem than water based erosion. Additionally, many local agencies, including Air Quality Management Districts, require dust control and/or dust control permits in order to comply with local nuisance laws, opacity laws (visibility impairment) and the requirements of the Clean Air Act. Wind erosion control is required to be implemented at all construction sites greater than 1 acre by the General Permit.

Suitable Applications

Most BMPs that provide protection against water-based erosion will also protect against wind-based erosion and dust control requirements required by other agencies will generally meet wind erosion control requirements for water quality protection. Wind erosion control BMPs are suitable during the following construction activities:

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- Construction vehicle traffic on unpaved roads
- Drilling and blasting activities
- Soils and debris storage piles
- Batch drop from front-end loaders
- Areas with unstabilized soil
- Final grading/site stabilization

Limitations

- Watering prevents dust only for a short period (generally less than a few hours) and should be applied daily (or more often) to be effective.
- Over watering may cause erosion and track-out.
- Oil or oil-treated subgrade should not be used for dust control because the oil may migrate into drainageways and/or seep into the soil.
- Chemical dust suppression agents may have potential environmental impacts. Selected chemical dust control agents should be environmentally benign.
- Effectiveness of controls depends on soil, temperature, humidity, wind velocity and traffic.
- Chemical dust suppression agents should not be used within 100 feet of wetlands or water bodies.
- Chemically treated subgrades may make the soil water repellant, interfering with long-term infiltration and the vegetation/re-vegetation of the site. Some chemical dust suppressants may be subject to freezing and may contain solvents and should be handled properly.
- In compacted areas, watering and other liquid dust control measures may wash sediment or other constituents into the drainage system.
- If the soil surface has minimal natural moisture, the affected area may need to be pre-wetted so that chemical dust control agents can uniformly penetrate the soil surface.

Implementation

Dust Control Practices

Dust control BMPs generally stabilize exposed surfaces and minimize activities that suspend or track dust particles. The following table presents dust control practices that can be applied to varying site conditions that could potentially cause dust. For heavily traveled and disturbed areas, wet suppression (watering), chemical dust suppression, gravel asphalt surfacing, temporary gravel construction entrances, equipment wash-out areas, and haul truck covers can be employed as dust control applications. Permanent or temporary vegetation and mulching can be employed for areas of occasional or no construction traffic. Preventive measures include minimizing surface areas to be disturbed, limiting onsite vehicle traffic to 15 mph or less, and controlling the number and activity of vehicles on a site at any given time.

Chemical dust suppressants include: mulch and fiber based dust palliatives (e.g. paper mulch with gypsum binder), salts and brines (e.g. calcium chloride, magnesium chloride), non-petroleum based organics (e.g. vegetable oil, lignosulfonate), petroleum based organics (e.g. asphalt emulsion, dust oils, petroleum resins), synthetic polymers (e.g. polyvinyl acetate, vinyls, acrylic), clay additives (e.g. bentonite, montimorillonite) and electrochemical products (e.g. enzymes, ionic products).

Site Condition	Dust Control Practices							
	Permanent Vegetation	Mulching	Wet Suppression (Watering)	Chemical Dust Suppression	Gravel or Asphalt	Temporary Gravel Construction Entrances/Equipment Wash Down	Synthetic Covers	Minimize Extent of Disturbed Area
Disturbed Areas not Subject to Traffic	X	X	X	X	X			X
Disturbed Areas Subject to Traffic			X	X	X	X		X
Material Stockpiles		X	X	X			X	X
Demolition			X			X	X	
Clearing/ Excavation			X	X				X
Truck Traffic on Unpaved Roads			X	X	X	X	X	
Tracking					X	X		

Additional preventive measures include:

- Schedule construction activities to minimize exposed area (see EC-1, Scheduling).
- Quickly treat exposed soils using water, mulching, chemical dust suppressants, or stone/gravel layering.
- Identify and stabilize key access points prior to commencement of construction.
- Minimize the impact of dust by anticipating the direction of prevailing winds.
- Restrict construction traffic to stabilized roadways within the project site, as practicable.
- Water should be applied by means of pressure-type distributors or pipelines equipped with a spray system or hoses and nozzles that will ensure even distribution.
- All distribution equipment should be equipped with a positive means of shutoff.
- Unless water is applied by means of pipelines, at least one mobile unit should be available at all times to apply water or dust palliative to the project.
- If reclaimed waste water is used, the sources and discharge must meet California Department of Health Services water reclamation criteria and the Regional Water Quality

Control Board (RWQCB) requirements. Non-potable water should not be conveyed in tanks or drain pipes that will be used to convey potable water and there should be no connection between potable and non-potable supplies. Non-potable tanks, pipes, and other conveyances should be marked, "NON-POTABLE WATER - DO NOT DRINK."

- Pave or chemically stabilize access points where unpaved traffic surfaces adjoin paved roads.
- Provide covers for haul trucks transporting materials that contribute to dust.
- Provide for rapid clean up of sediments deposited on paved roads. Furnish stabilized construction road entrances and wheel wash areas.
- Stabilize inactive areas of construction sites using temporary vegetation or chemical stabilization methods.

For chemical stabilization, there are many products available for chemically stabilizing gravel roadways and stockpiles. If chemical stabilization is used, the chemicals should not create any adverse effects on stormwater, plant life, or groundwater and should meet all applicable regulatory requirements.

Costs

Installation costs for water and chemical dust suppression vary based on the method used and the length of effectiveness. Annual costs may be high since some of these measures are effective for only a few hours to a few days.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities.
- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Check areas protected to ensure coverage.
- Most water-based dust control measures require frequent application, often daily or even multiple times per day. Obtain vendor or independent information on longevity of chemical dust suppressants.

References

Best Management Practices and Erosion Control Manual for Construction Sites, Flood Control District of Maricopa County, Arizona, September 1992.

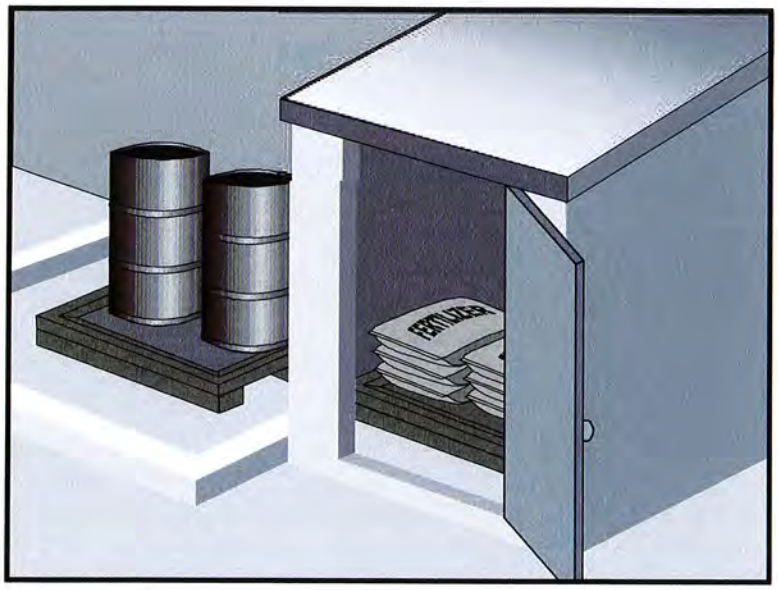
California Air Pollution Control Laws, California Air Resources Board, updated annually.

Construction Manual, Chapter 4, Section 10, "Dust Control"; Section 17, "Watering"; and Section 18, "Dust Palliative", California Department of Transportation (Caltrans), July 2001.

Prospects for Attaining the State Ambient Air Quality Standards for Suspended Particulate Matter (PM10), Visibility Reducing Particles, Sulfates, Lead, and Hydrogen Sulfide, California Air Resources Board, April 1991.

Stormwater Quality Handbooks Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Material Delivery and Storage WM-1



Categories		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Description and Purpose

Prevent, reduce, or eliminate the discharge of pollutants from material delivery and storage to the stormwater system or watercourses by minimizing the storage of hazardous materials onsite, storing materials in watertight containers and/or a completely enclosed designated area, installing secondary containment, conducting regular inspections, and training employees and subcontractors.

This best management practice covers only material delivery and storage. For other information on materials, see WM-2, Material Use, or WM-4, Spill Prevention and Control. For information on wastes, see the waste management BMPs in this section.

Targeted Constituents	
Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives
None

Suitable Applications

These procedures are suitable for use at all construction sites with delivery and storage of the following materials:

- Soil stabilizers and binders
- Pesticides and herbicides
- Fertilizers
- Detergents
- Plaster
- Petroleum products such as fuel, oil, and grease

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- Asphalt and concrete components
- Hazardous chemicals such as acids, lime, glues, adhesives, paints, solvents, and curing compounds
- Concrete compounds
- Other materials that may be detrimental if released to the environment

Limitations

- Space limitation may preclude indoor storage.
- Storage sheds often must meet building and fire code requirements.

Implementation

The following steps should be taken to minimize risk:

- Chemicals must be stored in water tight containers with appropriate secondary containment or in a storage shed.
- When a material storage area is located on bare soil, the area should be lined and bermed.
- Use containment pallets or other practical and available solutions, such as storing materials within newly constructed buildings or garages, to meet material storage requirements.
- Stack erodible landscape material on pallets and cover when not in use.
- Contain all fertilizers and other landscape materials when not in use.
- Temporary storage areas should be located away from vehicular traffic.
- Material Safety Data Sheets (MSDS) should be available on-site for all materials stored that have the potential to effect water quality.
- Construction site areas should be designated for material delivery and storage.
- Material delivery and storage areas should be located away from waterways, if possible.
  - Avoid transport near drainage paths or waterways.
  - Surround with earth berms or other appropriate containment BMP. See EC-9, Earth Dikes and Drainage Swales.
  - Place in an area that will be paved.
- Storage of reactive, ignitable, or flammable liquids must comply with the fire codes of your area. Contact the local Fire Marshal to review site materials, quantities, and proposed storage area to determine specific requirements. See the Flammable and Combustible Liquid Code, NFPA30.
- An up to date inventory of materials delivered and stored onsite should be kept.

- Hazardous materials storage onsite should be minimized.
- Hazardous materials should be handled as infrequently as possible.
- Keep ample spill cleanup supplies appropriate for the materials being stored. Ensure that cleanup supplies are in a conspicuous, labeled area.
- Employees and subcontractors should be trained on the proper material delivery and storage practices.
- Employees trained in emergency spill cleanup procedures must be present when dangerous materials or liquid chemicals are unloaded.
- If significant residual materials remain on the ground after construction is complete, properly remove and dispose of materials and any contaminated soil. See WM-7, Contaminated Soil Management. If the area is to be paved, pave as soon as materials are removed to stabilize the soil.

Material Storage Areas and Practices

- Liquids, petroleum products, and substances listed in 40 CFR Parts 110, 117, or 302 should be stored in approved containers and drums and should not be overfilled. Containers and drums should be placed in temporary containment facilities for storage.
- A temporary containment facility should provide for a spill containment volume able to contain precipitation from a 25 year storm event, plus the greater of 10% of the aggregate volume of all containers or 100% of the capacity of the largest container within its boundary, whichever is greater.
- A temporary containment facility should be impervious to the materials stored therein for a minimum contact time of 72 hours.
- A temporary containment facility should be maintained free of accumulated rainwater and spills. In the event of spills or leaks, accumulated rainwater and spills should be collected and placed into drums. These liquids should be handled as a hazardous waste unless testing determines them to be non-hazardous. All collected liquids or non-hazardous liquids should be sent to an approved disposal site.
- Sufficient separation should be provided between stored containers to allow for spill cleanup and emergency response access.
- Incompatible materials, such as chlorine and ammonia, should not be stored in the same temporary containment facility.
- Materials should be covered prior to, and during rain events.
- Materials should be stored in their original containers and the original product labels should be maintained in place in a legible condition. Damaged or otherwise illegible labels should be replaced immediately.

- Bagged and boxed materials should be stored on pallets and should not be allowed to accumulate on the ground. To provide protection from wind and rain throughout the rainy season, bagged and boxed materials should be covered during non-working days and prior to and during rain events.
- Stockpiles should be protected in accordance with WM-3, Stockpile Management.
- Materials should be stored indoors within existing structures or completely enclosed storage sheds when available.
- Proper storage instructions should be posted at all times in an open and conspicuous location.
- An ample supply of appropriate spill clean up material should be kept near storage areas.
- Also see WM-6, Hazardous Waste Management, for storing of hazardous wastes.

Material Delivery Practices

- Keep an accurate, up-to-date inventory of material delivered and stored onsite.
- Arrange for employees trained in emergency spill cleanup procedures to be present when dangerous materials or liquid chemicals are unloaded.

Spill Cleanup

- Contain and clean up any spill immediately.
- Properly remove and dispose of any hazardous materials or contaminated soil if significant residual materials remain on the ground after construction is complete. See WM-7, Contaminated Soil Management.
- See WM-4, Spill Prevention and Control, for spills of chemicals and/or hazardous materials.
- If spills or leaks of materials occur that are not contained and could discharge to surface waters, non-visible sampling of site discharge may be required. Refer to the General Permit or to your project specific Construction Site Monitoring Plan to determine if and where sampling is required.

Cost

- The largest cost of implementation may be in the construction of a materials storage area that is covered and provides secondary containment.

Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Keep storage areas clean and well organized, including a current list of all materials onsite.
- Inspect labels on containers for legibility and accuracy.

- Repair or replace perimeter controls, containment structures, covers, and liners as needed to maintain proper function.

References

Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

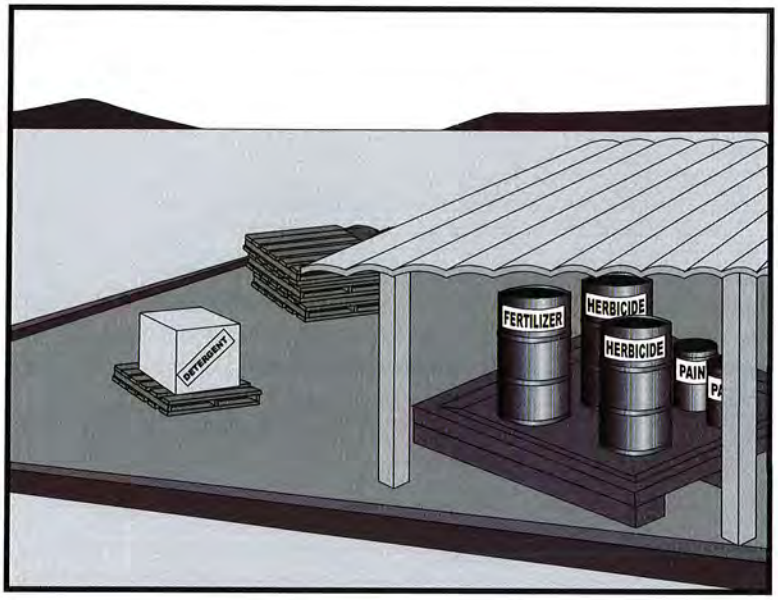
Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance, Working Group Working Paper; USEPA, April 1992.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.

Material Use

WM-2



Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:

☑ **Primary Category**

☒ **Secondary Category**

Description and Purpose

Prevent or reduce the discharge of pollutants to the storm drain system or watercourses from material use by using alternative products, minimizing hazardous material use onsite, and training employees and subcontractors.

Suitable Applications

This BMP is suitable for use at all construction projects. These procedures apply when the following materials are used or prepared onsite:

- Pesticides and herbicides
- Fertilizers
- Detergents
- Petroleum products such as fuel, oil, and grease
- Asphalt and other concrete components
- Other hazardous chemicals such as acids, lime, glues, adhesives, paints, solvents, and curing compounds
- Other materials that may be detrimental if released to the environment

Targeted Constituents

Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

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Limitations

Safer alternative building and construction products may not be available or suitable in every instance.

Implementation

The following steps should be taken to minimize risk:

- Minimize use of hazardous materials onsite.
- Follow manufacturer instructions regarding uses, protective equipment, ventilation, flammability, and mixing of chemicals.
- Train personnel who use pesticides. The California Department of Pesticide Regulation and county agricultural commissioners license pesticide dealers, certify pesticide applicators, and conduct onsite inspections.
- The preferred method of termiticide application is soil injection near the existing or proposed structure foundation/slab; however, if not feasible, soil drench application of termiticides should follow EPA label guidelines and the following recommendations (most of which are applicable to most pesticide applications):
  - Do not treat soil that is water-saturated or frozen.
  - Application shall not commence within 24-hours of a predicted precipitation event with a 40% or greater probability. Weather tracking must be performed on a daily basis prior to termiticide application and during the period of termiticide application.
  - Do not allow treatment chemicals to runoff from the target area. Apply proper quantity to prevent excess runoff. Provide containment for and divert stormwater from application areas using berms or diversion ditches during application.
  - Dry season: Do not apply within 10 feet of storm drains. Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes or ponds; estuaries; and commercial fish farm ponds).
  - Wet season: Do not apply within 50 feet of storm drains or aquatic habitats (such as, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes or ponds; estuaries; and commercial fish farm ponds) unless a vegetative buffer is present (if so, refer to dry season requirements).
  - Do not make on-grade applications when sustained wind speeds are above 10 mph (at application site) at nozzle end height.
  - Cover treatment site prior to a rain event in order to prevent run-off of the pesticide into non-target areas. The treated area should be limited to a size that can be backfilled and/or covered by the end of the work shift. Backfilling or covering of the treated area shall be done by the end of the same work shift in which the application is made.
  - The applicator must either cover the soil him/herself or provide written notification of the above requirement to the contractor on site and to the person commissioning the

application (if different than the contractor). If notice is provided to the contractor or the person commissioning the application, then they are responsible under the Federal Insecticide Fungicide, and Rodenticide Act (FIFRA) to ensure that: 1) if the concrete slab cannot be poured over the treated soil within 24 hours of application, the treated soil is covered with a waterproof covering (such as polyethylene sheeting), and 2) the treated soil is covered if precipitation is predicted to occur before the concrete slab is scheduled to be poured.

- Do not over-apply fertilizers, herbicides, and pesticides. Prepare only the amount needed. Follow the recommended usage instructions. Over-application is expensive and environmentally harmful. Unless on steep slopes, till fertilizers into the soil rather than hydraulic application. Apply surface dressings in several smaller applications, as opposed to one large application, to allow time for infiltration and to avoid excess material being carried offsite by runoff. Do not apply these chemicals before predicted rainfall.
- Train employees and subcontractors in proper material use.
- Supply Material Safety Data Sheets (MSDS) for all materials.
- Dispose of latex paint and paint cans, used brushes, rags, absorbent materials, and drop cloths, when thoroughly dry and are no longer hazardous, with other construction debris.
- Do not remove the original product label; it contains important safety and disposal information. Use the entire product before disposing of the container.
- Mix paint indoors or in a containment area. Never clean paintbrushes or rinse paint containers into a street, gutter, storm drain, or watercourse. Dispose of any paint thinners, residue, and sludge(s) that cannot be recycled, as hazardous waste.
- For water-based paint, clean brushes to the extent practicable, and rinse to a drain leading to a sanitary sewer where permitted, or contain for proper disposal off site. For oil-based paints, clean brushes to the extent practicable, and filter and reuse thinners and solvents.
- Use recycled and less hazardous products when practical. Recycle residual paints, solvents, non-treated lumber, and other materials.
- Use materials only where and when needed to complete the construction activity. Use safer alternative materials as much as possible. Reduce or eliminate use of hazardous materials onsite when practical.
- Document the location, time, chemicals applied, and applicator's name and qualifications.
- Keep an ample supply of spill clean up material near use areas. Train employees in spill clean up procedures.
- Avoid exposing applied materials to rainfall and runoff unless sufficient time has been allowed for them to dry.
- Discontinue use of erodible landscape material within 2 days prior to a forecasted rain event and materials should be covered and/or bermed.

- Provide containment for material use areas such as masons' areas or paint mixing/preparation areas to prevent materials/pollutants from entering stormwater.

Costs

All of the above are low cost measures.

Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities.
- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Ensure employees and subcontractors throughout the job are using appropriate practices.

References

Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

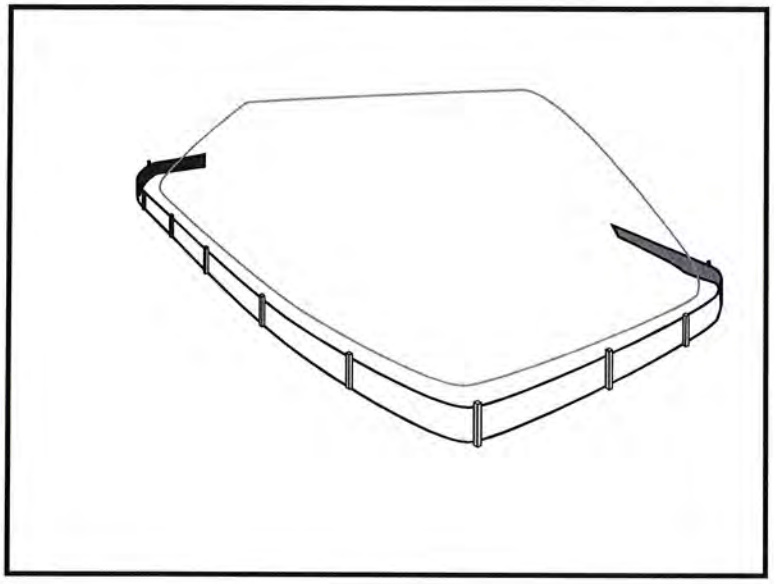
Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance, Working Group Working Paper; USEPA, April 1992.

Comments on Risk Assessments Risk Reduction Options for Cypermethrin: Docket No. OPP–2005–0293; California Stormwater Quality Association (CASQA) letter to USEPA, 2006.Environmental Hazard and General Labeling for Pyrethroid Non-Agricultural Outdoor Products, EPA-HQ-OPP-2008-0331-0021; USEPA, 2008.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.

Stockpile Management WM-3



Categories		
EC	Erosion Control	
SE	Sediment Control	☒
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☒
WM	Waste Management and Materials Pollution Control	☑

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Description and Purpose

Stockpile management procedures and practices are designed to reduce or eliminate air and stormwater pollution from stockpiles of soil, soil amendments, sand, paving materials such as portland cement concrete (PCC) rubble, asphalt concrete (AC), asphalt concrete rubble, aggregate base, aggregate sub base or pre-mixed aggregate, asphalt minder (so called "cold mix" asphalt), and pressure treated wood.

Suitable Applications

Implement in all projects that stockpile soil and other loose materials.

Limitations

- Plastic sheeting as a stockpile protection is temporary and hard to manage in windy conditions. Where plastic is used, consider use of plastic tarps with nylon reinforcement which may be more durable than standard sheeting.
- Plastic sheeting can increase runoff volume due to lack of infiltration and potentially cause perimeter control failure.
- Plastic sheeting breaks down faster in sunlight.
- The use of plastic materials should be avoided when feasible and photodegradable plastics should not be used.

Implementation

Protection of stockpiles is a year-round requirement. To properly manage stockpiles:

Targeted Constituents	
Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives
None

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- On larger sites, a minimum of 50 ft separation from concentrated flows of stormwater, drainage courses, and inlets is recommended.
- All stockpiles are required to be protected immediately if they are not scheduled to be used within 14 days.
- Protect all stockpiles from stormwater run-on using temporary perimeter sediment barriers such as compost berms (SE-13), temporary silt dikes (SE-12), fiber rolls (SE-5), silt fences (SE-1), sandbags (SE-8), gravel bags (SE-6), or biofilter bags (SE-14). Refer to the individual fact sheet for each of these controls for installation information.
- Implement wind erosion control practices as appropriate on all stockpiled material. For specific information, see WE-1, Wind Erosion Control.
- Manage stockpiles of contaminated soil in accordance with WM-7, Contaminated Soil Management.
- Place bagged materials on pallets and under cover.
- Ensure that stockpile coverings are installed securely to protect from wind and rain.
- Some plastic covers withstand weather and sunlight better than others. Select cover materials or methods based on anticipated duration of use.

Protection of Non-Active Stockpiles

Non-active stockpiles of the identified materials should be protected further as follows:

Soil stockpiles

- Cover and project soil stockpiles with soil stabilization measures and a temporary perimeter sediment barrier at all times.
- Consider temporary vegetation for topsoil piles that will be stockpiled for extended periods.

Stockpiles of Portland cement concrete rubble, asphalt concrete, asphalt concrete rubble, aggregate base, or aggregate sub base

- Provide covers and protect these stockpiles with a temporary perimeter sediment barrier at all times.

Stockpiles of "cold mix"

- Cover cold mix stockpiles and place them on plastic sheeting (or comparable material) and surround the stockpiles with a berm all times.

Stockpiles of fly ash, stucco, hydrated lime

- Cover stockpiles of materials that may raise the pH of runoff (i.e., basic materials) with plastic and surround the stockpiles with a berm at all times.

Stockpiles/Storage of wood (Pressure treated with chromated copper arsenate or ammoniacal copper zinc arsenate)

- Cover treated wood with plastic sheeting (or comparable material) and surround with a berm at all times.

Protection of Active Stockpiles

Active stockpiles of the identified materials should be protected as follows:

- All stockpiles should be covered and protected with a temporary linear sediment barrier prior to the onset of precipitation.
- Stockpiles of "cold mix" and treated wood, and basic materials should be placed on and covered with plastic sheeting or comparable material and surrounded by a berm prior to the onset of precipitation.
- The downstream perimeter of an active stockpile should be protected with a linear sediment barrier or berm and runoff should be diverted around or away from the stockpile on the upstream perimeter.

Costs

For cost information associated with stockpile protection refer to the individual erosion or sediment control BMP fact sheet considered for implementation (For example, refer to SE-1 Silt Fence for installation of silt fence around the perimeter of a stockpile.)

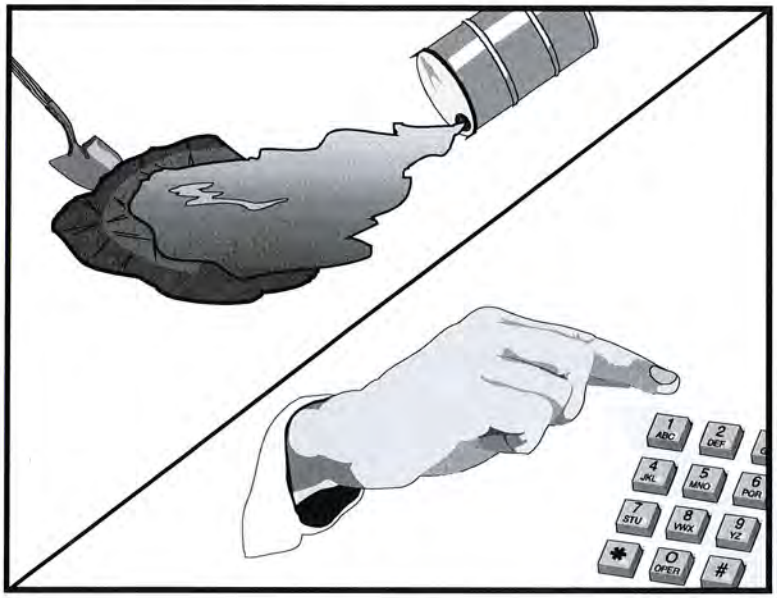
Inspection and Maintenance

- Stockpiles must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- It may be necessary to inspect stockpiles covered with plastic sheeting more frequently during certain conditions (for example, high winds or extreme heat).
- Repair and/or replace perimeter controls and covers as needed to keep them functioning properly.
- Sediment shall be removed when it reaches one-third of the barrier height.

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Spill Prevention and Control WM-4



Categories

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Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

Targeted Constituents

Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

Description and Purpose

Prevent or reduce the discharge of pollutants to drainage systems or watercourses from leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees.

This best management practice covers only spill prevention and control. However, WM-1, Materials Delivery and Storage, and WM-2, Material Use, also contain useful information, particularly on spill prevention. For information on wastes, see the waste management BMPs in this section.

Suitable Applications

This BMP is suitable for all construction projects. Spill control procedures are implemented anytime chemicals or hazardous substances are stored on the construction site, including the following materials:

- Soil stabilizers/binders
- Dust palliatives
- Herbicides
- Growth inhibitors
- Fertilizers
- Deicing/anti-icing chemicals

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- Fuels
- Lubricants
- Other petroleum distillates

Limitations

- In some cases it may be necessary to use a private spill cleanup company.
- This BMP applies to spills caused by the contractor and subcontractors.
- Procedures and practices presented in this BMP are general. Contractor should identify appropriate practices for the specific materials used or stored onsite

Implementation

The following steps will help reduce the stormwater impacts of leaks and spills:

Education

- Be aware that different materials pollute in different amounts. Make sure that each employee knows what a "significant spill" is for each material they use, and what is the appropriate response for "significant" and "insignificant" spills.
- Educate employees and subcontractors on potential dangers to humans and the environment from spills and leaks.
- Hold regular meetings to discuss and reinforce appropriate disposal procedures (incorporate into regular safety meetings).
- Establish a continuing education program to indoctrinate new employees.
- Have contractor's superintendent or representative oversee and enforce proper spill prevention and control measures.

General Measures

- To the extent that the work can be accomplished safely, spills of oil, petroleum products, substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately.
- Store hazardous materials and wastes in covered containers and protect from vandalism.
- Place a stockpile of spill cleanup materials where it will be readily accessible.
- Train employees in spill prevention and cleanup.
- Designate responsible individuals to oversee and enforce control measures.
- Spills should be covered and protected from stormwater runon during rainfall to the extent that it doesn't compromise clean up activities.
- Do not bury or wash spills with water.

- Store and dispose of used clean up materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose in conformance with the provisions in applicable BMPs.
- Do not allow water used for cleaning and decontamination to enter storm drains or watercourses. Collect and dispose of contaminated water in accordance with WM-10, Liquid Waste Management.
- Contain water overflow or minor water spillage and do not allow it to discharge into drainage facilities or watercourses.
- Place proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.
- Keep waste storage areas clean, well organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.

Cleanup

- Clean up leaks and spills immediately.
- Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be sent to either a certified laundry (rags) or disposed of as hazardous waste.
- Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly. See the waste management BMPs in this section for specific information.

Minor Spills

- Minor spills typically involve small quantities of oil, gasoline, paint, etc. which can be controlled by the first responder at the discovery of the spill.
- Use absorbent materials on small spills rather than hosing down or burying the spill.
- Absorbent materials should be promptly removed and disposed of properly.
- Follow the practice below for a minor spill:
  - Contain the spread of the spill.
  - Recover spilled materials.
  - Clean the contaminated area and properly dispose of contaminated materials.

Semi-Significant Spills

- Semi-significant spills still can be controlled by the first responder along with the aid of other personnel such as laborers and the foreman, etc. This response may require the cessation of all other activities.

- Spills should be cleaned up immediately:
  - Contain spread of the spill.
  - Notify the project foreman immediately.
  - If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.
  - If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.
  - If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills

- For significant or hazardous spills that cannot be controlled by personnel in the immediate vicinity, the following steps should be taken:
  - Notify the local emergency response by dialing 911. In addition to 911, the contractor will notify the proper county officials. It is the contractor's responsibility to have all emergency phone numbers at the construction site.
  - Notify the Governor's Office of Emergency Services Warning Center, (916) 845-8911.
  - For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center at (800) 424-8802.
  - Notification should first be made by telephone and followed up with a written report.
  - The services of a spills contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.
  - Other agencies which may need to be consulted include, but are not limited to, the Fire Department, the Public Works Department, the Coast Guard, the Highway Patrol, the City/County Police Department, Department of Toxic Substances, California Division of Oil and Gas, Cal/OSHA, etc.

Reporting

- Report significant spills to local agencies, such as the Fire Department; they can assist in cleanup.
- Federal regulations require that any significant oil spill into a water body or onto an adjoining shoreline be reported to the National Response Center (NRC) at 800-424-8802 (24 hours).

Use the following measures related to specific activities:

Vehicle and Equipment Maintenance

- If maintenance must occur onsite, use a designated area and a secondary containment, located away from drainage courses, to prevent the runon of stormwater and the runoff of spills.
- Regularly inspect onsite vehicles and equipment for leaks and repair immediately
- Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment onsite.
- Always use secondary containment, such as a drain pan or drop cloth, to catch spills or leaks when removing or changing fluids.
- Place drip pans or absorbent materials under paving equipment when not in use.
- Use absorbent materials on small spills rather than hosing down or burying the spill. Remove the absorbent materials promptly and dispose of properly.
- Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around
- Oil filters disposed of in trashcans or dumpsters can leak oil and pollute stormwater. Place the oil filter in a funnel over a waste oil-recycling drum to drain excess oil before disposal. Oil filters can also be recycled. Ask the oil supplier or recycler about recycling oil filters.
- Store cracked batteries in a non-leaking secondary container. Do this with all cracked batteries even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

Vehicle and Equipment Fueling

- If fueling must occur onsite, use designate areas, located away from drainage courses, to prevent the runon of stormwater and the runoff of spills.
- Discourage "topping off" of fuel tanks.
- Always use secondary containment, such as a drain pan, when fueling to catch spills/ leaks.

Costs

Prevention of leaks and spills is inexpensive. Treatment and/ or disposal of contaminated soil or water can be quite expensive.

Inspection and Maintenance

- Inspect and verify that activity–based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.

- Inspect BMPs subject to non-stormwater discharge daily while non-stormwater discharges occur.
- Keep ample supplies of spill control and cleanup materials onsite, near storage, unloading, and maintenance areas.
- Update your spill prevention and control plan and stock cleanup materials as changes occur in the types of chemicals onsite.

References

Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.

Solid Waste Management WM-5

Categories		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:
☑ **Primary Objective**
☒ **Secondary Objective**

Targeted Constituents	
Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

Description and Purpose

Solid waste management procedures and practices are designed to prevent or reduce the discharge of pollutants to stormwater from solid or construction waste by providing designated waste collection areas and containers, arranging for regular disposal, and training employees and subcontractors.

Suitable Applications

This BMP is suitable for construction sites where the following wastes are generated or stored:

- Solid waste generated from trees and shrubs removed during land clearing, demolition of existing structures (rubble), and building construction
- Packaging materials including wood, paper, and plastic
- Scrap or surplus building materials including scrap metals, rubber, plastic, glass pieces, and masonry products
- Domestic wastes including food containers such as beverage cans, coffee cups, paper bags, plastic wrappers, and cigarettes
- Construction wastes including brick, mortar, timber, steel and metal scraps, pipe and electrical cuttings, non-hazardous equipment parts, styrofoam and other materials used to transport and package construction materials
- Highway planting wastes, including vegetative material,

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plant containers, and packaging materials

Limitations

Temporary stockpiling of certain construction wastes may not necessitate stringent drainage related controls during the non-rainy season or in desert areas with low rainfall.

Implementation

The following steps will help keep a clean site and reduce stormwater pollution:

- Select designated waste collection areas onsite.
- Inform trash-hauling contractors that you will accept only watertight dumpsters for onsite use. Inspect dumpsters for leaks and repair any dumpster that is not watertight.
- Locate containers in a covered area or in a secondary containment.
- Provide an adequate number of containers with lids or covers that can be placed over the container to keep rain out or to prevent loss of wastes when it is windy.
- Cover waste containers at the end of each work day and when it is raining.
- Plan for additional containers and more frequent pickup during the demolition phase of construction.
- Collect site trash daily, especially during rainy and windy conditions.
- Remove this solid waste promptly since erosion and sediment control devices tend to collect litter.
- Make sure that toxic liquid wastes (used oils, solvents, and paints) and chemicals (acids, pesticides, additives, curing compounds) are not disposed of in dumpsters designated for construction debris.
- Do not hose out dumpsters on the construction site. Leave dumpster cleaning to the trash hauling contractor.
- Arrange for regular waste collection before containers overflow.
- Clean up immediately if a container does spill.
- Make sure that construction waste is collected, removed, and disposed of only at authorized disposal areas.

Education

- Have the contractor's superintendent or representative oversee and enforce proper solid waste management procedures and practices.
- Instruct employees and subcontractors on identification of solid waste and hazardous waste.
- Educate employees and subcontractors on solid waste storage and disposal procedures.

- Hold regular meetings to discuss and reinforce disposal procedures (incorporate into regular safety meetings).
- Require that employees and subcontractors follow solid waste handling and storage procedures.
- Prohibit littering by employees, subcontractors, and visitors.
- Minimize production of solid waste materials wherever possible.

Collection, Storage, and Disposal

- Littering on the project site should be prohibited.
- To prevent clogging of the storm drainage system, litter and debris removal from drainage grates, trash racks, and ditch lines should be a priority.
- Trash receptacles should be provided in the contractor's yard, field trailer areas, and at locations where workers congregate for lunch and break periods.
- Litter from work areas within the construction limits of the project site should be collected and placed in watertight dumpsters at least weekly, regardless of whether the litter was generated by the contractor, the public, or others. Collected litter and debris should not be placed in or next to drain inlets, stormwater drainage systems, or watercourses.
- Dumpsters of sufficient size and number should be provided to contain the solid waste generated by the project.
- Full dumpsters should be removed from the project site and the contents should be disposed of by the trash hauling contractor.
- Construction debris and waste should be removed from the site biweekly or more frequently as needed.
- Construction material visible to the public should be stored or stacked in an orderly manner.
- Stormwater runon should be prevented from contacting stored solid waste through the use of berms, dikes, or other temporary diversion structures or through the use of measures to elevate waste from site surfaces.
- Solid waste storage areas should be located at least 50 ft from drainage facilities and watercourses and should not be located in areas prone to flooding or ponding.
- Except during fair weather, construction and highway planting waste not stored in watertight dumpsters should be securely covered from wind and rain by covering the waste with tarps or plastic.
- Segregate potentially hazardous waste from non-hazardous construction site waste.
- Make sure that toxic liquid wastes (used oils, solvents, and paints) and chemicals (acids, pesticides, additives, curing compounds) are not disposed of in dumpsters designated for construction debris.

- For disposal of hazardous waste, see WM-6, Hazardous Waste Management. Have hazardous waste hauled to an appropriate disposal and/or recycling facility.
- Salvage or recycle useful vegetation debris, packaging and surplus building materials when practical. For example, trees and shrubs from land clearing can be used as a brush barrier, or converted into wood chips, then used as mulch on graded areas. Wood pallets, cardboard boxes, and construction scraps can also be recycled.

Costs

All of the above are low cost measures.

Inspection and Maintenance

- Inspect and verify that activity–based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Inspect BMPs subject to non-stormwater discharge daily while non-stormwater discharges occur
- Inspect construction waste area regularly.
- Arrange for regular waste collection.

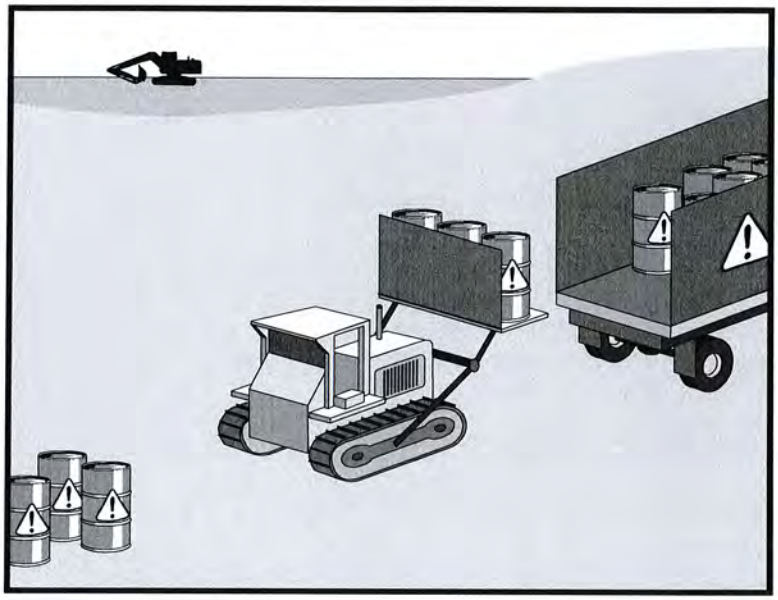
References

Processes, Procedures and Methods to Control Pollution Resulting from All Construction Activity, 430/9-73-007, USEPA, 1973.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.

Hazardous Waste Management WM-6



Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

Targeted Constituents

Sediment	
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	☑
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

Description and Purpose

Prevent or reduce the discharge of pollutants to stormwater from hazardous waste through proper material use, waste disposal, and training of employees and subcontractors.

Suitable Applications

This best management practice (BMP) applies to all construction projects. Hazardous waste management practices are implemented on construction projects that generate waste from the use of:

- Petroleum Products
- Asphalt Products
- Concrete Curing Compounds
- Pesticides
- Palliatives
- Acids
- Septic Wastes
- Paints
- Stains
- Solvents
- Wood Preservatives
- Roofing Tar
- Any materials deemed a hazardous waste in California, Title 22 Division 4.5, or listed in 40 CFR Parts 110, 117, 261, or 302

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In addition, sites with existing structures may contain wastes, which must be disposed of in accordance with federal, state, and local regulations. These wastes include:

- Sandblasting grit mixed with lead-, cadmium-, or chromium-based paints
- Asbestos
- PCBs (particularly in older transformers)

Limitations

- Hazardous waste that cannot be reused or recycled must be disposed of by a licensed hazardous waste hauler.
- Nothing in this BMP relieves the contractor from responsibility for compliance with federal, state, and local laws regarding storage, handling, transportation, and disposal of hazardous wastes.
- This BMP does not cover aerially deposited lead (ADL) soils. For ADL soils refer to WM-7, Contaminated Soil Management.

Implementation

The following steps will help reduce stormwater pollution from hazardous wastes:

Material Use

- Wastes should be stored in sealed containers constructed of a suitable material and should be labeled as required by Title 22 CCR, Division 4.5 and 49 CFR Parts 172, 173, 178, and 179.
- All hazardous waste should be stored, transported, and disposed as required in Title 22 CCR, Division 4.5 and 49 CFR 261-263.
- Waste containers should be stored in temporary containment facilities that should comply with the following requirements:
  - Temporary containment facility should provide for a spill containment volume equal to 1.5 times the volume of all containers able to contain precipitation from a 25 year storm event, plus the greater of 10% of the aggregate volume of all containers or 100% of the capacity of the largest tank within its boundary, whichever is greater.
  - Temporary containment facility should be impervious to the materials stored there for a minimum contact time of 72 hours.
  - Temporary containment facilities should be maintained free of accumulated rainwater and spills. In the event of spills or leaks, accumulated rainwater and spills should be placed into drums after each rainfall. These liquids should be handled as a hazardous waste unless testing determines them to be non-hazardous. Non-hazardous liquids should be sent to an approved disposal site.
  - Sufficient separation should be provided between stored containers to allow for spill cleanup and emergency response access.

- Incompatible materials, such as chlorine and ammonia, should not be stored in the same temporary containment facility.
- Throughout the rainy season, temporary containment facilities should be covered during non-working days, and prior to rain events. Covered facilities may include use of plastic tarps for small facilities or constructed roofs with overhangs.

- Drums should not be overfilled and wastes should not be mixed.
- Unless watertight, containers of dry waste should be stored on pallets.
- Do not over-apply herbicides and pesticides. Prepare only the amount needed. Follow the recommended usage instructions. Over application is expensive and environmentally harmful. Apply surface dressings in several smaller applications, as opposed to one large application. Allow time for infiltration and avoid excess material being carried offsite by runoff. Do not apply these chemicals just before it rains. People applying pesticides must be certified in accordance with federal and state regulations.
- Paint brushes and equipment for water and oil based paints should be cleaned within a contained area and should not be allowed to contaminate site soils, watercourses, or drainage systems. Waste paints, thinners, solvents, residues, and sludges that cannot be recycled or reused should be disposed of as hazardous waste. When thoroughly dry, latex paint and paint cans, used brushes, rags, absorbent materials, and drop cloths should be disposed of as solid waste.
- Do not clean out brushes or rinse paint containers into the dirt, street, gutter, storm drain, or stream. "Paint out" brushes as much as possible. Rinse water-based paints to the sanitary sewer. Filter and reuse thinners and solvents. Dispose of excess oil-based paints and sludge as hazardous waste.
- The following actions should be taken with respect to temporary contaminant:
  - Ensure that adequate hazardous waste storage volume is available.
  - Ensure that hazardous waste collection containers are conveniently located.
  - Designate hazardous waste storage areas onsite away from storm drains or watercourses and away from moving vehicles and equipment to prevent accidental spills.
  - Minimize production or generation of hazardous materials and hazardous waste on the job site.
  - Use containment berms in fueling and maintenance areas and where the potential for spills is high.
  - Segregate potentially hazardous waste from non-hazardous construction site debris.
  - Keep liquid or semi-liquid hazardous waste in appropriate containers (closed drums or similar) and under cover.

- Clearly label all hazardous waste containers with the waste being stored and the date of accumulation.
- Place hazardous waste containers in secondary containment.
- Do not allow potentially hazardous waste materials to accumulate on the ground.
- Do not mix wastes.
- Use all of the product before disposing of the container.
- Do not remove the original product label; it contains important safety and disposal information.

Waste Recycling Disposal

- Select designated hazardous waste collection areas onsite.
- Hazardous materials and wastes should be stored in covered containers and protected from vandalism.
- Place hazardous waste containers in secondary containment.
- Do not mix wastes, this can cause chemical reactions, making recycling impossible and complicating disposal.
- Recycle any useful materials such as used oil or water-based paint.
- Make sure that toxic liquid wastes (used oils, solvents, and paints) and chemicals (acids, pesticides, additives, curing compounds) are not disposed of in dumpsters designated for construction debris.
- Arrange for regular waste collection before containers overflow.
- Make sure that hazardous waste (e.g., excess oil-based paint and sludge) is collected, removed, and disposed of only at authorized disposal areas.

Disposal Procedures

- Waste should be disposed of by a licensed hazardous waste transporter at an authorized and licensed disposal facility or recycling facility utilizing properly completed Uniform Hazardous Waste Manifest forms.
- A Department of Health Services certified laboratory should sample waste to determine the appropriate disposal facility.
- Properly dispose of rainwater in secondary containment that may have mixed with hazardous waste.
- Attention is directed to "Hazardous Material", "Contaminated Material", and "Aerially Deposited Lead" of the contract documents regarding the handling and disposal of hazardous materials.

Education

- Educate employees and subcontractors on hazardous waste storage and disposal procedures.
- Educate employees and subcontractors on potential dangers to humans and the environment from hazardous wastes.
- Instruct employees and subcontractors on safety procedures for common construction site hazardous wastes.
- Instruct employees and subcontractors in identification of hazardous and solid waste.
- Hold regular meetings to discuss and reinforce hazardous waste management procedures (incorporate into regular safety meetings).
- The contractor's superintendent or representative should oversee and enforce proper hazardous waste management procedures and practices.
- Make sure that hazardous waste is collected, removed, and disposed of only at authorized disposal areas.
- Warning signs should be placed in areas recently treated with chemicals.
- Place a stockpile of spill cleanup materials where it will be readily accessible.
- If a container does spill, clean up immediately.

Costs

All of the above are low cost measures.

Inspection and Maintenance

- Inspect and verify that activity–based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events..
- Inspect BMPs subject to non-stormwater discharge daily while non-stormwater discharges occur
- Hazardous waste should be regularly collected.
- A foreman or construction supervisor should monitor onsite hazardous waste storage and disposal procedures.
- Waste storage areas should be kept clean, well organized, and equipped with ample cleanup supplies as appropriate for the materials being stored.
- Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.

- Hazardous spills should be cleaned up and reported in conformance with the applicable Material Safety Data Sheet (MSDS) and the instructions posted at the project site.
- The National Response Center, at (800) 424-8802, should be notified of spills of federal reportable quantities in conformance with the requirements in 40 CFR parts 110, 117, and 302. Also notify the Governors Office of Emergency Services Warning Center at (916) 845-8911.
- A copy of the hazardous waste manifests should be provided.

References

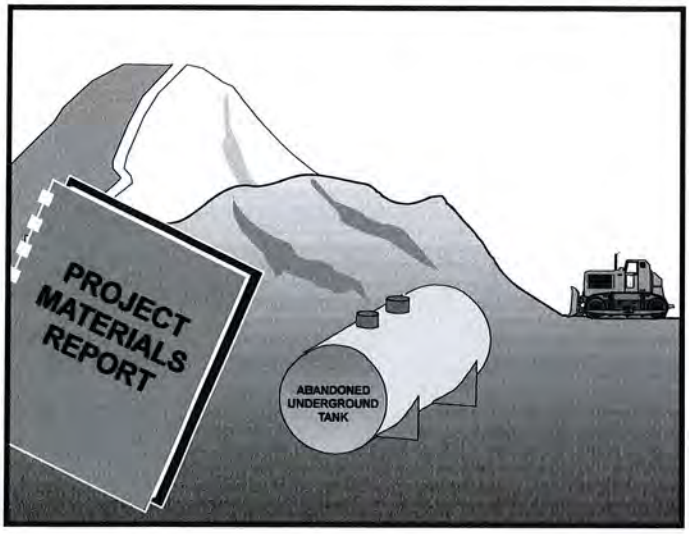
Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Processes, Procedures and Methods to Control Pollution Resulting from All Construction Activity, 430/9-73-007, USEPA, 1973.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.

Contaminated Soil Management WM-7



Categories		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:
☑ **Primary Objective**
☒ **Secondary Objective**

Description and Purpose

Prevent or reduce the discharge of pollutants to stormwater from contaminated soil and highly acidic or alkaline soils by conducting pre-construction surveys, inspecting excavations regularly, and remediating contaminated soil promptly.

Suitable Applications

Contaminated soil management is implemented on construction projects in highly urbanized or industrial areas where soil contamination may have occurred due to spills, illicit discharges, aerial deposition, past use and leaks from underground storage tanks.

Limitations

Contaminated soils that cannot be treated onsite must be disposed of offsite by a licensed hazardous waste hauler. The presence of contaminated soil may indicate contaminated water as well. See NS-2, Dewatering Operations, for more information.

The procedures and practices presented in this BMP are general. The contractor should identify appropriate practices and procedures for the specific contaminants known to exist or discovered onsite.

Implementation

Most owners and developers conduct pre-construction environmental assessments as a matter of routine. Contaminated soils are often identified during project planning and development with known locations identified in the plans, specifications and in the SWPPP. The contractor should review applicable reports and investigate appropriate call-outs in the

Targeted Constituents	
Sediment	
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	☑
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

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plans, specifications, and SWPPP. Recent court rulings holding contractors liable for cleanup costs when they unknowingly move contaminated soil highlight the need for contractors to confirm a site assessment is completed before earth moving begins.

The following steps will help reduce stormwater pollution from contaminated soil:

- Conduct thorough, pre-construction inspections of the site and review documents related to the site. If inspection or reviews indicated presence of contaminated soils, develop a plan before starting work.
- Look for contaminated soil as evidenced by discoloration, odors, differences in soil properties, abandoned underground tanks or pipes, or buried debris.
- Prevent leaks and spills. Contaminated soil can be expensive to treat and dispose of properly. However, addressing the problem before construction is much less expensive than after the structures are in place.
- The contractor may further identify contaminated soils by investigating:
  - Past site uses and activities
  - Detected or undetected spills and leaks
  - Acid or alkaline solutions from exposed soil or rock formations high in acid or alkaline forming elements
  - Contaminated soil as evidenced by discoloration, odors, differences in soil properties, abandoned underground tanks or pipes, or buried debris.
  - Suspected soils should be tested at a certified laboratory.

Education

- Have employees and subcontractors complete a safety training program which meets 29 CFR 1910.120 and 8 CCR 5192 covering the potential hazards as identified, prior to performing any excavation work at the locations containing material classified as hazardous.
- Educate employees and subcontractors in identification of contaminated soil and on contaminated soil handling and disposal procedures.
- Hold regular meetings to discuss and reinforce disposal procedures (incorporate into regular safety meetings).

Handling Procedures for Material with Aerially Deposited Lead (ADL)

- Materials from areas designated as containing (ADL) may, if allowed by the contract special provisions, be excavated, transported, and used in the construction of embankments and/or backfill.
- Excavation, transportation, and placement operations should result in no visible dust.
- Caution should be exercised to prevent spillage of lead containing material during transport.

- Quality should be monitored during excavation of soils contaminated with lead.

Handling Procedures for Contaminated Soils

- Minimize onsite storage. Contaminated soil should be disposed of properly in accordance with all applicable regulations. All hazardous waste storage will comply with the requirements in Title 22, CCR, Sections 66265.250 to 66265.260.
- Test suspected soils at an approved certified laboratory.
- Work with the local regulatory agencies to develop options for treatment or disposal if the soil is contaminated.
- Avoid temporary stockpiling of contaminated soils or hazardous material.
- Take the following precautions if temporary stockpiling is necessary:
  - Cover the stockpile with plastic sheeting or tarps.
  - Install a berm around the stockpile to prevent runoff from leaving the area.
  - Do not stockpile in or near storm drains or watercourses.
- Remove contaminated material and hazardous material on exteriors of transport vehicles and place either into the current transport vehicle or into the excavation prior to the vehicle leaving the exclusion zone.
- Monitor the air quality continuously during excavation operations at all locations containing hazardous material.
- Procure all permits and licenses, pay all charges and fees, and give all notices necessary and incident to the due and lawful prosecution of the work, including registration for transporting vehicles carrying the contaminated material and the hazardous material.
- Collect water from decontamination procedures and treat or dispose of it at an appropriate disposal site.
- Collect non-reusable protective equipment, once used by any personnel, and dispose of at an appropriate disposal site.
- Install temporary security fence to surround and secure the exclusion zone. Remove fencing when no longer needed.
- Excavate, transport, and dispose of contaminated material and hazardous material in accordance with the rules and regulations of the following agencies (the specifications of these agencies supersede the procedures outlined in this BMP):
  - United States Department of Transportation (USDOT)
  - United States Environmental Protection Agency (USEPA)
  - California Environmental Protection Agency (CAL-EPA)

- California Division of Occupation Safety and Health Administration (CAL-OSHA)
- Local regulatory agencies

Procedures for Underground Storage Tank Removals

- Prior to commencing tank removal operations, obtain the required underground storage tank removal permits and approval from the federal, state, and local agencies that have jurisdiction over such work.
- To determine if it contains hazardous substances, arrange to have tested, any liquid or sludge found in the underground tank prior to its removal.
- Following the tank removal, take soil samples beneath the excavated tank and perform analysis as required by the local agency representative(s).
- The underground storage tank, any liquid or sludge found within the tank, and all contaminated substances and hazardous substances removed during the tank removal and transported to disposal facilities permitted to accept such waste.

Water Control

- All necessary precautions and preventive measures should be taken to prevent the flow of water, including ground water, from mixing with hazardous substances or underground storage tank excavations. Such preventative measures may consist of, but are not limited to, berms, cofferdams, grout curtains, freeze walls, and seal course concrete or any combination thereof.
- If water does enter an excavation and becomes contaminated, such water, when necessary to proceed with the work, should be discharged to clean, closed top, watertight transportable holding tanks, treated, and disposed of in accordance with federal, state, and local laws.

Costs

Prevention of leaks and spills is inexpensive. Treatment or disposal of contaminated soil can be quite expensive.

Inspection and Maintenance

- Inspect and verify that activity–based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Arrange for contractor's Water Pollution Control Manager, foreman, and/or construction supervisor to monitor onsite contaminated soil storage and disposal procedures.
- Monitor air quality continuously during excavation operations at all locations containing hazardous material.
- Coordinate contaminated soils and hazardous substances/waste management with the appropriate federal, state, and local agencies.

- Implement WM-4, Spill Prevention and Control, to prevent leaks and spills as much as possible.

References

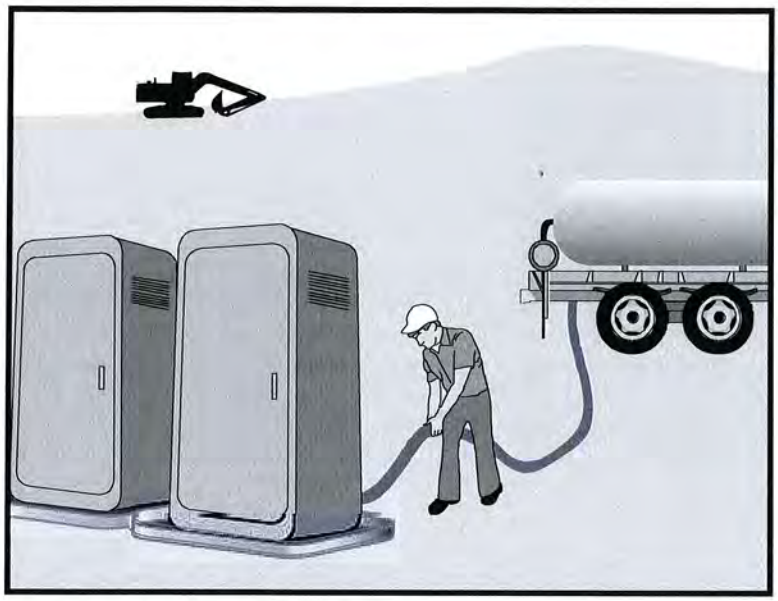
Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Processes, Procedures and Methods to Control Pollution Resulting from All Construction Activity, 430/9-73-007, USEPA, 1973.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.

Sanitary/Septic Waste Management WM-9



Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:

☑ **Primary Category**

☒ **Secondary Category**

Targeted Constituents

Sediment	
Nutrients	☑
Trash	☑
Metals	
Bacteria	☑
Oil and Grease	
Organics	☑

Potential Alternatives

None

Description and Purpose

Proper sanitary and septic waste management prevent the discharge of pollutants to stormwater from sanitary and septic waste by providing convenient, well-maintained facilities, and arranging for regular service and disposal.

Suitable Applications

Sanitary septic waste management practices are suitable for use at all construction sites that use temporary or portable sanitary and septic waste systems.

Limitations

None identified.

Implementation

Sanitary or septic wastes should be treated or disposed of in accordance with state and local requirements. In many cases, one contract with a local facility supplier will be all that it takes to make sure sanitary wastes are properly disposed.

Storage and Disposal Procedures

- Temporary sanitary facilities should be located away from drainage facilities, watercourses, and from traffic circulation. If site conditions allow, place portable facilities a minimum of 50 feet from drainage conveyances and traffic areas. When subjected to high winds or risk of high winds, temporary sanitary facilities should be secured to prevent overturning.

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- Temporary sanitary facilities must be equipped with containment to prevent discharge of pollutants to the stormwater drainage system of the receiving water.
- Consider safety as well as environmental implications before placing temporary sanitary facilities.
- Wastewater should not be discharged or buried within the project site.
- Sanitary and septic systems that discharge directly into sanitary sewer systems, where permissible, should comply with the local health agency, city, county, and sewer district requirements.
- Only reputable, licensed sanitary and septic waste haulers should be used.
- Sanitary facilities should be located in a convenient location.
- Temporary septic systems should treat wastes to appropriate levels before discharging.
- If using an onsite disposal system (OSDS), such as a septic system, local health agency requirements must be followed.
- Temporary sanitary facilities that discharge to the sanitary sewer system should be properly connected to avoid illicit discharges.
- Sanitary and septic facilities should be maintained in good working order by a licensed service.
- Regular waste collection by a licensed hauler should be arranged before facilities overflow.
- If a spill does occur from a temporary sanitary facility, follow federal, state and local regulations for containment and clean-up.

Education

- Educate employees, subcontractors, and suppliers on sanitary and septic waste storage and disposal procedures.
- Educate employees, subcontractors, and suppliers of potential dangers to humans and the environment from sanitary and septic wastes.
- Instruct employees, subcontractors, and suppliers in identification of sanitary and septic waste.
- Hold regular meetings to discuss and reinforce the use of sanitary facilities (incorporate into regular safety meetings).
- Establish a continuing education program to indoctrinate new employees.

Costs

All of the above are low cost measures.

Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Arrange for regular waste collection.
- If high winds are expected, portable sanitary facilities must be secured with spikes or weighed down to prevent over turning.
- If spills or leaks from sanitary or septic facilities occur that are not contained and discharge from the site, non-visible sampling of site discharge may be required. Refer to the General Permit or to your project specific Construction Site Monitoring Plan to determine if and where sampling is required.

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.

Appendix C-8. Construction Site Inspection Report Form

BMP INSPECTION REPORT

Date and Time of Inspection:	Date Report Written:

Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court	
Construction stage and completed activities:	Approximate area of site that is exposed:

Photos Taken: (Circle one)	Yes	No	Photo Reference IDs:

Weather

Estimate storm beginning: (date and time)	Estimate storm duration: (hours)
Estimate time since last storm: (days or hours)	Rain gauge reading and location: (in)

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:

Exemption Documentation (explanation required if inspection could not be conducted).

Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name:	Inspector Title:
Signature:	Date:

BMP INSPECTION REPORT

Part II. BMP Observations. **Describe deficiencies in Part III.**			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)			
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system			
Portable toilets are contained to prevent discharges of waste			
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil			
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters			
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use			
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event			
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered			
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations			
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled			
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems			
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented			
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site			
Entrances and exits are stabilized to control erosion and sediment discharges from the site			
Sediment basins are properly maintained			
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.			
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?			

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. **Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).**	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. **Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.**	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. **Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.**	
Required Actions	**Implementation Date**

Appendix C-9. Training

TRAINED CONTRACTOR PERSONNEL LOG
Storm Water Management Training Log and Documentation

Project Name:_____

WDID #: _____

Storm Water Management Topic: (check as appropriate)

☐ Erosion Control ☐ Sediment Control

☐ Wind Erosion Control ☐ Tracking Control

☐ Non-Storm Water Management ☐ Waste Management and Materials Pollution Control

☐ Storm Water Sampling

Specific Training Objective: _____

Location: _____ Date: _____

Instructor:_____ Telephone: _____

Course Length (hours): _____

Attendee Roster (Attach additional forms if necessary)

Name	Company	Phone

As needed, add proof of external training (e.g., course completion certificates, credentials for QSP, QSD).

CERTIFICATE OF TRAINING

CALIFORNIA CONSTRUCTION GENERAL PERMIT

QUALIFIED SWPPP DEVELOPER (QSD)
AND
QUALIFIED SWPPP PRACTITIONER (QSP)

Christian Herencia

Jan 29, 2015 - Mar 01, 2017

Certificate # 00389

CASQA
CALIFORNIA STORMWATER QUALITY ASSOCIATION®

California Stormwater Quality Association and
California Construction General Permit Training Team

CERTIFICATE OF TRAINING

CALIFORNIA CONSTRUCTION GENERAL PERMIT

QUALIFIED SWPPP PRACTITIONER (QSP)

James Chidester

Sep 05, 2013 - Sep 26, 2015

Certificate # 00497

CASQA
CALIFORNIA STORMWATER QUALITY ASSOCIATION

California Stormwater Quality Association and
California Construction General Permit Training Team

Water Boards Storm Water Multiple Application & Report Tracking System

Help Logout

You are logged-in as: **Kathryn Houston - TRC Solutions.**
If this account does not belong to you, please log out.

Navigate To:

CBPELSG - QSD Acknowledgement

Your CBPELS QSD registration is complete. Your CBPELS License number is now your QSD Certification number

First Name: Kathryn
Last Name: Houston
Certificate No.: C83440
Effective Date: Jan 22, 2015

Return to Main Menu

Appendix C-10. Responsible Parties

Appendix C-11. Contractors and Subcontractors

LIST OF CONTRACTORS AND SUB-CONTRACTORS

Company Name	Type of Work	Contact Name	Contact Phone Number

Appendix C-12. Weather Reports

Appendix C-13. Final Erosion Control Plan Design Documents

LEGEND

- PROPOSED STAGING AREAS
- FENCE LINE
- SF — SILT FENCE
- STORM DRAIN INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE OR EXIT
- APPROPRIATE BMP BELOW ROOF GUTTER DOWNSPOUTS
- STRAW WATTLE
- DIRECTION OF STORM WATER FLOW DURING CONSTRUCTION
- APPROXIMATE EXTENT OF REMEDIAL ACTION AREA
- APPROXIMATE SITE BOUNDARY
- APPROXIMATE LOCATION OF HISTORIC WORLD WAR I TRENCH
- 145 — EXISTING CONTOUR ELEVATION
- SITE TREE TO BE PRESERVED DURING REMEDIAL CONSTRUCTION
- TOYON (HETEROMELES ARBUTIFOLIA) TO BE PRESERVED DURING REMEDIAL CONSTRUCTION

N

SCALE (FEET)

0 80 160

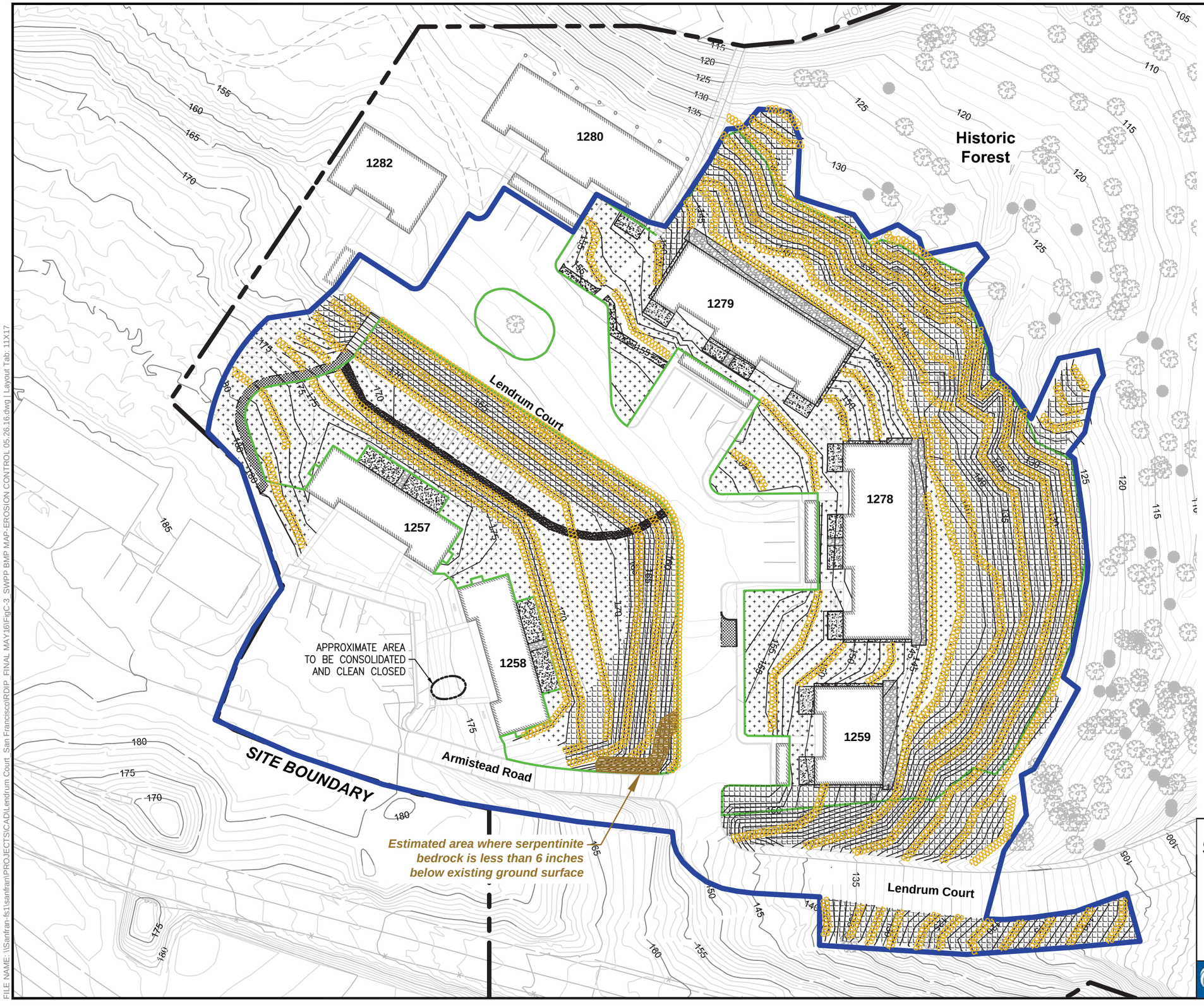
SOURCE: Base plan by Towill, October 29-November 4, 2015

SWPPP BEST MANAGEMENT PRACTICES
May 26, 2016

Lendrum Court Area
The Presidio Trust
San Francisco, California

TRC | 229649 | **FIGURE C-2**

FILE NAME: \\Sanfran-fs1\sanfran\PROJECTS\CAD\Lendrum Court_San Francisco\RDIP_FINAL_MAY16\Fig\C-2_SWPP BMP Map-Temp Facilities 05.26.16.dwg | Layout Tab: 11X17



LEGEND

- ECTC TYPE 4 EROSION CONTROL BLANKET ANCHORING PATTERN A, SEE DETAIL 2, C-116
- ECTC TYPE 4 EROSION CONTROL BLANKET ANCHORING PATTERN B, SEE DETAIL 2, C-116
- FIBER ROLL (STRAW WATTLE)
- APPROXIMATE EXTENT OF REMEDIAL ACTION AREA
- APPROXIMATE LIMITS OF CAP
- APPROXIMATE SITE BOUNDRY
- 140 FINAL GRADE CONTOUR ELEVATION
- 145 EXISTING CONTOUR ELEVATION
- NEW CONCRETE PATIOS, SIDEWALKS AND STAIRS
- NEW DECOMPOSED GRANITE PATH
- NEW ASPHALT PATH/ROADWAY
- NEW AGGREGATE BASE CAP
- SITE TREE TO BE PRESERVED DURING REMEDIAL CONSTRUCTION
- TOYON (HETEROMELES ARBUTIFOLIA) TO BE PRESERVED DURING REMEDIAL CONSTRUCTION

NOTE:
ALL EROSOIN CONTROL FABRIC TO BE UNDERLAIN BY A LAYER OF STRAW.

N

SCALE (FEET)
0 50 100

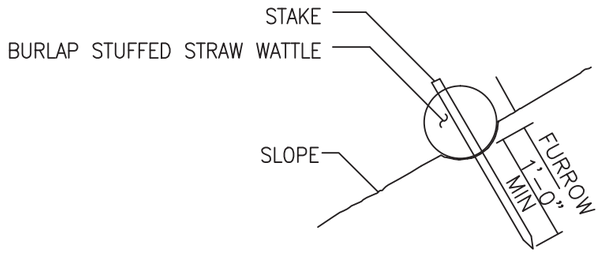
SOURCE: Base plan by Towill, October 29-November 4, 2015

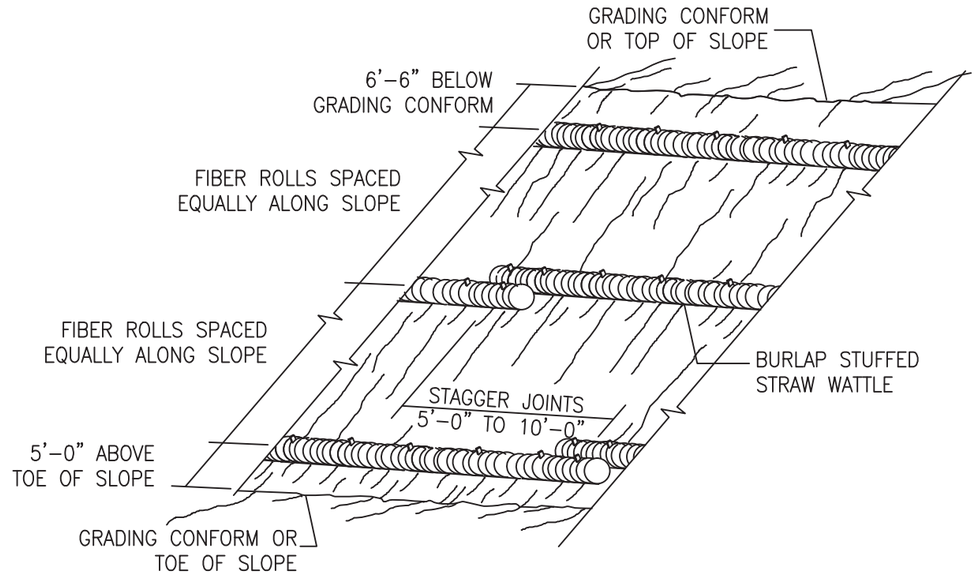
SWPPP FINAL EROSION CONTROLS
May 26, 2016

Lendrum Court Area
The Presidio Trust
San Francisco, California

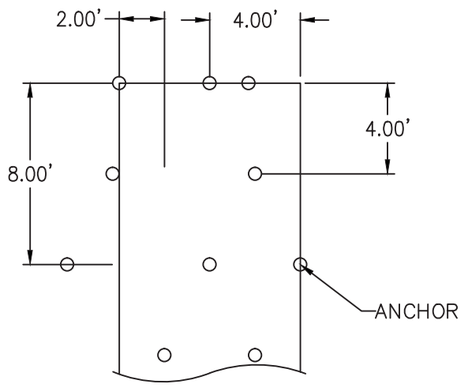
TRC Results you can rely on | 229649 | **FIGURE C-3**

FILE NAME: \\Sanfran-fs1\sanfran\PROJECTS\CAD\Lendrum Court_San Francisco\RDJP_FINAL_MAY16\Fig\C-3_SWPP BMP MAP-EROSION CONTROL 05.26.16.dwg | Layout Tab: 11X17

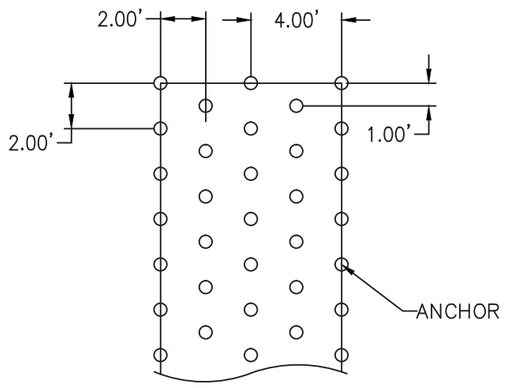




DETAIL 1- STRAW WADDLE LAYDOWN AND STAKING



A



B

DETAIL 2- ANCHORING PLAN

REV	DATE	DESCRIPTION	DESIGN BY	CHK'D BY
B	3/25/16	100% Design Drawing	J H-D	WBC
A	1/21/16	60% Design Drawing	J H-D	WBC

Lendrum Court Area
The Presidio Trust
San Francisco, California

DETAILS-EROSION CONTROLS

TRC | 229649 | REV B | SHEET C-116

FILE NAME: \\Sanfran-fs1\sanfran\PROJECTS\CAD\Lendrum Court_San Francisco\Phase II\C-116_Details-PII.dwg | Layout Tab: 11X17

Appendix D. Landfill Qualification Documents

FILE COPY

SOLID WASTE FACILITY PERMIT

1. Facility/Permit Number: Page 1 of 4
SWIS No. 41-AA-0002

2. Name and Street Address of Facility:
Corinda Los Trancos Landfill
(Ox Mountain)
12310 San Mateo Rd (Hwy 92)
Half moon Bay CA 94019

3. Name and Mailing Address of Operator:
Browning Ferris Industries of CA, Inc.
Corinda Los Trancos Landfill
12310 San Mateo Rd (Hwy92)
Half Moon Bay CA 94019

4. Name and Mailing Address of Owner:
Browning Ferris Industries of CA, Inc.
Corinda Los Trancos Landfill
12310 San Mateo Rd (Hwy92)
Half Moon Bay CA 94019

5. Specifications:

a. Permitted Operations:

[ ] Composting Facility (mixed wastes)
[ ] Composting Facility (yard waste)
[x] Landfill Disposal Site
[ ] Material Recovery Facility
[ ] Processing Facility
[ ] Transfer Station
[ ] Transformation Facility
[ ] Other.

b. Permitted Hours of Operation:
Landfill Operating Hours 4:00 a.m. –4:30 p.m. Monday – Saturday
Public Hours 8:00 a.m. – 4:30 p.m. Monday – Saturday
The facility is closed Sundays, Christmas Day, and New Years Day

c. Permitted Tons per Operating Day: Total: 3598 Tons/Day / MSW

d. Permitted Traffic Volume: Total: 501 Vehicles/Day (round trips)/avg.

e. Key Design Parameters (Detailed parameters are shown on site plans bearing LEA and CIWMB validations):

	Total	Disposal				
Permitted Area	2786	191 a				
Design Capacity	[redacted]	49 million cy				
Max. Elevation. MSL)	[redacted]	1205 (ft. MSL)	[redacted]			
Max. Depth	[redacted]	16 (ft. BGS)				

Estimated Closure Date: year 2023

At the time this permit was prepared, the basic design information was reviewed and was fundamental in setting the conditions in this permit, as were the details of the design information provided in the Report of Disposal Site Information (RDSI). The operator shall keep all information updated pursuant to CCR Title 27, Section 21600. Such amendments or lack thereof may become the basis for changes in the permit. The information listed in the RDSI is in no way meant to set limits on the facility. However, the LEA may determine that if the design significantly changes, the operator will be required to revise the permit to include additional or different conditions or limitations.

6. Approval:

Approving Officer Signature
Dean Peterson, PE., REHS
Director Environmental Health Services Division

7. Enforcement Agency Name and Address:
San Mateo County Environmental Health Div.
County Government Center
455 County Center
Redwood City, CA 94063

8. Received by CIWMB:	8. CIWMB Concurrence Date:	10. Permit Issued Date:
May 7, 2001	June 19, 2001	June 26, 2001
11A.Next Permit Review Due Date:	**11B. Permit Transfer Date:**	**11C. Permit Review Date:**
July 7, 2016		July 7, 2011

12. **Legal Description of Facility (attach map with RFI):** the Facility location is 12310 San Mateo Rd, Half Moon Bay, CA. APN#'s 048-350-020; 056-3 020; -040; -240; 056-370-020; 047-360-010; -050; 048-340-010; -020;-030; 047-370-010; 047-380-020,-030;-050; 048-320-040; 0148-330-060; 056-36 300; and 056-530-010

13. **Findings:**

a. This permit is consistent with the San Mateo County Integrated Solid Waste Management Plan (CIWMP). Public Resources Code, Section 50001.

b. This permit is consistent with standards adopted by the California Integrated Waste Management Board (CIWMB). Public Resources Code, Section 44010.

c. Based on a review of the October 19, 2000 Report of Disposal Site Information (RDSI), and an inspection conducted on 01/03/01 the design and operation of the facility is in compliance with the State Minimum Standards for Solid Waste Handling and Disposal.

d. A Negative Declaration (ND) approved on March 25, 1999 describes and supports the changes in design and operation which will be authorized by the issuance of a revised permit. The ND was prepared by the San Mateo County Planning and Building Division, and filed with the State Clearinghouse on August 6, 1998 (SCH# 98082020).

e. The San Mateo County Planning and Building Division has made a determination that the facility is consistent with, and designated in, the applicable general plan: Public Resources Code, Section 50000.5(a).

f. The San Mateo County Planning and Building Division has made a written finding that surrounding land use is compatible with the facility operation, as required in Public Resources Code, Section 50000.5(b).

14. **Prohibitions:**

The permittee is prohibited from accepting the following wastes:

Hazardous, radioactive, medical (as defined in Chapter 6.1, Division 20 of the Health and Safety Code), liquid, designated, or other wastes requiring special treatment or handling, except as identified in the Report of Facility Information and as approved by the local enforcement agency and other federal, state and local agencies.

The permittee is additionally prohibited from the following activities:

a. Scavenging
b. Open burning
c. Accepting dead animals
d. Accepting flammable or infectious wastes

New operations may not begin without prior submittal of amendments to the RFI, the permit is revised or modified, and/or written approvals are received from the enforcement agency and other appropriate agencies.

15. **The following documents also describe and/or restrict the operation of this facility. These documents in no way condition the facility under this Solid Waste Facility Permit, unless otherwise stated in the LEA Condition portion of this permit.**

[x] Report of Disposal Site Information 10/19/00

[x] Waste Discharge Requirements 9/22/99
Order No. 99-067

[x] Land Use Permits and Conditional Use Permits 3/25/99
San Mateo County Use 81-34
Coastal Development Permit, File No. CDP 97-0054
Grading Permit, File No. GRD 91-0015

[x] EIR or Negative Declaration
FEIR (1991) Notice of Determination
SCH# 90030984 11/14/91
Negative Declaration SCH# 95123030 12/18/95
Negative Declaration SCH# 96112086 12/96
Negative Declaration SCH # 98082020 3/25/99
Mitigation Monitoring Program 1991/ 1998

[x] Prelim. Closure and Post Closure Maintenance Plan 10/18/00

[x] Operating Liability Certification 9/30/99 –01/01/01

[x] Closure Financial Assurance Documentation 7/15/99

16. Self Monitoring:

a. Results of all self-monitoring programs as described in the Report of Facility Information, will be reported as follows:

Program	Reporting Facility	Agency Reported To
1. Maintain daily records of the types and quantities of municipal solid waste received each day. Daily records shall be available to the LEA upon request. For reporting purposes, the quarterly report shall provide in tons the monthly total of waste received; the number of operating days for that month; a breakdown of the quantities of waste received from each solid waste transfer station; each franchised solid waste collector/hauler by name; and the peak daily load received during the quarter.	Quarterly Basis	LEA
2. The logbook of special occurrences must be available for review. This log shall include, but not be limited to, fires, explosions, the discharge and disposition of hazardous or unpermitted wastes, and significant injuries, accidents or property damage. Each log entry shall be accompanied by a summary of any actions taken by the operator to mitigate the occurrence. The log shall be available to site personnel and the LEA at all times.	Reported upon Monthly inspections	LEA
3. Results of the Random Load Checking Program must be available for review. The results shall include the quantities and types of hazardous wastes, medical wastes or otherwise prohibited waste found in the waste stream and the disposition of these materials.	Reported upon Monthly inspection	LEA
4. Maintain daily records of the number and types of vehicles using the facility per day. Daily records shall be available to the LEA upon request. For reporting purposes, the quarterly report shall provide the monthly total of the number of vehicles that used the facility during the quarter.	Quarterly	LEA
5. Copies of all written complaints regarding this facility and the operator's actions taken to resolve these complaints.	Quarterly	LEA
6. Results of the landfill gas-monitoring program shall include structure and perimeter monitoring results.	Quarterly	LEA

17. LEA Conditions:

a. The October 19, 2000 RDSI and any subsequent approved RDSI Amendments shall reflect the current operation at this facility. The operator must file any proposed amendments to the LEA at least 150 days prior to making changes in the design and operation from those outlined in the RDSI. In no case shall the operator implement any change without first submitting a written notice of any proposed change. Such RDSI Amendments or lack thereof may become the basis for changes in the permit or for revocation of the permit.

b. The design and operation of this facility shall comply with all State Minimum Standards for Solid Waste Handling and Disposal as specified in Title 27, California Code of Regulations.

c. The operator shall comply with all measures established in the Mitigation Monitoring Program pursuant to all certified environmental documents for this facility.

d. The Facility Operator shall provide water misting equipment and effective dust control as necessary in order to control nuisance dust resulting from Facility operations, as determined by the LEA. The facility operator shall provide additional misting and watering as frequently as necessary to mitigate dust generation.

e. Wood and Green waste shall not be stockpiled for more then seven (7) days prior to grinding. The LEA reserves the right to have the stockpiled material removed immediately where imminent public health and safety concerns exists, and reserves the right to require removal within 24-hours if it is determined that any other public nuisances exist.

f. Additional information concerning the design and operation of the facility shall be furnished upon request and within the time frame specified by the LEA.

g. Stockpile cover material shall be maintained at close proximity to the working face for emergency use and to mitigate odor, vector or nuisance problems that may arise during operation. The quantity of stockpiled material shall be equivalent to the amount of cover material required to effectuate complete covering of the working face.

h. The LEA reserves the right to suspend or modify waste receiving and handling operations when deemed necessary due to an emergency, a potential health hazard or the creation of a public nuisance.

i. All Alternative Daily Cover Materials (ADC) proposed for use at this facility shall require written approval from the LEA and shall comply with all requirements specified in Title 27 California Code of Regulations Section 20690-CIWMB Alternate Daily Cover.

j. The waste shall be spread and compacted in layers with a minimum of three (3) repeated passages of equipment so as to eliminate voids within the cell. The slope of the working face shall be maintained at a ratio that will allow effective compaction of the waste.

k. The operator shall submit to the CIWMB, LEA and the RWQCB copies of the final closure and post closure maintenance plans for the landfill. These plans shall be submitted no later then two years prior to the anticipated date of closure.

l. The maximum permitted daily tonnage for this facility is 3598 tons per day, and the operator shall not accept more then this amount without a revision of this permit.

m. This permit is subject to review by the LEA and may be suspended, modified or revised at any time for sufficient cause.

n. A copy of this permit and all supporting documents shall be maintained at this facility.

o. The operator shall provide adequate lighting for all operations conducted before sunrise and after sunset.

State of California
CIWMB 678 (New 01/03)

California Integrated Waste
Management Board

5 Year Permit Review Report

Ox Mountain Sanitary Landfill	41-AA-0002	7/5/06
Facility Name	Facility Number	Review Date
San Mateo County	Greg Schirle	
Enforcement Agency	Reviewer's Name (Type or Print)	Reviewer's Signature

Documents Reviewed

Document Name	Document Code*	Date	Updates
Report of Disposal Site Information and Appendices (JTD format)	RDSI	10/2000	2/2006
Preliminary Closure Post Closure Maintenance Plan and Appendices	PCPCMP	2/2006	
Solid Waste Facility Permit 41-AA-0002	SWFP	6/26/01	
Bird Control Plan	BCP	1/2006	
San Mateo County Integrated Waste Management Plan	IWMP	5/1998	
RWQCB updated waste Discharge Requirements	WDR	6/26/06	

Findings

Document Code	Page Number	Finding
RDSI	27	Gas Management Plan- a proposal has been submitted to the county planning to construct a LFG power plant. LFG produced by the landfill would be combusted to generate electrical power for the landfill. This proposal should have minimal or no impact to the landfill operation.
RDSI, BCP	40	Traditionally, seagulls have not been a problem at the landfill. The landfill always had some form of bird control. However, recent community concern regarding bird impacts to local beaches and wetlands, the landfill has developed a more comprehensive and aggressive bird control plan in an effort to support the community concern. This is the development of the Bird control plan.
RDSI	44	In 2002, the gatehouse and scale bypass lane was added with an additional scale house to accommodate the truck que from potential back up onto the highway 92 during peak usage times.

Findings (continued)

Document Code	Page Number	Finding

Conclusions Re: Permit Status (Revision/Suspension/Revocation)

There are no significant changes proposed at this facility at this time. The Bird Control program should be included in the permit documents as an Appendix.

This document is Generally described in the RDSI but for more specific information the reader should be referred to the appendix.

Directives Given to Operator

Permit Action Required: (Check One Box)		Documents to be Submitted: (Check all applicable boxes)	
☐	Submit Application for Permit Revision	☐	Updated RFI
☐	Permit Suspension	☐	Financial Assurances
☐	Permit Revocation	☐	CEQA Compliance
☐	Submit Application for RFI Amendment	☐	Preliminary Closure Plan
☐	Submit Owner/Operator Change Notification	☐	Final Closure Plan
X	Other (specify below)	X	other (specify below)

No changes necessary for this facility. Attach the new SWFP cover page to the existing permit document.

Provide appendices for the Bird Control Plan.

California Regional Water Quality Control Board
San Francisco Bay Region

Linda S. Adams
Agency Secretary

1515 Clay Street, Suite 1400, Oakland, California 94612
(510) 622-2300 • Fax (510) 622-2460
http://www.waterboards.ca.gov/sanfranciscobay

Arnold Schwarzenegger
Governor

Date: JUN 2 6 2006
File No. 2179.7053 (CSF)

Certified Mail No.
70051160000363328355
Jim Gunderson
General Manager
Browning -Ferris Industries
Ox Mountain Sanitary Landfill
12310 San Mateo Road
Half Moon Bay, CA 94019-7112

70051160000363328348
Curt Fujii, PE
Regional Engineer
Allied Waste - West Region
901 Bailey Road
Pittsburgh, CA 94565

Subject: Final Order for Ox Mountain Landfill, Half Moon Bay, San Mateo County

Dear Mr. Gunderson and Mr. Fujii:

Enclosed is the Final Order (No. R2-2006-0040) for Ox Mountain Landfill. The Order was adopted by the Regional Board in its June 14, 2006 hearing. If you have any questions regarding the Order, please contact Cecilio Felix at (510) 622-2343, or by email at cfelix@waterboards.ca.gov.

Sincerely,

Cecilio Felix
Associate Engineering Geologist
Toxics Cleanup Division

cc:

Mr. Gene Mullin
Assemblymember 19th District
P.O. Box 942849
Sacramento, CA 94249.0019

Greg Schirle
San Mateo County Health Services Agency
Environmental Health Services Division
455 County Center
Redwood City, CA 94063

Beatrice Poroli
CIWMB
1001 I Street
Sacramento, CA 95814

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

UPDATED WASTE DISCHARGE REQUIREMENTS AND ORDER NO. R2-2006-0040

BROWNING-FERRIS INDUSTRIES, INC.
OX MOUNTAIN SANITARY LANDFILL
CLASS III WASTE MANAGEMENT FACILITY
HALF MOON BAY, SAN MATEO COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board), finds that:

DISCHARGER AND LOCATION

1. Owner, operator, and discharger named: Browning-Ferris Industries, Inc. (BFI) of California currently owns and operates the Ox Mountain Landfill Class III waste management facility (also referred to as Corindas Los Trancos Ox Mountain Landfill). BFI is hereinafter referred to as the Discharger.

2. Landfill location and description: Ox Mountain Landfill is located approximately 3 miles east of the city of Half Moon Bay, north of Highway 92 (see Figure 1). Ox Mountain Landfill consists of approximately 191 acres. The landfill was formed by placing waste in Corindas Los Trancos Canyon, largely isolating the landfilled materials from surface waters and groundwater. The landfill is surrounded by open space and agricultural areas.

PURPOSE OF ORDER UPDATE

3. Update of Waste Discharge Requirements: This order updates Waste Discharge Requirements (WDRs) for the Ox Mountain Landfill to include general provisions and tasks necessary to continue the established design criteria for the landfill containment

systems and update and revise the groundwater, surface water, subdrain, and leachate monitoring programs in order to minimize impacts to water quality.

SITE DESCRIPTION

4. Waste placement: Ox Mountain Class III Landfill originated as a 33 acre Class III landfill in the upper portion of Corinda Los Trancos Canyon. This initial portion of the landfill received approximately 7.5 million cubic yards of waste from 1976 to 1993. In 1992, the Discharger was issued WDRs for a 140 acre landfill expansion, and in 1999, WDRs were issued for additional expansion. The total acreage of the landfill is 191 acres. The current maximum total capacity of the landfill is 48.3 million cubic yards. Closure of the landfill is anticipated in 2027.

5. Waste types and classification: Waste received at the landfill consists of non-hazardous residential, commercial and industrial solid waste classified in CCR Title 27, Section 20220(a) as Class III wastes. Class III waste includes but is not limited to: all putresible and nonputresible solid, semi-solid, and liquid wastes including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, and soil.

6. Leachate containment and minimization: The Discharger has implemented a corrective action monitoring program. A landfill leachate containment and extraction system is designed to minimize the potential for landfill leachate to impact the quality of groundwater and surface water. Downward migration of leachate to groundwater is minimized by construction of a landfill liner and a network of drainpipes which collect leachate for removal at the southern terminus of the landfill. Landfill leachate flows down-canyon above the landfill liner and is discharged into leachate collection tanks. The landfill liner consists of low-permeable soil (hydraulic conductivity $< 1 \times 10^{-7}$ cm/sec), and high density polyethylene (HDPE) geomembrane. The leachate collection and removal system (LCRS) consists of perforated HDPE piping, a 1-foot thick drainage layer, geotextile, and a 2-foot thick operation soil layer (See Figure 2). The specific design of the liner varies according to the localized hydrogeolgic conditions in order to optimize liner strength and effectiveness. Extracted leachate is collected in tanks and transferred in trucks to a POTW. Contact of leachate with groundwater is also minimized by the utilization of groundwater subdrains which are located beneath the landfill liner and by dewatering systems in spring areas located in canyon sideslopes. Generation of leachate is minimized by utilization of surface water controls, including perimeter surface runoff diversion channels, channelization of portions of Corinda Los Trancos Creek, and the construction of a final cap and interim covers over waste materials. Leachate, groundwater, and surface water is monitored and analyzed on a monthly and quarterly

basis in order to evaluate water quality and the performance of the landfill containment systems.

7. Landfill cap: An interim and final cover is necessary to contain landfill waste, provide vector controls, and minimize infiltration of surface waters and generation of landfill leachate. The interim and final cover design is detailed in the Discharger's Report of Waste Discharge. The final landfill cover consists of: 1) a foundation layer of 2 feet minimum thickness consisting of clean soil or treated soil placed above compacted waste; 2) a low permeability layer of 1 foot minimum thickness with a hydraulic conductivity of 1×10^{-6} cm/s or less; and 3) a protective/vegetative soil layer of 1 foot minimum thickness. The surface of the landfill will be graded to prevent ponding and promote runoff.

REGULATORY HISTORY

8. Previous Orders: The most recent Board Orders for the site include:

- Order No. 99-067 - Updated Waste Discharge Requirements and Recision of Order No. 92-087 for the Ox Mountain Landfill;
- Order No. 93-146 - NPDES permit for the discharge of treated groundwater to Corindas Los Trancos Creek; and,
- Order No. 97-03DWQ - NPDES General Permit for Storm Water Discharges Associated with Construction Activities.

SITE GEOLOGIC AND HYDROGEOLOGIC SETTING

9. Stratigraphy: Stratigraphic units beneath Ox Mountain Landfill include sedimentary surficial materials underlain by granitic bedrock. The sedimentary materials includes uncemented alluvial deposits, colluvial deposits, and landslide and debris flow deposits. The sedimentary deposits are generally located in the central and lower portions of the Corinda Los Trancos drainage and the canyon side slopes. The thickness of the sedimentary deposits ranges from a few feet at the sideslopes to approximately 100 feet in the central and lower portions of the canyon. The granitic rock is generally located beneath the surficial sediments and varies in degree of weathering. The weathered granitic bedrock is generally less than 30 feet.

10. Surface water: The entire landfill drains into the 572 acre Corinda Los Trancos Creek Basin, which in turn drains into the lower portion of the 7,590 acre Pilarcitos Creek

Basin. Corinda Los Trancos Creek flows intermittently in the upper tributary area, and perennially in the lower tributary area. Pilarcitos Creek flow is perennial. In 1984, the upper portion of Corinda Los Trancos Creek was culverted and routed around the perimeter of the landfill into a settling pond, which discharges back into the natural creek down canyon of the landfill. Prior to the diversion, the creek flowed through a culvert beneath the refuse. Groundwater which still collects in the old culvert beneath the older portion of the landfill is currently treated and discharged to a clay-lined sedimentation basin and discharged to Corinda Los Trancos Creek. The pH of creek water typically ranges from 6.5 to 8, and TDS is typically less than 500 ppm. The creek is subject to high flows during the wet season. The mean annual precipitation for the site is approximately 36 inches. The 100-year, 24-hour storm event is estimated at 8.18 inches. During El Nino years rainfall has exceeded 70 inches.

11. Groundwater: The major water-bearing unit identified at the site includes the alluvial and colluvial deposits and the weathered granitic bedrock. These upper hydrostratigraphic units transmit enough water to be considered an aquifer. A lower hydrostratigraphic unit, consisting of the slightly weathered to fresh bedrock is not considered an aquifer, although this unit may serve as a significant recharge source area and may contribute groundwater to regional aquifers. The estimated average linear groundwater flow velocity in the upper hydrostratigraphic unit ranges 120 feet per year in the canyon bottom to up to 3,300 feet per year in the canyon walls. Vertical hydraulic gradients between the upper and lower hydrostratigraphic units vary throughout the canyon. Depth to groundwater varies from a few feet below the original ground surface at the canyon floor to approximately 85 feet below ground surface at the ridges at the landfill perimeter. Seeps and springs discharges located along the side slopes generally flow at a rate of less than one gallon per minute. Groundwater pH at the landfill typically ranges from 6.5 to 8, and TDS is typically less than 500 ppm.

12. Geologic structure and landfill stability: No known active faults (defined as faults showing displacement within the past 11,000 years) were identified within the area of the landfill. The closest known active fault is the San Andreas Fault, located approximately 3 miles northeast of the landfill. The static and seismic stability of the side slopes, toe berm, and landfill materials was evaluated as pursuant to Subtitle D requirements in 1993. The evaluation determined that sandy deposits in areas of the canyon floor were susceptible to liquifaction during a maximum probable earthquake (magnitude 8.25) The discharger mitigated the risk by installing a network of subsurface stone reinforcement columns in the southern portions of the landfill which strengthen the underlying materials.. Additional measures to provide seismic stability include extraction of leachate

and groundwater, diversion of surface water, and benching, grading, and compaction of both landfill waste and the underlying native materials.

SITE CONTAMINATION AND WATER QUALITY

13. Contamination originating at landfill: Landfill leachate contains volatile and semi-volatile chlorinated solvents, xylene, petroleum hydrocarbons as gas and diesel, and MTBE. Levels of metals are generally low. Several of these constituents have also been detected in the shallow groundwater beneath the landfill and beneath the landfill toe. The groundwater impacts appear to be the result of releases from the older portions of the landfill, which were constructed prior to promulgation of Subtitle D landfill requirements. Because groundwater contamination extends to the southern boundary of the landfill, corrective actions have been required in order to mitigate groundwater impacts, including groundwater extraction and monitoring. Corrective action monitoring indicates that the corrective actions and leachate minimization and containment measures are effective at restricting significant groundwater impacts to the area within Point of Compliance (POC) wells of the landfill (MW-6A-F, MW-11A, MW-11B, and MW-12), defined as the vertical limit at the hydraulically downgradient limit of the landfill. Monitoring at the POC wells and wells further downgradient indicates that groundwater downgradient of the landfill meets drinking water standards.

14. Corrective action measures addressing landfill contaminants: Monitoring at the landfill indicates that groundwater beneath the landfill is impacted by several of the contaminants detected in landfill leachate. The source area of the groundwater contamination is likely the older portion of the landfill, which was constructed prior to modern landfill regulations. As described in Finding 13, significant groundwater impacts are limited to the area of the POC wells, located at the landfill toe. The corrective action monitoring program indicates that the area and severity of the groundwater impacts is not increasing and confirms the effectiveness of the leachate and groundwater extraction.

15. Impacts to surface waters from landfill vectors: Studies of water quality in Corindas Los Trancos Creek, Pilarcitos Creek, and beaches near the creeks' point of discharge into the Pacific Ocean indicate that the surface waters contain high levels of fecal coliform bacteria. The bacteria appears to be associated with the large seagull population, which visits the landfill and feed upon waste materials disposed at Ox Mountain Landfill. Additional studies are necessary in order to more fully determine the source and degree of the impacts, and to identify potential mitigation measures.

16. Board Resolution No. 89-39: Board Resolution 89-39, "Sources of Drinking Water," defines potential sources of drinking water to include all groundwater in the region, with limited exceptions for areas containing high TDS (greater than 3000 mg/l TDS), high background contaminant levels, or those areas with a low-yield. Some groundwater underlying and adjacent to the site qualifies as a potential source of drinking water, although there is no current use of the site's groundwater, nor any anticipated plans for its use.

BASIN PLAN

17. The Board adopted a revised Water Quality Plan for the San Francisco Bay Basin (Basin Plan) on January 21, 2004. This updated and consolidated plan represents the Board's master water quality control planning document. The revised Basin Plan was approved by the State Water Resource Control Board and the Office of the Administrative Law on July 22, 2004, and October 4, 2004, respectively, and approved by the U.S. Environmental Protection Agency, Region IX on January 5, 2005. A summary of regulatory provisions is contained in 23 CCR. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater.

BENEFICIAL USES

18. The beneficial uses of groundwater beneath the landfill include:

    a. Domestic and municipal supply
    b. Agricultural supply
    c. Industrial process and service supply
    d. Groundwater recharge
    e. Discharge to the Corindas Los Trancos Creek and Pilarcitos Creek

19. The beneficial uses of Corindas Los Trancos and Pilarcitos Creeks include:

    a. Wildlife and estuarine habitat
    b. Contact and non-contact water recreation
    c. Fish migration and spawning
    d. Preservation of rare and endangered species
    e. Shellfish harvesting
    f. Groundwater recharge
    g. Agricultural supply
    h. Municipal and domestic supply

MONITORING PROGRAMS

20. Groundwater Monitoring – Currently, the upper hydrostratigraphic unit is monitored at the landfill by 15 wells and 2 subdrains. The subdrains collect groundwater from beneath the older and new portions of the landfill. The wells are screened in the upper hydrostratigraphic units because of the higher hydraulic conductivities in this zone. The monitoring well network consists of 3 upgradient wells screened in the weathered granitic bedrock and 12 downgradient wells screened in weathered bedrock or alluvium. The wells are monitored on a semiannual basis for VOCs, SVOCs, MTBE, metals, and general water quality parameters. A more extensive list of compounds is analyzed every five years.

21. Leachate Monitoring – Leachate is monitored by sampling each of two holding tanks, LHT-1 and LHT-2. The wells are monitored on a semiannual basis for VOCs, SVOCs, MTBE, metals, and general water quality parameters. A more extensive list of compounds is analyzed every five years.

22. Surface Water Monitoring –Surface water monitoring is conducted per the Statewide Industrial Activities Storm Water General Permit.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

23. CEQA: This action is an order to enforce the laws and regulations administered by the Board. As such, this action is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15301 of the Resources Agency Guidelines.

24. Public notice: The Board has notified the Discharger and interested agencies and persons of its intent to adopt revised, updated Waste Discharge Requirements for the Discharger and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

25. Public meeting: The Board, in a public meeting heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the Discharger, its agents, successors and assigns shall meet the applicable provisions contained in Title 27, Division 2, Subdivision 1 of the California Code of Regulations and Division 7 of the California Water Code and shall comply with the following:

A. PROHIBITIONS

1. The relocation of wastes to or from any waste management unit shall not create a condition of pollution or nuisance as defined in Section 13050 (l) and (m) of the California Water Code. Any relocated waste shall not be placed in or allowed to contact ponded water from any source whatsoever. Wastes shall not be relocated to any location where they can be discharged into waters of the State or of the United States.

2. Leachate and ponded water containing leachate or in contact with waste shall not be discharged to waters of the State or of the United States unless specifically authorized under an NPDES permit.

3. Buildup or mounding of leachate levels within the landfill shall be prevented by operation of a leachate extraction system. The depth of leachate shall be kept at levels sufficient to maintain an inward gradient as necessary to insure efficient operation of the leachate extraction system.

4. The creation of any new waste management units is prohibited without prior Board approval.

5. The Discharger shall not excavate within or reconfigure any existing waste management unit without prior Board approval.

6. No additional waste shall be deposited or stored at this site after closure is completed.

7. The Discharger, or any future owner or operator of the site, shall not cause the following conditions to exist in waters of the State at any place outside the waste management facility:

   a. Surface Waters

      - Floating, suspended, or deposited macroscopic particulate matter or foam.
      - Bottom deposits or aquatic growths.
      - Alteration of temperature, turbidity, or apparent color beyond natural background levels.
      - Visible, floating, suspended or deposited oil or other products of petroleum origin.

- Toxic or other deleterious substances to be present in concentrations or quantities which may cause deleterious effects on aquatic biota, wildlife or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentrations.

b. Groundwater

- Further degradation of groundwater quality.
- Substantial worsening of existing groundwater impacts.

8. The Discharger shall not disc the landfill cap. Alternate methods of controlling vegetative growth, which do not affect the integrity of the landfill cap, shall be utilized.

B. SPECIFICATIONS

1. All reports pursuant to this order shall be prepared under the supervision of a California registered professional civil engineer, professional geologist or certified engineering geologist.

2. The site shall be protected from any washout or erosion of wastes or cover material and from inundation that could occur as a result of a 100-year, 24-hour precipitation event, or as the result of flooding with a return frequency of 100 years.

3. Surface drainage from tributary areas and internal site drainage from surface or subsurface sources shall not contact or percolate through wastes during the life of the site.

4. The existing containment, drainage, and monitoring systems at the facility, shall be maintained as long as leachate is present and poses a threat to water quality.

5. The Discharger shall assure that the structures, which control leachate, surface drainage, erosion and gas are constructed and maintained to withstand conditions generated during the maximum probable earthquake.

6. The final cap system shall be graded and maintained to promote lateral runoff and prevent ponding and infiltration of water.

7. "Treated wood" wastes may be discharged, but only to an area equipped with a composite liner and leachate collection and removal system. The treated wood

waste shall be handled in accordance with California Health and Safety Code Sections 25143.1.5 and 250150.7. "Treated wood" means wood that has been treated with a chemical preservative for purposes of protecting the wood against attacks from insects, microorganisms, fungi, and other environmental conditions that can lead to decay of the wood and the chemical preservative is registered pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. Sec. 136 and following). This may include but is not limited to waste wood that has been treated with chromated copper arsenate (CCA), pentachlorophenol, creosote, acid copper chromate (ACC), ammoniacal copper arsenate (ACA), ammoniacal copper zinc arsenate (ACZA), or chromated zinc chloride (CZC). Treated wood must be managed to ensure consistency with Sections 25143.1.5 and 25150.7 of the Health and Safety Code. If a verified release is detected from the waste management unit where treated wood is disposed, the disposal of treated wood shall be terminated at the unit with the verified release until corrective action ceases the release. This Discharge Specification applies only to treated wood waste that is a hazardous waste solely due to the presence of a preservative in the wood, and is not subject to regulation as a hazardous waste under the federal act.

8. The Discharger shall analyze the samples from any groundwater or leachate wells as outlined in the Discharge Monitoring Program (Attachment A).

9. The Discharger shall install any reasonable additional groundwater and leachate monitoring devices required to fulfill the terms of any future Discharge Monitoring Program issued by the Executive Officer.

10. Landfill gases shall be adequately vented, removed from the landfill, or otherwise controlled to minimize the danger of explosion, adverse health effects, nuisance conditions, or the impairment of beneficial uses of water.

11. The Discharger shall maintain all devices or designed features installed in accordance with this Order, such that they continue to operate as intended without interruption.

12. The Discharger shall provide a minimum of two surveyed permanent monuments near the landfill from which the location and elevation of wastes, containment structures, and monitoring facilities can be determined throughout the operation and post-closure maintenance period. A licensed land surveyor or registered civil engineer shall install these monuments.

13. The Board shall be notified immediately of any failure occurring in the waste management unit. Any failure that threatens the integrity of containment features or the landfill shall be promptly corrected after approval of the method and schedule by the Executive Officer.

14. The Discharger shall comply with all applicable provisions of Title 27 that are not specifically referred to in this Order.

15. The Discharger shall maintain the facility so as to prevent a statistically significant increase in water quality parameters at points of compliance as provided in Section 20420 of Title 27.

16. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.

C. PROVISIONS

1. The Discharger shall comply immediately, or as prescribed by the time schedule below, with all Prohibitions, Specifications and Provisions of this Order. All required submittals must be acceptable to the Executive Officer. The Discharger must also comply with all conditions of these WDRs. Violations may result in enforcement actions, including Board orders or court orders requiring corrective action or imposing civil monetary liability, or in modification or revocation of these waste discharge requirements by the Regional Board. [CWC Section 13261, 13263, 13265, 13267, 13268, 13300, 13301, 13304, 13340, 13350].

2. All technical and monitoring reports required pursuant to this Order are being requested pursuant to Section 13267 of the California Water Code. Failure to submit reports in accordance with schedules established by this Order or failure to submit a report of sufficient technical quality acceptable to the Executive Officer may subject the Discharger to enforcement action pursuant to Section 13268 of the California Water Code.

LANDFILL CONSTRUCTION

3. **FIVE YEAR DEVELOPMENT PLAN**

COMPLIANCE DATE: January 31 of each year

The Discharger shall submit a technical report, acceptable to the Executive Officer, which includes at a minimum, scaled drawings showing the footprint of landfill expansion areas and grading locations for each year in the five year cycle. The Five Year Development Plan shall also include a schedule for submission of ROWD updates for significant changes to the existing permit.

4. **MODIFICATIONS TO THE FIVE YEAR DEVELOPMENT PLAN**

COMPLIANCE DATE: 60 days prior to implementing any proposed changes

The Discharger shall submit a technical report, acceptable to the Executive Officer, which includes at a minimum, any significant changes to the Five Year Development Plan. A detailed schedule shall also be provided.

5. **CONTAINMENT SYSTEM CONSTRUCTION PLANS**

COMPLIANCE DATE: 60 days prior to initiating construction

The Discharger shall submit a technical report, acceptable to the Executive Officer, prior to each new phase of construction at the site, leachate containment system construction plans which include, at a minimum, a detailed description and drawings of liner design, leachate and groundwater drainage and extraction system designs, preparation and installation procedures, field and laboratory Construction Quality Assurance (CQA) procedures, testing methods and results, and a schedule of construction activities. Any proposed deviation from previous Board-approved containment systems (see Figure 2) shall be described in detail.

6. **CONTAINMENT CONSTRUCTION CERTIFICATION LETTER AND CONSTRUCTION QUALITY ASSURANCE REPORT**

COMPLIANCE DATE: 30 days prior to receipt of waste into newly constructed disposal areas

The Discharger shall submit a Construction Certification Letter (CCL) and a CQA report signed and stamped by a registered professional civil engineer or engineering geologist, following completion of a newly constructed phase of the landfill. The CCL letter shall certify the new phase was constructed in compliance with this Order, approved designed plans, and Title 27. The CQA report, shall be acceptable to the Executive Officer, and include, at a minimum, a detailed summary of the landfill construction, as-built construction drawings, updated topographic maps, and results of quality assurance testing and monitoring.

7. **FINAL COVER CONSTRUCTION PLANS**

COMPLIANCE DATE: 180 days prior to installation of final cover in area of landfill to be closed

The Discharger shall submit a technical report, acceptable to the Executive Officer, which includes a description and schedule of all activities pertinent to areas of the landfill to be closed and to receive final cover. The report shall address the final cover design and installation, and the associated issues pertinent to leachate and landfill gas extraction, containment, and minimization, as well as landfill corrective action monitoring programs. Any proposed changes to the previously approved closure plans, gas and leachate extraction systems, and/or landfill monitoring must be described in detail.

8. **FINAL COVER CONSTRUCTION CERTIFICATION LETTER AND CONSTRUCTION QUALITY ASSURANCE REPORT**

COMPLIANCE DATE: 30 days after final cover is completed in area of newly closed areas of the landfill

The Discharger shall submit a CCL and a CQA report signed and stamped by a registered professional civil engineer or engineering geologist, following completion of final cover in newly closed areas of the landfill. The CCL letter shall certify that the closure was completed in compliance with this Order, approved designed plans, and Title 27. The CQA report shall be acceptable to the Executive Officer, and include, at a minimum, a detailed summary of the landfill final cover construction, as-built construction drawings, updated topographic maps, and results of quality assurance testing and monitoring.

LANDFILL STABILITY

9. **REPORT EVALUATING LANDFILL STABILITY**

COMPLIANCE DATE: July 1, 2007

The Discharger shall submit a technical report, acceptable to the Executive Officer, which updates previous evaluations of landfill stability. The Evaluation shall evaluate factors including, but not limited to: variances in groundwater and leachate levels within and adjacent to the landfill, interim and final grading plans, recent slope and interface strengths; static and dynamic slope stability; strengths of waste, subgrade, and cover material, and modeling results. The report shall include an evaluation of current and historic ground survey data, slope inclinometer data, creep measurements, and any other site monitoring data. If stability issues are identified, the report shall propose any changes necessary to current construction and closure plans.

10. **INDEPENDENT GEOTECHNICAL PEER REVIEW OF LANDFILL STABILITY EVALUATION**

COMPLIANCE DATE: October 1, 2008

The Discharger shall submit a technical report, acceptable to the Executive Officer, which provides the results of an independent geotechnical peer review of the landfill stability evaluation described in Provision 9. The review shall evaluate the adequacy of the slope stability evaluation pursuant to CCR Title 27, Subchapters 3 and 6. The independent reviewer must certify that they do not have a conflict of interest, direct or indirect, with the Discharger or parent company. The independent reviewer shall be a California licensed geotechnical engineer. The Board encourages the Discharger to utilize the Association of Bay Area Governments, as an independent body, to coordinate selection and contracting of the independent reviewer at the Discharger's expense.

11. **RESPONSE TO INDEPENDENT GEOTECHNICAL PEER REVIEW OF LANDFILL STABILITY EVALUATION**

COMPLIANCE DATE: December 1, 2007

The Discharger shall submit a technical report, acceptable to the Executive Officer, which provides a response to all comments and recommendations in the peer review described in Task 11. The response shall include if needed, a workplan to address comments should additional field work or engineering evaluations be warranted.

12. **POST-EARTHQUAKE INSPECTION AND CORRECTIVE ACTION REPORTS**

COMPLIANCE DATE: Within 72 hours of the occurrence of an earthquake of magnitude 6 or higher

The Discharger shall submit a technical report, acceptable to the Executive Officer, which describes implementation of the Post Earthquake Inspection and Corrective Action Plan for the landfill for any earthquake greater than Richter Magnitude 6 or greater at or within 30 miles of the landfill. The report shall describe the results of the post earthquake inspection and any corrective actions necessary to insure landfill stability and prevent water quality impacts which may result from seismic events.

WATER QUALITY IMPACTS AND LANDFILL MONITORING

13. WORKPLAN FOR EVALUATING THE IMPACTS OF VECTORS ON SURFACE WATER QUALITY

COMPLIANCE DATE: October 1, 2006

The Discharger shall submit a workplan, acceptable to the Executive Officer, for evaluating the impacts of the landfill's seagull population on water quality of Corinda Los Trancos Creek, Pilarcitos Creek, and the discharge point at the Pacific Ocean. The workplan shall propose sampling and lab analytical methods and a method to evaluate whether seagull fecal waste is creating significant water impacts at the site and immediately offsite of the landfill, and whether the impacts pose nuisance conditions and/or risk to human and/or ecological health.

14. EVALUATION AND MITIGATION OF SURFACE WATER QUALITY IMPACTS FROM VECTORS

COMPLIANCE DATE: December 1, 2006

The Discharger shall submit a technical report, acceptable to the Executive Officer, which documents implementation and findings of the workplan described in Provision C.13. The technical report shall propose methods for mitigating any significant impacts, including at a minimum, vector controls, modifications of waste handling methods, and modification of methods of applying daily cover. The report shall also propose methods of monitoring the effectiveness of vector controls.

15. ANNUAL MONITORING REPORT

COMPLIANCE DATE: January 31 of each year

The Discharger shall submit an Annual Monitoring Report, acceptable to the Executive Officer, by January 31 of each year in accordance with the attached Discharge Monitoring Program (Attachment A). The annual report to the Board shall cover the previous calendar year as described in Part A of the Monitoring Program. In addition to the requirements outlined in Attachment A, this report shall also include the following: location and operational condition of all leachate and groundwater monitoring wells; and a site map delineating groundwater and leachate levels for each monitoring event.

16. **SEMI-ANNUAL MONITORING REPORT**

COMPLIANCE DATE: July 31 and January 31 of each year

The Discharger shall submit semi-annual monitoring reports, no later than July 31 and January 31 of each year in accordance with the attached Discharge Monitoring Program (Attachment A). The January 31 semi-annual report may be combined with the annual report.

17. **ANNUAL MAINTENANCE REPORT**

COMPLIANCE DATE: July 31 of each year

The Discharger shall submit a technical report to the Board, acceptable to the Executive Officer, detailing the repair and maintenance activities that need to be completed prior to the commencement of the next rainy season (starting October 15 of each year). This letter report shall also include a description and schedule for repair and maintenance activities, and a cost analysis detailing the anticipated expense for all repairs, maintenance and monitoring during the next 12 months. Repair and maintenance estimates shall be based on rainy season inspections conducted throughout the winter as required in the Discharge Monitoring Program.

18. **WELL INSTALLATION REPORT**

COMPLIANCE DATE: 45 days following completion of well installation activities

The Discharger shall submit a technical report, acceptable to the Executive Officer, that provides well construction details, geologic boring logs, and well development logs for all new wells installed as part of the Discharge Monitoring Program (Attachment A). Additionally, rationale shall be included for calculation of extent of groundwater subdrain setback from last observed sidewall seep or spring. This rationale shall consider estimated peak flow/discharge conditions and necessary variations to be considered beneath geosynthetic clay layer versus the conventional clay liner.

19. **CHANGE IN SITE CONDITIONS**

NOTIFICATION DUE DATE: Immediately upon occurrence
REPORTING DUE DATE: 30 days after initial notification

The Discharger shall immediately notify the Board of any flooding, ponding, settlement, equipment failure, slope failure, exposure of waste, liner leakage, or other change in site conditions that could impair the integrity of the landfill cap, waste or leachate containment facilities, and/or drainage control structures and shall immediately make repairs. Within 30 days, the Discharger shall prepare and submit a technical report, acceptable to the Executive Officer, documenting the corrective measures taken.

20. **STORMWATER CONTROL PLANS**

COMPLIANCE DATE: October 15 of the year of construction or prior to construction if commencing between October 15 and May 15

For each proposed development greater than 5 acres in size, the Discharger shall submit a Notice of Intent to the State Board, prepare and submit a Storm Water Pollution Prevention Plan acceptable to the Executive Officer, and implement Best Management Practices (BMPs) for the control of storm water, in accordance with requirements specified in the State Board's General Permit for Storm Water Discharges Associated with Construction Activities (NPDES Permit No. CAS000002).

21. The Discharger shall maintain a copy of these waste discharge requirements and these requirements shall be available to operating personnel at the facility at all times [CWC Section 13263].

22. The Discharger shall permit the Board or its authorized representative, upon presentation of credentials:

a. Immediate entry upon the premises on which wastes are located or in which any required records are kept.
b. Access to copy any records required under the terms and conditions of this order.
c. Inspection of any treatment equipment, monitoring equipment, or monitoring methods required by this order or by any other California State Agency.
d. Sampling of any discharge or groundwater governed by this order.

23. The Discharger shall submit, within 90 days after the closure of any portion of the landfill, a closure certification report which documents that the area has been closed according to the requirements of this Order and Chapter 15. The Discharger shall certify under penalty of perjury that all closure activities were

performed in accordance with the most recently approved closure plan and in accordance with all applicable regulations.

24. In the event of any change in control/operator or ownership of land or parcel of land, or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office. The Discharger must notify the Executive Officer, in writing at least 30 days in advance of any proposed transfer of this Order's responsibility and coverage to a new discharger. The notice must include a written agreement between the existing and new discharger containing a specific date for the transfer of this order's responsibility and coverage between the current discharger and the new discharger. This agreement shall include an acknowledgment that the existing discharger is liable for violations up to the transfer date and that the new discharger is liable from the transfer date on. [CWC Sections 13267 and 13263]. The request must contain the requesting entity's full legal name, the address and telephone number of the persons responsible for contact with the Board and statement. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code.

25. This Order is subject to Board review and updating, as necessary, to comply with changing State and Federal laws, regulations, policies, or guidelines; changes in the Board's Basin Plan; or changes in the discharge characteristics [CWC Section 13263]. The Executive Officer may specify minor changes to Self Monitoring Plan as necessary.

26. Where the Discharger becomes aware that they failed to submit any relevant facts in a Report of Waste Discharge or submitted incorrect information in a Report of Waste Discharge or in any report to the Board, they shall promptly submit such facts or information [CWC Sections 13260 and 13267].

27. This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, do not protect the Discharger from its liability under Federal, State or local laws, nor do they create a vested right for the to continue the waste discharge [CWC Section 13263(g)].

28. Provisions of these waste discharge requirements are severable. If any provision of these requirements is found invalid, the remainder of these requirements shall not be affected.

29. The Discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed

or used by the Discharger to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this order [CWC Section 13263(f)].

30. Except for a discharge which is in compliance with these waste discharge requirements, any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the office of Emergency Services of the discharge in accordance with the spill reporting provision of the state toxic disaster contingency plan adopted pursuant to Article 3.7 (commencing with Section 8574.7) of Chapter 7 of Division 1 of Title 2 of the Government Code, and immediately notify the State Board or the Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of Section 13271 of the Water Code unless the Discharger is in violation of a prohibition in the applicable water Quality Control Plan [CWC Section 13271(a)].

31. The Discharger shall report any noncompliance that may endanger public health or the environment. Any such information shall be provided orally to the Executive Officer within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Executive Officer, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours [CWC Sections 13263 and 13267].

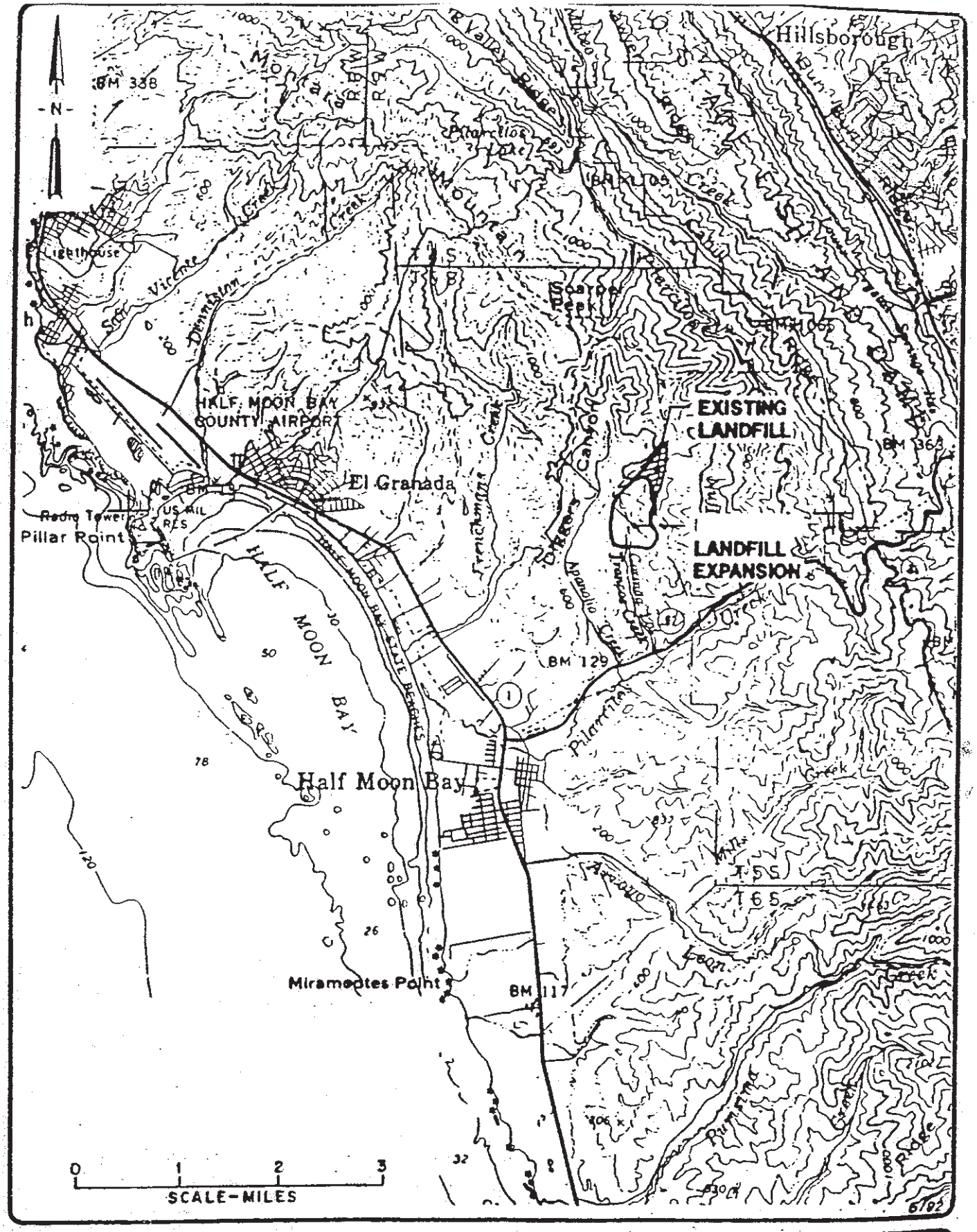
32. This Board's Order No. 99-067 is hereby rescinded.

I, Bruce H. Wolfe, Executive Officer, do hereby certify that the foregoing is a full, complete, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on June 14, 2006.

Bruce H. Wolfe
Executive Officer

Figures: Figure 1 - Site Location Map
Figure 2 - Liner Design

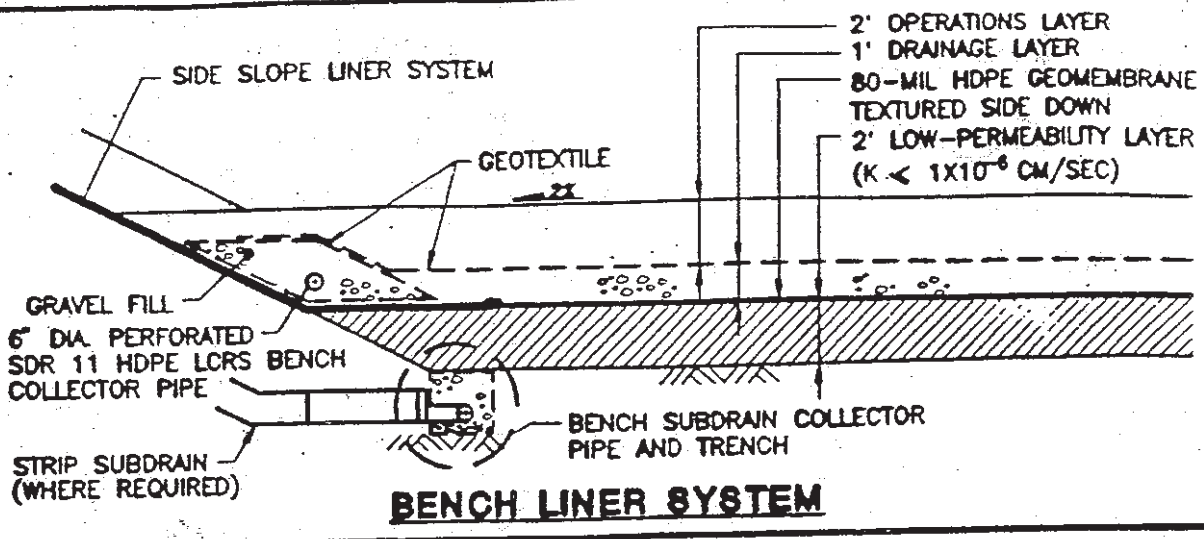
Attachment: Attachment A - Discharge Monitoring Program



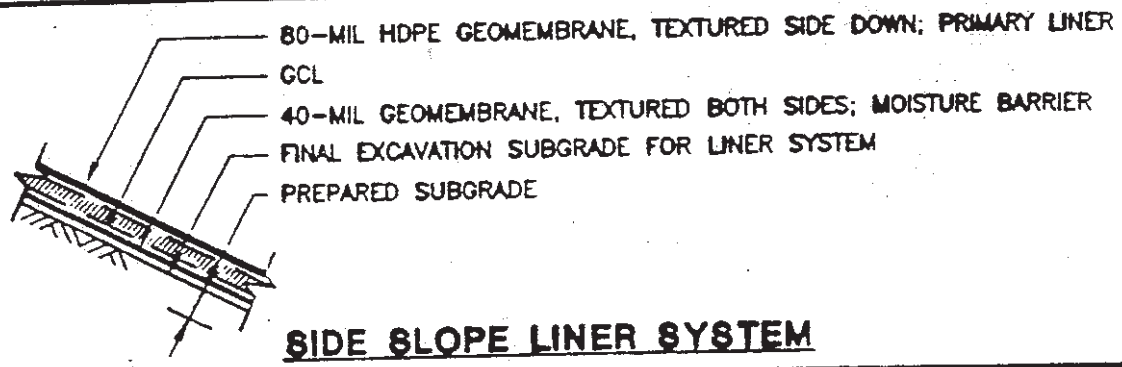
LOCATION MAP SHOWING PROPOSED EXPANSION OF
CORINDA LOS TRANCOS LANDFILL
OX MOUNTAIN RANCH - SAN MATEO COUNTY

SAN FRANCISCO BAY REGIONAL
WATER QUALITY CONTROL BOARD

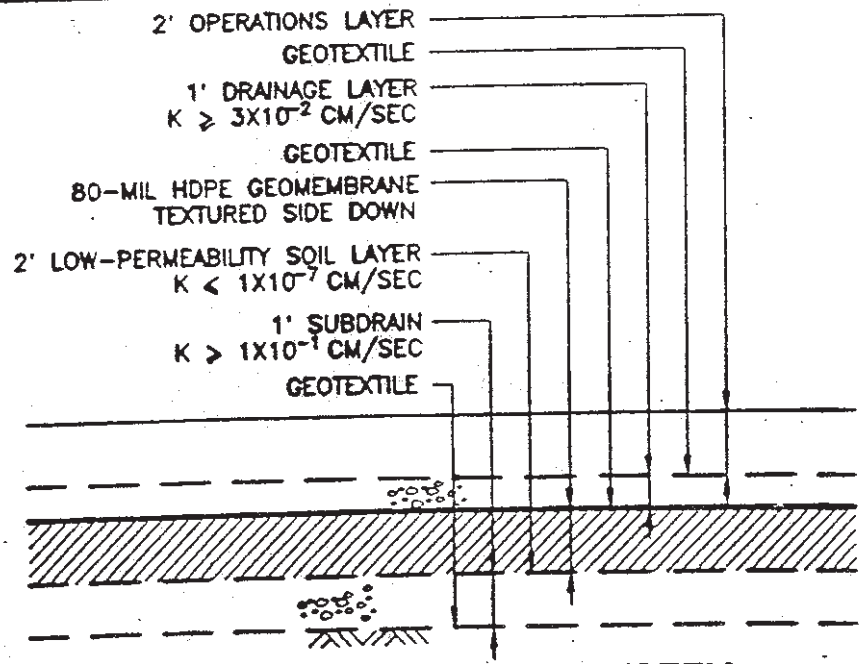
FIGURE
1



BENCH LINER SYSTEM



SIDE SLOPE LINER SYSTEM



COMPOSITE BASE LINER SYSTEM

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FIGURE 2
CORINDA LOS TRANCOS LANDFILL
SAN MATEO COUNTY, CALIFORNIA

LINER SYSTEMS

EA-SACRAMENTO1/CAD: I:\DWGS\OX\BAS-LINR.dwg Xref's: <NONE>
Scale: 1 = 1.00 DimScale: 1 = 1.00 Date: 1/15/98 Time: 1:25 PM Operator: RWALL

ATTACHMENT A

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

DISCHARGE MONITORING PROGRAM

FOR

OX MOUNTAIN CLASS III SANITARY LANDFILL
HALF MOON BAY, SAN MATEO COUNTY

ORDER NO. R2-2006-0040

CONSISTS OF

PART A

AND

PART B

PART A

A. GENERAL

Reporting responsibilities of waste discharges are specified in Sections 13225(a), 13267(b), 13383, and 13387(b) of the California Water Code and this Board's Resolution No. 73-16. This Discharge Monitoring Program is issued in accordance with Title 27 of the California Code of Regulations.

The principal purposes of a discharge monitoring program are: (1) to document compliance with waste discharge requirements and prohibitions established by the Board, (2) to facilitate self-policing by the waste dischargers in the prevention and abatement of pollution arising from waste discharge, (3) to develop or assist in the development of standards of performance, and toxicity standards, (4) to assist the dischargers in complying with the requirements of Title 27.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the most recent version of EPA Standard Methods and in accordance with an approved sampling and analysis plan.

Water and waste analysis shall be performed by a laboratory approved for these analyses by the State of California. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and all reports of such work submitted to the Board shall be signed by a duly authorized representative of the laboratory.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. DEFINITION OF TERMS

1. A grab sample is a discrete sample collected at any time.

2. Receiving waters refers to any surface that actually or potentially receives surface or groundwaters that pass over, through, or under waste materials or contaminated soils. In this case the groundwater beneath and adjacent to the landfill areas, the surface runoff from the site, and the San Francisco Bay are considered receiving waters.

3. Standard observations refer to:

a. Receiving Waters

1) Floating and suspended materials of waste origin: presence or absence, source, and size of affected area.
2) Discoloration and turbidity: description of color, source, and size of affected area.
3) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
4) Evidence of beneficial use: presence of water associated wildlife.
5) Flow rate
6) Weather conditions: wind direction and estimated velocity, total precipitation during the previous five days and on the day of observation.

b. Perimeter of the waste management unit.

1) Evidence of liquid leaving or entering the waste management unit, estimated size of affected area and flow rate. (Show affected area on map)
2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
3) Evidence of erosion and/or daylighted refuse.

c. The waste management unit.

1) Evidence of ponded water at any point on the waste management facility.
2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
3) Evidence of erosion, slope or ground movement, and/or daylighted refuse.
4) Adequacy of access road
5) Condition of site drains, silt basin capacity
6) Standard Analysis and measurements are listed on Table A (attached)

D. SAMPLING, ANALYSIS, AND OBSERVATIONS

The Discharger is required to perform sampling, analyses, and observations in the following media:

1. Storm drain discharges per Section 20415
2. Groundwater and leachate per Section 20415

and per the general requirements specified in Section 20415(e) of Title 27.

E. RECORDS TO BE MAINTAINED

Written reports shall be maintained by the Discharger or laboratory, and shall be retained for a minimum of five years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board. Such records shall show the following for each sample:

1. Identity of sample and sample station number.

2. Date and time of sampling.

3. Date and time that analyses are started and completed, and name of the personnel performing the analyses.

4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used.

5. Calculation of results.

6. Results of analyses, and detection limits for each analysis.

F. REPORTS TO BE FILED WITH THE BOARD

1. Monitoring Reports

Written detection monitoring reports shall be filed by January 31 and July 31 of each year. In addition an annual report shall be filed by January 31 of each year. The reports shall be comprised of the following:

a. Letter of Transmittal

A letter transmitting the essential points in each report should accompany each report. Such a letter shall include a discussion of any requirement violations found during the last report period, and actions taken or planned for correcting the violations. If the Discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred in the last report period this shall be stated in the letter of transmittal. Monitoring reports and the letter transmitting the monitoring reports shall be signed by a principal executive officer at the level of vice president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct.

b. Each monitoring report shall include a compliance evaluation summary. The summary shall contain:

1) A graphic description of the velocity and direction of groundwater flow under/around the waste management unit, based upon the past and present water level elevations and pertinent visual observations.

2) The method and time of water level measurement, the type of pump used for purging, pump placement in the well; method of purging, pumping rate, equipment and methods used to monitor field pH, temperature, and conductivity during purging, calibration of the field equipment, results of the pH, temperature conductivity and turbidity testing, well recovery time, and method of disposing of the purge water.

3) Type of pump used, pump placement for sampling, a detailed description of the sampling procedure; number and description of equipment, field and travel blanks; number and description of duplicate samples; type of sample containers and preservatives used, the date and time of sampling, the name and qualifications of the person actually taking the samples, and any other observations.

4) A written discussion of the groundwater analyses indicating any change in the quality or characteristics of the groundwater.

c. A comprehensive discussion of the compliance record and status, as well as any corrective actions taken or planned which may be needed to bring the Discharger into full compliance with the Waste Discharge Requirements and 27CCR.

d. A map or aerial photograph shall accompany each report showing observation and monitoring station locations.

e. Laboratory statements with the results of analyses specified in Part B must be included in each report. The director of the laboratory whose name appears on the laboratory certification shall supervise all analytical work in his/her laboratory and all reports of such work submitted to the Board shall be signed by a duly authorized representative of the laboratory.

1) The methods of analyses and detection limits must be appropriate for the expected concentrations. Specific methods of analyses must be identified. If methods other than EPA approved methods or Standard Methods are used, the exact methodology must be

submitted for review and approved by the Executive Officer prior to use.

2) In addition to the results of the analyses, laboratory quality assurance/quality control (QA/QC) information must be included in the monitoring report. The laboratory QA/QC information should include the method, equipment and analytical detection limits; the recovery rates; an explanation for any recovery rate that are outside laboratory control limits; the results of equipment and method blanks; the results of spiked and surrogate samples; the frequency of quality control analysis; and the name and qualifications of the person(s) performing the analyses.

f. An evaluation of the effectiveness of the leachate monitoring facilities, which includes an evaluation of leachate buildup within the disposal units and sump areas, a summary of leachate volumes removed from the units, and a discussion of the leachate disposal/treatment methods utilized.

g. A summary and certification of completion of all standard observations for the waste management unit, the perimeter of the waste management unit, and the receiving waters.

h. The quantity and types of waste disposed of during each quarter of the reporting period, and the locations of the disposal operations. Locations of the waste placement shall be depicted on a map showing the area, if any, in which the filling has been completed during the previous calendar year.

i. A summary statement describing the findings from the Discharger: periodic load checking/screening program, waste characterization program, and any other observational/inspection programs.

j. Tabular and graphical summaries of the monitoring data obtained during the previous year; the annual report should be accompanied by a compact disc, MS-EXCEL format, tabulating the year's data.

k. The Annual Monitoring Report shall be submitted to the Board covering the previous year. The Report shall include, but is not limited to, the following:

i. A graphical presentation of the analytical data [Board-approved alternate procedure per 27CCR, Section 20415(e)(14)] for monitoring locations that have shown detectable concentrations during two consecutive monitoring events, or greater than ten percent detection frequency for any organic compound. Graphical representation must be provided for monitoring locations with

metals and general chemistry analytical parameters that have an increasing trend for three consecutive monitoring events;

ii. A tabular summary of all the monitoring data obtained during the previous year;

iii. A comprehensive discussion of the compliance record, and the corrective actions taken or planed which may be needed to bring the Discharger into full compliance with the waste discharge requirements;

iv. A map showing the area, if any, in which filling has been completed during the previous calendar year;

v. A written summary of the groundwater analyses indicating any change in the quality of the groundwater; and

vi. An evaluation of the effectiveness of the leachate monitoring/control facilities, which includes an evaluation of leachate buildup within the disposal units, a summary of leachate control volumes removed from the units, and a discussion of the leachate disposal methods utilized.

2. **Contingency Reporting**

a. A report shall be made by telephone of any seepage from the disposal area immediately after it is discovered. A written report shall be filed with the Board within five days thereafter. This report shall contain the following information:

1) a map showing the location(s) of discharge if any;
2) approximate flow rate;
3) nature of effects; i.e. all pertinent observations and analyses; and
4) corrective measures underway, proposed, or as specified in the Waste Discharge Requirements.

b. Following determination that groundwater analytical results or a monitoring location exceed the WQPS concentration limits (CLs), the Discharger shall follow the decision sequence in Figure 2 for any monitoring locations still exceeding the CLs.

3. **Well Logs**

A boring log and a monitoring well construction log shall be submitted for each new sampling well established for this monitoring program, as well as a report of inspection or certification that each well has been constructed in accordance with

the construction standards of the Department of Water Resources. These shall be submitted within 45 days after well installation.

G. WATER QUALITY PROTECTION STANDARDS

1. Constituents of Concern: The Constituents of Concern (COC) for groundwater are those listed in Table 1 of this Self-Monitoring Program.

2. Concentration Limits: Concentration Limits (CLs) have been established for each COC listed in Table 1. These CLs are shown in Table 2. The CLs were developed from the approved Corrective Action Groundwater Monitoring Program (CAGMP) submitted by the Discharger. The CLs were set at the PQLs for most SVOCs and VOCs. CLs were set above the PQLs for certain constituents that were: 1) common laboratory contaminants (acetone, methylene chloride, bromoform, chloroform, toluene, phthalates, phenol); 2) derived from field sampling equipment and materials; and 3) periodically detected in some wells as a result of COC migration prior to implementation of corrective measures or as result of the presence of waste fill outboard of containment structures. The CLs are well below water quality criteria for Corindas Los Trancos Creek and therefore are protective of human health and the environment.

3. Monitoring Points: Monitoring Points for the landfill are identified in Table 1 of this Self-Monitoring Program. Because landfill operations predate collection of groundwater chemistry data at this site, background water quality monitoring locations do not exist; therefore, intra-well comparisons will be used for evaluating monitoring data. For those areas where COCs greater than the CLs existed prior to corrective measures, monitoring will be conducted to demonstrate that the levels of COCs have either stabilized or are decreasing.

4. Point of Compliance: The Point of Compliance for this facility is the vertical surface that extends from the outside edge of the lateral containment structures through the uppermost aquifer underlying the unit.

Part B

1. DESCRIPTION OF OBSERVATION STATIONS AND SCHEDULE OF OBSERVATIONS

A. GROUNDWATER, LEACHATE, AND STORMWATER MONITORING: **Report Semi-Annually (groundwater) and Annually (Leachate and Surface Water)**

i. **Groundwater**: Groundwater shall be sampled and analyzed as detailed in Table 1. Monitoring well locations are shown in Figure 1. CLs for groundwater sampled at the monitoring wells are shown in Table 2.

ii. **Leachate**: Leachate and seeps shall be sampled and analyzed as detailed in Table 3. Leachate monitoring locations are shown in Figure 1. The Discharger shall analyze for all Subtitle D, Appendix II compounds not listed in Table 3, once every five years.

iii. **Surface Water**: Surface water monitoring data collected under the Statewide Industrial Activities Storm Water General Permit or for discharge of surface water runoff from retention basins shall be submitted with the winter/spring (wet) season semi-annual monitoring report due each July 31. The report shall include the standard storm water annual report forms, a map of the storm water monitoring locations, and any summary data tables or attachments, as appropriate. Analytical laboratory data reports need not be included.

B. WASTE MONITORING - **Observe monthly unless otherwise noted, report semi-annually**

i. Record the total volume and weight of waste in cubic yards and tons disposed of at the site during each month, and show locations and dimensions on a map.

ii. Record a description of waste stream to include percentage of waste type (ie. municipal solid waste, construction and demolition waste, asbestos-containing waste, medical waste, and industrial waste including: (i) asbestos, (ii) ash, (iii) treated auto-shredder waste (TASW), (iv) petroleum contaminated soil, (v) lead contaminated soils, (vi) sewage and wastewater treated sludges with metal content, (vii) industrial sludges, and (viii) industrial filters.

iii. Remaining landfill capacity/waste volume in place at the end of the reporting period.

iv. TASW accepted for disposal shall be sampled and analyzed quarterly for: PCBs (EPA Method 8080) and for soluble lead, mercury, cadmium, trivalent and hexavalent chromium copper, nickel, and zinc (by WET Method).

C. FACILITIES MONITORING - **Observe Quarterly, report Semi-annually**

The Discharges shall inspect all facilities to ensure proper and safe operation once per quarter and report semi-annually. The facilities to be monitored shall include, but not be limited to:

1. Leachate collection and removal/pumping system
2. Surface water impoundments/retention basins
3. Leachate management facilities and secondary containment
4. Perimeter diversion channels and run-on/run-off control features
5. Final cover system
6. Re-use areas including the composting and soil recycling locations

D. PHOTO DOCUMENTATION OF FACILITIES MONITORING - **Observe quarterly, report annually**

The Discharger shall provide photo documentation of conditions at locations that include, but are not limited to the landfill facilities listed in Part B.1.C above. Locations from which photographs are taken should be permanent stations such that they can be used in successive reports.

E. ON-SITE OBSERVATIONS

Station	Description	Observations	Frequency
V-1 to V-'n'	Located on the waste disposal area as delineated by a 500 foot grid network.	Standard observations for the waste management unit	Bi-monthly observations (rainy season) Monthly observations (dry season) **Report Semi-annually**
P-1 thru P-'n'	Located at equidistant intervals not exceeding 1000 feet around the	Standard observations for the perimeter	Bi-monthly observations (rainy season) Monthly observations dry season) **Report Semi-**

perimeter of the waste management unit.		**annually**

F. SEEPAGE MONITORING

Seepage monitoring stations include any point at which seepage is found occurring from the disposal area. The landfill perimeter shall **be monitored quarterly and the results reported semi-annually.**

Station	Description	Observations	Frequency
S-1 thru S-'n'	At any point(s) at which seepage is found occurring from the disposal area	Standard observations for the perimeter and standard analyses (Table 3, perform analyses once per seep	Daily until remedial action is taken and seepage ceases

G. PIEZOMETER/LEACHATE ELEVATION MONITORING

1. Groundwater piezometric elevation monitoring shall be conducted at the following locations on a semi-annual basis: GD-2, G-4C, MW-6A-MW-6F, MW-7, MW-8, MW-9, MW-10, MW-11A, MW-11B, MW-12, MW-13A, and MW-13B.

2. Leachate elevation monitoring shall be conducted at the following locations on a quarterly basis: LHT-1 and LHT-2.

H. LEACHATE EXTRACTION MONITORING

1. The Discharger shall report daily, weekly, monthly, and average rates for pumping/removal of leachate from the total system, monthly and average daily rates for each pump area, and monthly leachate elevations. This information will be provided with the semi-annual monitoring report.

2. Included with each semi-annual report will be an evaluation of the effectiveness of pumping on reduction of leachate levels throughout the Ox Mountain Landfill.

3. All surface leachate extraction lines and storage structures shall be double contained.

I. LANDFILL GAS CONDENSATE

Landfill gas condensate removed from the landfill's gas collection system shall be transported for disposal at a wastewater treatment or leachate treatment facility. For each condensate monitoring point, the Discharger shall include in the **semi-annual monitoring report** a measurement of the estimated volume of condensate collected, and the **monthly** and **average daily condensate volumes** for each condensate collection point.

I, Bruce H. Wolfe, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedures set forth in this Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in this Board's Order No. R2-2006-0040.

2. Is effective on the date shown below.

3. May be reviewed or modified at any time subsequent to the effective date, upon written notice from the Executive Officer.

Bruce H. Wolfe
Executive Officer

Date Ordered: June 14, 2006

Attachment: Figure A-1 - Monitoring Well Location Map

Table 1 - Groundwater Monitoring Points, Parameters and Sampling Frequency
Ox Mountain Sanitary Landfill

Monitoring Wells	Analytical Parameters	Sampling Frequency
All Groundwater Monitoring Wells And Drains GD-1 GD-2 G-4C MW-6A MW-6B MW-6C MW-6D MW-6E MW-6F MW-7 MW-8 MW-9 MW-10 MW-11A MW-11B MW-12 MW-13A MW-13B.	**General Water Quality Parameters**: pH, Ammonia (total and unionized)	Quarterly
	VOCs: EPA Method 8260	Quarterly
	SVOCs: EPA Method 8270	Annually
	Dissolved Metals Arsenic, Barium Cadmium, Copper, Chromium, Lead Mercury, Nickel, Vanadium, Zinc	Annually
	Additional Metals: Antimony, Beryllium, Cobalt, Selenium, Silver, Thallium, Tin	Once every 5 years beginning in 2009
	40 CFR 258 Appendix II constituents: Pesticides & PCBs: EPA Method 8080 Chlorophenoxy Herbicides: EPA Method 8151	Once every 5 years beginning in 2009
	Cyanide: EPA Method 9010 Sulfide: EPA Method 9030	Annually

Table 1 Notes:
EPA methods: Arsenic (7060 or 6010), Barium (6010), Chromium (6010), Copper (6010), Lead (7421 or 6010), Mercury (7470), Nickel (6010), Vanadium (6010), Zinc (6010), Antimony (6010), Beryllium (6010), Cobalt (6010), Selenium (7741 or 7740), Silver (6010), Thallium (7841), Tin (6010)

This subset of the 40 CFR 258 Appendix I metals is used as a surrogate for the entire suite of Appendix I metals

Table 2 - Concentration Limits for Groundwater
Ox Mountain Landfill

Constituent of Concern	Practical Quantitation Limit	US EPA Test Method	Concentration Limits (ppb)
Specified VOCs		8260	
Acetone	20		100
Methylene chloride	10		50
Bromoform	10		50
Chloroform	10		50
Benzene	10		30
Toluene	10		50
Ethylbenzene	10		50
Xylene	10		50
Other VOCs	varies	8260	PQLs
Specified SVOCs		8270	
Phthalates	10		100
bis(2ethylhexyl)	10		50
butylbenzyl	10		50
di-ethyl	10		50
di-methyl	10		50
di-n-butyl	10		50
di-n-oxtyl	10		50
Phenol	10		100
Other SVOCs	varies	8270	PQLs
Metals[1]			
Arsenic	7	7060 or 6010	PQL/Background[2]
Barium	20	6010	PQL/Background[2]
Cadmium	5	6010	PQL/Background[2]
Chromium	10	6010	PQL/Background[2]
Copper	10	6010	PQL/Background[2]
Lead	5	7421 or 6010	PQL/Background[2]
Mercury	1	7470	PQL/Background[2]
Nickel	40	6010	PQL/Background[2]
Vanadium	10	6010	PQL/Background[2]
Zinc	20	6010	PQL/Background[2]
Antimony	5	6010	PQL/Background[2]
Beryllium	5	6010	PQL/Background[2]
Cobalt	10	6010	PQL/Background[2]
Selenium	10	7740 or 7741	PQL/Background[2]
Silver	20	6010	PQL/Background[2]

Thallium	5	7841	PQL/Background[2]
Tin	50	6010	PQL/Background[2]
Pesticides and PCBs	varies		PQLs
Chloropheynoxy Herbicides	varies		PQLs
Cyanide	10		PQLs

Table 2 notes:
[1]PQLs may vary based on the results of the laboratory's annual MDL survey and any sample dilution required because of matrix interferences. Metals data will provide supplemental information to the VOC and SVOC analyses and are not intended for use as indicator parameters apart from the VOC and SVOC analyses.

[2]Concentration Limit is the higher of either the routine PQL or the background value.

Table 3 - Leachate and Seepage Monitoring Points, Parameters and Sampling Frequency – Ox Mountain Landfill

Monitoring Location	Analyses	EPA Method (or equivalent)	Sampling Frequency
	VOCs	8260	
	SVOCs	8270	
	Dissolved Metals		
Leachate well/sump:	Arsenic	7060 or 6010	Leachate wells-
LHT-1 and	Barium	6010	Quarterly
LHT-2	Cadmium	6010	
	Copper	6010	
and	Chromium	6010	
	Lead	7421 or 6010	
Leachate discharge	Mercury	7470	Leachate discharge
(sump) locations	Nickel	6010	(seep) -
	Vanadium	6010	Each occurrence;
	Zinc	6010	daily until remedial
	pH	9040	action is taken or
	Ammonia (total and unionized)	350.1	seep ceases
	Cyanide	335.2	
	Pesticides/PCB	8080	
Leachate discharge	Total Oil and Grease	SM5520B	
(seep) locations			
only	COD	410.1	
	96-hour Toxicity Bioassay using Mysid Shrimp	N/A	

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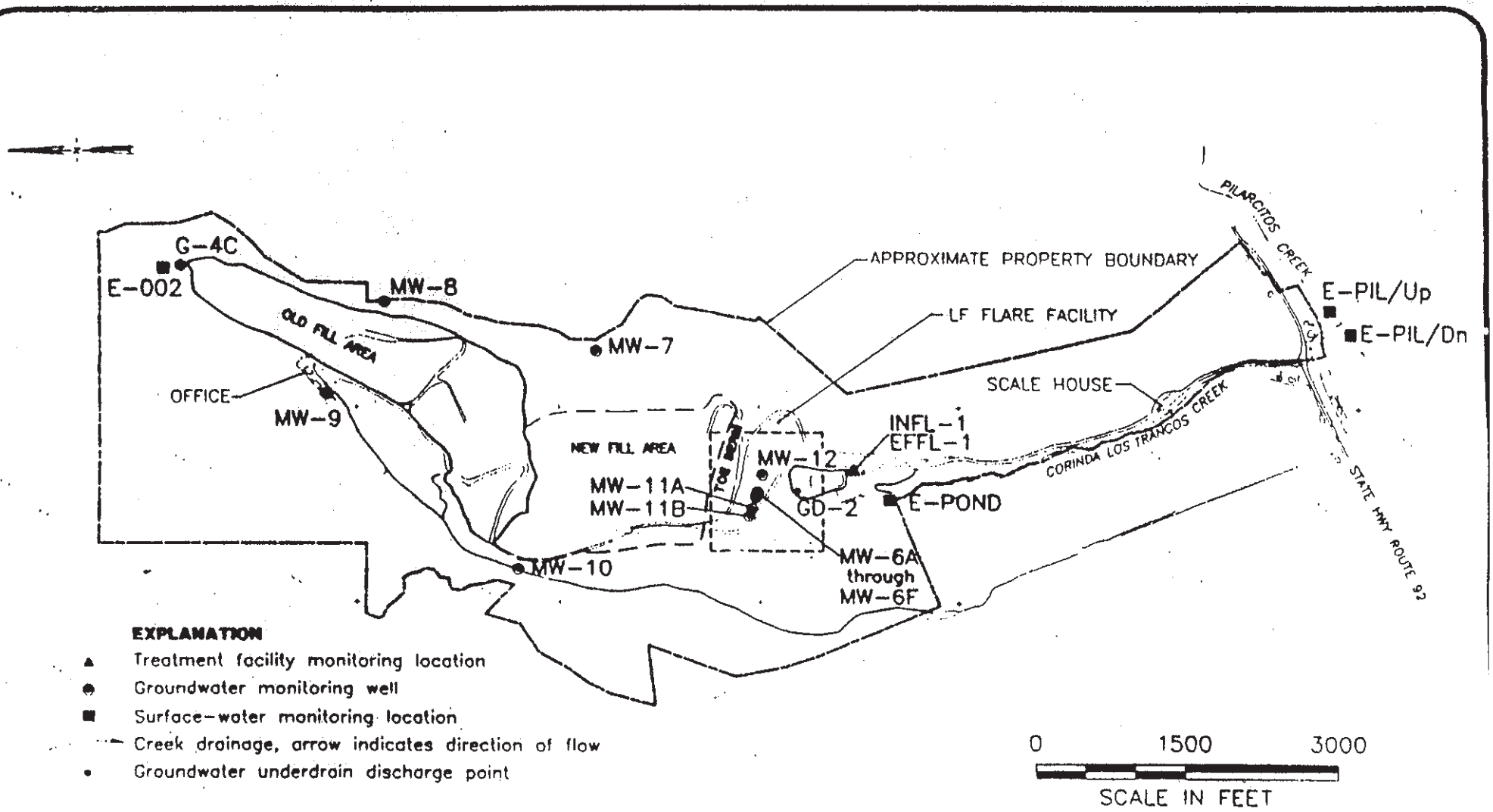

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372-009.073

FIGURE A-1

BROWNING-FERRIS INDUSTRIES OF CALIFORNIA
CORINDA LOS TRANCOS LANDFILL
OX MOUNTAIN RANCH
SAN MATEO COUNTY, CALIFORNIA

SITE MONITORING LOCATION MAP

SOLID WASTE FACILITY PERMIT

Facility/Permit Number: **48-AA-0075**

1. Name and Street Address of Facility:	2. Name & Mailing Address of Operator:	3. Name & Mailing Address of Owner:
Potrero Hills Landfill 3675 Potrero Hills Lane Suisun, CA 94585	Potrero Hills Landfill, Inc. P.O. Box 68 Fairfield, CA 94533	Potrero Hills Landfill, Inc. P.O. Box 68 Fairfield, CA 94533

4. **Specification:**

a. **Permitted Operations:**

- ■ Solid Waste Landfill Site
- ☐ Transfer/ Processing Facility (MRF)
- ☐ Composting Facility _____
- ☐ Transformation Facility
- ☐ Other: _____

b. **Permitted Hours of Operations:**

Facility Operations/ Receipt of Waste:	Mon. – Fri 24 Hours.; Sat – Sun 4 am – 12 am
General Public Hours:	Mon. – Fri 8:30 am – 4:00 pm.; Sat – Sun 9 am – 4 pm
Ancillary Operations:	see JTD

c. **Permitted Maximum Tonnage: (for Disposal)**

- 3,400 tons per day averaged over 7 day week (7 day week means any consecutive 7 day period);
- 4,330 peak tons per day
- 250 tons per day of Sludge exceeding 50% moisture

d. **Permitted Traffic Volume: (combined traffic for landfill and compost facility)**

- 500 vehicles per day inbound averaged over 7 day week (7 day week means any consecutive 7 day period);
- 1,000 vehicles per day inbound peak traffic

e. **Key Design Parameters (Detailed parameters are shown on site plans bearing LEA and CalRecycle validations):**

	Total	Disposal footprint	Transfer Station	MRF	Composting	Transformation
Permitted Area (in acres)	525.7	340				
Design Capacity (cu. yards)		83.1 million				
Max. Elevation (Ft. MSL)		345 *				
Max. Depth (Ft. MSL)		130				
Estimated Closure Date		2048				

* *or such lesser amount as may be specified in any permit or order issued for the facility by another agency*

Upon a significant change in design or operation from that described herein, this permit is subject to revocation or suspension. The attached permit findings and conditions are integral parts of this permit and supersede the conditions of any previous issued solid waste facility permits.

5. **Approval:**

Bill Emlen

Bill Emlen, Director
Solano County Department of Resource Management

6. **Enforcement Agency Name & Address:**

Solano County LEA
Department of Resource Management
675 Texas Street, Suite 5500
Fairfield, CA 94533

7. **Date received by CalRecycle:** FEB 2 2012

8. **CalRecycle Concurrence Date:** FEB 9 2012

9. **Permit Issued Date:** FEBRUARY 14, 2012

10. **Permit Review Due Date:** FEBRUARY 14, 2017

11. **Owner/Operator Transfer Date:** N/A

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12. **Legal Description of Facility:**

The Potrero Hills Landfill is located on approximately 525.7 acres in Sections 4, 9, 10 of Township 4N, Range 1W, Mount Diablo Basin & Meridian

13. **Findings:**

a. This permit is consistent with the Solano County Integrated Waste Management Plan, revised November 1995, amended and approved by CalRecycle. The location of the facility is identified in the Solano Countywide Siting Element, pursuant to Public Resources Code (PRC), Section 50001(a).

b. This permit is consistent with the standards adopted by CalRecycle, pursuant to PRC 44010.

c. The design and operation of the facility is consistent with the State Minimum Standards for Solid Waste Handling and Disposal as determined by the Enforcement Agency, pursuant to PRC 44009.

d. The Suisun Fire Department has determined that the facility is in conformance with applicable fire standards pursuant to PRC Section 44151.

e. The following EIR documents describe and support the design and operation of this facility.

i) Draft and Final Solano Garbage Company Landfill/Potrero Hills Landfill, Inc. Landfill Combined Environmental Impact Report, certified by the Solano County Planning Commission on May 16, 1996; State Clearinghouse No. 1993033012

ii) Draft and Final Potrero Hills Expansion Project Environmental Impact Report, certified by the Solano County Board of Supervisors on June 9, 2009; State Clearinghouse No. 2003032112, a Notice of Determination was filed with the State Clearinghouse on October 26, 2010

f. The operator has made proper notification to, and cooperates with Travis Air Force Base regarding the bird control program in conformance with 27 CCR, sections 20270 and 21600(b)(3)(A).

14. **Prohibitions:**

a. The permittee is prohibited from accepting the following wastes at the site:

Hazardous, radioactive material regulated by the CA Department of Public Health, friable asbestos, medical waste (as defined in Chapter 6.1, Division 20 of the Health and Safety Code), or other wastes requiring special treatment or handling, except as identified in the Joint Technical Document and approved amendments thereto and as approved by the enforcement agency and other federal, state, and local agencies with concurrent jurisdiction.

b. Scavenging is not permitted by customers or employees at this site due to safety concerns.

c. Open burning shall not be permitted at the site.

d. At no time shall the handling of prohibited wastes found at the site, as a result of illegal or other disposal activities, be done by persons inadequately equipped or trained for that purpose.

e. Disposal shall occur only in those areas as described in the September 2011 JTD and approved amendments thereto and as approved by all appropriate regulating agencies.

f. New operations may not begin without prior submittal of amendments to the RFI, appropriate permit revision or modifications, and written approvals are received from the LEA and other appropriate agencies.

SOLID WASTE FACILITY PERMIT

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15. The following documents describe and/or restrict the operation of this facility:

Document	Date	Document	Date
Potrero Hills Landfill Joint Technical Document	September 2011	Solano County General Plan Land Use and Circulation Element.	Aug. 1992 Updated Nov. 2008
Preliminary Closure/ Post-Closure Maintenance Plan	September 2011	Solano County Land Use Permit No. U-88-33	Sept. 2005 Updated June 2009
Draft and Final Solano Garbage Company Landfill/Potrero Hills Landfill, Inc. Landfill Combined Environmental Impact Report. State Clearinghouse No. 1993033012.	May 1996	Solano County Marsh Development Permit No. 88-09	Sept. 2005 Updated June 2009
Draft and Final Potrero Hills Expansion Project Environmental Impact Report. State Clearinghouse No. 2003032112	June 2009	Bay Area AQMD Permit to Operate Plant # 2039	renewed annually
BCDC Permit No. 3-10(M)	November 2010	Hazardous Material Business Plan	2007 reviewed annually
San Francisco Bay Area RWQCB Waste Discharge Requirements Order No. R2-2011-0032.	May 2011		

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16. Self Monitoring:

The owner/ operator shall submit the results of all self monitoring programs to the listed Agency within 25 days of the end of the reporting period or as otherwise specified.

Program	Reporting Frequency	Agency Reported to
1) Record of receipt of a Notice of Violation or any other legal enforcement action taken against the facility by any responsible regulatory agency	Within 24 hours of receipt	LEA
2) Copies of all written/ oral complaints regarding this facility and a summary of the operator's actions taken to resolve each complaint. Include weather data if applicable.	Within 24 hours of receipt	LEA
3) The types and quantities (in tons) of all materials, entering the facility per day (including conversion factors used for any materials not weighed); include the average tonnage calculated over a 7 day period and ADC tonnage received and used per day	Monthly	LEA
4) The types and quantities (in tons) of solid waste disposed at the site per day.	Monthly	LEA
5) The number of vehicles entering the facility per day for both the landfill and compost facility	Monthly	LEA
6) Log of special or unusual occurrences and nuisance conditions; i.e. accidents, injury, fires, explosions, hazardous waste incidents, unexpected shutdowns, etc and the operator's response to correct the problem. Include time of incident, source, final disposition of load, and weather data (temperature, wind speed, wind direction, weather condition)	Quarterly	LEA
7) Results of the load checking program, including quantities and types of hazardous wastes, medical wastes or otherwise prohibited wastes found in the waste stream and the disposition of these materials.	Quarterly	LEA
8) Bird control reporting program	Quarterly	LEA
9) Results of the landfill perimeter gas probe monitoring program	Quarterly	LEA
10) Groundwater monitoring report	Quarterly	LEA, RWQCB
11) Load check training program	Annual	LEA
12) An employee Health & Safety Training log with names of attendees, names of trainers, dates of training, course descriptions, duration of training and other relevant information	Annual	LEA
13) Annual Compliance Report which shall include: topographical map showing all filled areas of the facility, quantity of disposed waste for the preceding year in tons, total volume of waste capacity consumed as a result of waste disposal for the preceding year in cubic yards, remaining disposal capacity and site life capacity; fill sequencing plan for the forth coming year; and estimated closure date as of the date of information provided. Additionally, submit the most current list of personnel responsible for the operation of this facility include: emergency phone numbers, addresses for the manager, compliance officer, security guards and duty supervisors, as applicable.	Annual	LEA
14) Wet weather preparedness report/ winter operations plan	Annual – due by Oct. 1	LEA

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17. LEA Conditions:

1. All design and operational features in the September 2011 JTD and approved amendments thereto shall be considered LEA conditions under this section of the permit
2. The operator shall comply with all State Minimum Standards of solid waste handling and disposal as specified in Title 27, California Code of Regulations.
3. The LEA reserves the right to direct the operator to suspend or modify waste receiving and handling operations when deemed necessary due to an emergency, a potential health hazard, or the creation of a public nuisance
4. The operator shall maintain a log of special/unusual occurrences. This includes but it is not limited to, fires, earth slides, unusual and sudden settlement, injury and property damage accidents, explosions, and discharge of hazardous or other waste not permitted. Each log entry shall be accompanied by a summary of any actions taken by the operator to mitigate the occurrence. The log shall be available to site personnel and the LEA at all times.
5. If nuisance conditions arise from the use of sludge at the site, the LEA reserves the right to require more restrictions for the handling of sludge than those listed in WDR R2-R011-0032 and approved amendments thereto.
6. The maximum amount of solid waste accepted for disposal shall not exceed 4,330 tons per day or an average of 3,400 tons per day averaged over a 7 day week (7 day week means any consecutive 7 day period). This limit does not include compostable material, wood, scrap metals, recyclables, sludge with less than 50% moisture, ADC or beneficially used materials and inert material. Tonnage limits for these materials shall comply as stated in the September 2011 JTD and approved amendments thereto.
7. The asphalt recycling operation and concrete recovery and processing operations shall be conducted as described in the September 2011 JTD and approved amendments thereto. No more than 65,000 tons or 45,000 cubic yards of concrete and asphalt shall be stockpiled on-site at any time.
8. Adequate lighting shall be provided for all work done after day light hours at the site. Lights shall be placed on an irregular pattern, shielded and pointed downward. A maximum of 7 portable lights may be used.
9. Efforts shall be made to control the generation of windblown litter at the source. The active face area shall be maintained at the smallest practical size
10. During high wind episodes, identified using procedures in the Litter Management Plan of the September 2011 JTD and approved amendments thereto, the size of the active face area shall be reduced by more frequent placement of cover. The active face may be further reduced in size as determined by the LEA.
11. The operator shall comply with the approved Litter Management Plan in the Sept. 2011 JTD and approved amendments thereto
12. When the facility is open 24 hours a day, the entire working face shall be covered with approved cover material at the close of business on Friday night. During non-24 hour operation days, the working face shall be covered with approved cover material at the end of the operation day.
13. A Compliance Officer (CO) shall be designated to oversee the facility materials tracking system to prevent or eliminate any nuisance conditions including but not limited to odors, litter, dust, fires, vectors, etc. The CO or designee shall monitor landfilling operations, the receipt of wastes for disposal and recyclable materials, the load checking of waste, monitor and record wind and weather conditions throughout the hours of operation, noting times of day conditions, changes and modifications to site operations to prevent nuisance conditions, the status of all verbal and written complaints, oversee and be responsible for keeping the EA informed of any new techniques, products used or changes in operation to prevent or eliminate nuisance conditions, and be responsible for providing and maintaining all records required by the EA to help identify any nuisance conditions at the site.
14. Any change that would cause the design, including the footprint, or operation of the facility not to conform to the terms and conditions of this permit is prohibited. Any significant change, as determined by the LEA, would require a permit revision. In no case shall the operator implement any change without written approval by the LEA.
15. Prior to use of any new ADC not listed in 27 CCR section 20690, the applicant shall submit a demonstration project description to the LEA for review and approval. Upon successful completion of the ADC demonstration project and upon concurrence by the LEA and CalRecycle, the operator may commence with the ADC use.
16. The LEA reserves the right to direct the operator to conduct a load check of any vehicle entering the site and to observe the load check
17. All equipment components shall be maintained in good mechanical condition and properly operated to prevent nuisance conditions and hazards. Information as to the location of backup equipment shall be readily available at the site.
18. The operator shall continue to monitor for potential leachate generation. Leachate generated shall be handled as described in the September 2011 JTD and approved amendments thereto.

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19. The operator shall submit copies of any violations or enforcement order between representatives of the facility and regulating agencies relating to the design, construction and operation of the landfill to the LEA
20. Any substantial changes to the quarterly perimeter gas probe monitoring program shall be submitted to the LEA for review and approval
21. The facility shall not be operated so as to cause public nuisance as determined by the LEA
22. Final closure and post-closure maintenance plans shall be submitted at least 2 years in advance of the projected closing of the landfill as required by Title 27 CCR
23. The permit is subject to review by the LEA and may be suspended revoked, or revised at any time for sufficient cause
24. Additional information concerning the design and operation of this facility shall be furnished upon request and within a reasonable time frame specified by the LEA
25. A copy of this Permit shall be maintained at the facility.

Facility Audit: Buttonwillow, CA

CleanHarbors

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1.0 General Company Information

Introduction

Clean Harbors is the leading provider of environmental, energy and industrial services throughout North America. The Company serves a diverse customer base, including a majority of the Fortune 500 companies, thousands of smaller private entities and numerous federal, state, provincial and local governmental agencies. Through its Safety-Kleen subsidiary, Clean Harbors also is a premier provider of used oil recycling and re-refining, parts washers and environmental services for the small quantity generator market.

Within Clean Harbors Environmental Services, the Company offers Technical Services and Field Services. Technical Services provide a broad range of hazardous material management and disposal services including the collection, packaging, transportation, recycling, treatment and disposal of hazardous and non-hazardous waste. Field Services provide a wide variety of environmental cleanup services on customer sites or other locations on a scheduled or emergency response basis.

Within Clean Harbors Energy and Industrial Services, the Company offers Industrial Services and Oil & Gas Field Services. Industrial Services provide industrial and specialty services, such as high-pressure and chemical cleaning, catalyst handling, decoking, material processing and industrial lodging services to refineries, chemical plants, pulp and paper mills, and other industrial facilities. Oil & Gas Field Services provide exploration, surface rentals, solids control, and environmental services to the energy sector serving oil and gas exploration, production, and power generation.

Clean Harbors' Safety-Kleen subsidiary is a leading North American used oil recycling and re-refining, parts washers and environmental solutions company for small quantity waste generators supported by the largest re-refining capabilities to convert used oil into base and blended lube oils. Safety-Kleen provides a broad set of environmentally-responsible products and services that keep businesses in balance with the environment.

Headquartered in Norwell, Massachusetts, Clean Harbors has waste disposal facilities and service locations throughout the United States and Canada, as well as Mexico and Puerto Rico.

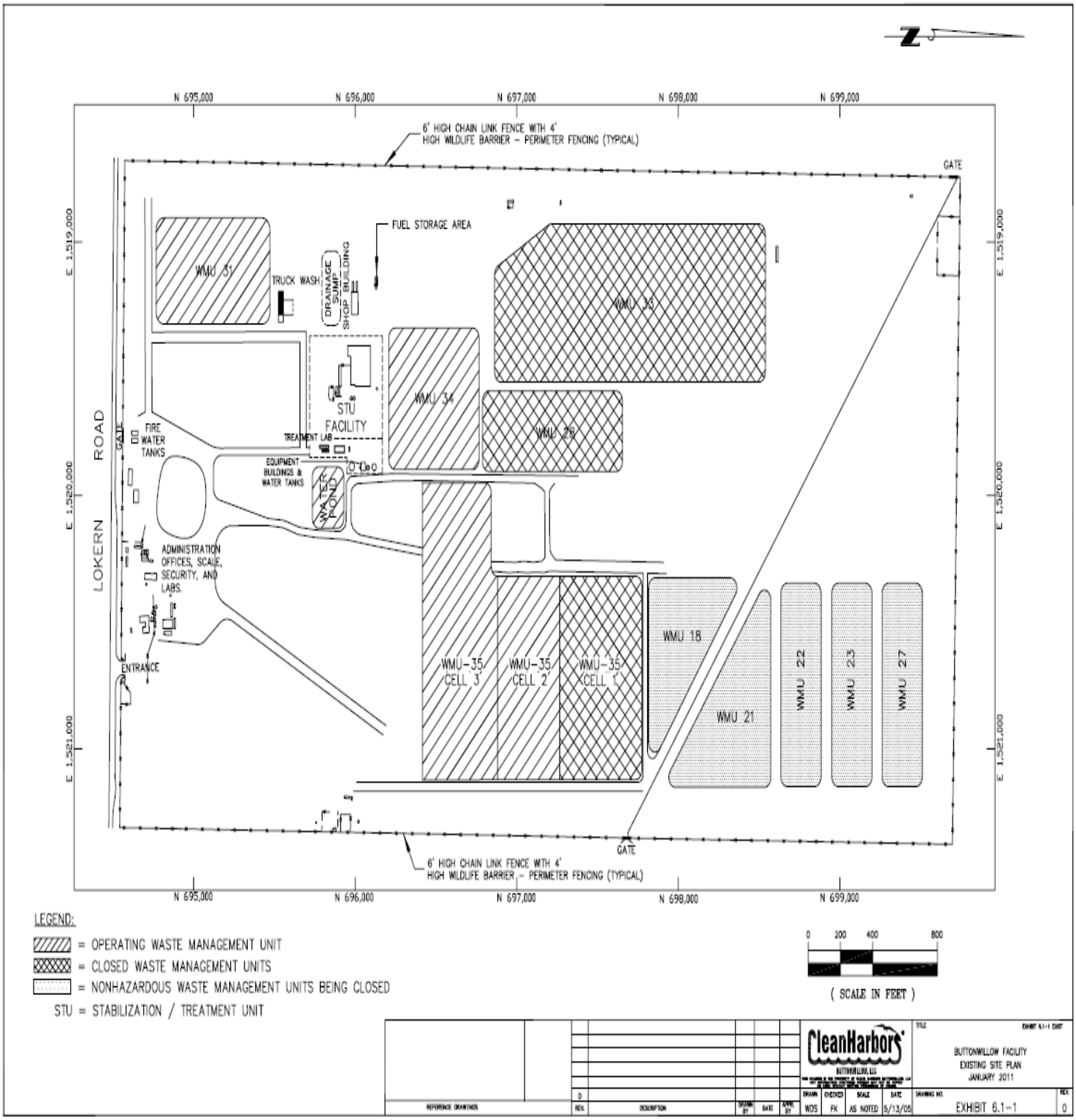
2.0 Facility Information

Facility Overview

Clean Harbors Buttonwillow, LLC, is a subsidiary of Clean Harbors, Inc. headquartered in Norwell, Massachusetts, which owns and operates hazardous waste storage, treatment and disposal facility located near Buttonwillow, California. This facility is commonly referred to as the Buttonwillow Facility. The Buttonwillow Facility is a fully permitted hazardous waste facility, permitted by various regulatory agencies in the State of California to receive, store, treat and landfill a variety of waste streams. The treatment methods utilized at this facility typically reduce toxicity of waste materials and make it suitable for disposal.

Facility Name	Clean Harbors Buttonwillow, LLC.
Location	2500 West Lokern Road, P.O. Box 787 Buttonwillow, CA 93206 County**:** Kern
Property Owner	Clean Harbors Buttonwillow, LLC. 2500 West Lokern Road, P.O. Box 787 Buttonwillow, CA 93206-0787
SIC Code	4953 Refuse System
Facility EPA ID No	CAD980675276
Permit Type	Hazardous Waste Facility Permit
Waste Description	Hazardous and Non-hazardous waste amendable for landfill disposal
Services Provided	Storage Stabilization/Solidification Landfill Non-hazardous Liquid Waste Disposal
Facility Size	The property encompasses 320 acres in the eastern half of Section 16, Township 29S, Range 22E, Mount Diablo Base and Meridian. The assessor's parcel number is 99-290-17.

Facility Site Plan



Facility History

The Buttonwillow facility was developed by Petroleum Waste, Inc. (PWI), a subsidiary of McKittrick Mud Company, on the land owned by McKittrick Mud. The Kern County Board of Supervisors approved development of the facility in 1982. The Kern County Planning Department in September 1982 subsequently issued a Conditional Use Permit (CUP), allowing the disposal of hazardous and nonhazardous wastes at the site. The facility was reviewed under the California Environmental Quality Act (CEQA) prior to issuance of the CUP. The facility was granted Hazardous Waste Facility Permits by the California Department of Toxic Substances Control (DTSC), formerly known as the Department of Health Services (DHS) and the U.S. Environmental Protection Agency (EPA) in May 1983 and October 1984, respectively. These permits allowed the facility to construct and operate a number of California hazardous waste and RCRA hazardous waste surface impoundments.

In 1986, IT Corporation purchased the facility. In September 1987, the facility submitted a revised RCRA Part B application. The submittal of this application was motivated primarily by the Toxic Pits Cleanup Act of 1984, which required the closure of the liquid hazardous waste surface impoundments at the facility, and the federal and state land disposal restrictions, which required treatment of wastes prior to land disposal. The revised application called for retrofitting the existing California hazardous and RCRA hazardous waste surface impoundments into eight new landfills (WMUs 101 through 108) and construction of three additional landfills (WMUs 28, 33, and 34) in previously undeveloped areas of the site. In addition, the application addressed construction of three units to be used for treatment of wastes prior to land disposal: the Stabilization Treatment Unit (STU), the Waste Stabilization Unit (WSU), and the Modular Inorganic Treatment System (MITS). The September 1987 permit application was modified several times by the various submittals listed previous, which incorporate revised unit design and operational plans. Based on these submittals, the facility was granted a modified Hazardous Waste Facility Permit by the DHS and EPA.

In June 1989, GSX Corporation purchased PWI from IT Corporation and later changed its name to Laidlaw Environmental Services (Lokern), Inc. in the June 1990. In July 1991, Laidlaw submitted a new RCRA Part B Permit Application to EPA, DTSC, Regional Water Quality Control Board (RWQCB) and the Kern County Planning Department and requested new permits for the facility. The Part B Permit Application requested the acceptance of all RCRA hazardous waste codes (removal of the petroleum exclusion), the construction of a 10,700,000 cubic yard landfill (WMU 35) in lieu of eight smaller landfills (WMUs 101 through 108), and to have the ability to act as a transfer facility. In addition, Laidlaw had no intention of constructing the MITS or WSU so these treatment units were deleted from the application.

As part of the permitting process, a Supplemental Environmental Impact Report (SEIR) was prepared, approved by the Kern County Board of Supervisors and a new CUP adopted on December 12, 1994.

On March 7, 1996 and April 30 1996, the DTSC signed the new Hazardous Waste Facility Permit and the RWQCB adopted new Waste Discharge Requirements, respectively. These new permits allow for the acceptance of addition RCRA nonRCRA hazardous wastes, nonhazardous waste and construction of new landfill WMU 35.

On May 20, 1998, Safety-Kleen Corporation became a wholly owned subsidiary of Laidlaw Environmental Services, Inc. (LES). In order to take advantage of the tremendous market value of the Safety-Kleen trade name, LES began conducting business as Safety-Kleen Corporation. As such, on July 1, 1998 Laidlaw Environmental Services (Lokern), Inc. changed its name to Safety-Kleen (Buttonwillow), Inc. The name change reflected adopting the Safety-Kleen trade name by the corporation. With the exception of this name change, no other change occurred to the physical plant, key personnel or operational procedures. The regulatory agencies that issued facility permits, licenses, or other approvals were properly notified of the name change. Any required applications, fees or additional information was also submitted to the appropriate regulatory agencies.

In June 2000, Safety-Kleen filed for bankruptcy protection under Chapter 11 of the Bankruptcy Code. As a result, the Chemical Services Division (CSD), which included the Buttonwillow Facility, was sold to Clean Harbors, Inc. on September 6, 2002. As such, all of the Buttonwillow Facility's permits were changed to reflect the changed in ownership.

On October 1, 2005, the Buttonwillow Facility submitted a RCRA Part B Application for renewal of the Hazardous Waste Facility Permit. Review of the application is ongoing. The Buttonwillow Facility is allowed to continue operating under an expired permit pursuant to 22 CCR§ 66270.51 states the following;

§66270.51. Continuation of Expiring Permits.
(a) **The conditions of an expired permit continue in force** under chapter 6.5 of division 20 of the Health and Safety Code **until the effective date of a new permit** (see section 66271.14) if:
(1) the permittee has submitted a timely application under section 66270.14 and the applicable sections in section 66270.15 through section 66270.23 which is a complete (under section 66270.10(c)) application for a new permit; and
(2) the Department through no fault of the permittee, does not issue a new permit with an effective date under section 66271.14 on or before the expiration date of the previous permit (for example, when issuance is impracticable due to time or resource constraints).
(b) Effect. Permits continued under this section remain fully effective and enforceable.
(c) Enforcement. When the permittee is not in compliance with the conditions of the expiring or expired permit, the Department may choose to do any or all of the following:
(1) initiate enforcement action based upon the permit which has been continued;
(2) issue a notice of intent to deny the new permit under section 66271.5. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the. continued permit or be subject to enforcement action for operating without a permit;
(3) issue a new permit under chapter 21 of this division with appropriate conditions; or
(4) take other actions authorized by these regulations.
(d) If a permittee has submitted a timely and complete application under applicable State law and regulations, the terms and conditions of an USEPA-issued RCRA permit continue in force beyond the expiration date of the USEPA-issued RCRA permit, but only until the effective date of the Department's issuance or denial of a State permit.

Buttonwillow's permit renewal application was submitted on October 1, 2005, which is at least 180 days before the expiration of the current permit. As such, the existing permit is still enforce until DTSC issues the new permit.

Site Characterization

The following provides information regarding land use around the Buttonwillow facility, nearest surface water body, climatology, 100-year flood plain, hydrogeology, and environmental monitoring.

Land Use

Land use immediately adjacent to the facility consists of irrigated agriculture and undeveloped land. Irrigated agriculture, oil production activities and waste disposal site operations are the predominant land uses surrounding the Buttonwillow facility for several miles. The nearest resident is located approximately 3 miles northeast of the facility. The community of Buttonwillow is located 8 miles east of the Buttonwillow facility.

Surface Water Bodies

The nearest surface water body is the California Aqueduct. At its nearest point, the California Aqueduct is located approximately 0.75 miles north east of the Buttonwillow facility.

Climatology

The Buttonwillow facility is located in an arid environment. The facility receives an average of 5 inches of precipitation per year. The average annual pan evaporation rate is 108 inches. The 100 year, 24 hour storm event for the facility is 1.7 inches and the probable maximum 24-hour storm event is 5.36 inches.

100 Year Flood Plain

Hydrologic and hydraulic analyses show that none of the facility's waste management units are located within the 100-year flood plain. However, the northwest corner of the property is within the 100-year flood plain. The Buttonwillow facility does not have any operations in this area of the facility.

Hydrogeology

The Buttonwillow facility lies on the Antelope Plain on the southwestern flank of the San Joaquin Valley. In the vicinity of the facility, this gently sloping plain has been mapped as Quaternary alluvium underlain by the Plio-Pleistocene Tulare Formation.

Three distinct stratigraphic zones comprise the upper 600 feet of the sedimentary sequence beneath the site. This includes the Upper Zone, the Intermediate Zone, and the Lower Zone.

Upper Zone

The Upper Zone consists of the surficial Silt Unit and the underlying Upper Sand Unit. Due to the dipping strata, this zone varies in thickness from approximately 70 feet in the southwest corner of the facility to 220 feet in the northeast corner of the facility.

The top of the Upper Zone consists of a Silt Unit, which extends from ground surface to depths that vary from 30 feet in the southwestern corner of the facility to approximately 120 feet in the northeastern corner of the facility. In general, the Silt Unit has some interbeds of sand and gravel, with trace amounts of clay. In the southern and western portions of the facility, the Silt Unit contains interbeds of sandy gravel up to ten feet thick. Silty sand interbeds up to ten feet thick are also seen in the Silt Unit, predominantly in the lower ten feet of the unit which silt generally grades to sand. The Upper Sand Unit lies below the Silt Unit and varies in thickness from approximately 40 feet in the southern end to approximately 70 feet in the northeastern corner of the facility. This unit is composed of very fine-to coarse-grained sand, which is moderate to well sorted and loose to very dense. The Upper Sand is unsaturated in the southwestern area of the facility. A ground water-bearing zone appears as the base of the unit dips below approximately 230 feet MSL in the northeastern area of the facility. To the south, the Upper Zone is dry. See Figure 6.

Within the Upper Perched Zone, ground water flows generally to the east-southeast under unconfined conditions. The hydraulic gradient averages approximately 0.004, the hydraulic conductivity for this zone is 5.39 feet per day. Assuming an effective porosity of 0.25 based on soil samples collected within the zone, ground water velocity range from 8 to 31 feet per year within the Upper Perched Zone.

Ground water quality in the Upper Perched Zone is poor. The water is not potable. The total dissolved solids (TDS) concentration ranges from 2100 to 8000 mg/L. The electrical conductivity ranges from 2100 to 8500 umhos/cm.

Intermediate Zone

The Intermediate Zone is composed of the Upper Clay Layer, the Intermediate Unit, and the Lower Clay Layer. This zone varies in thickness from 35 to 55 feet across the facility.

The top of the Intermediate Zone consists of the Upper Clay Layer. The Upper Clay Layer appears to be continuous throughout the facility with a thickness ranging from 2 to 15 feet.

The underlying Intermediate Unit is approximately 30 to 40 feet thick and consists mainly of silt. The silt is slightly sandy, with fine sand and clay interbeds. Two fine-grained sand beds can be correlated in some areas of the facility within the Intermediate Unit; one is located at or near the top of the Intermediate Unit and the other located at or near the base of the unit. The uppermost sand body ranges from 3 to 8 feet in thickness and pinches out laterally in the southeastern areas of the facility. The lower sand body ranges from 4 to 8 feet thick and pinches out laterally in the southeastern corner of the facility, and is silty and thin to absent in the northern area.

The bottom of the Intermediate Zone consists of the Lower Clay Layer. The Lower Clay layer is continuous throughout the facility, with a thickness ranging from 4 to 12 feet. The Lower Clay Layer consists of stiff to very stiff, damp to moist fat clay, which frequently grades to increasing silt content near the base of the layer.

This zone becomes water bearing in the northeastern portion of the facility where the base of the Intermediate Unit dips below approximately 184 feet MSL. To the south, the Intermediate Zone is dry. Within the Intermediate Perched Zone, ground water flows to the east, under both confined

and unconfined conditions. In the northeastern area of the facility, the Upper Clay Layer dips below the piezometric surface of the Intermediate Perched Zone, and the Intermediate Zone becomes confined.

The hydraulic gradient averages approximately 0.003. The mean hydraulic conductivity is 2.38 feet per day. Assuming an effective porosity of 0.25, the ground water velocity is approximately 10 feet per year.

Ground water quality in the Intermediate Perched Zone is poor. The water is not potable. The total dissolved solids (TDS) concentration ranges from 2100 to 3200 mg/L. The electrical conductivity ranges from 2200 to 4400 umhos/cm.

Lower Zone

The Lower Zone is comprised of the Lower Unit, which is underlain by the Corcoran Clay, at a depth of approximately 600 feet. The average thickness of this zone is approximately 400 feet.

The Lower Unit is composed of generally interbedded sands, silts, and clays that vary in thickness from 2 to 50 feet. Correlatable sand beds, which thicken to 40 feet, are encountered; however, beds which are less than 10 feet thick and which pinch out laterally between wells are more prevalent.

The Corcoran Clay, which underlies the Lower Unit, was encountered at approximately 230 feet MSL indicating its depth below ground level is approximately 620 feet.

This stratigraphic zone is water bearing continuously across the facility. Ground water flow in the Lower Water Table Zone is predominantly to the northeast with a hydraulic gradient ranging from approximately 0.0015 in the northern portion of the facility to approximately 0.0065 in the central and southern portion of the facility.

The mean hydraulic conductivity is 2.69 feet per day. Assuming an effective porosity of 0.25, the estimated ground water velocity is approximately 6 feet per year in the northern portion of the facility, and 26 feet per year in the southern central portions of the facility.

Ground water quality in the Lower Water Table Zone is poor. The water is not potable. The total dissolved solids (TDS) concentration ranges from 2100 to 3200 mg/L. The electrical conductivity ranges from 1800 to 3500 umhos/cm.

Environmental Monitoring

The following is a description of some of the environmental monitoring systems at the Buttonwillow facility.

Leachate Collection and Removal Systems

Leachate collection and removal systems (LCRSs) are designed to intercept and collect liquid migrating downward through the waste towards the liner system. Landfill LCRSs are monitored

for the presence of liquid on a daily basis. When the liquid level in the sump approaches 12 inches in depth, the liquid is pumped from the sump.

Vadose Zone Monitoring

Located beneath the landfills in native soil is a steel pipe. Moisture content readings of the native soil beneath the landfill are taken quarterly with a neutron probe. If an increase in moisture content of greater than 6 percent is detected, the facility must investigate the source of the fluid. The vadose zone monitoring system acts as an early warning system against a possible release.

Ground Water Monitoring

The ground water monitoring network at the Buttonwillow facility consists of 86 wells. Water level measurements are obtained from all 86. Background water quality samples are collected from 9 wells and downgradient or Point of Compliance (POC) samples are collected from 21 wells. Water level measurements and ground water monitoring samples are collected quarterly.

Ground water samples are analyzed for the following chemicals:

- General chemistry parameters (e.g., chloride, sulfate, TDS, EC, pH, etc).
- Metals (e.g. arsenic, barium, chromium, lead, etc.); and
- Volatile organic compounds (VOCs) by EPA Method 8240.

Quarterly, a technical report is prepared and submitted to EPA, DTSC, and RWQCB for review. Ground water contamination has not been detected at the Buttonwillow Facility.

Ambient Air Monitoring

The Buttonwillow facility has an ambient air monitoring program that consists of one upwind and two downwind air monitoring stations. Air samples are collected every twelve days in conjunction with the California Air Resources Board statewide air toxics monitoring program. Air samples are monitored for 10 metals and six VOCs.

Security

Security at the facility is provided by a staff of trained security personnel twenty four hours per day seven days per week. Security personnel monitor the main entrance gate, located on the north side of Lokern Road, and other perimeter gates. All facility personnel, vendors, contractors, waste haulers, and visitors are logged in and out of the facility at the main gate. Admittance to the facility is allowed with only proper identification. Each Buttonwillow facility employee is issued a badge, which must be shown to the guard prior to entry. Visitors and non-Clean Harbors employees are allowed entry only with signed approval from a staff member at the facility. Visitors are issued visitor passes that are worn during their visit and returned when leaving.

Other security equipment includes normal emergency lighting, two-way radios, and the internal phone system. The truck receiving area and the main access gate are lighted for nighttime operations. The guard at the main gate and the truck-receiving operators working in the truck receiving area are equipped with two-way radios to immediately report potential problems.

A galvanized cyclone fence that is approximately 6 feet high surrounds the perimeter of the 320-acre facility. Entry into the fenced area is through the main gate. Surveillance of the main access gate is provided 24 hours a day, seven days per week. The other perimeter gates are kept locked and are used on in emergencies or for temporary access to and from the facility by Buttonwillow employees.

Warning signs are posted on the active and inactive entrances to the facility on the perimeter fence. The signs are visible from every approach to the facility and are legible at a distance of 25 feet.

Directions to Facility

Clean Harbors Buttonwillow, LLC.
2500 West Lokern Road
Buttonwillow, CA 93206-0787
(661) 762-6200

From Bakersfield:

1. Take Highway 58 west (approximately 35 miles) to Lokern Road.

2. Turn right on Lokern Road and follow Lokern Road to the Buttonwillow Facility.

From Los Angeles:

1. Take Interstate 5 North. From the Los Angeles area, you will travel approximately 100 miles north until you reach the Highway 58/Buttonwillow exit.

2. Take the Highway 58/Buttonwillow exit.

3. Go west on Highway 58 (approximately 8 miles) to Lokern Road.

4. Take a right onto Lokern Road (approximately 3 miles) and follow it to the Buttonwillow facility.

From San Francisco:

1. Take Interstate 5 South (approximately 200 miles) until you reach the Highway 58/Buttonwillow exit.

2. Go west on Highway 58 (approximately 8 miles) to Lokern Road.

3. Turn right onto Lokern Road (approximately 3 miles) and follow it to the Buttonwillow facility.

The Buttonwillow facility is located in Kern County, California. The facility is situated approximately 8 miles west of Buttonwillow and 36 miles west of Bakersfield on the northern side of Lokern Road.

3.0 Operating Licenses and Permits

The following contains information on various licenses and permits held by the Buttonwillow Facility.

TYPE OF PERMIT	PERMIT NUMBER	DATE ISSUED	DATE EXPIRES	DATE TO RENEW PERMIT
Hazardous Waste Facility Permit (DTSC)	CAD980675276	3/06/96	4/06/06	180 days prior to expiration Renewal Application. Submitted
Waste Discharge Requirements (RWQCB)	Order #96-094	08/11/89	N/A	
Conditional Use Permit	No. 4, Map 97 Resolution 2014-3976	12/14/15	N/A	
Permit to Operate	See Table 2	See Table 2	See Table 2	
Waste Discharge Requirements (RWQCB)	Special Order # 96-094	8/17/98	N/A	
General Industrial Stormwater Discharge Permit	WDID 5F15I017429 (Order 97-03-DWQ)	8/16/02	N/A	
Domestic Water System	No. 03-19-02P-010	8/6/02	N/A	
Quarantine Compliance Agreement/Soil Permit	No. P330-10-00399	3/31/14	3/31/17	
Permit to Operate Pressure Vessel	See Table 3	See Table 3	See Table 3	See Table 3
Seller's Permit	SR ARH 100-097269	10/1/02N/A	N/A	
Wildlife Capture Permit	PRT-702631 Subpermit CHAMT	7/24/89	N/A	
Certificate of Registration	No. WVS-6-044	8/31/10	8/31/16	Renewed Annually by Submitting Fees
Weigh master License	No. 010306	8/1/10	8/1/16	Renewed Annually by Submitting Fees
Solid Waste Facility Registration Permit	15-AA-0257	5/11/09	None	

TYPE OF PERMIT	PERMIT NUMBER	DATE ISSUED	DATE EXPIRES	DATE TO RENEW PERMIT
Environmental Health Permit Hazardous Waste Co-Disposal Facility	FA ID 0006304 Permit #0005701	07/01/08	None	
Environmental Health Permit Aboveground Storage Tanks Business Plan Large Quantity Generator	FA ID 0002632 Permit #0017730 Permit #0000302 Permit #0013983	07/01/06	None	
Environmental Laboratory Certification	2573	1/1/14	12/31/17	

TABLE 2.

Clean Harbors Buttonwillow, LLC.
SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT
PERMIT TO OPERATE (PTO) LIST

PERMIT NUMBER	EQUIPMENT DESCRIPTION	ISSUANCE DATE	EXPIRATION DATE
S-1259-01-0	WMU 28 (landfill)	April 21, 20116	March 31, 2016
S-1259-02-0	WMU 18 (nonhazardous pond)	April 21, 2011	March 31, 2016
S-1259-03-0	WMU 21 (nonhazardous pond)	April 21, 2011	March 31, 2016
S-1259-04-0	WMU 22 (nonhazardous pond)	April 21, 2011	March 31, 2016
S-1259-05-0	WMU 23 (nonhazardous pond)	April 21, 2011	March 31, 2016
S-1259-06-0	WMU 27 (nonhazardous pond)	April 21, 2011	March 31, 2016
S-1259-07-0	WMU 31 (nonhazardous pond)	April 21, 2011	March 31, 2016
S-1259-65-4	Hazardous Waste Landfill Operation #34	April 21, 2011	March 31, 2016
S-1259-68-0	17,000 gal. Unloading Bay #1	April 21, 2011	March 31, 2016
S-1259-69-0	10,000 gal. Unloading Bay #2	April 21, 2011	March 31, 2016
S-1259-70-0	10,000 gal, Unloading Bay #3	April 21, 2011	March 31, 2016
S-1259-71-0	10,000 gal. Unloading Bay #4	April 21, 2011	March 31, 2016
S-1259-74-0	200 yd^3 Bulk Solid Additive Silo	April 21, 2011	March 31, 2016
S-1259-75-0	200 yd^3 Bulk Solid Additive Silo	April 21, 2011	March 31, 2016
S-1259-78-0	10,000 gal. Waste Water Storage Tank	April 21, 2011	March 31, 2016
S-1259-79-0	Auger Shredder Waste Stabilization Equip.	April 21, 2011	March 31, 2016
S-1259-81-1	2,000 gal. Above Ground Gasoline Tank	April 21, 2011	March 31, 2016
S-1259-82-0	450 Hp Turbocharged Diesel IC Engine for Emergency Generator	April 21, 2011	March 31, 2016
S-1259-83-0	208 Hp Turbocharged Diesel IC Engine for Emergency Fire Water Pump	April 21, 2011	March 31, 2016
S-1259-84-3	71 Hp John Deere Diesel IC Engine Water Pump	April 21, 2011	March 31, 2016
S-1259-85-2	78 Hp John Deere Diesel IC Engine for Air Compressor	April 21, 2011	March 31, 2016
S-1259-86-2	228 Hp Diesel IC Engine - Air Compressor	April 21, 2011	March 31, 2016
S-1259-87-0	WMU 35 Landfill	April 21, 2011	March 31, 2016
S-1259-90-1	Authority to Construct Permit (ATAC) 157 BHP (Intermittent) John Deere Tier 3 Certified Diesel –Fired Emergency IC Engine Powering a Firewater Pump	August 10, 2011	August 10, 2013 Engine inspected, District has yet to issue PTO.

Note: Air permit renewal fees have been paid, SJVAPCD permitting staff is in process of reviewing existing permits to verify that they are current with SJVAPCD regulations. Pursuant to Steve Davidson, Senior Air Quality Engineer for the District, existing are permits are still valid until new permit review process is complete and the District issues new permits.

Table 3.

Clean Harbors Buttonwillow, LLC.
CALIFORNIA DEPARTMENT OF SAFETY AND HEALTH
PERMIT TO OPERATE PRESSURE VESSEL LIST

SERIAL NUMBER	TANK NUMBER	EQUIPMENT DESCRIPTION	ISSUANCE DATE	EXPIRATION DATE
95723	A008060-92	STU unit, in DHSA	1/18/13	1/18/18
75544	A005316-80	Mobile Sullair 750, 49X048	1/18/13	1/18/18
202664	A019204-95	Drum Unloading	1/18/13	1/18/18
1016060	A008062-92	Water Plant	1/18/13	1/18/18
1042879	A008061-92	Shop	1/18/13	1/18/18
27589	L007820-92	LPG Tank	1/18/13	1/18/16
528693	A015510-01	Lube Truck Air Tank	4/23/12	4/22/17
46052	A019825-92	Service Truck Air Tank	1/18/13	1/18/18
256805	A028392-07	WMU 35-2	1/18/13	1/18/18
12222547	A017320-03	WMU 35-1	1/18/13	1/18/18
968133	A020040-09	WMU 35-3	1/18/13	1/18/18

Principal Operating Licenses/Permits

Copies of existing permits which detail types of waste management licensed capacities and waste types accepted are available for inspection upon request at the site. Selected permit pages are attached at the end of this audit in Section 8.0.

Principal Contacts/Agencies

The list of contacts below can provide additional information regarding Clean Harbors facility operations or compliance:

Operations	Marianna Buoni, General Manager Clean Harbors Buttonwillow, LLC. P.O. Box 787, 2500 West Lokern Road Buttonwillow, CA 93206-0787 (661) 762-6200
Regulatory	David Nielson Landfill Compliance Director Clean Harbors Buttonwillow, LLC. P.O. Box 787, 2500 West Lokern Road Buttonwillow, CA 93206-0787 (661) 762-6233
RCRA Compliance/ RCRA Permitting	Scott Ward California Department of Toxic Substances Control 8800 Cal Center Drive Sacramento, CA 95826 (916) 255-3581
Water Quality	Shelton Gray California Regional Water Quality Control Board Central Valley Region 3416 East Ashlan Avenue Fresno, CA 93726 (559) 445-5116
Air Quality	San Joaquin Valley Air Pollution Control District 2700 "M" Street Bakersfield, CA 93301 (661) 862-5200
Health Department	Gabriel Rubio Kern County Environmental Health Services Department 2700 "M" Street, Suite 275 Bakersfield, CA 93301 (661) 862-8700
Local Planning	Lorelei Oviatt Planning Director Kern County Planning Department 2700 "M" Street Bakersfield, CA 93301 (661) 862-8600
EPA – Region IX	U.S. Environmental Protection Agency – Region IX 75 Hawthorne Street San Francisco, CA 94105 (415) 744-2041

4.0 Process Description

Waste Analysis

The Waste Analysis Plan for the facility outlines pre-qualification and on-site acceptance analysis requirements. The Buttonwillow Facility can accept hazardous and nonhazardous for treatment, storage and/or disposal. The following wastes or materials are prohibited treatment, storage, and/or disposal:

- Radioactive materials which either require special placarding because they exceed 1,800 picocuries/gram of activity as referenced in 49 CFR 173.403(y) or are defined as "NRC regulated source materials" as referenced in the California Health & Safety Code 25805(M);
- Infectious or bio-hazardous materials;
- DOT Class 1 explosives;
- Municipal garbage or refuse
- Polychlorinated biphenyls (PCBs) greater than 50 parts per million;
- Wastes identified by EPA waste codes F020, F021, F022, F023, F026, and F027, as defined in 40 CFR Part 261;
- Bulk or containerized hydrazine, defined in 40 CFR Part 261 as waste code U133; and
- Compressed gas cylinders greater than 1 liter.

Pre-Qualification

Prior to acceptance and treatment of a specific waste, A Waste Material Profile Sheet must be submitted to and approved by Clean Harbors prior to any waste shipment. Waste profile can be completed and submitted online on the Clean Harbors' website at www.cleanharbors.com. Once the waste material is accepted for treatment and disposal, this information becomes part of the permanent record in the generator's file and the waste may be scheduled for shipment.

On-Site Analysis/Acceptance

With each delivery of approved waste, a sample is taken from the load and tested to determine whether the waste is the same as the previously submitted sample. If this analysis differs significantly from the advance sample, the waste will be deemed non-conforming. All non-conforming wastes are further analyzed to determine the best treatment alternatives, whether on-site handling at an adjusted price or transshipment to an alternative treatment facility. The customer is contacted regarding any non-conforming waste and given the option for alternate handling or return of their waste. Once the acceptance process is complete, the waste will be off-loaded at a landfill, at the STU or nonhazardous surface impoundment WMU 31.

Treatment, Storage and Disposal Options

The Buttonwillow facility has two operating hazardous waste landfills, one nonhazardous surface impoundment, and a stabilization treatment unit. The Buttonwillow facility accepts hazardous and nonhazardous waste as solid, liquid and sludge. Waste is transported via trucks in both containers (drums, supersacks, tri-wall boxes) and bulk (vacuum trucks, dump trucks, roll-off bins, etc.) shipments.

Hazardous and nonhazardous waste is managed in the following waste management units (WMUs):

- Two landfills (WMU's 34 & 35)
- Stabilization Treatment Unit (STU)
- Drum Handling and Storage Area (DHSA) at the STU
- Bulk nonhazardous liquid waste is disposed of in nonhazardous surface impoundment WMU 31.

Landfill Operations

After the waste acceptance process is complete, the driver will proceed to the location specified by truck receiving for off-loading. When a truck arrives in the landfill, field personnel will direct the truck to the proper location for off-loading. Once the off-loading process is complete, earthmoving equipment moves and compacts the waste in its final disposal location. At the end of each operating day, the landfill is covered with soil or foam to reduce emissions and wind dispersal.

The Buttonwillow Facility has two operational landfills (WMU 34 and WMU 35). The liner systems for WMU 34 and 35 were completed in October 1995 and November 2001, respectively. The WMU 34 liner system consists of the following from top to bottom:

- 2-foot thick protective soil cover;
- Primary leachate collection and removal system;
- 80 mil textured HDPE liner;
- 3-foot thick clay liner with permeability of $1x10^{-9}$ cm/sec;
- 80 mil textured HDPE liner;
- Secondary leachate collection and removal system;
- 80 mil textured HDPE liner; and
- 3-foot thick clay liner with permeability of $1x10^{-9}$ cm/sec.

The WMU 35 liner system consists of the following from top to bottom:

- 1.5-foot thick protective soil cover;
- Primary leachate collection and removal system;

- 80 mil textured HDPE liner;
- 3-foot thick clay liner with permeability of $1x10^{-9}$ cm/sec, bentonite mat on side slopes;
- Secondary leachate collection and removal system;
- 80 mil textured HDPE liner; and
    - 3-foot thick clay liner with permeability of $1x10^{-9}$ cm/sec.

Stabilization/Solidification of Waste

The STU was designed to receive, store, and process wastes hazardous and nonhazardous waste that cannot be disposed directly into a landfill. Pozzolanic and cementitious additives are mixed with waste processed at the STU to make the waste amenable to landfilling. The STU consists of the following:

- Four bulk unloading bays;
- One 10,000 gallon above ground dirty water tank;
- One 10,000 gallon above ground clean water tank;
- One auger shredder mixing chamber and process feed system;
- Two truck wash-out bays;
- 1500 drum storage area; and
- Two additive silos.

The STU is designed to process up to 100 tons per hour of bulk solid waste.

Container Management

Containers are off-loaded at the STU. The containers are opened and inspected as necessary for waste verification purposes. Once they have been approved for acceptance, the drums are placed into storage or treated through the STU. The Drum Handling and Storage Area (DHSA) portion of the STU is permitted to store containers for up to one year.

Non-hazardous Waste Surface Impoundment

The Buttonwillow Facility has a lined surface impoundment, WMU 31 that accepts bulk nonhazardous liquid waste for disposal. Bulk nonhazardous liquid wastes are discharged to the surface impoundment for solar evaporation. The liner system consists of the following from top to bottom:

- 2-foot protective soil cover;
- 40-mil PVC-OR geomembrane;
- 3-foot clay liner compacted to a permeability of $1x10^{-7}$ cm/sec;
- 40-mil PVC-OR geomembrane;
- Leachate collection and removal system;

- 40-mil PVC-OR geomembrane;
- 3-foot clay liner compacted to a permeability of $1x10^{-7}$ cm/sec;
- 40-mil PVC-OR geomembrane; and
- 2-foot clay liner compacted to a permeability of $1x10^{-7}$ cm/sec.

5.0 Closure Plan

A comprehensive facility closure plan has been developed in accordance with RCRA requirements and is available at the site for inspection upon request. The Company utilizes both insurance and surety bonds to meet the Financial Assurance requirements of each state.

Facility Closure Certificate
http://clark.cleanharbors.com/tt/sl.ashx?z=776bb3d6&dataid=5470&ft=1

6.0 Insurance

Clean Harbors (including Safety-Kleen and all entities) presently carries general liability and auto liability insurance providing coverage in the aggregate amount in excess of $40 million. The Company purchases pollution liability insurance coverage in excess of $25 million for its fixed sites for sudden and accidental occurrences. For waste in transit, which insures the Company against liability for sudden and accidental occurrences during transit on a Company vehicle from the time waste is picked up through its delivery to a disposal site the Company purchases insurance in excess of $25 million.

Certificate of Liability Insurance
http://clark.cleanharbors.com/tt/sl.ashx?z=776bb3d6&dataid=5469&ft=1

7.0 Financial Information

Financial information on Clean Harbors and its subsidiaries are available from the Clean Harbors website in the Investor Relations section. www.cleanharbors.com

8.0 Appendix

If applicable, supporting facility documentation will follow.

APPENDIX B

SWPPP INSPECTION RECORDS

BMP INSPECTION REPORT

Date and Time of Inspection: 6/30/16			Date Report Written: 6/30/16	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court - Lot 1347

Construction stage and completed activities: Remedial Excavation			Approximate area of site that is exposed: ~0.75 Acres
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs:

Weather

Estimate storm beginning: (date and time) N/A	Estimate storm duration: (hours) N/A
Estimate time since last storm: (days or hours) N/A	Rain gauge reading and location: (in) N/A

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Cockrell	Inspector Title: Assoc. Proj. Scientist
Signature: JC	Date: 6/30/16

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	No	
Stockpiled construction materials not actively in use are covered and bermed	Y	No	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	N/A		
Construction materials are minimally exposed to precipitation	N/A		
BMPs preventing the off-site tracking of materials are implemented and properly effective	Yes	No	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Yes	No	
Sanitation facilities are clean and with no apparent for leaks and spills	Yes	No	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Yes	No	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Yes	No	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Yes	No	
Procedures are in place for addressing hazardous and non-hazardous spills	Yes	No	
Appropriate spill response personnel are assigned and trained	Yes	No	
Equipment and materials for cleanup of spills is available onsite	Yes	No	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	Yes	No	
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Yes	No	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Yes	No	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	No	No	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	~~N/A~~ Yes	No	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	N/A		
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	N/A		
Bagged erodible landscape materials are stored on pallets and covered	N/A		
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	N/A		
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Yes	No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	Yes	No	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Yes	No	
Erosion Controls			
Wind erosion controls are effectively implemented	N/A		
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Yes	No	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	~~N/A~~ Yes	No	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Yes	No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Yes	No	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	N/A		
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Yes	No	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. N/A		
2. N/A		
3. N/A		
4. N/A		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 7/8/16			Date Report Written: 7/8/16	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court - Nelle, 1347, & Lendrum

Construction stage and completed activities: Rough Grading			Approximate area of site that is exposed: ~0.75
Photos Taken: (Circle one)	(Yes)	No	Photo Reference IDs:

Weather

Estimate storm beginning: (date and time) N/A	Estimate storm duration: (hours) N/A
Estimate time since last storm: (days or hours) N/A	Rain gauge reading and location: (in) N/A

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:

N/A

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gorrell	Inspector Title: Asst. Proj. Sci.
Signature:	Date: 7/8/16

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Yes	No	
Stockpiled construction materials not actively in use are covered and bermed	Yes	No	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	N/A		
Construction materials are minimally exposed to precipitation	Yes	No	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Yes	No	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Yes	No	
Sanitation facilities are clean and with no apparent for leaks and spills	Yes	No	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Yes	No	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Yes	No	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Yes	No	
Procedures are in place for addressing hazardous and non-hazardous spills	Yes	No	
Appropriate spill response personnel are assigned and trained	Yes	No	
Equipment and materials for cleanup of spills is available onsite	Yes	No	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Yes	No	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Yes	No	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Yes	No	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y/es	No	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	Yes	No	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	N/A		
Bagged erodible landscape materials are stored on pallets and covered	N/A		
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	N/A		
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Yes		
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	Yes		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Yes		
Erosion Controls			
Wind erosion controls are effectively implemented	Yes	No	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Yes	No	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Yes	No	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Yes	No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Yes	No	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Yes	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Yes	No	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. N/A		
2. N/A		
3. N/A		
4. N/A		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 7/15/16 0900			Date Report Written: 7/15/16	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: Rough Grading		Approximate area of site that is exposed: ~ 0.75 ACRE
Photos Taken: (Circle one)	Yes / No	Photo Reference IDs:

Weather

Estimate storm beginning: (date and time) N/A	Estimate storm duration: (hours) N/A
Estimate time since last storm: (days or hours) 72 MONTHS	Rain gauge reading and location: (in) N/A

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: N/A

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Corrick	Inspector Title: Asst. Proj. Scientist
Signature:	Date: 7/15/16

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	No	No	
Stockpiled construction materials not actively in use are covered and bermed	Yes	No	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	N/A	No	
Construction materials are minimally exposed to precipitation	Yes	No	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Yes	No	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Yes	No	
Sanitation facilities are clean and with no apparent for leaks and spills	Yes	No	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Yes	No	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Yes	No	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Yes	No	
Procedures are in place for addressing hazardous and non-hazardous spills	Yes	No	
Appropriate spill response personnel are assigned and trained	Yes	No	
Equipment and materials for cleanup of spills is available onsite	Yes	No	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A	No	
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Yes	No	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Yes	No	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	N/A	No	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Yes	No	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	Yes	No	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	N/A		
Bagged erodible landscape materials are stored on pallets and covered	N/A		
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	N/A		
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Yes	No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A	No	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Yes	No	
Erosion Controls			
Wind erosion controls are effectively implemented	Yes	No	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Yes	No	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Yes	No	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Yes	N/A, No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Yes	No	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	N/A		
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Yes	No	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 7/22			Date Report Written: 7/22	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: Rough Grading			Approximate area of site that is exposed: 0.75
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs:

Weather

Estimate storm beginning: (date and time) N/A	Estimate storm duration: (hours) N/A
Estimate time since last storm: (days or hours) N/A	Rain gauge reading and location: (in) N/A

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Corrick	Inspector Title: Asst. Proj. Scientist
Signature:	Date: 7/22/16

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y/C3		
Stockpiled construction materials not actively in use are covered and bermed	Y/C3		
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	N/A		
Construction materials are minimally exposed to precipitation	Y/C3		
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y/C3		
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Y/C3		
Sanitation facilities are clean and with no apparent for leaks and spills	Y/C3		
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y/C3		
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y/C3		
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y/C3		
Procedures are in place for addressing hazardous and non-hazardous spills	Y/C3		
Appropriate spill response personnel are assigned and trained	Y/C3		
Equipment and materials for cleanup of spills is available onsite	Y/C3		
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y/C3		
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y/C3		
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y/C3		

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Yes		
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	N/A		
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	N/A		
Bagged erodible landscape materials are stored on pallets and covered	Yes		
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Yes		
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Yes		
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Yes		
Erosion Controls			
Wind erosion controls are effectively implemented	Yes		
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Yes		
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Yes		
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Yes		
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Yes		
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Yes		
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Yes		

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. **Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).**	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 7/29/16			Date Report Written: 7/29/16	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII* (Circle one)	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: ROUGH GRADING + GOPHER MESH			Approximate area of site that is exposed: 0.75 ACRES
Photos Taken: (Circle one)	Yes	(No)	Photo Reference IDs:

Weather

Estimate storm beginning: (date and time) N/A	Estimate storm duration: (hours) N/A
Estimate time since last storm: (days or hours) N/A	Rain gauge reading and location: (in) N/A

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/(N))
If yes, summarize forecast:
No

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Morrick	Inspector Title: Asst. Proj. Sci.
Signature:	Date: 7/29/16

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	No	No	
Stockpiled construction materials not actively in use are covered and bermed	No	No	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed		No	
Construction materials are minimally exposed to precipitation		No	
BMPs preventing the off-site tracking of materials are implemented and properly effective		No	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	No	No	
Sanitation facilities are clean and with no apparent for leaks and spills		No	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events		No	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water		No	
Stockpiled waste material is securely protected from wind and rain if not actively in use		No	
Procedures are in place for addressing hazardous and non-hazardous spills		No	
Appropriate spill response personnel are assigned and trained		No	
Equipment and materials for cleanup of spills is available onsite		No	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A	No	
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters		No	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs		No	
Vehicle and equipment leaks are cleaned immediately and disposed of properly		No	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	YES	NO	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	YES	NO	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	N/A		
Bagged erodible landscape materials are stored on pallets and covered	YES	NO	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	YES	NO	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	YES	NO	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	YES	NO	
Erosion Controls			
Wind erosion controls are effectively implemented	YES		
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	YES	NO	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	YES	NO	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	YES	NO	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	YES	NO	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	YES	NO	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	YES	NO	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. Clean Out DI Protections	7/29	Clean Out/Replace DI Protections Completed Same Day
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.

Discharge Location, Storage or Containment Area	Visual Observation

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.

Required Actions	Implementation Date
N/A	

BMP INSPECTION REPORT

Date and Time of Inspection: 8/5/16 1353 to 1500			Date Report Written: 8/5/16	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: Back Fill + Compaction/Mixing	Approximate area of site that is exposed: 0.75 Acres

Photos Taken: (Circle one)	Yes	No	Photo Reference IDs:

Weather

Estimate storm beginning: (date and time) N/A	Estimate storm duration: (hours) N/A
Estimate time since last storm: (days or hours) N/A	Rain gauge reading and location: (in) N/A

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Cerbich	Inspector Title: Asst. Proj. Sci.
Signature:	Date: 8/5/16

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	No	No	
Stockpiled construction materials not actively in use are covered and bermed	No	No	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	No	No	
Construction materials are minimally exposed to precipitation	No	No	
BMPs preventing the off-site tracking of materials are implemented and properly effective	No	No	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	No	No	
Sanitation facilities are clean and with no apparent for leaks and spills	No	No	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	No	No	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	No	No	
Stockpiled waste material is securely protected from wind and rain if not actively in use	No	No	
Procedures are in place for addressing hazardous and non-hazardous spills	No	No	
Appropriate spill response personnel are assigned and trained	No	No	
Equipment and materials for cleanup of spills is available onsite	No	No	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	No	No	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	No	No	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	No	No	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y/ES	No	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	Y/ES	No	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	Y/ES	No	
Bagged erodible landscape materials are stored on pallets and covered	Y/ES	No	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y/ES	No	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y/ES	No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y/ES	No	
Erosion Controls			
Wind erosion controls are effectively implemented	Y/ES	No	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y/ES	No	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y/ES	No	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y/ES	No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y/ES	No	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y/ES	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y/ES		

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location ~~N~~ Inlet	Description ~~Rumble~~ Strips Cleaned Out 8/5
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.

Discharge Location, Storage or Containment Area	Visual Observation

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.

Required Actions	Implementation Date
Nice Rumble Strip Clean Out	8/6
Continued Tracking Street Sweeping	8/5
West Side Wattle Maint.	8/5

BMP INSPECTION REPORT

Date and Time of Inspection:			Date Report Written:
~~8/12/16~~ 8/11 JC	1015 → 1130		~~8/12/16~~ 8/11 JC

Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: BACKFILL & SEED TRANS	Approximate area of site that is exposed:
Photos Taken: (Circle one) Yes (NO)	Photo Reference IDs:

Weather

Estimate storm beginning: (date and time) N/A	Estimate storm duration: (hours) N/A
Estimate time since last storm: (days or hours) N/A	Rain gauge reading and location: (in) N/A

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: N/A

Exemption Documentation (explanation required if inspection could not be conducted).

Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: S. Correia	Inspector Title: Asst Proj Sci
Signature:	Date: 8/11

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	No	
Stockpiled construction materials not actively in use are covered and bermed	Y	No	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y	No	
Construction materials are minimally exposed to precipitation	Y	No	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	No	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A	No	
Portable toilets are contained to prevent discharges of waste	Y	No	
Sanitation facilities are clean and with no apparent for leaks and spills	Y	No	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y	No	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	No	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	No	
Procedures are in place for addressing hazardous and non-hazardous spills	Y	No	
Appropriate spill response personnel are assigned and trained	Y	No	
Equipment and materials for cleanup of spills is available onsite	Y	No	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A	No	
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	No	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y	No	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y	N	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	No	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	N/A	N	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	N/A		
Bagged erodible landscape materials are stored on pallets and covered	Y	No	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N/A	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y	N/A	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N/A	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y	No	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y	No	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N/A	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	No	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	No	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. **Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).**	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 8/19/16 0800			Date Report Written: 8/19/16	
Inspection Type: (Circle one)	Weekly *Complete Parts I, II, III and VII* (2)	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: Compaction, Mixing			Approximate area of site that is exposed: 0.75 Acres
Photos Taken: (Circle one)	Yes	(No)	Photo Reference IDs:

Weather

Estimate storm beginning: (date and time) N/A	Estimate storm duration: (hours) N/A
Estimate time since last storm: (days or hours) N/A	Rain gauge reading and location: (in) N/A

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: N/A

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Garrich	Inspector Title: Asst. Proj Sup
Signature:	Date: 9/19

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	No	
Stockpiled construction materials not actively in use are covered and bermed	Y	No	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y	No	
Construction materials are minimally exposed to precipitation	Y	No	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	No	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	Y	No	
Portable toilets are contained to prevent discharges of waste	Y	No	
Sanitation facilities are clean and with no apparent for leaks and spills	Y	No	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y	No	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	No	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	No	
Procedures are in place for addressing hazardous and non-hazardous spills	Y	No	
Appropriate spill response personnel are assigned and trained	Y	No	
Equipment and materials for cleanup of spills is available onsite	Y	No	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A	No	
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	No	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y	No	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y	No	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	No	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	N/A	N	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	N/A		
Bagged erodible landscape materials are stored on pallets and covered	N/A Y	No	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N/C	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	N	No	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N/C	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y	No	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y	N/C	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	No	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	No	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 9/9/16 0970	Date Report Written: 9/9/16

Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: Gopher Mesh + Seed Mix	Approximate area of site that is exposed: 0.75 ACRES

Photos Taken: (Circle one)	Yes	No	Photo Reference IDs:

Weather

Estimate storm beginning: (date and time) N/A	Estimate storm duration: (hours) N/A
Estimate time since last storm: (days or hours) N/A	Rain gauge reading and location: (in) N/A

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: N/A

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gorrick	Inspector Title: Asst. Prof. Sci.

Signature:	Date: 9/9/16

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	No	
Stockpiled construction materials not actively in use are covered and bermed	Y	No	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y	No	
Construction materials are minimally exposed to precipitation	Y	No	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	No	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	~~N/A~~ Y	No	
Portable toilets are contained to prevent discharges of waste	Y	No	
Sanitation facilities are clean and with no apparent for leaks and spills	Y	No	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y	No	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	No	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	No	
Procedures are in place for addressing hazardous and non-hazardous spills	Y	No	
Appropriate spill response personnel are assigned and trained	Y	No	
Equipment and materials for cleanup of spills is available onsite	Y	No	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A	No	
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	No	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y	No	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y	No	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	No	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	Y	No	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	Y	No	
Bagged erodible landscape materials are stored on pallets and covered	Y	No	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	No	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y	No	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	No	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y	No	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y	No	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	No	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	No	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 9/16/16 0900			Date Report Written: 9/16/16	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII* (circled)	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: Gopher Mesh, Load/Haul Fill		Approximate area of site that is exposed: ~ 1.2 Acres
Photos Taken: (Circle one)	Yes (circled) / No	Photo Reference IDs: 09/16/16 SWPPP Ins Photos

Weather

Estimate storm beginning: (date and time) N/A	Estimate storm duration: (hours) N/A
Estimate time since last storm: (days or hours) N/A	Rain gauge reading and location: (in) N/A

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: JC Gorsch	Inspector Title: Asst. Proj. Sup.
Signature:	Date: 9/16/16

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	~~No~~ Y/B	No	
Stockpiled construction materials not actively in use are covered and bermed	~~Y/B~~ ~~N/A~~ Y/B	No	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	~~Y/B~~ ~~N/A~~ Y/B	No	
Construction materials are minimally exposed to precipitation	~~No~~ Y/B	No	
BMPs preventing the off-site tracking of materials are implemented and properly effective	~~No~~ Y/B	No	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	~~No~~ Y/B	No	
Sanitation facilities are clean and with no apparent for leaks and spills	~~No~~ Y/B	No	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y/B	No	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	N/A		
Stockpiled waste material is securely protected from wind and rain if not actively in use	N/A		
Procedures are in place for addressing hazardous and non-hazardous spills	Y/B	No	
Appropriate spill response personnel are assigned and trained	Y/B	No	
Equipment and materials for cleanup of spills is available onsite	Y/B	No	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y/B	No	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y/B		
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y/B		

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	YES	NO	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	N/A		
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	N/A		
Bagged erodible landscape materials are stored on pallets and covered	YES	NO	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	YES	NO	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	YES	NO	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	YES	NO	
Erosion Controls			
Wind erosion controls are effectively implemented	YES	NO	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	YES	NO	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	YES	NO	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	YES	NO	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	YES	NO	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	YES	NO	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	YES	NO	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. WATTLE ALONG CONTOUR NEEDS REPLACEMENT	9/16/16	REPLACE/REPOSITION WATTLE
2. MAT		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description N/A
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.

Discharge Location, Storage or Containment Area	Visual Observation
N/A	
	N/A

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.

Required Actions	Implementation Date

BMP INSPECTION REPORT

Date and Time of Inspection: 9/13 1030			Date Report Written: 10 9/23	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court			
Construction stage and completed activities: BACKFILL & COMPACTION			Approximate area of site that is exposed: 0.65 ACRES
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs:

Weather

Estimate storm beginning: (date and time) N/A	Estimate storm duration: (hours) N/A
Estimate time since last storm: (days or hours) N/A	Rain gauge reading and location: (in) N/A

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: N/A

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Cerrick	Inspector Title: Asst. Env. Sci.
Signature:	Date: 9/23

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	~~N~~ Y C3	N	
Stockpiled construction materials not actively in use are covered and bermed	~~N~~ Y C3	N	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y C3	N	
Construction materials are minimally exposed to precipitation	Y C3	N	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y C3		
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Y C3	N	
Sanitation facilities are clean and with no apparent for leaks and spills	Y C3	N	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y C3	N	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y C3	N	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y C3	N	
Procedures are in place for addressing hazardous and non-hazardous spills	Y C3	N	
Appropriate spill response personnel are assigned and trained	Y C3	N	
Equipment and materials for cleanup of spills is available onsite	Y C3	N	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y C3	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y C3	N	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y C3	N	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y/(N)	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	Y/(N)	N	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	N/A		
Bagged erodible landscape materials are stored on pallets and covered	Y/(N)	N	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y/(N)	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y/(N)	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y/(N)	N	
Erosion Controls			
Wind erosion controls are effectively implemented	Y/(N)	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y/(N)	N	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y/(N)	N	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y/(N)	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y/(N)	N	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y/(N)	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y/(N)	N	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. DAMAGED WATTLE	9/23	REPAIR/REPLACE WATTLE IN WEST SIDE.
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 9/30/16 0830			Date Report Written: 9/30	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: BACKFILL + COMPACTION			Approximate area of site that is exposed: 0.75 ACRES
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 093016 PHOTOS

Weather

Estimate storm beginning: (date and time) N/A SC 10/2 - 10/3	Estimate storm duration: (hours) N/A SC 12 hrs
Estimate time since last storm: (days or hours) N/A ~12 MONTHS	Rain gauge reading and location: (in) N/A

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: N/A NO

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gerisch	Inspector Title: Asst Proj Supt.
Signature:	Date: 9/30

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed	Y	N	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y	N	
Construction materials are minimally exposed to precipitation	Y	N	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	N	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Y	N	
Sanitation facilities are clean and with no apparent for leaks and spills	Y	N	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y	Y	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	N	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	N	
Procedures are in place for addressing hazardous and non-hazardous spills	Y	N	
Appropriate spill response personnel are assigned and trained	Y	N	
Equipment and materials for cleanup of spills is available onsite	Y	N	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y	N	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y	N	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	Y	N	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	Y	N	
Bagged erodible landscape materials are stored on pallets and covered	Y	N	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	Y	N	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y	N	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y	N	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y	N	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	N	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. West Side Wattle	9/30	Replace Wattle
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	N/A
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	Yes
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	N/A
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.

Discharge Location, Storage or Containment Area	Visual Observation

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.

Required Actions	Implementation Date
Clean Out Laundry Gutter.	10/3

BMP INSPECTION REPORT

Date and Time of Inspection: 10/3/16 1015			Date Report Written: 10/3	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: Back fill, Finish Grade			Approximate area of site that is exposed: 0.75 Acres
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 100316 Photos

Weather

Estimate storm beginning: (date and time) 10/2 → 10/3	Estimate storm duration: (hours) ~12 hrs
Estimate time since last storm: (days or hours) ~30 Days	Rain gauge reading and location: (in)

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: No

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gerosh	Inspector Title: Asst. Proj. Sci.
Signature:	Date: 10/3/16

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	No	
Stockpiled construction materials not actively in use are covered and bermed	Y	N	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y	N	
Construction materials are minimally exposed to precipitation	Y	N	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	N	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	Y	N	
Portable toilets are contained to prevent discharges of waste	Y	N	
Sanitation facilities are clean and with no apparent for leaks and spills	Y	N	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y	N	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	N	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	N	
Procedures are in place for addressing hazardous and non-hazardous spills	Y	N	
Appropriate spill response personnel are assigned and trained	Y	N	
Equipment and materials for cleanup of spills is available onsite	Y	N	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y	N	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	~~N/A~~ Y	N	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	Y	N	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	Y	N	
Bagged erodible landscape materials are stored on pallets and covered	Y	N	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	Y	N	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y	N	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y	N	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y	N	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	N	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, (No) N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location N/A	Description N/A
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**
McGuire & Hester Creating Trackout	10/3

BMP INSPECTION REPORT

Date and Time of Inspection: 10/7/16 1000			Date Report Written: 10/7/16	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: West Side Remedial Excavation		Approximate area of site that is exposed: 1.00 Acres
Photos Taken: (Circle one) Yes	No	Photo Reference IDs: 10/7/16 Photos

Weather

Estimate storm beginning: (date and time) N/A	Estimate storm duration: (hours) N/A
Estimate time since last storm: (days or hours) 5 Days	Rain gauge reading and location: (in) N/A

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Carrick	Inspector Title: Asst. Proj Sci.
Signature:	Date: 10/7/16

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	No	
Stockpiled construction materials not actively in use are covered and bermed	Y	No	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y	No	
Construction materials are minimally exposed to precipitation	Y	No	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	No	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Y	No	
Sanitation facilities are clean and with no apparent for leaks and spills	Y	No	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y	No	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	No	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	No	
Procedures are in place for addressing hazardous and non-hazardous spills	Y	No	
Appropriate spill response personnel are assigned and trained	Y	No	
Equipment and materials for cleanup of spills is available onsite	Y	No	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	No	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y/B	No	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y/B	No	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y/E3	No	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	N/A		
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	N/A		
Bagged erodible landscape materials are stored on pallets and covered	Y/E3	No	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y/E3	No	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y/E3	No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y/E3	No	
Erosion Controls			
Wind erosion controls are effectively implemented	Y/E3	No	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y/E3	No	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y/E3	No	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y/E3	No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y/E3	No	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y/E3	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y/E3	No	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies

Deficiency	Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.	
	Start Date	Action
1. SWALE SOUTH OF LENDRUM	10/7	CLEAN OUT SWALE OF DEBRIS, REDISTRIBUTE GRAVEL BAGS
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).

	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**
Clean Out Ditch South of Lendmm	10/7/16

BMP INSPECTION REPORT

Date and Time of Inspection:			Date Report Written:	
10/12/16 1200 → 1400			10/12/16	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities:	Approximate area of site that is exposed:
REMEDIAL EXCAVATION, V+H CONCRETE WORK	~0.75 ACRES

Photos Taken: (Circle one)	Yes	No	Photo Reference IDs:
	(Yes)		101216 SWPPP

Weather

Estimate storm beginning: (date and time)	Estimate storm duration: (hours)
10/13 ~2300	72 hours
Estimate time since last storm: (days or hours)	**Rain gauge reading and location: (in)**
~14 days	N/A

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:
10/14 → 10/16 FORECASTED TO ~1.36"

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name:	Inspector Title:
J. Carbsch	Asst. Proj. Sci.

Signature:	Date:
	10/12/16

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y/E3	No	
Stockpiled construction materials not actively in use are covered and bermed	Y/E3	No	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y/E3	No	
Construction materials are minimally exposed to precipitation	Y/E3	No	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y/E3	No	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	No	Y/E3	10/12
Portable toilets are contained to prevent discharges of waste	Y/E3	No	
Sanitation facilities are clean and with no apparent for leaks and spills	Y/E3	No	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y/E3	No	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y/E3	No	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y/E3	No	
Procedures are in place for addressing hazardous and non-hazardous spills	Y/E3	No	
Appropriate spill response personnel are assigned and trained	Y/E3	No	
Equipment and materials for cleanup of spills is available onsite	Y/E3	No	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	No	Y/E3	10/12 Mat
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y/E3	No	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y/E3	No	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y/E3	No	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y/3	No	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	Y/3	No	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	Y/3	No	
Bagged erodible landscape materials are stored on pallets and covered	Y/3	No	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y/3	No	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y/3	No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y/3	No	
Erosion Controls			
Wind erosion controls are effectively implemented	Y/3	No	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y/3	No	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y/3	No	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y/3	No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y/3	No	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y/3	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y/3	No	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. WATTLE ALONG ~~EAST~~ TOE	10/13	INSTALL + MAINTAIN
2. M+H CONCRETE WASHOUT	10/13	RELOCATE + CLEAN UP.
3. SILT FENCE @ TOE OF EAST SLOPE	10/13	REPAIR AND/OR REPLACE
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	YES
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	YES
Notes: M+H CONCRETE KIDDIE POOL TO BE REMOVED PRIOR TO RAIN EVENT	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	N/A
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.

Discharge Location, Storage or Containment Area	Visual Observation

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.

Required Actions	Implementation Date

BMP INSPECTION REPORT

Date and Time of Inspection: 10/13/16 1000 → 1700			Date Report Written: 10/13/16	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: BMP INSTALLATION			Approximate area of site that is exposed: ~0.75 ACRES
Photos Taken: (Circle one)	(Yes)	No	Photo Reference IDs: 101316 SWPPP

Weather

Estimate storm beginning: (date and time) 10/13 ~1700	Estimate storm duration: (hours) 72 hrs
Estimate time since last storm: (days or hours) 14 Days	Rain gauge reading and location: (in)

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: 0.53" To Fall 10/14 5am → 11am, 0.18" To Fall 11 → 5pm

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Correia	Inspector Title: Asst. Proj. Sci.
Signature:	Date: 10/13/16

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	No	
Stockpiled construction materials not actively in use are covered and bermed	Y	No	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y	No	
Construction materials are minimally exposed to precipitation	Y	No	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	No	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Y	No	
Sanitation facilities are clean and with no apparent for leaks and spills	Y	No	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y	No	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	No	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	No	
Procedures are in place for addressing hazardous and non-hazardous spills	Y	No	
Appropriate spill response personnel are assigned and trained	Y	No	
Equipment and materials for cleanup of spills is available onsite	Y	No	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Yes	No	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Yes	No	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Yes	No	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y/E3	No	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	Y/E3	No	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	Y/E3	N/A	
Bagged erodible landscape materials are stored on pallets and covered	Y	No	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	No	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y	No	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	No	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y	No	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y	No	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y/E3	No	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y/E3	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y/E3	No	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. LENDRUM RD DI's TO CLEANED	10/14	CLEAN UP DI's @ LENDRUM
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location Lendrum Ct	Description Some Clean Up Needed
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 10/14/16 0800 →			Date Report Written: 10/14	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: BMP MAINT.			Approximate area of site that is exposed: ~ 0.75 ACRES
Photos Taken: (Circle one)	(Yes)	No	Photo Reference IDs: 101416 SWPPP

Weather

Estimate storm beginning: (date and time) 10/15	Estimate storm duration: (hours) 72 hrs
Estimate time since last storm: (days or hours) 14 Days	Rain gauge reading and location: (in)

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: 1.1" OF RAIN FROM 10/14 → 10/16

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Corrick	Inspector Title: Asst. Proj. Sci.
Signature:	Date: 10/14/16

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	No	
Stockpiled construction materials not actively in use are covered and bermed	Y	No	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y	No	
Construction materials are minimally exposed to precipitation	Y	No	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	No	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A	N	
Portable toilets are contained to prevent discharges of waste	Y	No	
Sanitation facilities are clean and with no apparent for leaks and spills	Y	No	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y	Dumpster Today	Removed
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	No	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	No	
Procedures are in place for addressing hazardous and non-hazardous spills	Y	No	
Appropriate spill response personnel are assigned and trained	Y	No	
Equipment and materials for cleanup of spills is available onsite	Y	No	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	No	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y	No	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y	No	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	No	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	Y	No	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	Y	No	
Bagged erodible landscape materials are stored on pallets and covered	Y	No	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	No	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	Y	No	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y	No	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	No	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y	No	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y	No	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	No	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	No	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location LENDRUM / LINCOLN BLVD	Description DI WAS CLEANED OUT
Location BACHARD AVE STOCKPILE	Description STOCKPILE RE-COVERED.
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection:	Date Report Written:
10/15/16 0930 → 1030	10/15

Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities:	Approximate area of site that is exposed:
REMEDIAL EXCAVATION / ROUGH GRADING	0.75 ACRES

Photos Taken: (Circle one)	Yes	No	Photo Reference IDs:
	(Yes)		101516 SUPPP

Weather

Estimate storm beginning: (date and time)	Estimate storm duration: (hours)
10/13 ~1700	72 hrs
Estimate time since last storm: (days or hours)	**Rain gauge reading and location: (in)**
~14 Days	0.67"

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:
80% CHANCE OF RAIN 10/15 → 10/16

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name:	Inspector Title:
J. Correia	Asst. Proj. Sci.

Signature:	Date:
	10/15/16

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	No	
Stockpiled construction materials not actively in use are covered and bermed	Y	No	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y	No	
Construction materials are minimally exposed to precipitation	Y	No	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	No	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Y	No	
Sanitation facilities are clean and with no apparent for leaks and spills	Y	No	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y	No	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	No	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	No	
Procedures are in place for addressing hazardous and non-hazardous spills	Y	No	
Appropriate spill response personnel are assigned and trained	Y	No	
Equipment and materials for cleanup of spills is available onsite	Y	No	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	No	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y	No	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y	No	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	No	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	Y	No	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	Y	No	
Bagged erodible landscape materials are stored on pallets and covered	Y	No	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	No	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y	No	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	No	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y	No	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y	No	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	No	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	No	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. **Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).**	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location LONDRUM CT	Description SOME BACKUP DUE TO DI SOCK. SOCK REMOVED, NO SIGN OF SOIL FLOW OFF SITE.
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 10/17/16 0810 -> 0945			Date Report Written: 10/17/16	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court
~~Rough Grade~~

Construction stage and completed activities: Rough Grade + BMPs	Approximate area of site that is exposed: ~0.80 Acres

Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: SWPPP 10/7/16

Weather

Estimate storm beginning: (date and time) 10/14 1700	Estimate storm duration: (hours) 72 hrs
Estimate time since last storm: (days or hours) 24 hrs	Rain gauge reading and location: (in) 1.7"

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:
Rain from 10/14 Evening To Sunday 10/16

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gorrick	Inspector Title: Assi. Proj. Sci.
Signature:	Date: 10/17/16

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	~~No~~	
Stockpiled construction materials not actively in use are covered and bermed	Y	No	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y	No	
Construction materials are minimally exposed to precipitation	Y	No	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	No	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A	~~No~~	
Portable toilets are contained to prevent discharges of waste	Y	No	
Sanitation facilities are clean and with no apparent for leaks and spills	Y	No	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y	No	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	No	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	No	
Procedures are in place for addressing hazardous and non-hazardous spills	Y	No	
Appropriate spill response personnel are assigned and trained	Y	No	
Equipment and materials for cleanup of spills is available onsite	Y	No	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	No	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y	No	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y	No	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	No	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	Y	No	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	Y	No	
Bagged erodible landscape materials are stored on pallets and covered	Y	No	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	No	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	Y	No	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y	No	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	No	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y	No	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y	No	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	No	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	No	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. Rills on South Slope	10/17	Fill In + Recompact.
2. DI @ Lincoln	10/17	Clean Out + Replace
3. DI @ Lendrum	10/17	Replace w/ Yellow Jacket Socks
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	N/A
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	Yes
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	N/A
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.

Discharge Location, Storage or Containment Area	Visual Observation
LONDRUM DI PROTECT	CLOGGED & OVERFLOWED
SOUTH SLOPE	SOME MINOR RILLS

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.

Required Actions	Implementation Date

BMP INSPECTION REPORT

Date and Time of Inspection: 10/21/14 0806 to 1200			Date Report Written: 10/21	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: Rough Grade + BMPs			Approximate area of site that is exposed: 0.80 Acres
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 102114 SWPP

Weather

Estimate storm beginning: (date and time) 10/24 1700	Estimate storm duration: (hours) 24 hrs
Estimate time since last storm: (days or hours) 7 Days	Rain gauge reading and location: (in) 0

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: 0.42" Predicted

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gorsek	Inspector Title: Asst. Proj. Sci.
Signature:	Date: 10/21/14

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed	Y	N	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y	N	
Construction materials are minimally exposed to precipitation	Y	N	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	N	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	Y	N	
Portable toilets are contained to prevent discharges of waste	Y	N	
Sanitation facilities are clean and with no apparent for leaks and spills	Y	N	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y	N	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	N	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	N	
Procedures are in place for addressing hazardous and non-hazardous spills	Y	N	
Appropriate spill response personnel are assigned and trained	Y	N	
Equipment and materials for cleanup of spills is available onsite	Y	N	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y	N	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y	N	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	Y	N	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	Y	N	
Bagged erodible landscape materials are stored on pallets and covered	Y	N	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y	N	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y	N	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y	N	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	N	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. **Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).**	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	N/A
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	Yes
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	N/A
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.

Discharge Location, Storage or Containment Area	Visual Observation

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.

Required Actions	Implementation Date
CREW PREPPING FOR BMP INSTALL, CUTTING	10/22
TRENCHES FOR WATTLE, SPRAYING POLY-CURE,	
SEED, + MOBILIZING BMPs TO SITE FOR	

INSTALL ON 10/22 (SAT)

BMP INSPECTION REPORT

Date and Time of Inspection: 10/24/16 0800 & 1500			Date Report Written: 10/24/16	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, IV, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: ROUGH GRADING + BMPs			Approximate area of site that is exposed:
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 10/24/16 SWPPP

Weather

Estimate storm beginning: (date and time) 10/24 1700	Estimate storm duration: (hours) ~24 HRS
Estimate time since last storm: (days or hours) 7 DAYS	Rain gauge reading and location: (in) 0.32"

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: 0.32" ONLY

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. GARRICK	Inspector Title: ASST. PROJ. SCE.
Signature:	Date: 10/24/16

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	No	
Stockpiled construction materials not actively in use are covered and bermed	Y	No	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y	No	
Construction materials are minimally exposed to precipitation	Y	No	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	No	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	Y	No	
Portable toilets are contained to prevent discharges of waste	Y	No	
Sanitation facilities are clean and with no apparent for leaks and spills	Y	No	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y	No	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	No	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	No	
Procedures are in place for addressing hazardous and non-hazardous spills	Y	No	
Appropriate spill response personnel are assigned and trained	Y	No	
Equipment and materials for cleanup of spills is available onsite	Y	No	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	Y N/A	No	
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	No	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y	No	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y	No	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	No	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	Y	No	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	Y	No	
Bagged erodible landscape materials are stored on pallets and covered	Y	No	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	No	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	Y	No	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y	No	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	No	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y	No	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y	No	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	No	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	No	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. ~~Some BMP~~		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location NIKE SITE	Description STOCKPILE @ NIKE NEEDS TO BE RE-COVERED. DONE 10/24 @ 1500
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.

Discharge Location, Storage or Containment Area	Visual Observation

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.

Required Actions	Implementation Date

BMP INSPECTION REPORT

Date and Time of Inspection: 10/25/16 0800 → 1500			Date Report Written: 10/25/16	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: Gopher Mesh/ Rough Grade			Approximate area of site that is exposed:
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 102516 SWPPP

Weather

Estimate storm beginning: (date and time) 10/24 @ 1700	Estimate storm duration: (hours) 24 hrs
Estimate time since last storm: (days or hours) 5 - Days	Rain gauge reading and location: (in) 0.21

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gorrick	Inspector Title: Asst. Proj. Sci.
Signature:	Date: 10/25/16

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	No	
Stockpiled construction materials not actively in use are covered and bermed	Y	No	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y	No	
Construction materials are minimally exposed to precipitation	Y	No	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	No	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	Y	No	
Portable toilets are contained to prevent discharges of waste	Y	No	
Sanitation facilities are clean and with no apparent for leaks and spills	Y	No	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y	No	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	No	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	No	
Procedures are in place for addressing hazardous and non-hazardous spills	Y	No	
Appropriate spill response personnel are assigned and trained	Y	No	
Equipment and materials for cleanup of spills is available onsite	Y	No	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A	~~No~~	
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	No	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y	No	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y	No	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N/A	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	Y	No	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	Y	N/A	
Bagged erodible landscape materials are stored on pallets and covered	Y	No	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	No	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	Y	No	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y	No	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	No	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y	No	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y	No	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	No	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	No	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. S. Trackout @ Henderson	10/25	All Trackout Swept + Cleaned
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location BLDG B4/7	Description Re-Cover Pile.
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 10/27/16 1500→1700			Date Report Written: 10/27	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: ROUGH GRADE			Approximate area of site that is exposed: ~ 0.8 ACRES
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 102716 SWPPP

Weather

Estimate storm beginning: (date and time) 10/22 ~1700	Estimate storm duration: (hours) 10-DAYS
Estimate time since last storm: (days or hours) 17 DAYS	Rain gauge reading and location: (in)

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. GRRICH	Inspector Title: ASST. PROJ. SUP
Signature:	Date: 10/27

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	No	
Stockpiled construction materials not actively in use are covered and bermed	Y	No	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y	No	
Construction materials are minimally exposed to precipitation	Y	No	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	No	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	Y	No	
Portable toilets are contained to prevent discharges of waste	Y	No	
Sanitation facilities are clean and with no apparent for leaks and spills	Y	No	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y	No	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	No	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	No	
Procedures are in place for addressing hazardous and non-hazardous spills	Y	No	
Appropriate spill response personnel are assigned and trained	Y	No	
Equipment and materials for cleanup of spills is available onsite	Y	No	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	No	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y	No	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y	No	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	No	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	Y	No	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	Y	No	
Bagged erodible landscape materials are stored on pallets and covered	Y	No	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	No	
Non-Storm Water Management	Y		
Non-Storm Water discharges are properly controlled		No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	Y	No	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y	No	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	No	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y	No	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y	No	
Sediment Controls	Y		
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site		No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	No	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	No	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. N/A		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location LONDON	Description SOME TRASH BY H&S STAFF 2014
Location MIKO	Description SOME OPEN TRASH BINS
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 10/23/16 1000 + 1230			Date Report Written: 10/28	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: ROUGH GRADE			Approximate area of site that is exposed: 0.80 ACRES
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 102816 SWPPP

Weather

Estimate storm beginning: (date and time) 10/24	Estimate storm duration: (hours) 7-DAYS
Estimate time since last storm: (days or hours) 14 DAYS	Rain gauge reading and location: (in) ~ 0.75"

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Korrick	Inspector Title: ASST PROJ SCI
Signature:	Date: 10/28

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	No	
Stockpiled construction materials not actively in use are covered and bermed	Y	No	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y	No	
Construction materials are minimally exposed to precipitation	Y	No	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	No	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	Y	No	
Portable toilets are contained to prevent discharges of waste	Y	No	
Sanitation facilities are clean and with no apparent for leaks and spills	Y	No	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y	No	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	No	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	No	
Procedures are in place for addressing hazardous and non-hazardous spills	Y	No	
Appropriate spill response personnel are assigned and trained	Y	No	
Equipment and materials for cleanup of spills is available onsite	Y	No	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	No	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y	No	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y	No	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	No	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	Y	No	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	Y	No	
Bagged erodible landscape materials are stored on pallets and covered	Y	No	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	No	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	Y	No	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y	No	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	No	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y	No	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y	No	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	No	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	No	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. PILLS ON WESTSIDE	10/29	WATTLE ADDED TO WEST SIDE
2. CLEAN OUT BEHIND BAGS	10/28	CREW CLEANED OUT BEHIND BAGS.
3.		
4.		

Part IV. Additional Pre-Storm Observations. **Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).**	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location DIs CLEANED OUT	Description
Location LENDRUM DIs	Description CLEANED OUT & REPLACED.
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection:			Date Report Written:	
10/31/16 0600 - 1500			10/31	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court			
Construction stage and completed activities: BMP MAINT.			Approximate area of site that is exposed: ~ 0.80 ACRES
Photos Taken: (Circle one)	(Yes)	No	Photo Reference IDs: 10316 SWPPP

Weather

Estimate storm beginning: (date and time) 10/24 ~ 1700	Estimate storm duration: (hours) 7-DAYS
Estimate time since last storm: (days or hours) 14 DAYS	Rain gauge reading and location: (in) 0.75"

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:
RAIN EVERY 10-12 hrs FROM 10/24 TO 10/31

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Correck	Inspector Title: Asst. Proj Sci.
Signature: JC	Date: 10/31

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	X	No	
Stockpiled construction materials not actively in use are covered and bermed	Y	No	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y	No	
Construction materials are minimally exposed to precipitation	Y	No	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	No	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Y	No	
Sanitation facilities are clean and with no apparent for leaks and spills	Y	No	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y	No	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	No	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	No	
Procedures are in place for addressing hazardous and non-hazardous spills	Y	No	
Appropriate spill response personnel are assigned and trained	Y	No	
Equipment and materials for cleanup of spills is available onsite	Y	No	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	No	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y	No	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y	No	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	No	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	Y	No	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	Y	No	
Bagged erodible landscape materials are stored on pallets and covered	Y	No	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	No	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	Y	No	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y	No	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	No	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y	No	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y	No	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	No	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	No	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. North Stockpiles	10/31	Re-Cover All Piles w/ Plastic
2. 1347 Stockpile	10/31	Re-Cover All Piles
3. West Side Rills	10/31	✓✓ Wattles
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location LINCOLN / LENDRUM	Description CLEAN OUT DIs IN LAYDOWN
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 11/2/16 0800 - 1500			Date Report Written: 11/2/16	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: HOT SPOT EXCAVATION			Approximate area of site that is exposed: 0.80
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 110216 SWPPP

Weather

Estimate storm beginning: (date and time) 10/24	Estimate storm duration: (hours) 8 Days
Estimate time since last storm: (days or hours) 15 Days	Rain gauge reading and location: (in) ~0.85"

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: ON + OFF RAIN FROM 10/24 → 10/31

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Carroll	Inspector Title: ASST. PROJ. SUP
Signature:	Date: 11/2

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed	Y	N	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y	N	
Construction materials are minimally exposed to precipitation	Y	N	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	N	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Y	N	
Sanitation facilities are clean and with no apparent for leaks and spills	Y	N	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y	N	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	N	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	N	
Procedures are in place for addressing hazardous and non-hazardous spills	Y	N	
Appropriate spill response personnel are assigned and trained	Y	N	
Equipment and materials for cleanup of spills is available onsite	Y	N	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y	N	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y	N	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	Y	N	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	Y	N	
Bagged erodible landscape materials are stored on pallets and covered	Y	N	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	Y	N	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y	N	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y	N	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y	N	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	N	
Sediment basins are properly maintained	N/A	N	
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. TEARS IN 1347	11/2	REPLACE/COVER SPOT
2. STOCKPILE COVER		
3. CLEAN OUT LENDRUM DIs	11/2	CLEAN OUT/REPLACE
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.

Discharge Location, Storage or Containment Area	Visual Observation
N/A	

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.

Required Actions	Implementation Date

BMP INSPECTION REPORT

Date and Time of Inspection: 11/18/16 0900 & 1400			Date Report Written: 11/18	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	~~Pre-Storm~~ *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: BACKFILL & COMPACTION			Approximate area of site that is exposed: 1.8 ACRES
Photos Taken: (Circle one)	(Yes)	No	Photo Reference IDs: 11/18/16 SWPPP

Weather

Estimate storm beginning: (date and time) ~~11/18~~ 11/19 4AM	Estimate storm duration: (hours) 48 HRS
Estimate time since last storm: (days or hours) 16 DAYS	Rain gauge reading and location: (in) 0.53

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:
RAIN 11/19 → 11/20

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Cornish	Inspector Title: TEST. PROJ. SCI.
Signature:	Date: 11/18

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed	Y	N	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y	N	
Construction materials are minimally exposed to precipitation	Y	N	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	N	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	Y	N	
Portable toilets are contained to prevent discharges of waste	Y	N	
Sanitation facilities are clean and with no apparent for leaks and spills	Y	N	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y	N	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	N	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	N	
Procedures are in place for addressing hazardous and non-hazardous spills	Y	N	
Appropriate spill response personnel are assigned and trained	Y	N	
Equipment and materials for cleanup of spills is available onsite	Y	N	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y	N	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y	N	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	Y	N	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	Y	N	
Bagged erodible landscape materials are stored on pallets and covered	N/A		
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y	N	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y	N	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y	N	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	N	
Sediment basins are properly maintained	Y	N	
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. N/A		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	Y
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	Y
Notes: WHOLE SITE OFF SITE Covered & Vegetation To Prevent Flow	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	N/A
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

11/18

BMP INSPECTION REPORT

Date and Time of Inspection: 11/19 0900 → 1100			Date Report Written: 11/19	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: Rock FILL			Approximate area of site that is exposed: 1.8 Acres
Photos Taken: (Circle one)	(Yes)	No	Photo Reference IDs: 111916 SLOPE

Weather

Estimate storm beginning: (date and time) 11/19 ~0400	Estimate storm duration: (hours) 48 hrs
Estimate time since last storm: (days or hours) 17 Days	Rain gauge reading and location: (in) 0.53

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: RAIN 11/19 → 11/20

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Corrick	Inspector Title: ASST. PROJ. SUP
Signature: JC	Date: 11/19

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed	Y	N	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y	N	
Construction materials are minimally exposed to precipitation	Y	N	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	N	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	Y	N	
Portable toilets are contained to prevent discharges of waste	Y	N	
Sanitation facilities are clean and with no apparent for leaks and spills	Y	N	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y	N	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	N	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	N	
Procedures are in place for addressing hazardous and non-hazardous spills	Y	N	
Appropriate spill response personnel are assigned and trained	Y	N	
Equipment and materials for cleanup of spills is available onsite	Y	N	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y	N	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y	N	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	N/A		
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	N/A		
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	N/A		
Bagged erodible landscape materials are stored on pallets and covered	N/A		
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y	N	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y	N	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y	N	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	N	
Sediment basins are properly maintained	Y	N	
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. DIC Lendrum	11/19	CLEANED OUT Same Day
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location LONDON CT	Description SOME PLASTIC ON WEST SIDE NEEDED
Location	Description ADJUSTMENT
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

10/19

BMP INSPECTION REPORT

Date and Time of Inspection:			Date Report Written:	
HT 11/20/12 1100-1200			11/21	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities:	Backfill + Completion	Approximate area of site that is exposed:	1.8 Acres
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 112016 SWPPP

Weather

Estimate storm beginning: (date and time)	11/19 ~0400	Estimate storm duration: (hours)	48 hrs
Estimate time since last storm: (days or hours)	~~30~~ 18 Days	Rain gauge reading and location: (in)	0.78"

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: Rain 11/19 -> 20

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name:	J. Greiel	Inspector Title:	Asst Proj. Sup.
Signature:		Date:	11/20

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system			
Portable toilets are contained to prevent discharges of waste			
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil			
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters			
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event			
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered			
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations			
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled			
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems			
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented			
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site			
Entrances and exits are stabilized to control erosion and sediment discharges from the site			
Sediment basins are properly maintained			
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	No	Yes	11/20
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?			

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. Incomplete Cover On West Side.	11/20	Mob To Site. Replaced Plastic Sheeting BMP. Off Site Flow Censed.
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location LENDRUM G	Description OFF SITE FLOW OCCURED DUE TO
Location	Description INADEQUATE PLASTIC COVERING. J. CORRECT REPLACED + PROBLEM SUCCESSFULLY ADDRESSED
Location LINCOLN BLVD	Description FLAT IRON SITE HAD SILT CURTAIN BLOW-OUT + DISCHARGE SED FROM THEIR
Location	Description SITE DOWN LINCOLN BLVD INTO ARRC LAY DOWN AREA
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 11/22/16			Date Report Written: 11/22/16	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: SWPPP + BMP Install			Approximate area of site that is exposed: 1.3 Acres
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 11/22/16 SWPPP

Weather

Estimate storm beginning: (date and time) 11/19	Estimate storm duration: (hours) 72 hrs
Estimate time since last storm: (days or hours) 72 Days	Rain gauge reading and location: (in) N/A

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: Rain 11/22 → 11/25

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Cordell	Inspector Title: Asst. Proj. Sup.
Signature: JC	Date: 11/22

11/22

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed	Y	N	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y	N	
Construction materials are minimally exposed to precipitation	Y	N	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	N	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Y	N	
Sanitation facilities are clean and with no apparent for leaks and spills	Y	N	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y	N	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	N	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	N	
Procedures are in place for addressing hazardous and non-hazardous spills	Y	N	
Appropriate spill response personnel are assigned and trained	Y	N	
Equipment and materials for cleanup of spills is available onsite	Y	N	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y	N	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y	N	

BMP INSPECTION REPORT

11/22

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	N/A		
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	N/A		
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	N/A		
Bagged erodible landscape materials are stored on pallets and covered	N/A		
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	Y	N	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y	N	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y	N	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y	N	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	N	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT 11/22

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	N/A
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	N/A
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

N/A 11/22

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

11/22

BMP INSPECTION REPORT

Date and Time of Inspection: 11/23 0800 → 1700			Date Report Written: 11/23	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court			
Construction stage and completed activities: BMP MAIT			Approximate area of site that is exposed: 1.8 ACRES
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 112316 SWPPP

Weather

Estimate storm beginning: (date and time) 11/19	Estimate storm duration: (hours) 72 HRS
Estimate time since last storm: (days or hours) 22 DAYS	Rain gauge reading and location: (in) N/A

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: RAIN TO 11/25

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gorsch	Inspector Title: ASST. PROJ. SCI
Signature: JC	Date: 11/23

BMP INSPECTION REPORT 11/25

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed	Y	N	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y	N	
Construction materials are minimally exposed to precipitation	Y	N	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	N	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Y	N	
Sanitation facilities are clean and with no apparent for leaks and spills	Y	N	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y	N	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	N	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	N	
Procedures are in place for addressing hazardous and non-hazardous spills	Y	N	
Appropriate spill response personnel are assigned and trained	Y	N	
Equipment and materials for cleanup of spills is available onsite	Y	N	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y	N	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y	N	

BMP INSPECTION REPORT 11/25

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	N/A		
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	N/A		
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	N/A		
Bagged erodible landscape materials are stored on pallets and covered	N/A		
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	Y	N	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y	N	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y	N	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y	N	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	N	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT

11/13

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, (N/A)
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

11/23

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

11/23

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 12/7/16 0952 - 1806			Date Report Written: 12/7/16	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III, VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court			
Construction stage and completed activities: BMP INSTALL			Approximate area of site that is exposed: 0,8 ACRES
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 120716 PRE RAIN

Weather

Estimate storm beginning: (date and time) 12/8 1000	Estimate storm duration: (hours) 72 hrs
Estimate time since last storm: (days or hours) 3 14 Days	Rain gauge reading and location: (in) ~0,85"

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. GREICK	Inspector Title: ASS. PROJ. SUP.
Signature:	Date: 12/7

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed	Y	N	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y	N	
Construction materials are minimally exposed to precipitation	Y	N	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	N	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Y	N	
Sanitation facilities are clean and with no apparent for leaks and spills	Y	N	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y	N	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	N	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	N	
Procedures are in place for addressing hazardous and non-hazardous spills	Y	N	
Appropriate spill response personnel are assigned and trained	Y	N	
Equipment and materials for cleanup of spills is available onsite	Y	N	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y	N	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y	N	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	N/A		
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	N/A		
Bagged erodible landscape materials are stored on pallets and covered	N/A		
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y	N	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y	N	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y	N	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	N	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. BMP's Installed By COB	12/7	FINISHED
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. **Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).**	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

12/7

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**
ADDL BMPs NEEDED ON EAST SIDE	12/8

BMP INSPECTION REPORT

Date and Time of Inspection: 12/8 0800 to 1315			Date Report Written: 12/8	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III, VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: BMP Install + Maint			Approximate area of site that is exposed: 0.10 Acres
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 12916

Weather

Estimate storm beginning: (date and time) 12/8 1000	Estimate storm duration: (hours) 72 hrs
Estimate time since last storm: (days or hours) 15 Days	Rain gauge reading and location: (in) N/A

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: Rain 12/8 to 12/11

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gretek	Inspector Title: Asst. Proj. Sup
Signature:	Date: 12/8

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed	Y	N	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y	N	
Construction materials are minimally exposed to precipitation	Y	N	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	N	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Y	N	
Sanitation facilities are clean and with no apparent for leaks and spills	Y	N	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y	N	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	N	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	N	
Procedures are in place for addressing hazardous and non-hazardous spills	Y	N	
Appropriate spill response personnel are assigned and trained	Y	N	
Equipment and materials for cleanup of spills is available onsite	Y	N	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y	N	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y	N	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	N/A		
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	N/A		
Bagged erodible landscape materials are stored on pallets and covered	N/A		
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y	N	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y	N	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y	N	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	N	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. Stockpile Cover	12/8	Repair 951, Nelis Stockpile
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. **Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).**	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location LENDRUM / LINCOLN	Description DI CLEANED OUT
Location LENDRUM	Description ECB INSTALLED ON SLOPES IN FRONT OF 275, 75, -79.
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

12/8

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 12/9 0800 → 1100			Date Report Written: 12/9	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: BMP, DEMOB, INSPECTION			Approximate area of site that is exposed: 0.1 ACRE
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 12/9/16 RAIN

Weather

Estimate storm beginning: (date and time) 12/8 1000	Estimate storm duration: (hours) 72 hrs
Estimate time since last storm: (days or hours) 16 DAYS	Rain gauge reading and location: (in) ~0.85"

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: RAIN 12/8 → 12/10

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gorsch	Inspector Title: Asst. Proj. Sup.
Signature: JG	Date: 12/9/16

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed	Y	N	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y	N	
Construction materials are minimally exposed to precipitation	Y	N	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	N	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Y	N	
Sanitation facilities are clean and with no apparent for leaks and spills	Y	N	
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y	N	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	N	
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	N	
Procedures are in place for addressing hazardous and non-hazardous spills	Y	N	
Appropriate spill response personnel are assigned and trained	Y	N	
Equipment and materials for cleanup of spills is available onsite	Y	N	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A	N	
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y	N	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y	N	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	N/A		
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	N/A		
Bagged erodible landscape materials are stored on pallets and covered	N/A		
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	Y	N	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	Y	N	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	Y	N	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y	N	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	N	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

12/9

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. **Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).**	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

12/9

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location ALL CLEAN + FLOWING	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

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BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**
Bldg 1230 Stockpile Covered	12/9
Barnard Pile Covered	12/9

BMP INSPECTION REPORT

Date and Time of Inspection: 12/12/16 0800 - 1700			Date Report Written: 12/12	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: FINAL BMP INSTALL			Approximate area of site that is exposed: 0.08
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 121216 SWPPP

Weather

Estimate storm beginning: (date and time) 12/8 - 1000	Estimate storm duration: (hours) 1 Day
Estimate time since last storm: (days or hours) 1 Day	Rain gauge reading and location: (in) ~1.6"

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: RAIN 12/10 AND 12/13

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Carroll	Inspector Title: Asst. Proj. Sup
Signature: JC	Date: 12/12

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste		N	
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	N/A		
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event			
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered			
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems			
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	N	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

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BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, (N/A)
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

12/12

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT 12/18

Part VI. Additional Post-Storm Observations. **Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.**

Discharge Location, Storage or Containment Area	Visual Observation
SLOPE FAILURE @ WEST SIDE BY BLDG 1257. GREW HAS CLEARED & STABILIZED.	

Part VII. Additional Corrective Actions Required. **Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.**

Required Actions	Implementation Date

BMP INSPECTION REPORT

Date and Time of Inspection: ~~12/14/16~~ 12/15/16 0800-1700			Date Report Written: 12/15	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court			
Construction stage and completed activities: BMP MAINT.			Approximate area of site that is exposed:
Photos Taken: (Circle one)	(Yes)	No	Photo Reference IDs: ~~12/T~~ 121516 BMPs

Weather

Estimate storm beginning: (date and time) 12/15 ~1000	Estimate storm duration: (hours) 24 hrs
Estimate time since last storm: (days or hours) 2 DAYS.	Rain gauge reading and location: (in) 1.51"
Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N) If yes, summarize forecast: RAIN 12/15 ~1.5"	

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Corich	Inspector Title: ASST. PROJ. SCI.
Signature: J. C.	Date: 12/15

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective		—	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Y	N	
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite	—	—	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	N/A		
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event			
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered			
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems			
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	N	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. DI @ Lobby	12/15	Unclog - Done 12/15
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. **Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).**	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

12/15

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location LONDON	Description CLOGGED DI. UNCLOGGED & REINSTALLED
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Date and Time of Inspection: 12/16 0800 - 1200			Date Report Written: 12/16	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: Soil Landing			Approximate area of site that is exposed: 0.60
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 12/16/16

Weather

Estimate storm beginning: (date and time) 12/15 ~1000	Estimate storm duration: (hours) 24 hrs
Estimate time since last storm: (days or hours) 1 Day	Rain gauge reading and location: (in) 1.62"

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Cerreta	Inspector Title: Asst. Proj. Sci.
Signature: JC	Date: 12/16

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective	—	—	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Y	N	
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite	—	—	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT 12/16

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	N/A		
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event			
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered			
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems			
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site			
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. **Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).**	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT 12/14

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**
N/A	

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 12/21/16 0700-1030			Date Report Written: 12/21	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: FINAL BMPs			Approximate area of site that is exposed: 0.00
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 122116 SWPPP

Weather

Estimate storm beginning: (date and time) 12/23 ~0400	Estimate storm duration: (hours) 36 hrs
Estimate time since last storm: (days or hours) 7 Days	Rain gauge reading and location: (in) N/A

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? ~~(Y/N)~~
If yes, summarize forecast: 0.81" FRI → SAT

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gorzek	Inspector Title: ASST. PROJ. SUP
Signature: JC	Date: 12/21

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Y	N	
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	N/A	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	〃	〃	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	〃	〃	
Bagged erodible landscape materials are stored on pallets and covered	〃	〃	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	No	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	〃	〃	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	〃	〃	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	No	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	〃	〃	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	〃	〃	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	〃	〃	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y(3)	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y(3)	No	

BMP INSPECTION REPORT

12/21

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes No N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	Yes
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

12/21

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

12/21

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 12/23/16 0730 - 1700			Date Report Written: 12/23	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court			
Construction stage and completed activities: DEMO'S			Approximate area of site that is exposed: 0.05
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 12/23/16 RAIN

Weather

Estimate storm beginning: (date and time) 12/23 0400	Estimate storm duration: (hours) 24 hrs
Estimate time since last storm: (days or hours) ~7 Days	Rain gauge reading and location: (in) ~0.43"

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:
~0.43"

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Corrick	Inspector Title: Asst. Proj. Scr.
Signature: JC	Date: 12/23

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	No	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Y	No	
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	No	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	No	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	〃	〃	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	〃	〃	
Bagged erodible landscape materials are stored on pallets and covered	〃	〃	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	No	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	〃	〃	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	〃	〃	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	No	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	〃	〃	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	〃	〃	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	No	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	No	

BMP INSPECTION REPORT

12/23

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. Stockpiles @ NHS	12/23	~~Fix~~ Covers
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, (N/A)
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

12/23

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT 12/23

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 12/27 POST RAIN			Date Report Written: 12/27	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: FINE GRADE			Approximate area of site that is exposed:
Photos Taken: (Circle one)	(Yes)	No	Photo Reference IDs: 122716 POST RAIN

Weather

Estimate storm beginning: (date and time) 12/23	Estimate storm duration: (hours) 24 HRS
Estimate time since last storm: (days or hours) 10 DAYS	Rain gauge reading and location: (in) ~0.4"

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y)(N)
If yes, summarize forecast:

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gerdeh	Inspector Title: ASST. PROJ. SUP
Signature:	Date: 12/27

BMP INSPECTION REPORT

12/27

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	No	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Y	No	
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y	N	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y	N	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	No	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	"	"	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	"	"	
Bagged erodible landscape materials are stored on pallets and covered	"	"	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	No	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	"	"	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	"	"	
Erosion Controls			
Wind erosion controls are effectively implemented	Yes	No	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	"	"	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	"	"	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Yes	No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	"	"	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	No	

BMP INSPECTION REPORT

12/17

Part III. Descriptions of BMP Deficiencies		
Deficiency	Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.	
	Start Date	Action
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

12/27

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

12/27

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**
N/A	

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 12/30/16 0730 - 1700			Date Report Written: 12/30	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: DEMO 3 - QC Work			Approximate area of site that is exposed: 0,00
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 123016 PRE RAIN

Weather

Estimate storm beginning: (date and time) 1/2/17 1000	Estimate storm duration: (hours) 7 DAYS
Estimate time since last storm: (days or hours) 72 hrs	Rain gauge reading and location: (in) N/A

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Grech	Inspector Title: Asst. Proj. Sup.
Signature:	Date: 12/30

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Y	N	
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	No	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y	No	
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y	No	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	No	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event			
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered			
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	No	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems			
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented	Y	No	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	No	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	No	

BMP INSPECTION REPORT 12/30

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	N/A
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	N/A
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	N/A
Notes:	

BMP INSPECTION REPORT

12/30

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT 12/30

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 1/2/2017 1000-1400			Date Report Written: 1/2/17	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: SWPPP INSP.			Approximate area of site that is exposed: 0.00
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 010217

Weather

Estimate storm beginning: (date and time) 1/2 0400	Estimate storm duration: (hours) 7-DAYS
Estimate time since last storm: (days or hours) 10 DAYS	Rain gauge reading and location: (in) ~0.10"

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: RAIN 1/2 → 1/8

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: I. Gerzich	Inspector Title: Asst. Proj. Sup
Signature:	Date: 1/2/17

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	No	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Y	No	
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	No	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT

1/2

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	No	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	〃	〃	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	〃	〃	
Bagged erodible landscape materials are stored on pallets and covered	〃	〃	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	No	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	〃		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	〃		
Erosion Controls			
Wind erosion controls are effectively implemented	Y	No	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	〃	〃	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	〃	〃	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	No	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	No	

BMP INSPECTION REPORT

1/2

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. FCB GAPS	1/2	REPAIR GAPS
2. COMPOST PILE UNCOVERED	1/2	COVER PILE
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

1/2

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description NONE
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 1/3/17 0945 → 1030			Date Report Written: 1/3	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: BMP MAINT/INSP.			Approximate area of site that is exposed: 0.0
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 010317

Weather

Estimate storm beginning: (date and time) 1/2	Estimate storm duration: (hours) 6-Days
Estimate time since last storm: (days or hours) 11 Days	Rain gauge reading and location: (in) ~1.0"

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: 90% RAIN OF ~ 1.0"

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gretsch	Inspector Title: Asst. Proj. Supt.
Signature: JG	Date: 1/3

BMP INSPECTION REPORT

1/3

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective	—	—	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Y	N	
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite	—	—	
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	No	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly	—	—	

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	No	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event			
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered			
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	No	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems			
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented	Y	No	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	No	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	No	

BMP INSPECTION REPORT

1/3

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. ECB @ 1757	1/4	INSTALL ECB
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

1/3

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Y/3

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

1/4

Date and Time of Inspection: 1/4 1020 – 1300			Date Report Written: 1/4	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: BMP INSP. / DEMOB			Approximate area of site that is exposed: 0.0
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 010417

Weather

Estimate storm beginning: (date and time)	Estimate storm duration: (hours)
Estimate time since last storm: (days or hours) 12 Days	Rain gauge reading and location: (in)

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:

80% RAIN TO 1/8

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gredell	Inspector Title: ASST PROJ SUP
Signature:	Date: 1/4

BMP INSPECTION REPORT

1/4

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste		N	
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	"	"	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	"	"	
Bagged erodible landscape materials are stored on pallets and covered	"	"	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	Y	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	"	"	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	"	"	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	"	"	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	"	"	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N/A	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	N/A	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N/A	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N/A	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. **Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).**	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

1/4

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

1/4

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 1/6/17 0800-0900			Date Report Written: 1/6	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: BMP INSP.			Approximate area of site that is exposed: 0.0
Photos Taken: (Circle one)	Yes	(No)	Photo Reference IDs:

Weather

Estimate storm beginning: (date and time) 1/3	Estimate storm duration: (hours) 7-DAYS
Estimate time since last storm: (days or hours) 2 DAYS	Rain gauge reading and location: (in) 0.51"

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:
0.5" EXPECTED FROM 10PM → 4AM ON 1/7

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

NO OBSERVABLE RAIN 1/~~4~~ JC + 1/~~5~~ JC HENCE NO REPORT COLLECTED. ON 1/5

Inspector Information

Inspector Name: J. GROSICK	Inspector Title: ASST. PROJ SCI.
Signature: JG	Date: 1/6

BMP INSPECTION REPORT

1/6

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed	Y		
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	Y		
Construction materials are minimally exposed to precipitation	Y		
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y		
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Y	N	
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y		
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	Y		
Vehicle and equipment leaks are cleaned immediately and disposed of properly	Y		

BMP INSPECTION REPORT

1/6

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event			
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered			
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems			
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site			
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT

1/6

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. **Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).**	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

1/6

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location BLDG 1257	Description UNABLE TO COMPLETE BMPS DUE TO TIME LIMITATIONS. TO BE COMPLETE NEXT WEEK
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

1/6

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**
Complete ECB By 1257	1/6

BMP INSPECTION REPORT

Date and Time of Inspection: 1/7/16 0850			Date Report Written: 1/7	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court			
Construction stage and completed activities: BMP INSPECTION			Approximate area of site that is exposed: 0
Photos Taken: (Circle one)	(Yes)	No	Photo Reference IDs: 010717

Weather

Estimate storm beginning: (date and time) 1/3	Estimate storm duration: (hours) 7 Days
Estimate time since last storm: (days or hours) 3 - Days	Rain gauge reading and location: (in) 0.45 PAST 24 hrs

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gooch	Inspector Title: ASST PROJ SUP
Signature: JC	Date: 1/7/17

BMP INSPECTION REPORT

1/7

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Y	N	
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use			
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event			
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered			
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations			
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled			
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems			
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented			
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site			
Entrances and exits are stabilized to control erosion and sediment discharges from the site			
Sediment basins are properly maintained			
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.			
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?			

BMP INSPECTION REPORT

1/7

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. Clogged DI	1/7	Cleaned + Replaced By Bldg 1288
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. **Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).**	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

1/7

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location BLDG 1257 FRONT	Description PONDING ~~NEAR~~ ALONG FOOTPATH TO 1257A
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**
Complete BMPs By Bldg 1257A + Perm H_2O	1/9

1/7

BMP INSPECTION REPORT

Date and Time of Inspection: 1/8/17 1000 → 1100			Date Report Written: 1/8/17	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: BMP INSPECTION			Approximate area of site that is exposed: 0.0
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 010817

Weather

Estimate storm beginning: (date and time) 1/6 ~ 1700	Estimate storm duration: (hours) 7-Day
Estimate time since last storm: (days or hours) 7-Days	Rain gauge reading and location: (in) 0.65 PAST 24 hrs

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:
85% CHANCE IN MONDAY, 100% TUES AM & THURSDAY

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gorsch	Inspector Title: Asst. Proj. Sci.
Signature:	Date: 1/8/17

BMP INSPECTION REPORT

1/8

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste		N	
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	No	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event			
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered			
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	No	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y/S	No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems			
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y/S	No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site			
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT

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Part III. Descriptions of BMP Deficiencies

Deficiency	Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.	
	Start Date	Action
1. BLDG 1230 PILE	1/11	RECOVER PILE
2. BARNARD PILE	1/11	RECOVER PILE
3. NILE PILE	1/11	RECOVER
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).

	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

1/2

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location ARMISTED DI	Description REMOVED + CLEANED
Location BLDG 1280 DI	Description CLEANED - REPLACED
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 1/9 0800 - 0930			Date Report Written: 1/9	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court			
Construction stage and completed activities: BMP INSP.			Approximate area of site that is exposed: 0.0
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 010917

Weather

Estimate storm beginning: (date and time) 1/6	Estimate storm duration: (hours) 7-Day
Estimate time since last storm: (days or hours) 7-Days	Rain gauge reading and location: (in) 0.65

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:
Monday 85%, 100% Tues, 65% Wed

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gorzek	Inspector Title: Asst. Proj. Sci.
Signature:	Date: 1/9/17

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Y	No	
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	No	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT 4/9

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	"	"	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	"	"	
Bagged erodible landscape materials are stored on pallets and covered	"	"	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	"	"	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	"	"	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	"	"	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	"	"	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	No	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y/B	No	

BMP INSPECTION REPORT

1/9

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. 1230 Pole	1/11	Replace Cover
2. Nike Pole	1/11	
3. Barnard Pole	1/11	
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

1/9

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location BLDG 1257 ECB	Description ~~HAD~~ HAVE TO ~~RE~~ INSTALL ECB
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

1/9

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 1/10/17 6:30 →			Date Report Written: 1/10	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V and VII* (circled)	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court	
Construction stage and completed activities: BMP REPAIR	Approximate area of site that is exposed: 0.9
Photos Taken: (Circle one) Yes (circled) / No	Photo Reference IDs: 011017

Weather

Estimate storm beginning: (date and time) 1/6	Estimate storm duration: (hours) 7 DAYS
Estimate time since last storm: (days or hours) 10 Days	Rain gauge reading and location: (in) 0.36" PAST 24 hrs

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:
95% 1/10 → 80% 1/11

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: T. Cordell	Inspector Title: ASST PROJ. SUP.
Signature:	Date: 1/10

BMP INSPECTION REPORT

1/10

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	Y	N	
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT

4/18

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	"	"	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	"	"	
Bagged erodible landscape materials are stored on pallets and covered	"	"	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	No	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	"	"	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	"	"	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	"	"	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	"	"	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	No	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Yes	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Yes	No	

BMP INSPECTION REPORT

1/10

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

1/18

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

1/10

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 1/11/17 0800 → 1230			Date Report Written: 1/11/17	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: BMP MAIT			Approximate area of site that is exposed: 0.0
Photos Taken: (Circle one)	Yes	(No)	Photo Reference IDs:

Weather

Estimate storm beginning: (date and time) 1/6	Estimate storm duration: (hours) 7 DAYS
Estimate time since last storm: (days or hours) 11 DAYS	Rain gauge reading and location: (in) 0.46 IN

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:
RAIN ON + OFF FROM 1/6 → 1/12

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Correl	Inspector Title: Asst. Prod. Sci
Signature: JC	Date: 1/11/17

BMP INSPECTION REPORT

1/11

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	N/A		
Sanitation facilities are clean and with no apparent for leaks and spills	N/A		
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	N/A		
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	N	
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	N/A		
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT

Y/11

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event			
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered			
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems			
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	N	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT

1/11

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. Clean Gravel Bags	1/15	Remove Sed. From Behind Rock Bags
2. Along Lend Row		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

1/11

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

1/11

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 1/12/17 0850 → 0940			Date Report Written: 1/12	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: BMP MAIT			Approximate area of site that is exposed: 0.0
Photos Taken: (Circle one)	(Yes)	No	Photo Reference IDs: 01217 RAIN

Weather

Estimate storm beginning: (date and time) 1/6	Estimate storm duration: (hours) 8 7-DAYS
Estimate time since last storm: (days or hours) 12 DAYS	Rain gauge reading and location: (in)

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y) N)
If yes, summarize forecast:
55% CHANCE 1/12

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gresch	Inspector Title: ASST. PROJ SCI.
Signature:	Date: 1/12/17

BMP INSPECTION REPORT

Y/12

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	N/A		
Sanitation facilities are clean and with no apparent for leaks and spills	N/A		
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	N/A		
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	Y	N	
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs	N/A		
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT

1/12

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	"	"	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	"	"	
Bagged erodible landscape materials are stored on pallets and covered	"	"	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	"	"	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	"	"	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	"	"	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	"	"	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	N	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT

1/12

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. Re-Connect Flex Pipe	1/15	Apply Flex Pipe & Tape
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. **Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).**	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

1/12

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

1/12

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 1/16/17 0738 - 0900			Date Report Written:	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: BMP MAINT.			Approximate area of site that is exposed: 0.8
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 01/16/17 POST RAIN

Weather

Estimate storm beginning: (date and time) 1/6	Estimate storm duration: (hours) 10 - DAYS
Estimate time since last storm: (days or hours) 15 DAYS	Rain gauge reading and location: (in)

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gerrish	Inspector Title: ASST. PROJ SCI
Signature:	Date: 1/16/17

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	N/A		
Sanitation facilities are clean and with no apparent for leaks and spills	N/A		
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	Y	N	
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event			
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered			
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems			
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	N	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT 1/16

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. Clogged Rock Bags	1/17	Remove Debris from Behind Sed Bags
2. Repair Cover	1/17	Re-Cover Barnard
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Y/16

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

1/16

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 1/17 0730 → 0900			Date Report Written: 1/17	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: BMP REPAIR			Approximate area of site that is exposed: 0.0
Photos Taken: (Circle one)	(Yes)	No	Photo Reference IDs: 011717 PRE RAIN

Weather

Estimate storm beginning: (date and time) 1/18 ~1600	Estimate storm duration: (hours) 5-DAYS
Estimate time since last storm: (days or hours)	Rain gauge reading and location: (in) 0.87"

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: 0.87" FORECAST 1/18

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gorsch	Inspector Title: ASST. PROJ. SUP.
Signature:	Date: 1/17

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	N/A		
Sanitation facilities are clean and with no apparent for leaks and spills	N/A		
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	N/A		
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	N/A		
Stockpiled waste material is securely protected from wind and rain if not actively in use	N/A		
Procedures are in place for addressing hazardous and non-hazardous spills	Y	N	
Appropriate spill response personnel are assigned and trained	Y		
Equipment and materials for cleanup of spills is available onsite	Y		
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event			
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered			
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems			
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	N	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT 1/17

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	N/A
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	Yes
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	Yes
Notes:	

BMP INSPECTION REPORT

1/17

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

1/17

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 1/20/17 @ 1600-1630			Date Report Written: 1/20	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court			
Construction stage and completed activities: SWPPP INSP/BMP MAINT			Approximate area of site that is exposed: 0.0
Photos Taken: (Circle one)	Yes	(No)	Photo Reference IDs:

Weather

Estimate storm beginning: (date and time) 1/13 ~1600	Estimate storm duration: (hours) 7-DAY
Estimate time since last storm: (days or hours) 8-DAYS	Rain gauge reading and location: (in) N/A

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: 0.48" PREDICTED 1/20

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Corrick	Inspector Title: Asst. Proj Sci.
Signature:	Date: 1/20

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste	N/A		
Sanitation facilities are clean and with no apparent for leaks and spills	N/A		
Equipment is in place to cover waste disposal containers at the end of business day and during rain events	N/A		
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water	N/A		
Stockpiled waste material is securely protected from wind and rain if not actively in use	YES	No	
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	〃	〃	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	〃	〃	
Bagged erodible landscape materials are stored on pallets and covered	〃	〃	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y/S	No	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y/S	N.C	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	〃	〃	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	〃	〃	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	〃	〃	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	〃	〃	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	〃	〃	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y/S	No	

BMP INSPECTION REPORT

1/10

Part III. Descriptions of BMP Deficiencies

Deficiency	Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.	
	Start Date	Action
1. PUMP OUT PATIOS	1/23	PUMP OUT H20 FROM WEST SIDE PATIOS
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).

	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

1/22

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location LENDRUM CT	Description GRAVEL BAGS NEED TO BE REPLACED
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

1/20

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

Downspouts Have Been Attached To HDPE Securely, Cedar Chips Have Been Spread In Tree Island; Holes Drilled In Lendrum/Armisted Curbs, AB Placed @ 1259 B Patio.

BMP INSPECTION REPORT

Date and Time of Inspection: 1/21/17 0700 → 0745			Date Report Written: 1/21/17	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: SWPPP INSP			Approximate area of site that is exposed: 0.0
Photos Taken: (Circle one)	Yes	(No)	Photo Reference IDs:

Weather

Estimate storm beginning: (date and time) 1/18	Estimate storm duration: (hours) 8-DAYS
Estimate time since last storm: (days or hours)	Rain gauge reading and location: (in) ~0.8"

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:

60→95% CHANCE OF RAIN > 0.5"

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. CORRICK	Inspector Title: ASST. PROJ. SCI.
Signature:	Date: 1/21/17

BMP INSPECTION REPORT

1/21

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste			
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	N	
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	"	"	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	"	"	
Bagged erodible landscape materials are stored on pallets and covered	"	"	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	"	"	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	"	"	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	"	"	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	"	"	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	"	"	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT 1/21

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. Pump Out Patios	1/23	Pump Out West Side Patios
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location LENSBURY CT	Description REPLACE GRATE BAGS
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

1/21

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 1/12 1430 → 1500			Date Report Written: 1/22	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court		
Construction stage and completed activities: SWPPP INSP.		Approximate area of site that is exposed: 0.0
Photos Taken: (Circle one)	(Yes)	No	Photo Reference IDs: 012217 SWPPP

Weather

Estimate storm beginning: (date and time) 1/8	Estimate storm duration: (hours) 8-Days
Estimate time since last storm: (days or hours) 2 Weeks	Rain gauge reading and location: (in) ~0.62"

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: 100% CHANCE RAIN 1200 → 1800

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: JS J. Corrick	Inspector Title: ASST. PROJ. SCI.
Signature:	Date: 1/22

Y/2

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste			
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	N	
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	"	"	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	"	"	
Bagged erodible landscape materials are stored on pallets and covered	"	"	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	"	"	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	"	"	
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	"	"	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	"	"	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	"	"	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT 1/22

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. PATIOS	1/13	PUMP OUT WEST SIDE PATIOS
2. STOCKPILES	1/13	RE-COVER NITE, 1230, + EXPIRED STOCKPILES
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

1/12

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

1/12

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 1/23 0730 - 0900			Date Report Written:	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: SWPP REPAIRS			Approximate area of site that is exposed: 0,0
Photos Taken: (Circle one)	(Yes)	No	Photo Reference IDs: 012317 RAIN

Weather

Estimate storm beginning: (date and time) 1/18	Estimate storm duration: (hours) 3-DAYS
Estimate time since last storm: (days or hours) 2-Weeks	Rain gauge reading and location: (in) ~0.62"

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: 70 - 55% CHANCE RAIN 4PM - 12:00 PM

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gerich	Inspector Title: ASST. PROJ. SCI.
Signature:	Date: 1/23/17

BMP INSPECTION REPORT

1/23

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste			
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	No	
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	Y	N	
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT

1/23

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	"	"	
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	"	"	
Bagged erodible landscape materials are stored on pallets and covered	"	"	
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y (3)	No	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	No	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	"	"	
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	"	"	
Erosion Controls			
Wind erosion controls are effectively implemented	Y (3)	No	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	"	"	
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	"	"	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y (3)	No	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	"	"	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y (3)	No	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y (3)	No	

BMP INSPECTION REPORT

1/03

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. **Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).**	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

1/23

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location LENDRUM	Description PATIOS PUMPED OUT
Location LENDRUM	Description GRAVEL BAGS FIXED
Location NILES	Description STOCKPILE RE-COVERED
Location BLDG 1230	Description STOCKPILE RE-COVERED
Location BARNARD	Description STOCKPILE RE-COVERED
Location LENDRUM	Description DIs CLEANED
Location	Description
Location	Description

BMP INSPECTION REPORT 1/23

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 1/15/17 0800 - 1030			Date Report Written: 1/15	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII* (VI)

Part I. General Information

Site Information

Construction Site Name: Lendrum Court			
Construction stage and completed activities: BMP INSP.			Approximate area of site that is exposed:
Photos Taken: (Circle one)	(Yes)	No	Photo Reference IDs: 012517 SWPP

Weather

Estimate storm beginning: (date and time) 1/18	Estimate storm duration: (hours) 8-DAYS
Estimate time since last storm: (days or hours) 2-WEEKS ~~8 DAYS~~	Rain gauge reading and location: (in) ~ 3"

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: N/A

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gorrick	Inspector Title: Asst. Prof. SCS.
Signature:	Date: 1/15

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste			
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use	Y	N	
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil	N/A		
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	N/A		
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	N/A		
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event			
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered			
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N/	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	N	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

1/15

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

1/05

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**
BLDG 1258/57	DOWNSPOUTS NEED SOME TAPE

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 2/6/17 0730 to 1000			Date Report Written: 2/6/17	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court			
Construction stage and completed activities: Post Const BMPs			Approximate area of site that is exposed: 0.0
Photos Taken: (Circle one)	Yes	No	Photo Reference IDs: 020617

Weather

Estimate storm beginning: (date and time) 2/1	Estimate storm duration: (hours) 10 Days
Estimate time since last storm: (days or hours) 2 Weeks	Rain gauge reading and location: (in) N/A

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: 1.48" From 2/6 to 2/9

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Garrett	Inspector Title: Asst. Proj Sci.
Signature:	Date: 2/6/17

BMP INSPECTION REPORT

2/6

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste			
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil			
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	N/A		
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT

2/6

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event			
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered	N/A		
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	N	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT 2/6

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. Mica Stockpile	2/6	Repair/Replace All Soil
2. Barnard Stockpile		Stockpile Covers
3. 1230 Stockpile		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

2/6

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

2/6

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 2/7/17 0700 - 0930			Date Report Written:	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court			
Construction stage and completed activities: SWPPP INSP.			Approximate area of site that is exposed: 0.0
Photos Taken: (Circle one)	(Yes)	No	Photo Reference IDs: 020717

Weather

Estimate storm beginning: (date and time) 2/1	Estimate storm duration: (hours) 10-DAYS
Estimate time since last storm: (days or hours) 2 WEEKS	Rain gauge reading and location: (in) 1.01"

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: 95% CHANCE RAIN 7 0.5"

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gorecki	Inspector Title: ASST. PROJ. SCI.
Signature:	Date: 2/7/17

BMP INSPECTION REPORT

2/7

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste			
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil			
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	N/A		
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event			
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered	N/A		
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	Y	N	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT

2/7

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. Nile Spelizzo	2/4	Recover All Piles
2. BARNARD		
3. 1230		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

2/7

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

2/7

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 2/8/17 0700 → 0930			Date Report Written: 2/8	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: BMP REPAIR			Approximate area of site that is exposed: 0.0
Photos Taken: (Circle one)	(Yes)	No	Photo Reference IDs: 2/8 020817

Weather

Estimate storm beginning: (date and time) 2/1	Estimate storm duration: (hours) 10-Days
Estimate time since last storm: (days or hours) 2.5 Weeks	Rain gauge reading and location: (in) 0.17"

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: 85% RAIN → 2/9

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gerrish	Inspector Title: Asst. Proj. Sci.
Signature:	Date: 2/8

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste			
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil			
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	N/A		
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event			
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered	N/A		
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site			
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT

2/8

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. **Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).**	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT 2/6

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

CREW PUMPING OUT THE PATIO AREAS ~~ALONG~~ AT BLDG 1257, 58, & 1280. CREW ALSO RE-COVERING SOIL STOCKPILES & CLEANING DIs.

BMP INSPECTION REPORT

2/8

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 2/9 0700 - 1000			Date Report Written: 2/9	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: BMP/SWPPP Survey			Approximate area of site that is exposed: C. 0
Photos Taken: (Circle one)	(Yes)	No	Photo Reference IDs: 020917

Weather

Estimate storm beginning: (date and time) 2/1	Estimate storm duration: (hours) 10-Days
Estimate time since last storm: (days or hours) 72 Weeks	Rain gauge reading and location: (in)

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:
100% Chance Of ~1.2" Rain

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Correale	Inspector Title: Asst. Proj. Sci.
Signature:	Date: 2/9/17

BMP INSPECTION REPORT

2/9

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste			
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil			
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	N/A		
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT 2/9

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event			
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered	N/A		
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site			
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT

2/9

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

9/9

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT 2/9

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. Barriers	2/9	Needs Re-Covering
2. Rocks	2/9	"
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Date and Time of Inspection: 2/10/17			Date Report Written:	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court			
Construction stage and completed activities: BMP/SWPPP INSP			Approximate area of site that is exposed: 0.0
Photos Taken: (Circle one)	(Yes)	No	Photo Reference IDs: 02/10/17 POST RAIN

Weather

Estimate storm beginning: (date and time) 2/1	Estimate storm duration: (hours) 10-24hrs
Estimate time since last storm: (days or hours) >2 WEEKS	Rain gauge reading and location: (in)

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: 1.2" 2/9 < 50% CHANCE 2/10

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector ~~Name:~~ J. GORSICH	Inspector Title: SST. PROJ SCI
Signature:	Date: 2/10/17

BMP INSPECTION REPORT

2/10

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste			
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil			
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	N/A		
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT 2/10

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event			
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered	N/A		
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site		N	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT

2/10

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. **Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).**	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

2/10

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 2/15/17 0730 → 1015				Date Report Written: 2/15/17
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: SWPPP INSP			Approximate area of site that is exposed: 0.0
Photos Taken: (Circle one)	Yes	No	Photo Refefence IDs: 021517

Weather

Estimate storm beginning: (date and time) 2/16 0400	Estimate storm duration: (hours) 7 DAYS
Estimate time since last storm: (days or hours) 7 5-DAYS	Rain gauge reading and location: (in) N/A

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:
50% CHANCE OF 0.61" 2/16

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector ~~Name~~: J. GARRICK	Inspector Title: ASST. PROJ. SUP
Signature:	Date: 2/16

BMP INSPECTION REPORT 2/15

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste			
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil			
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	N/A		
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT 2/15

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	~~N~~ Y	2/16
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	N/A		
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	S		
Bagged erodible landscape materials are stored on pallets and covered	S		
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.	S		
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	N/A		
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y	N	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	S	S	
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT 2/15

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. NIKE	2/16	ALL STOCKPILES NEED
2. BARNARD		RE-COVERING
3. 1230		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	N/A
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	Yes
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	N/A
Notes:	

BMP INSPECTION REPORT 2/18

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location LENDRUM CT @ LINCOLN	Description DI @ LENDRUM / LINCOLN NEEDS CLEANING
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

2/15

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 2/16/17 0730 - 1015			Date Report Written: 2/16	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: BMP MAIT / INSP		Approximate area of site that is exposed: 0.0
Photos Taken: (Circle one) Yes	No	Photo Reference IDs: 02/6/17

Weather

Estimate storm beginning: (date and time) 2/16 0900	Estimate storm duration: (hours) > 72 Days
Estimate time since last storm: (days or hours) 6-Days	Rain gauge reading and location: (in) 0.36"

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: 750% w/ ~0.65" PREDICTED

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gorsch	Inspector Title: Asst. Proj. Sci.
Signature:	Date: 2/16

BMP INSPECTION REPORT

2/16

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste			
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil			
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	N/A		
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT 2/16

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	Y/B	2/16 - Done
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	N/A		
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered			
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots	N/A		
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.	Y	N	
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site			
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT

2/16

Part III. Descriptions of BMP Deficiencies		
Deficiency	Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.	
	Start Date	Action
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

2/16

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

2/16

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 2/17/17 0700 → 1050			Date Report Written: 2/17	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: BMP Insp.			Approximate area of site that is exposed: 0.0
Photos Taken: (Circle one)	(Yes)	No	Photo Reference IDs: 021717

Weather

Estimate storm beginning: (date and time) 2/16		Estimate storm duration: (hours) 7 7-Days
Estimate time since last storm: (days or hours) 7-Days		Rain gauge reading and location: (in) 0.55" in 24 hrs

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:
90% Rain of 0.85"

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Cortelc	Inspector Title: Asst. Proj. Sci.
Signature:	Date: 2/17

BMP INSPECTION REPORT

2/17

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste			
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil			
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	N/A		
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT 2/17

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	Y	2/20
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	N/A		
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered			
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	N/A		
Entrances and exits are stabilized to control erosion and sediment discharges from the site			
Sediment basins are properly maintained			
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT 2/17

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. Hole Stockpile	2/17	Re-Cover w/ More Bags, Rope
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT 2/17

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

2/17

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 2/18/17 0730-1030			Date Report Written: 2/18	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: BMP INSP.			Approximate area of site that is exposed: 0.0
Photos Taken: (Circle one)	Yes	(No)	Photo Reference IDs:

Weather

Estimate storm beginning: (date and time) 2/16	Estimate storm duration: (hours) 77-Days
Estimate time since last storm: (days or hours) 8-Days	Rain gauge reading and location: (in)

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: RAIN 7" 2/16 → 2/20

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. CORRICK	Inspector Title: ASST. PROJ. SCI.
Signature: JC	Date: 2/18

BMP INSPECTION REPORT

2/12

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed	Y	N	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	N/A		
Construction materials are minimally exposed to precipitation	Y	N/A	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	N	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste			
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil			
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	N/A		
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT 2/12

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	N/A		
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered			
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems			
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented	Y	N	
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site			
Sediment basins are properly maintained	N/A		
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

2/18

BMP INSPECTION REPORT

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. NIKE Stockpile	2/21	REPAIR & REPLACE ALL COVERS ON ALL PILES
2. BARNARD PILE		
3. BLDG 1230 PILE		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, ~~N/A~~
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

2/18

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

2/19

Part V. Additional During Storm Observations. If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Date and Time of Inspection: 2/19/17 1000-1200			Date Report Written: 2/19	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII* (V)	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court			
Construction stage and completed activities: BMP INSP			Approximate area of site that is exposed: 0.0
Photos Taken: (Circle one)	Yes	(No)	Photo Reference IDs:

Weather

Estimate storm beginning: (date and time) 2/16	Estimate storm duration: (hours) > 7 DAYS
Estimate time since last storm: (days or hours) 9 DAYS	Rain gauge reading and location: (in)

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: >1" 2/19 → 2/20

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. GARRETT	Inspector Title: ASST. PROJ. SUPT.
Signature:	Date: 2/19

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed	Y	N	
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	N/A		
Construction materials are minimally exposed to precipitation	Y	N	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	N	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste			
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil			
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	N/A		
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT 2/19

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	N/A		
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered			
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented	N/A		
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	N/A		
Entrances and exits are stabilized to control erosion and sediment discharges from the site			
Sediment basins are properly maintained			
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT 2/19

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented:** **Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. Some Sediment	2/21	Re-Cover All Piles
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT 3/19

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

2/19

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT 2/20

Date and Time of Inspection: 2/20			Date Report Written:	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: BMP/SWPPP Insp.			Approximate area of site that is exposed: 0.3
Photos Taken: (Circle one)	Yes	(No)	Photo Reference IDs:

Weather

Estimate storm beginning: (date and time) 2/16	Estimate storm duration: (hours) ~ 7-Days
Estimate time since last storm: (days or hours) 10-Days	Rain gauge reading and location: (in)

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast:

750% CHANCE RAIN

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gorzek	Inspector Title: Asst. Proj. Sci.
Signature:	Date: 2/20

BMP INSPECTION REPORT

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed	N/A		
Construction materials are minimally exposed to precipitation	Y	N	
BMPs preventing the off-site tracking of materials are implemented and properly effective	Y	N	
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste			
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil			
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	N/A		
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT 2/26

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event	N/A		
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations			
Bagged erodible landscape materials are stored on pallets and covered			
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	Y	N	
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems	N/A		
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented	N/A		
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	N/A		
Entrances and exits are stabilized to control erosion and sediment discharges from the site			
Sediment basins are properly maintained			
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	N	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT 2/20

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1. All Stockpiles	2/21	Repair/ Replace All Covers
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

BMP INSPECTION REPORT

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

Date and Time of Inspection: 2/21/17 1000 → 1300			Date Report Written: 2/21	
Inspection Type: (Circle one)	Weekly *Complete Parts I,II,III and VII*	Pre-Storm *Complete Parts I,II,III,IV and VII*	During Rain Event *Complete Parts I, II, III, V, and VII*	Post-Storm *Complete Parts I,II,III,VI and VII*

Part I. General Information

Site Information

Construction Site Name: Lendrum Court

Construction stage and completed activities: SWPPP INSP			Approximate area of site that is exposed: 0.0
Photos Taken: (Circle one)	(Yes)	No	Photo Reference IDs: 022117

Weather

Estimate storm beginning: (date and time) 2/16	Estimate storm duration: (hours) N/A
Estimate time since last storm: (days or hours)	Rain gauge reading and location: (in) N/A

Is a "Qualifying Event" predicted or did one occur (i.e., 0.5" rain with 48-hrs or greater between events)? (Y/N)
If yes, summarize forecast: RAIN 2/16 → 2/20

Exemption Documentation (explanation required if inspection could not be conducted). Visual inspections are not required outside of business hours or during dangerous weather conditions such as flooding or electrical storms.

Inspector Information

Inspector Name: J. Gorecki	Inspector Title: ASST. PROJ. SUP
Signature:	Date: 2/21

BMP INSPECTION REPORT

2/21

Part II. BMP Observations. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Failures or other short comings (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Construction Materials			
Inventory of products (excluding materials designed to be outdoors)	Y	N	
Stockpiled construction materials not actively in use are covered and bermed			
All chemicals are stored in watertight containers with appropriate secondary containment, or in a completely enclosed storage shed			
Construction materials are minimally exposed to precipitation			
BMPs preventing the off-site tracking of materials are implemented and properly effective			
Good Housekeeping for Waste Management			
Wash/rinse water and materials are prevented from being disposed into the storm drain system	N/A		
Portable toilets are contained to prevent discharges of waste			
Sanitation facilities are clean and with no apparent for leaks and spills			
Equipment is in place to cover waste disposal containers at the end of business day and during rain events			
Discharges from waste disposal containers are prevented from discharging to the storm drain system / receiving water			
Stockpiled waste material is securely protected from wind and rain if not actively in use			
Procedures are in place for addressing hazardous and non-hazardous spills			
Appropriate spill response personnel are assigned and trained			
Equipment and materials for cleanup of spills is available onsite			
Washout areas (e.g., concrete) are contained appropriately to prevent discharge or infiltration into the underlying soil			
Good Housekeeping for Vehicle Storage and Maintenance			
Measures are in place to prevent oil, grease, or fuel from leaking into the ground, storm drains, or surface waters	N/A		
All equipment or vehicles are fueled, maintained, and stored in a designated area with appropriate BMPs			
Vehicle and equipment leaks are cleaned immediately and disposed of properly			

BMP INSPECTION REPORT

2/21

Part II. BMP Observations Continued. Describe deficiencies in Part III.			
Minimum BMPs for Risk Level 1 Sites	Adequately designed, implemented and effective (yes, no, N/A)	Action Required (yes/no)	Action Implemented (Date)
Good Housekeeping for Landscape Materials			
Stockpiled landscape materials such as mulches and topsoil are contained and covered when not actively in use	Y	N	
Erodible landscape material has not been applied 2 days before a forecasted rain event or during an event			
Erodible landscape materials are applied at quantities and rates in accordance with manufacturer recommendations	N/A		
Bagged erodible landscape materials are stored on pallets and covered			
Good Housekeeping for Air Deposition of Site Materials			
Good housekeeping measures are implemented onsite to control the air deposition of site materials and from site operations	Y	N	
Non-Storm Water Management			
Non-Storm Water discharges are properly controlled	N/A		
Vehicles are washed in a manner to prevent non-storm water discharges to surface waters or drainage systems			
Streets are cleaned in a manner to prevent unauthorized non-storm Water discharges to surface waters or drainage systems.			
Erosion Controls			
Wind erosion controls are effectively implemented	N/A		
Effective soil cover is provided for disturbed areas inactive (i.e., not scheduled to be disturbed for 14 days) as well as finished slopes, open space, utility backfill, and completed lots			
The use of plastic materials is limited in cases when a more sustainable, environmentally friendly alternative exists.			
Sediment Controls			
Perimeter controls are established and effective at controlling erosion and sediment discharges from the site	Y	N	
Entrances and exits are stabilized to control erosion and sediment discharges from the site	N/A		
Sediment basins are properly maintained			
Run-On and Run-Off Controls			
Run-on to the site is effectively managed and directed away from all disturbed areas.	Y	N	
Other			
Are the project SWPPP and BMP plan up to date, available on-site and being properly implemented?	Y	N	

BMP INSPECTION REPORT

2/21

Part VI. Additional Post-Storm Observations. Visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event, and observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Complete Part VII (Corrective Actions) as needed.	
Discharge Location, Storage or Containment Area	**Visual Observation**
ALL SOIL PILE	ALL PILE COVERED & ROPED

Part VII. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Note if SWPPP change is required.	
Required Actions	**Implementation Date**

BMP INSPECTION REPORT

2021

Part V. Additional During Storm Observations. **If BMPs cannot be inspected during inclement weather, list the results of visual inspections at all relevant outfalls, discharge points, and downstream locations. Note odors or visible sheen on the surface of discharges. Complete Part VII (Corrective Actions) as needed.**	
Outfall, Discharge Point, or Other Downstream Location	
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description
Location	Description

BMP INSPECTION REPORT 2/21

Part III. Descriptions of BMP Deficiencies		
Deficiency	**Repairs Implemented: Note - Repairs must begin within 72 hours of identification and, complete repairs as soon as possible.**	
	Start Date	**Action**
1.		
2.		
3.		
4.		

Part IV. Additional Pre-Storm Observations. **Note the presence or absence of floating and suspended materials, sheen, discoloration, turbidity, odors, and source(s) of pollutants(s).**	
	Yes, No, N/A
Do storm water storage and containment areas have adequate freeboard? If no, complete Part III.	
Are drainage areas free of spills, leaks, or uncontrolled pollutant sources? If no, complete Part VII and describe below.	
Notes:	
Are storm water storage and containment areas free of leaks? If no, complete Parts III and/or VII and describe below.	
Notes:	

APPENDIX C

AIR MONITORING RECORDS

Boecher, Caroline

From: Chow, George@DTSC <George.Chow@dtsc.ca.gov>
Sent: Friday, August 5, 2016 10:23 AM
To: Fanelli, Eileen; Pettijohn, Julie@DTSC; Klein, Kimi@DTSC
Cc: Nina Larssen (nlarssen@presidiotrust.gov); Hanzel-Durbin, Justin; Reed, Brandon
Subject: RE: Lendrum Court ADMMP Initial Summary - Request for discontinuing monitoring for COCs

Was just writing you this email.

DTSC is okay with ceasing sampling for the high volume sampling for metals, PAHs, dioxins and furans, and NOA. However, we would like NOA sampling to continue when work is occurring in soils where serpentinite is visible, or when work is contacting the serpentinite bedrock.

We will have some specific comments forthcoming about the final ADMMP submittal which documents the air monitoring data to date.

Thanks,
George

From: Fanelli, Eileen [mailto:EFanelli@trcsolutions.com]
Sent: Friday, August 05, 2016 10:19 AM
To: Chow, George@DTSC; Pettijohn, Julie@DTSC; Klein, Kimi@DTSC
Cc: Nina Larssen (nlarssen@presidiotrust.gov); Hanzel-Durbin, Justin; Reed, Brandon
Subject: RE: Lendrum Court ADMMP Initial Summary - Request for discontinuing monitoring for COCs

George - checking in. Not to put undo pressure on your review. We need to release air ssmples for analysis to avoid exceeding hold times if DTSC needs more time. If you could reply all on your timing it would be appreciated. Please feel free to call my cell if we need to discuss.

Eileen

Sent from my Verizon Wireless 4G LTE smartphone

-------- Original message --------
From: "Fanelli, Eileen" <EFanelli@trcsolutions.com>
Date: 8/3/16 1:51 PM (GMT-08:00)
To: gchow@dtsc.ca.gov, "Pettijohn, Julie@DTSC" <Julie.Pettijohn@dtsc.ca.gov>, kklein@dtsc.ca.gov
Cc: "Nina Larssen (nlarssen@presidiotrust.gov)" <nlarssen@presidiotrust.gov>, "Hanzel-Durbin, Justin (JHanzel-Durbin@trcsolutions.com)" <JHanzel-Durbin@trcsolutions.com>, "Reed, Brandon" <BReed@trcsolutions.com>
Subject: FW: Lendrum Court ADMMP Initial Summary - Request for discontinuing monitoring for COCs

George –

Sending on behalf of Justin, who's expecting his second child any hour now! Please let me know if there are additional questions. Thanks for looking at this.

Eileen Fanelli
ECR Office Practice Leader

9685 Research Drive, Irvine, CA 92618

T: 949.341.7447 | F: 949.727.7311 | C: 949.562.4122

LinkedIn | Twitter | Blog | www.trcsolutions.com

From: Reed, Brandon
Sent: Wednesday, August 03, 2016 12:42 PM
To: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>; Fanelli, Eileen <EFanelli@trcsolutions.com>
Subject: RE: Lendrum Court ADMMP Initial Summary - Request for discontinuing monitoring for COCs

Hi Eileen

Attached are the Eurofins lab reports for Weeks 1 through 5, they contain PAH data as well.

FBxxxx-MET and Pb Samples are field blank samples. Each week they are collected by briefly taking the samples out of their package and exposing it to the ambient air. They are to determine if any contamination is present within the media or as a result of the shipment or handling of the samples.

The difference between field blank and standard samples is no volume is pulled through the field blank sample (ug/sample). For standard samples the lab determines the mass per sample and then divides it by the volume of air TRC provided on the COC (ug/m^3).

Let me know if there's anything else I can provide.

Thanks,

Brandon

From: Hanzel-Durbin, Justin
Sent: Wednesday, August 03, 2016 12:08 PM
To: Fanelli, Eileen; Reed, Brandon
Subject: Fwd: Lendrum Court ADMMP Initial Summary - Request for discontinuing monitoring for COCs

Sent from my Verizon Wireless 4G LTE smartphone

-------- Original message --------

From: "Chow, George@DTSC" <George.Chow@dtsc.ca.gov>

Date: 8/3/16 11:19 AM (GMT-08:00)

To: "Hanzel-Durbin, Justin" <JHanzel-Durbin@trcsolutions.com>

Subject: RE: Lendrum Court ADMMP Initial Summary - Request for discontinuing monitoring for COCs

Also, why the reporting limits for the FBs differ significantly from the other samples?

From: Chow, George@DTSC
Sent: Wednesday, August 03, 2016 11:14 AM
To: Hanzel-Durbin, Justin
Cc: Pettijohn, Julie@DTSC; Klein, Kimi@DTSC
Subject: RE: Lendrum Court ADMMP Initial Summary - Request for discontinuing monitoring for COCs

Can you explain what the FBxxxxx-MET and PB samples are, and also send along the lab reports?

Thanks

From: Hanzel-Durbin, Justin [JHanzel-Durbin@trcsolutions.com]
Sent: Saturday, July 30, 2016 12:21 AM
To: Chow, George@DTSC; Klein, Kimi@DTSC; Pettijohn, Julie@DTSC
Cc: Fanelli, Eileen; Larssen, Nina (nlarssen@presidiotrust.gov); Chidester, James; Ingles, William; Chamberlain, Warren; Boecher, Caroline
Subject: Lendrum Court ADMMP Initial Summary - Request for discontinuing monitoring for COCs

George, Kimi, and Julie,

On behalf of the Trust please see the attached Soil Confirmation Sampling summary letter for DTSC review. Based on the data, the Trust requests concurrence and approval to backfill these three areas.

Please let us know if you have any follow-up questions, we had planned on attaching all the lab data as an attachment to this letter but due to the large size of the data file it would not be able to be emailed. We will provide a link on Monday so that the lab data can be downloaded.

Thank you and have a great weekend

Justin

Justin Hanzel-Durbin
Senior Engineer/Project Manager

Environmental/Remediation

505 Sansome Street, Suite 1600, San Francisco, CA 94111

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July 29, 2016 Project No. 229649

Ms. Nina Larssen
Remediation Project Manager
Presidio of San Francisco
103 Montgomery Street
San Francisco, California 94129

Subject: Results of Air Quality Monitoring
Recommendation to Discontinue Monitoring for Chemicals of Concern
Lendrum Court Remediation Site, Presidio of San Francisco

Dear Ms. Larssen:

The following summarizes the results of air monitoring conducted, between June 22 and July 28, 2016, at the Lendrum Court Site in the North Fort Scott neighborhood of the Presidio of San Francisco. This letter supersedes TRCs letter dated July 11, 2016 on the subject of: Results of Air Quality Monitoring. The following provides supplemental data and analysis as discussed with the Department of Toxic Substances Control (DTSC) at our meeting on July 18, 2016.

Summary

Air Monitoring was performed in conformance with the DTSC approved Air and Dust Monitoring and Mitigation Plan (ADMMP) to document the:

- Effectiveness of project best management practices (BMPs) for dust mitigation,
- Minimization of health risk to local residents and the surrounding community from construction generated dust.

As described below, the results of the air monitoring indicate that construction BMPs have been effective at controlling the occurrence of construction dust and contaminants of concern (COCs) in air above health based limits. Specifically,

- Perimeter and work zone dust (PM-10) is below the action level of 110 µg/m3 and significantly below contaminants of concern (COC)-specific action levels.
- COCs (metals, PAHs, and dioxins and furans) have been non-detect or equal to or less than concentrations in baseline samples.
- Naturally occurring asbestos (NOA) has been non-detect with three exceptions where the concentration was lower than BAAQMD notification and stop work action levels of 1,600 TEM s/m3 and 16,000 TEM s/m3 respectively.

Additional work zone monitoring was also performed by setting worker personal air monitoring devices on T posts between the ongoing earthwork activities and the nearest residential buildings to assess whether BMPs were locally effective at controlling dust. All samples from the work area monitoring were below laboratory detection limits. The additional work zone monitoring was conducted to further document the results from ERRG's worker health and safety monitoring. ERRG performed personal worker monitoring by attaching a device to a worker performing tasks within the excavation area on June 23rd, 2016. All samples from the personal air monitoring were below laboratory detection limits.

Based on these results, TRC recommends the ADMMP be modified to require continued real time dust monitoring and to discontinue COCs sampling. The real time dust concentrations will be compared to COC specific dust action levels presented in Table E-1 of the ADMMP. Additionally, the contractor will continue to implement construction BMPs including but not limited to: spraying water to minimize dust, covering stockpiles when not in use, applying pozi-cube® dust suppressant to exposed soil areas not being worked on, and taping windows if earthwork is performed within 20 feet.

Background

Air monitoring activities consist of five components:

- Meteorological measurements, including wind direction, speed, and temperature.
- Real-time dust monitoring for PM-10.
- High volume samplers collecting samples for analysis of Site COCs (metals, PAHs and dioxins and furans).
- NOA samplers collecting samples for NOA analysis.
- Work area monitoring.

Real time air monitoring was initiated on July 21, 2016. Air monitoring/sampling activities started on June 22, 2016. Air monitoring was conducted during work hours, typically weekdays from 8 am to 3-5 pm with the exception of perimeter NOA monitoring which was conducted over a 24 hour period.

Monitoring locations are shown on Figure 1. Locations include:

- Upwind station UW1258, used to collect real time PM-10, COC, and NOA samples
- Downwind station DW1279, used to collect PM-10, COC, and NOA data.
- Downwind station DW1278, used to collect COC and NOA data. Starting July 19, 2016 a real time PM-10 monitor was added to this location and the location was moved north to be directly located downwind of current work activities in the historic forest.
- Rover path, followed by TRC staff using a mobile PDR unit. When not roving, the mobile PDR unit (ROAVER) was mounted on a tripod in t1he middle of Lendrum Court
- Work area locations, situated upwind of residential units closest to site work. Locations changed daily depending on the location of soil disturbing activities.

Particulate concentration action levels are described in Table E-2 of the ADMMP. They include:

- Below 110 µg/m^3, continue work and continue monitoring.
- Between 110 µg/m^3 and 1 mg/L, additional dust suppression methods are to be implemented, and;
- Above 1 mg/m^3, work is to cease, personnel are to exit the area.

The COC specific respirable dust action levels, are all above the 110 µg/m^3 level for particulates. They include:

- Arsenic action level is 2,200 µg/ m^3
- Lead action level is 625 µg/ m^3
- Barium action level is 5,652 µg/ m^3
- Copper no action level
- Zinc no action level
- Dioxin/Furan action level is 41,573 µg/ m^3
- Benzo(a)pyrene action level is 29,677 µg/ m^3
- Benzo(a)pyrene Equivalents action level is 8,364 µg/ m^3
- Dibenzo(a,h)anthracene action level is 12,174 µg/ m^3

Construction Activities

Construction was completed in areas shown on Figure 1 during the monitoring period. Work activities included:

- Removal of the top 6-inches of soil across the entire historic forest area, loading the soil into 5-cubic yard (CY) haul trucks, and transporting the soil to temporary stockpiles.
- Remedial excavation and grading of contaminated fill soils across the entire east side of the site including the historic forest area. Cut and fill depths ranged from a few inches to 3.5 feet.
- Loading and hauling of temporary stockpiled soil for off-site disposal.
- Clearing and grading the area east of Building 1257 to establish a stockpile location for soils designated for consolidation.

This work included soil disturbance in areas of shallow serpentine bedrock and fill containing serpentine rock clasts. Specifically, removal of shallow soil above bedrock exposed on the slope south of Building 1259 and at the corner of Lendrum Court and Armistead was completed. Representative photos of the construction work are included as Attachment 1.

Discussion of Results

Meteorological data

Meteorological data was collected using one centrally located Davis Vantage Pro (Figure 1). The station was equipped with sensors to measure wind direction, speed, and temperature. Data are summarized on Table 1. Average daily wind speeds were low, ranging from 4.7 to 9.6 miles per

hour (mph) and wind direction was predominately from the south-southwest and southwest. Less than 0.01 inches of precipitation, was recorded during the monitoring period.

Real Time Monitoring

Real time PM-10 data was collected using Thermo Scientific PDR 1500 installed at UW1258, DW1279, and DW1278. Data was also collected using a mobile PDR unit (ROVER). Each stationary unit was installed on a stake at a height of approximately five feet and dust measurements taken at one minute intervals. The average particulate concentrations recovered from the instrument are reported in Table 2.

Throughout the first 2 weeks of real time particulate monitoring, negative dust values were intermittently recorded. It was determined that moisture during humid conditions, such as foggy mornings at the Site, disrupted the calibration process. Since July 1, 2016 the units are zeroed inside the field office and data has been free of negative values.

Average particulate concentrations during the air monitoring events did not exceed any of the dust monitoring action levels at the stationary and roving locations. Instances of elevated readings did occur but are attributed to normal fluctuations. Evaluated as a five minute time weighted average (TWA), the concentrations are well below the action limits.

High Volume Air Sampling

Ambient air was sampled on three occasions each week at three locations, once for concentration of select metals (arsenic, barium, copper, lead and zinc), once for dioxins and furans, and once for polyaromatic hydrocarbons (PAHs). For each set of target compounds, a high volume sampler was deployed at each location and powered by dedicated generators. For metals, a Tisch TE-5170 Total Suspended Particulate (TSP) Volume Flow Controlled (VFC) High Volume Air Sampler was used to collect air samples. For dioxins and furans, and PAHs, each used Tisch TE-1000 Poly-Urethane Foam (PUF) High Volume Air Sampler to collect air samples. Laboratory analytical results are shown on Tables 3, 4, and 5, respectively for metals, dioxin/furans, and PAHs.

Concentrations of all metal samples were below risk based concentrations or below laboratory reporting limits. Dioxin and furan air samples were analyzed and their 2,3,7,8-tetrachlorodibenzo-p-dioxin toxicity equivalence (TCDD TEQ) values were calculated. TCDD TEQ results from samples collected the first 2 weeks are below the adjusted RBC. Later week dioxin and furan sample results have not yet been received due to the extended turnaround times. At no point during the entire monitoring period has dust ever been detected by one of the real time dust monitors anywhere near the dioxin and furan respirable dust action level of 41,573 $\mu g/m^3$.

Air samples collected for PAHs, were analyzed for benzo(a)pyrene, dibenzo(a,h)anthracene, and carcinogenic PAHs used for calculation of benzo(a)pyrene equivalents. PAH results for the COCs were all below laboratory reporting limits. All laboratory reporting limits were below the

adjusted RBCs. As a result the benzo(a)pyrene equivalents were also below laboratory reporting limits.

NOA Air Sampling

Sampling at the airborne naturally occurring asbestos (NOA) monitoring stations was conducted using battery operated vacuum pumps. The sampling train consisted of a pump, a flow regulator/dampener, a lockable air flow adjustment valve, tygon tubing and filter cassette assembly. The cassette is attached to a tripod to maintain a filter cassette elevation of 4 feet above ground surface.

NOA is sampled over a 24-hour period from approximately 8 AM to 8 AM the next day. All asbestos air samples are analyzed by TEM per the United States Environmental Protection Agency, Asbestos Hazard Emergency Act (AHERA) criteria pursuant to Title 17 of the California Code of Regulations (17 CCR) Section 93105.

Table 6 summarizes NOA results. The sample results were ND with the exception of 3 detections of asbestos, all below any trigger level. All reporting limits met the analytical sensitivity requirements.

Variances from the NOA air sampling procedure described in the ADMMP were limited to the first three days of sampling, when the batteries powering to have run out of power sometime after the work day ended. The original marine battery-powered air pumps were swapped for Casella Tuff Sampling Pumps. Casella pumps have been working without error since. The data are considered valid however, because the flow volume calculated and provided to the lab were conservatively estimated as ending with the work day at 5:00 pm as confirmed by the Site construction manager.

Work Area Air Sampling

Additional work zone monitoring was performed using two Gillian BDX II sample pumps. Samples were collected according to National Institute for Occupational Safety and Health (NIOSH) methods 7300 for metals and 7400 for asbestos. Asbestos samples were analyzed using polarized light microscopy (PLM). Prior to sample collection sample pumps were precisely calibrated using a DryCal. Calibration was conducted daily. Flow rates varied between 2.002 liters per minute (L/min) and 2.938 L/min.

Samples were collected adjacent to ERRG work areas, directly between soil disturbing activities and the homes of site residents. These alternated between Building 1259 and 1278 depending on where the most significant amount of work was being performed for the day. Sample results were compared to the NIOSH recommended exposure limit (REL) time weighted average over 8-hours (TWA) and Occupational Safety and Health Administration (OSHA) personal exposure limit (PEL) TWA for arsenic and lead. The arsenic REL is 0.002 milligrams per cubic meter (mg/m^3). The PEL for arsenic is 0.01 mg/m^3. The lead REL is 0.05 mg/m^3. The PEL for lead is 0.05 mg/m^3. Asbestos PLM results were compared to the OSHA TWA (0.1 fibers per cubic centimeter) and the OSHA short term exposure limit (STEL) of 1.0 fibers per cubic centimeter.

Monitoring was performed from July 21, 2016 through July 27, 2016. Data is included on Table 7. The lead, arsenic, and NOA were not detected above laboratory reporting limits or above OSHA worker exposure limits.

Additionally, during the initial day of earthwork the Contractor performed personal worker monitoring by attaching the same device described above to a worker performing tasks within the excavation area. All samples were analyzed by the same methods and were below laboratory detection limits or below OSHA action levels.

Conclusions and Recommendations

Throughout the air monitoring events, average particulate concentrations were generally well below the lowest particulate action level of 110 $\mu g/m^3$. There were several instances of elevated real-time particulate concentration during the sampling event. Fluctuations like this are commonplace, and if the data is evaluated on a five minute time weighted average (TWA), the concentrations are well below the calculated action limit.

Samples for site COCs were and generally below laboratory reporting limits and below the adjusted RBCs. All the dioxins and furans and PAHs samples were below laboratory reporting limits. Metals samples had detections of arsenic, barium, copper, zinc, and lead above their respective laboratory reporting limits. Of these metals, only arsenic, barium and lead have an RBC, and the results were below their respective RBCs. Similarly samples for NOA were below action levels. Analytical data is summarized in the tables below, lab reports are available and will be provided in the project completion report along with raw logs from the real time PDR monitors.

The data indicate that construction BMPs for dust control are effective and not contributing particulates or site COCs to the air at significant levels. Based on the data, TRC recommends ceasing high volume sampling for metals, PAHs, and dioxins and furans, and NOA at the Lendrum Court site. TRC will continue to observe and document implementation of project BMPs, monitor real time dust concentrations, and document that particulate concentrations do not exceed site adjusted RBC's for site COCs.

If you have any questions, please contact Justin Hanzel-Durbin at (415)644-3050.

Sincerely,

TRC SOLUTIONS, INC.

Justin Hanzel-Durbin, EIT
Senior Engineer / Project Manager

Eileen Fanelli
Principal

Attachments:
Figure 1 – Lendrum Court Remediation Project Area
Table 1 – Meteorological Data
Table 2 – PDR-1500 Results Summary
Table 3 – Select Metals Data
Table 4 – Polycyclic Aromatic Hydrocarbons Data
Table 5 – Dioxins and Furans Data
Table 6 – Naturally Occurring Asbestos Ambient Air Analyses Summary
Table 7 – ERRG Work Area Monitoring
Lendrum Court Air Monitoring and Construction Activity Photo Log

LEGEND

- A□□roximate site boundar□
- A□□roximate extent of remedial a□tion area
- PDR 1500 roaming PM10 monitoring station
- 145 — Existing □ontour elevation
- Site tree to be □reserved during remedial □onstru□tion
- To□on to be □reserved during remedial □onstru□tion
- A□□roximate limits of soil disturban□e during □onstru□tion
- A□□roximate area of disturbed soil
- Disturban□e area
- Stabili□ed □onstru□tion haul route
- Staging area
- Air monitoring lo□ation (ea□h lo□ation □ontains a PDR dust monitor, Naturall□ O□□urring Asbestos air sam□ler, and a high volume air sam□ler that sam□les Lead, PAHs, or Dioxins/Furons)
- A□□roximate lo□ation of ERRG air monitor (lo□ation □hanges based on wor□ area)
- Weather station
- NNE — Predominant Wind Dire□tion

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12□2

12□□

Lendrum Court

DW1278
7/19/2016-PRESENT

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125□

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STABILI□ED
CONSTRUCTION
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NNE

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SCALE (FEET)
0 70 140

SOURCE: Base plan by Towill, October 29-November 4, 2015

LENDRUM COURT REMEDIATION
PRO□ECT AREA
□□□□ 2□□2016

Lendrum Court and In□inerator Area
The Presidio Trust
San Fran□is□o, California

TRC | 229649 | **FIGURE 1**

FILE NAME:□Sanfran-fs1\sanfran\PROJECTS\CAD\Lendrum Court□San Fran□is□o\ADMMP Figure 1 7.28.16.dwg □La□out Tab□11x17

Table 1
Meterological Data
Air Monitoring
Presidio - Lendrum Court
San Francisco, California

Date	Average Temperature (°F)	Average Humidity (%)	Average Relative Pressure (in Hg)	Average Wind Speed (mph)	Peak Wind Gust (mph)	Predominant Wind Direction	Daily Precipitation (inches)
6/23/2016	56.9	76.2	30.0	4.7	13	SSW	0
6/24/2016	55.7	86.1	30.0	8.1	14	SW	0
6/25/2016	56.3	83.3	30.0	8.6	15	SW	0
6/26/2016	54.9	87.9	30.0	8.8	16	SW	0
6/27/2016	54.6	87.6	30.0	9.0	15	SW	0
6/28/2016	53.3	90.5	30.0	9.6	16	SW	0
6/29/2016	51.8	93.5	30.0	8.0	12	SSW	0
6/30/2016	53.5	89.1	29.9	7.2	13	SSW	0
7/1/2016	52.9	90.9	29.9	7.8	12	SSW	0
7/2/2016	53.9	92.1	30.0	6.9	9	SSW	0
7/3/2016	53.6	95.2	30.0	6.3	11	SSW	0
7/4/2016	55.2	94.4	30.0	5.6	11	SSW	0
7/5/2016	53.7	94.3	30.0	5.0	9	SSW	0.01
7/6/2016	54.5	91.6	30.0	5.9	10	SSW	0
7/7/2016	55.0	93.3	30.0	6.8	9	SSW	0
7/8/2016	56.1	94.9	30.0	6.4	10	SSW	0
7/9/2016	57.9	94.8	30.1	5.8	9	SSW	0
7/10/2016	59.4	82.7	30.0	5.0	9	SW	0
7/11/2016	56.8	87.8	29.9	8.0	14	SSW	0
7/12/2016	56.2	89.0	29.9	8.2	12	SSW	0
7/13/2016	55.8	90.3	30.0	7.3	13	SW	0
7/14/2016	53.9	93.6	30.0	8.3	14	SSW	0
7/15/2016	55.4	94.6	29.9	7.1	12	SSW	0
7/16/2016	55.1	94.5	29.9	7.0	12	SSW	0
7/17/2016	54.5	94.6	29.9	6.9	9	SSW	0
7/18/2016	56.3	93.8	30.1	6.3	9	SSW	0
7/19/2016	56.1	90.7	30.1	6.3	10	SSW	0
7/20/2016	56.0	90.6	30.0	7.3	12	SW	0
7/21/2016	57.6	89.6	30.1	6.8	11	SSW	0
7/22/2016	55.9	90.7	30.1	7.0	13	SSW	0
7/23/2016	56.8	88.0	29.9	8.4	16	SW	0
7/24/2016	54.8	91.8	29.9	8.3	14	SSW	0
7/25/2016	54.1	94.4	29.9	7.0	11	SSW	0
7/26/2016	52.9	95.9	29.9	7.9	13	SW	0
7/27/2016	53.1	96.6	29.9	8.7	14	SSW	0

Table 2
PDR-1500 Results Summary
Air Monitoring
Presidio - Lendrum Court
San Francisco, California

Date	UW1258	DW1279	ROAMER	DW1278
	Average Reading ($\mu g/m^3$)	Average Reading ($\mu g/m^3$)	Average Reading ($\mu g/m^3$)	Average Reading ($\mu g/m^3$)
6/22/2016	4.18	7.20	--	--
6/23/2016	-3.00*	*0.55	5.50*	--
6/24/2016	6.86*	19.77	-3.60*	--
6/25/2016	*No construction activities occured during the weekend.*			
6/26/2016				
6/27/2016	6.74	9.98	9.29	--
6/28/2016	2.59*	6.32	8.07*	--
6/29/2016	-1.65*	-0.10*	7.80*	--
6/30/2016	-27.61*	-5.5*	0.72*	--
7/1/2016	13.61	19.52	16.96	--
7/2/2016	No construction activities occured during the weekend.			
7/3/2016				
7/4/2016				
7/5/2016	6.76	14.91	9.16	--
7/6/2016	14.39	18.33	15.03	--
7/7/2016	5.81	9.70	9.08	--
7/8/2016	2.68	5.44	7.57	--
7/9/2016	*No construction activities occured during the weekend.*			
7/10/2016				
7/11/2016	16.83	24.77	20.47	--
7/12/2016	12.01	18.91	15.93	--
7/13/2016	18.63	25.10	24.11	--
7/14/2016	19.45	42.65	23.30	--
7/15/2016	5.70	8.78	10.92	--
7/16/2016	*No construction activities occured during the weekend.*			
7/17/2016				
7/18/2016	6.04	9.70	10.56	--
7/19/2016	**SAMPLING LOCATION DW1278 ADDED**			
	3.59	6.12	8.63	4.37
7/20/2016	6.54	10.22	12.30	11.21
7/21/2016	6.18	9.23	11.81	11.31
7/22/2016	5.67	10.08	9.90	11.54
7/23/2016	*No construction activities occured during the weekend.*			
7/24/2016				
7/25/2016	8.56	17.69	19.29	13.12
7/26/2016	4.42	12.95	8.89	13.56
7/27/2016	11.15	13.06	13.13	16.43
7/28/2016	3.80	10.05	8.21	7.53
PM-10 24 Hour State Ambient Air Quality Standard	**50**			

Notes:

* = Over 10% of readings were negative. These negative readings potentially indicate moisture interference, or an improper zero. Beginning on July 1, 2016 zeroing procedure is performed at the start of each day inside the field office, and thus far PDR data has been free of negative values.

Table 3
Select Metals
Air Monitoring
Presidio - Lendrum Court
San Francisco, California

Sample ID	Date	Average Flow (m^3/min)	Total Volume (m^3)	Arsenic	Barium	Copper	Lead	Zinc
				µg/m^3				
Week 1								
UW1258PAS100-MET	6/22/2016	1.21	507.8	0.0103 J	0.0283	0.0657	0.017	0.166
DW1279PAS100-MET		1.22	450.86	<0.0140	0.0271	0.105	0.00978 J	0.0858
DW1259PAS100-MET		1.22	428.19	<0.0133	0.0224	0.0432	0.00372	0.0798
FB062216-MET		--	--	< 6.0 µg/sample	1.56 J µg/sample	2.27 J µg/sample	< 6.0 µg/sample	15.5 J µg/sample
Week 2								
UW1258PAS101-MET	6/28/2016	1.21	557.5	<0.0108	0.0302	0.0786	0.00617	0.106
DW1279PAS101-MET		1.23	568.82	<0.0105	0.0336	0.103	0.0182	0.094
DW1259PAS101-MET		1.22	562.66	<0.0107	0.0331	0.0555	0.00508	0.0585
FB062816-MET		--	--	< 6.0 µg/sample	36.8 µg/sample	< 6.0 µg/sample	< 6.0 µg/sample	25.9 µg/sample
Week 3								
UW1258PAS102-MET	7/5/2016	1.20	566.85	<0.0106	0.0832	0.0577	<0.0106	0.0900
DW1279PAS102-MET		1.21	575.1	<0.0104	0.0875	0.107	0.0205	0.0892
DW1259PAS102-MET		1.20	564.60	<0.0106	0.0729	0.0407	<0.0106	0.151
FB070516-MET		--	--	< 6.0 µg/sample	34.0 µg/sample	< 6.0 µg/sample	< 6.0 µg/sample	30.3 µg/sample
Week 4								
UW1258PAS103-MET	7/12/2016	1.20	565.56	<0.0106	0.0909	0.0584	0.00320	0.102
DW1279PAS103-MET		1.21	556.65	<0.0108	0.0911	0.0853	0.0166	0.109
DW1259PAS103-MET		1.20	560.26	<0.0107	0.0841	0.0365	0.00456	0.0818
FB071216-MET		--	--	< 6.0 µg/sample	38.7 µg/sample	< 6.0 µg/sample	< 6.0 µg/sample	37.3 µg/sample
Week 5 - Relocated Sampling Location DW1259 to DW1278								
UW1258PAS104-MET	7/19/2016	1.20	583.76	<0.0103	0.176	0.0568	0.00294	0.0802
DW1279PAS104-MET		1.21	557.95	<0.0108	0.02	0.0866	0.00490	0.0425
DW1278PAS104-MET		1.21	543.15	<0.0110	0.109	0.0363	0.0108	0.0651
FB071916-MET		--	--	< 6.0 µg/sample	1.83 µg/sample	5.97 µg/sample	< 6.0 µg/sample	20.3 µg/sample

BASELINE SAMPLING EVENT #1								
1257BL100-Pb	07/21/2015	1.41	719.2	< 0.0167	0.0267	0.0623	0.0131 J	0.112
1279BL100-Pb		1.48	800.0	< 0.0150	0.0136 J	0.594	0.00417 J	0.0738 J
1278BL100-Pb		1.52	831.7	< 0.0144	0.0162	0.217	0.00996 J	0.102
FB072115-Pb		- -	- -	< 12 µg/sample	< 12 µg/sample	< 12 µg/sample	< 12 µg/sample	81.1 µg/sample
BASELINE SAMPLING EVENT #2								
1257BL200-Pb	7/27/2015	1.56	709.5	< 0.0169	0.0193	0.205	0.00541 J	0.0649 J
1279BL200-Pb		1.26	691.7	< 0.0173	0.00742 J	0.0649	< 0.0173	0.0496 J
1278BL200-Pb		1.58	860.6	<0.0139	0.00615 J	0.0548	0.00598 J	0.0737
FB072715-Pb		- -	- -	< 12 µg/sample	48 µg/sample	< 12 µg/sample	< 12 µg/sample	42.5 J µg/sample
BASELINE SAMPLING EVENT #3								
1257BL300-Pb	7/31/2015	1.46	772.7	< 0.0155	0.0117 J	0.0665	< 0.0155	0.0571 J
1279BL300-Pb		1.44	762.8	<0.0157	0.0182	0.509	< 0.0157	0.0783 J
1278BL300-Pb		1.71	780.0	< 0.0154	0.0190	0.440	0.00567 J	0.0933
FB073115-Pb		- -	- -	< 12 µg/sample	3.32 J µg/sample	< 12 µg/sample	< 12 µg/sample	43.1 J µg/sample
Adjusted RBC_{air} ($\mu g/m^3$)				0.022	5.2	--	1.5	--

Abbreviations:

m^3/min = cubic meters per minute

$\mu g/m^3$ = micrograms per cubic meter

< = Parameter was not specified at or above the specified laboratory reporting limit

J flag = Parameter was detected above the method detection limits and below the laboratory reporting limit

RBC_{air} = Risk-based concentration for the COC in air, expressed in units of $\mu g/m^3$

Footnotes:

RBC_{air} are dervied from Residential regional screening levels from EPA, 2015.

The risk-based concentrations (RBCs) were adjusted by a factor of 10 to account for the short-term duration of the project relative to the lifetime exposure assumptions incorporated into RSL values.

Table 4
Polycyclic Aromatic Hydrocarbons (PAHs)
Air Monitoring
Presidio - Lendrum Court
San Francisco, California

Sample Name	Date	Average Flow (m^3/min)	Total Volume (m^3)	Benzo(a)pyrene (ug/m^3)	Dibenzo(a,h)anthracene (ug/m^3)	Benzo(a)pyrene Equivalents (ug/m^3)
Week 1						
UW1258PAS100-PAHs	6/23/2016	1.20	606.75	< 0.00033	< 0.00033	0.00028875
DW1279PAS100-PAHs		1.21	572.13	< 0.00034	< 0.00034	0.0002975
DW1259PAS100-PAHs		1.20	584.02	< 0.00035	< 0.00035	0.00030625
FB062316-PAHs		--	--	< 0.2 ug/sample	< 0.2 ug/sample	--
Week 2						
UW1258PAS101-PAHs	6/29/2016	1.19	496.95	< 0.00040	< 0.00040	0.00035
DW1279PAS101-PAHs		1.21	508.48	< 0.00039	< 0.00039	0.00034125
DW1259PAS101-PAHs		1.20	500.39	< 0.00040	< 0.00040	0.00035
FB062916-PAHs		--	--	< 0.2 ug/sample	< 0.2 ug/sample	--
Week 3						
UW1258PAS102-PAHs	7/6/2016	1.20	565.46	< 0.00035	< 0.00035	0.000030625
DW1279PAS102-PAHs		1.21	561.61	< 0.00036	< 0.00036	0.0000315
DW1259PAS102-PAHs		1.20	555.88	< 0.00036	< 0.00036	0.0000315
FB070516-PAHs		--	--	< 0.2 ug/sample	< 0.2 ug/sample	--
Week 4						
UW1258PAS103-PAHs	7/13/2016	1.21	589.71	< 0.00034	< 0.00034	0.00002975
DW1279PAS103-PAHs		1.21	569.96	< 0.00035	< 0.00035	0.000030625
DW1259PAS103-PAHs		1.21	578.38	< 0.00035	< 0.00035	0.000030625
FB071316-PAHs		--	--	< 0.2 ug/sample	< 0.2 ug/sample	--
Week 5 - Relocated Sampling Location DW1259 to DW1278						
UW1258PAS104-PAHs	7/20/2016	1.20	555.19	< 0.00036	< 0.00036	0.0000315
DW1279PAS104-PAHs		1.22	559.57	< 0.00036	< 0.00036	0.0000315
DW1278PAS104-PAHs		1.21	560.24	< 0.00036	< 0.00036	0.0000315
FB072016-PAHs		--	--	< 0.2 ug/sample	< 0.2 ug/sample	--

BASELINE SAMPLING EVENT #1						
1257BL100-PAH	7/21/2015	0.19	99.1	< 0.0020	< 0.0020	0.00175
1279BL100-PAH		0.23	124.3	< 0.0016	< 0.0016	0.0014
1278BL100-PAH		0.23	125.7	< 0.0016	< 0.0016	0.00132
FB072115-PAH		--	--	< 0.2 ug/sample	< 0.2 ug/sample	--
BASELINE SAMPLING EVENT #2						
1257BL200-PAH	7/27/2015	0.26	126.9	< 0.0016	< 0.0016	0.0014
1279BL200-PAH		0.26	143.4	< 0.0014	< 0.0014	0.001225
1278BL200-PAH		0.26	141.4	< 0.0014	< 0.0014	0.001225
FB072115-PAH		--	--	< 0.2 ug/sample	< 0.2 ug/sample	--
BASELINE SAMPLING EVENT #3						
1257BL300-PAH	7/31/2015	0.26	139.8	< 0.0014	< 0.0014	0.001225
1279BL300-PAH		0.27	146.9	< 0.0014	< 0.0014	0.001225
1278BL300-PAH		0.26	138.3	< 0.0014	< 0.0014	0.001225
FB072115-PAH		--	--	< 0.2 ug/sample	< 0.2 ug/sample	--
Adjusted RBC				0.0092	0.0084	0.0092

Abbreviations:

m^3/min = cubic meters per minute

$\mu g/m^3$ = micrograms per cubic meter.

-- = not available / not applicable

< = Parameter was not specified at or above the specified laboratory reporting limit

Cal/EPA = California Environmental Protection Agency

Calculations:

Benzo(a)pyrene equivalents = summation of the product of Cal/EPA potency equivalency factors and detections

For non-detect concentrations of PAHs in the sample, a value of 1/2 the detection limit is used in the benzo(a)pyrene calculation.

Table 5
Dioxins and Furans
Air Monitoring
Presidio - Lendrum Court
San Francisco, California

	Date	Average Flow (m^3/min)	Total Volume (m^3)	TCDD TEQ (µg/m3)
Week 1				
UW1258PAS100-DF	6/24/2016	1.190	540.44	6.0E-09
DW1279PAS100-DF		1.205	475.78	5.5E-08
DW1259PAS100-DF		1.197	469.26	6.8E-09
FB062416-D/F		--	--	--
Week 2				
UW1258PAS101-DF	6/30/2016	1.187	513.90	7.0E-09
DW1279PAS101-DF		1.203	529.12	1.9E-08
DW1259PAS101-DF		1.193	523.93	6.9E-09
FB063016-D/F		--	--	--
BASELINE SAMPLING EVENT #1				
1257BL100-DF	07/21/15	0.172	87.7	5.4E-08
1279BL100-DF		0.164	88.7	4.4E-08
1278BL100-DF		0.160	87.1	6.1E-08
FB072115-DF		--	--	--
BASELINE SAMPLING EVENT #2				
1257BL200-DF	7/27/15	0.285	138.2	4.0E-08
1279BL200-DF		0.278	152.6	3.3E-08
1278BL200-DF		0.282	153.1	3.5E-08
FB072115-DF		--	--	--
BASELINE SAMPLING EVENT #3				
1257BL300-DF	7/31/15	0.263	139.8	3.8E-08
1279BL300-DF		0.275	146.9	3.8E-08
1278BL300-DF		0.2641	138.4	4.0E-08
FB072115-DF		--	--	--
			Adjusted RBC_{air} (µg/m^3)	7.4E-07

Abbreviations:

m^3/min = cubic meters per minute
-- = not available / not applicable
TCDD TEQ = TCDD toxicity equivalence
WHO 2005 TEF = World Health Organization human toxic equivalency factors published 2005

Footnotes:

a WHO 2005 TEF's from DTSC's Human Health Risk Assessment Note 2 Remedial Goals for Dioxins and Dioxin-like
Compounds for Consideration at California Hazardous Waster Sites published May 2009.
RBC_{air} are dervied from Residential regional screening levels from EPA, 2015.

The risk-based concentrations (RBCs) were adjusted by a factor of 10 to account for the short-term duration of the project relative to the lifetime exposure assumptions incorporated into RSL values.

Calculations:

TCDD TEQ = summation of the products of WHO 2005 TEF and detections
For non-detect concentrations of dioxins and furans in the sample, a value of 1/2 the detection limit

Table 6
Naturally Occuring Asbestso
Air Monitoring
Lendrum Court
San Francisco, California

Date Collected	Series	UW1258	Flags	DW1259	Flags	DW1279	Flags
6/23/2016*	101	<0.0010		<0.0010		<0.0010	
6/24/2016*	102	<0.0009		<0.0010		<0.0009	
6/25/2016*	103	<0.0009		<0.0010		<0.0010	
6/26/2016	No samples deployed Saturday and Sunday.						
6/27/2016							
6/28/2016	104	<0.0009		<0.0010		<0.0010	
6/29/2016	105	<0.0010		0.00098		<0.0010	
6/30/2016	106	<0.0010		<0.0010		<0.0010	
7/1/2016	107	<0.0010		<0.0010		<0.0010	
7/2/2016	108	<0.0010		<0.0010		<0.0010	
7/3/2016	No samples deployed Saturday, Sunday and Monday (Holiday).						
7/4/2016							
7/5/2016							
7/6/2016	109	<0.0010		<0.0010		<0.0010	
7/7/2016	110	<0.0010		0.00096		<0.0010	
7/8/2016	111	<0.0010		<0.0010		<0.0010	
7/9/2016	112	<0.0010		<0.0010		<0.0010	
7/10/2016	No samples deployed Saturday and Sunday.						
7/11/2016							
7/12/2016	113	<0.0010		<0.0010		0.00092	
7/13/2016	114	<0.0010		<0.0010		<0.0010	
7/14/2016	115	<0.0010		<0.0010		<0.0010	
7/15/2016	116	<0.0010		<0.0010		<0.0010	
7/16/2016	117	<0.0010		<0.0010		<0.0010	
7/17/2016	No samples deployed Saturday and Sunday.						
7/18/2016							
7/19/2016	118	<0.0010		<0.0010		<0.0010	
	The DW1259 sampling location was relocated to DW1278.						
7/20/2016	119	<0.0010		<0.0010		<0.0010	
7/21/2016	120	<0.0010		<0.0010		<0.0010	
7/22/2016	121	<0.0010		<0.0010		<0.0010	
7/23/2016	122	<0.0010		<0.0010		<0.0010	
7/24/2016	No samples deployed Saturday and Sunday.						
7/25/2016							
7/26/2016	123	<0.0010		<0.0010		<0.0010	
7/27/2016	124	<0.0010		<0.0010		<0.0010	
7/28/2016	125	<0.0010		<0.0010		<0.0010	
BAAQMD Action Trigger Level		**0.016**					
BAAQMD Secondary Trigger Level		**0.0016**					

Notes:

All units are in structures/cubic centimeter (S/cc)

< = Asbestos was not detected at or above the specified laboratory sensitivity

EMSL Analytical Inc., lab reports are available upon request.

BAAQMD Asbestos Trigger Level is 16,000 asbestos structures per cubic meter (S/m^3)
or 0.016 S/cc

*Pumps were discovered in the morning dead, flow volumes calculated and provided to the lab were conservatively estimated with the pumps stopping at the end of the work day, 5:00pm.

Table 7
ERRG Work Area Monitoring
Air Monitoring
Lendrum Court

		Metals (µg/m^3)		Airborne Fiber Analysis (fibers/cc)
Sample ID	Date	Arsenic	Lead	
LC-PA-01-062316[1]	6/23/2016	< 0.67	< 0.67	< 0.007
LC-WZ-01-072116	7/21/2016	< 0.49	< 0.49	< 0.005
LC-WZ-02-072216	7/22/2016	< 0.27	< 0.27	--[2]
LC-WZ-03-072516	7/25/2016	< 0.40	< 0.40	< 0.004
LC-WZ-04-072616	7/26/2016	< 0.41	< 0.41	< 0.004
LC-WZ-04-072716	7/26/2016	< 0.44	< 0.44	< 0.003
OSHA PEL		10	50	0.1

Notes:
< = Analytes/Fibers were not detected at or above laboratory reporting limits.
OSHA = Occupational Safety and Health Administration
PEL = Permissible exposure limit over course of an 8 hour day.
[1] = Personal air monitoring sample.
[2] = Filter received in a state not suitable for analysis.

Lendrum Court Air Monitoring and Construction Activity Photo Log

Windows taped and sealed on back side of Building 1279 (typical application)

Stabilized haul route through buildings 1278 and 1259, access to historic forest. Light colored ground surface is due to application of posi cube dust suppressant.

Stockpiles and work areas behind buildings 1278, visible distinction between the close pile stabilized by posi cube and the wet pile being actively worked in the background.

Vent taping on the back of building 1278 (typical)

Stabilized rough grade surface in front of building 1279 after being sprayed with posi cube

Taped sliding glass doors and front doors of building 1259 while work is being performed within 20 feet (typical)

Temporary stockpile east of building 1257, stabilized with posi cube

Remedial Excavation between buildings 1278 and 1279

Rough Grading between buildings 1259 and 1278

Rough grading behind building 1278, windows and vents taped

Excavation activities adjacent to building 1259

Rumble pad at haul route entrance to historic forest

PDR-1500 Results Summary
Air Monitoring
Presidio - Lendrum Court
San Francisco, California

Date	UW1258	DW1279	ROAMER	DW1278
	Average Reading (µg/m^3)	Average Reading (µg/m^3)	Average Reading (µg/m^3)	Average Reading (µg/m^3)
6/22/2016	4.18	7.20	--	--
6/23/2016	-3.00*	*0.55	5.50*	--
6/24/2016	6.86*	19.77	-3.60*	--
6/25/2016	*No construction activities occured during the weekend.*			
6/26/2016				
6/27/2016	6.74	9.98	9.29	--
6/28/2016	2.59*	6.32	8.07*	--
6/29/2016	-1.65*	-0.10*	7.80*	--
6/30/2016	-27.61*	-5.5*	0.72*	--
7/1/2016	13.61	19.52	16.96	--
7/2/2016	*No construction activities occured during the weekend.*			
7/3/2016				
7/4/2016				
7/5/2016	6.76	14.91	9.16	--
7/6/2016	14.39	18.33	15.03	--
7/7/2016	5.81	9.70	9.08	--
7/8/2016	2.68	5.44	7.57	--
7/9/2016	*No construction activities occured during the weekend.*			
7/10/2016				
7/11/2016	16.83	24.77	20.47	--
7/12/2016	12.01	18.91	15.93	--
7/13/2016	18.63	25.10	24.11	--
7/14/2016	19.45	42.65	23.30	--
7/15/2016	5.70	8.78	10.92	--
7/16/2016	*No construction activities occured during the weekend.*			
7/17/2016				
7/18/2016	6.04	9.70	10.56	--
7/19/2016	**SAMPLING LOCATION DW1278 ADDED**			
	3.59	6.12	8.63	4.37
7/20/2016	6.54	10.22	12.30	11.21
7/21/2016	6.18	9.23	11.81	11.31
7/22/2016	5.67	10.08	9.90	11.54
7/23/2016	*No construction activities occured during the weekend.*			
7/24/2016				
7/25/2016	8.56	17.69	19.29	13.12
7/26/2016	4.42	12.95	8.89	13.56
7/27/2016	11.15	13.06	13.13	16.43
7/28/2016	3.80	10.05	8.21	7.53
7/29/2016	1.90	8.40	17.23	10.97
7/30/2016	*No construction activities occured during the weekend.*			
7/31/2016				
8/1/2016	6.39	8.49	11.87	8.41
8/2/2016	4.68	5.34	5.39	4.55
8/3/2016	21.39	29.02	25.03	26.86
8/4/2016	4.78	9.88	6.67	6.48
8/5/2016	6.48	4.38	3.98	5.27
8/6/2016	*No construction activities occured during the weekend.*			
8/7/2016				
8/8/2016	15.97	23.83	18.03	23.57
8/9/2016	7.37	15.18	15.26	10.46
8/10/2016	8.93	14.35	15.72	14.21
8/11/2016	5.52	10.93	9.03	8.33
8/12/2016	3.79	6.44	5.72	4.73
8/13/2016	*No construction activities occured during the weekend.*			
8/14/2016				
8/15/2016	3.17	5.52	4.73	4.61

PDR-1500 Results Summary
Air Monitoring
Presidio - Lendrum Court
San Francisco, California

Date	UW1258	DW1279	ROAMER	DW1278
	Average Reading (µg/m^3)	Average Reading (µg/m^3)	Average Reading (µg/m^3)	Average Reading (µg/m^3)
8/16/2016	5.67	5.20	4.65	3.92
8/17/2016	4.65	10.93	7.00	8.12
8/18/2016	3.39	8.90**	5.89	7.57
8/19/2016	20.76	27.01**	20.16	21.73
8/20/2016	*No construction activities occured during the weekend.*			
8/21/2016				
8/22/2016	1.77	4.74**	5.72	4.89
8/23/2016	8.57	14.80**	16.64	11.15
8/24/2016	2.10	11.01**	9.46	4.24
8/25/2016	4.51	8.39**	9.99	5.89
8/26/2016	6.20	12.06**	11.32	9.49
8/27/2016	*No construction activities occured during the weekend.*			
8/28/2016				
8/29/2016	6.89	10.53**	9.00	10.31
8/30/2016	7.42	13.61**	10.08	13.62
8/31/2016	8.28	13.91**	12.62	14.62
9/1/2016	11.85	14.12	10.46	12.58
9/2/2016	19.07	27.85	20.92	--
9/3/2016	*No construction activities occured during the weekend.*			
9/4/2016				
9/5/2016				
9/6/2016	28.55	40.92	28.61	33.37
9/7/2016	18.64	32.59	27.45	39.93
9/8/2016	11.21	13.30	10.60	13.03
9/9/2016	12.88	15.32	10.96	12.37
9/10/2016	No construction activities occured during the weekend.			
9/11/2016				
9/12/2016	22.28	26.01	20.26	20.34
9/13/2016	16.98	26.22	19.15	24.68
9/14/2016	15.24	26.77	22.69	27.01
9/15/2016	13.26	16.54	10.81	13.91
9/16/2016	12.03	15.58	13.34	13.58
9/17/2016	*No construction activities occured during the weekend.*			
9/18/2016				
9/19/2016	28.43	33.08	25.03	31.97
9/20/2016	21.54	25.16	17.79	22.61
9/21/2016	20.22	--**	19.77	24.43
9/22/2016	15.60	20.65	18.26	20.18
9/23/2016	14.27	26.89	21.09	36.95
9/24/2016	*No construction activities occured during the weekend.*			
9/25/2016				
9/26/2016	11.42	15.16	17.33	20.42
9/27/2016	7.69	8.33	10.10	8.89
9/28/2016	11.17	15.25	18.82	12.55
9/29/2016	11.91	14.27	15.16	12.95
9/30/2016	10.97	20.00	18.39	13.73
10/1/2016	*No construction activities occured during the weekend.*			
10/2/2016				
10/3/2016	9.27	14.59	16.93	12.51
10/4/2016	8.09	14.31	16.14	13.55
10/5/2016	13.66	21.27	14.80	19.94
10/6/2016	9.25	34.28	18.84	26.53

PDR-1500 Results Summary
Air Monitoring
Presidio - Lendrum Court
San Francisco, California

Date	*Construction activites are now occuring predominantly in the western portion of the Site. PDR locations have been shifted to accurately monitor the perimeter of the current work area.* ***PDR location DW-1279 has been relocated to DW-1257, and DW-1278 relocated to DW-1258.***			
	UW-1258	**DW-1257**	**ROAMER**	**DW-1258**
	Average Reading ($\mu g/m^3$)	**Average Reading ($\mu g/m^3$)**	**Average Reading ($\mu g/m^3$)**	**Average Reading ($\mu g/m^3$)**
10/7/2016	5.52	22.73	13.88	21.61
10/8/2016	*No construction activities occured during the weekend.*			
10/9/2016				
10/10/2016	17.63	4.45*	20.14	17.63
10/11/2016	8.35	16.52	26.00	23.70
10/12/2016	2.04	6.67	9.95	9.09
10/13/2016	5.55	20.52	16.94	14.38
10/14/2016	Heavy Rain - PDRs not deployed			
10/15/2016	*No construction activities occured during the weekend.*			
10/16/2016				
10/17/2016	24.41	39.63	41.62	39.37
10/18/2016	12.96	24.01	15.09	22.18
10/19/2016	6.28	26.32	19.26	29.17
10/20/2016	8.60	24.45	17.78	25.70
10/21/2016	5.97	14.80	10.19	18.18
10/22/2016	19.03	33.41	29.50	34.39
10/23/2016	*No construction activities occured during Sunday, 10/23/16*			
10/24/2016	5.25	10.91	7.51	11.36
10/25/2016	Heavy Rain - PDRs not deployed			
10/26/2016	3.63	12.21	8.06	11.02
10/27/2016	Heavy Rain - PDRs not deployed			
10/28/2016	Site too wet for soil work, labor limited to BMP maintenance - PDRs not deployed			
10/29/2016	*No construction activities occured during the weekend.*			
10/30/2016				
10/31/2016	Site too wet for soil work, labor limited to BMP Inspection and maintenance - PDRs not deployed			
11/1/2016	Site too wet for soil work, labor limited to BMP Inspection and maintenance - PDRs not deployed			
11/2/2016	7.15	19.65	13.86	20.46
11/3/2016	3.40	11.83	8.19	16.94
11/4/2016	11.95	18.59	12.00	18.12
11/5/2016	*No construction activities occured during the weekend.*			
11/6/2016				
11/7/2016	5.25	13.16	12.00	12.79
11/8/2016	6.89	14.02	11.55	11.07
11/9/2016	19.35	36.91	11.07	40.80
11/10/2016	8.16	16.72	12.46	11.08
11/11/2016	12.14	26.17	15.23	14.09
11/12/2016	*No construction activities occured during the weekend.*			
11/13/2016				
11/14/2016	35.40***	66.28***	28.71	24.23
11/15/2016	5.67	10.54	10.54	8.52
11/16/2016	8.22	14.75	9.22	9.89
11/17/2016	4.48	11.53	7.13	8.96
11/18/2016	9.59	15.94	10.81	12.89
11/19/2016	*No construction activities occured during the weekend.*			
11/20/2016				

PDR-1500 Results Summary
Air Monitoring
Presidio - Lendrum Court
San Francisco, California

Date	UW-1258	DW-1257	ROAMER	DW-1258
	Average Reading (µg/m^3)	Average Reading (µg/m^3)	Average Reading (µg/m^3)	Average Reading (µg/m^3)
11/21/2016	6.57	19.87	13.19	11.30
11/22/2016	10.50	27.03	13.87	21.99
11/23/2016	Rain in the morning, too wet for PDRs - PDRs not deployed			
11/24/2016	*No construction activities occured during the holiday weekend.*			
11/25/2016				
11/26/2016				
11/27/2016				
11/28/2016	5.66	19.43	15.77	11.02†
11/29/2016	2.76*	17.08	17.61	7.18†
11/30/2016	Too wet for PDRs - PDRs not deployed			
12/1/2016	5.77	12.80	12.04	8.32
12/2/2016	3.88	10.14	4.88	6.03
12/3/2016	*No construction activities occured during the weekend.*			
12/4/2016				
12/5/2016	5.72	12.85	8.61	8.45
12/6/2016	3.24	9.19	5.71	6.40
12/7/2016	5.05	11.69	10.12	8.06
Date	**UW-1255**	**DW-1255**	**DW-1256**	--
	Average Reading (µg/m^3)	**Average Reading (µg/m^3)**	**Average Reading (µg/m^3)**	--
6/7/2017	12.15	10.23	31.50	--
6/9/2017	12.02	10.75	14.27	--
6/12/2017	23.72	26.82	30.12	--
6/13/2017	18.05	23.60	33.97	--
6/14/2017	19.97	24.61	38.70	--
6/15/2017	14.90	32.95	43.79	--
6/16/2017	11.45	28.30	35.62	--
6/19/2017	12.77	34.11	35.32	--
6/20/2017	23.32	48.95	56.51	--
6/21/2017	12.93	29.78	35.03	--
PM-10 24 Hour State Ambient Air Quality Standard	**50**			

Notes:
* = Over 10% of readings were negative. These negative readings potentially indicate moisture interference, or an improper zero.
** = Temporarily relocated DW1279 to DW1259.
***= Fog present throughout the day artificially elevated dust concentrations at these locations.
† = Temporarily relocated DW1258 to DW1279.
Beginning on July 1, 2016 zeroing procedure is performed at the start of each day inside the field office, and thus far PDR data has been free of negative values.
-- = PDR malfunctioned, no data available.

Table 6
Naturally Occuring Asbestso
Air Monitoring
Lendrum Court
San Francisco, California

Date Collected	Series	UW1258	Flags	DW1259	Flags	DW1279	Flags
6/23/2016*	101	<0.0010		<0.0010		<0.0010	
6/24/2016*	102	<0.0009		<0.0010		<0.0009	
6/25/2016*	103	<0.0009		<0.0010		<0.0010	
6/26/2016	No samples deployed Saturday and Sunday.						
6/27/2016							
6/28/2016	104	<0.0009		<0.0010		<0.0010	
6/29/2016	105	<0.0010		0.00098		<0.0010	
6/30/2016	106	<0.0010		<0.0010		<0.0010	
7/1/2016	107	<0.0010		<0.0010		<0.0010	
7/2/2016	108	<0.0010		<0.0010		<0.0010	
7/3/2016	No samples deployed Saturday, Sunday and Monday (Holiday).						
7/4/2016							
7/5/2016							
7/6/2016	109	<0.0010		<0.0010		<0.0010	
7/7/2016	110	<0.0010		0.00096		<0.0010	
7/8/2016	111	<0.0010		<0.0010		<0.0010	
7/9/2016	112	<0.0010		<0.0010		<0.0010	
7/10/2016	No samples deployed Saturday and Sunday.						
7/11/2016							
7/12/2016	113	<0.0010		<0.0010		0.00092	
7/13/2016	114	<0.0010		<0.0010		<0.0010	
7/14/2016	115	<0.0010		<0.0010		<0.0010	
7/15/2016	116	<0.0010		<0.0010		<0.0010	
7/16/2016	117	<0.0010		<0.0010		<0.0010	
7/17/2016	No samples deployed Saturday and Sunday.						
7/18/2016							
7/19/2016	118	<0.0010		<0.0010		<0.0010	
	The DW1259 sampling location was relocated to DW1278.						
7/20/2016	119	<0.0010		<0.0010		<0.0010	
7/21/2016	120	<0.0010		<0.0010		<0.0010	
7/22/2016	121	<0.0010		<0.0010		<0.0010	
7/23/2016	122	<0.0010		<0.0010		<0.0010	
7/24/2016	No samples deployed Saturday and Sunday.						
7/25/2016							
7/26/2016	123	<0.0010		<0.0010		<0.0010	
7/27/2016	124	<0.0010		<0.0010		<0.0010	
7/28/2016	125	<0.0010		<0.0010		<0.0010	
7/29/2016	126	<0.0010		<0.0010		<0.0010	
7/30/2016	127	<0.0010		<0.0010		<0.0010	
7/31/2016	128	<0.0010		<0.0010		<0.0010	
8/1/2016	129	<0.0010		<0.0010		<0.0010	
8/2/2016	130	<0.0010		<0.0010		<0.0010	
8/3/2016	131	<0.0010		0.00098		<0.0010	
8/4/2016	132	<0.0010		<0.0010		<0.0010	
	Cessation of NOA Air Sampling Granted by DTSC. Moving forward, NOA Air Samples will be collected only when working in or around the serpentinite bedrock.						
8/18/2016	133	<0.0010		<0.0010		<0.0010	
8/31/2016	134	<0.0010		<0.0010		<0.0010	
9/21/2016	135	<0.0010		<0.0010		<0.0010	
10/12/2016	136	<0.0010		0.0029		<0.0010	
10/13/2016	137	<0.0010		<0.0010		<0.0010	
BAAQMD Action Trigger Level		**0.016**					
BAAQMD Secondary Trigger Level		**0.0016**					

Notes:

All units are in structures/cubic centimeter (S/cc)

< = Asbestos was not detected at or above the specified laboratory sensitivity

EMSL Analytical Inc., lab reports are available upon request.

BAAQMD Asbestos Trigger Level is 16,000 asbestos structures per cubic meter (S/m^3)

or 0.016 S/cc

*Pumps were discovered in the morning dead, flow volumes calculated and provided to the lab were conservatively estimated with the pumps stopping at the end of the work day, 5:00pm.

Meterological Data
Air Monitoring
Presidio - Lendrum Court
San Francisco, California

Date	Average Temperature (°F)	Average Humidity (%)	Average Relative Pressure (in Hg)	Average Wind Speed (mph)	Peak Wind Gust (mph)	Predominant Wind Direction	Daily Precipitation (inches)
6/23/2016	56.9	76.2	30.0	4.7	13	SSW	0
6/24/2016	55.7	86.1	30.0	8.1	14	SW	0
6/25/2016	56.3	83.3	30.0	8.6	15	SW	0
6/26/2016	54.9	87.9	30.0	8.8	16	SW	0
6/27/2016	54.6	87.6	30.0	9.0	15	SW	0
6/28/2016	53.3	90.5	30.0	9.6	16	SW	0
6/29/2016	51.8	93.5	30.0	8.0	12	SSW	0
6/30/2016	53.5	89.1	29.9	7.2	13	SSW	0
7/1/2016	52.9	90.9	29.9	7.8	12	SSW	0
7/2/2016	53.9	92.1	30.0	6.9	9	SSW	0
7/3/2016	53.6	95.2	30.0	6.3	11	SSW	0
7/4/2016	55.2	94.4	30.0	5.6	11	SSW	0
7/5/2016	53.7	94.3	30.0	5.0	9	SSW	0.01
7/6/2016	54.5	91.6	30.0	5.9	10	SSW	0
7/7/2016	55.0	93.3	30.0	6.8	9	SSW	0
7/8/2016	56.1	94.9	30.0	6.4	10	SSW	0
7/9/2016	57.9	94.8	30.1	5.8	9	SSW	0
7/10/2016	59.4	82.7	30.0	5.0	9	SW	0
7/11/2016	56.8	87.8	29.9	8.0	14	SSW	0
7/12/2016	56.2	89.0	29.9	8.2	12	SSW	0
7/13/2016	55.8	90.3	30.0	7.3	13	SW	0
7/14/2016	53.9	93.6	30.0	8.3	14	SSW	0
7/15/2016	55.4	94.6	29.9	7.1	12	SSW	0
7/16/2016	55.1	94.5	29.9	7.0	12	SSW	0
7/17/2016	54.5	94.6	29.9	6.9	9	SSW	0
7/18/2016	56.3	93.8	30.1	6.3	9	SSW	0
7/19/2016	56.1	90.7	30.1	6.3	10	SSW	0
7/20/2016	56.0	90.6	30.0	7.3	12	SW	0
7/21/2016	57.6	89.6	30.1	6.8	11	SSW	0
7/22/2016	55.9	90.7	30.1	7.0	13	SSW	0
7/23/2016	56.8	88.0	29.9	8.4	16	SW	0
7/24/2016	54.8	91.8	29.9	8.3	14	SSW	0
7/25/2016	54.1	94.4	29.9	7.0	11	SSW	0
7/26/2016	52.9	95.9	29.9	7.9	13	SW	0
7/27/2016	53.1	96.6	29.9	8.7	14	SSW	0
7/28/2016	52.8	96.7	29.9	6.8	17	SSW	0
7/29/2016	53.5	96.7	29.8	6.4	16	SW	0
7/30/2016	54.6	97.1	29.8	5.6	15	SW	0
7/31/2016	56.9	95.8	29.9	4.4	12	SW	0
8/1/2016	58.5	89.1	30.0	4.6	13	SW	0

Meterological Data
Air Monitoring
Presidio - Lendrum Court
San Francisco, California

Date	Average Temperature (°F)	Average Humidity (%)	Average Relative Pressure (in Hg)	Average Wind Speed (mph)	Peak Wind Gust (mph)	Predominant Wind Direction	Daily Precipitation (inches)
8/2/2016	55.7	94.3	30.0	5.4	14	SW	0
8/3/2016	56.2	93.0	30.0	6.2	16	SSW	0
8/4/2016	55.3	93.9	29.9	4.3	19	SSW	0
8/5/2016	55.7	93.8	29.9	3.9	21	SSW	0.02
8/6/2016	54.8	93.6	29.9	4.9	24	SSW	0
8/7/2016	57.1	89.6	29.9	6.5	25	SSW	0
8/8/2016	57.6	90.6	29.8	6.4	27	SSW	0
8/9/2016	56.3	92.2	29.8	7.0	25	SW	0
8/10/2016	56.5	92.2	29.9	8.0	25	SSW	0
8/11/2016	55.8	95.7	30.0	5.8	25	SSW	0
8/12/2016	54.8	96.8	30.0	5.7	25	SW	0
8/13/2016	54.6	96.7	30.0	6.9	27	SW	0
8/14/2016	54.3	96.8	29.9	7.3	27	SW	0
8/15/2016	54.9	96.2	29.9	5.2	23	SW	0
8/16/2016	54.2	96.9	29.9	5.8	25	SW	0
8/17/2016	55.7	96.6	29.9	5.2	25	SSW	0
8/18/2016	57.4	95.8	29.9	5.0	24	SSW	0.01
8/19/2016	57.9	92.9	29.9	5.7	24	SSW	0
8/20/2016	58.1	92.1	29.9	4.6	25	SSW	0
8/21/2016	58.0	91.4	29.9	4.9	24	SW	0
8/22/2016	56.9	94.5	29.9	4.7	22	SSW	0
8/23/2016	58.5	91.8	30.0	4.3	21	SSW	0
8/24/2016	56.5	93.6	30.1	5.3	22	SW	0
8/25/2016	56.6	95.1	29.9	4.2	21	SW	0
8/26/2016	60.2	91.0	29.9	4.6	21	SW	0
8/27/2016	61.0	85.3	30.0	3.1	18	SSW	0
8/28/2016	60.3	82.9	30.1	4.1	20	SSW	0
8/29/2016	59.8	87.5	30.1	4.3	21	SW	0
8/30/2016	60.7	89.4	30.0	7.2	25	SSW	0
8/31/2016	60.0	90.8	29.9	7.0	22	SSW	0
9/1/2016	57.0	95.5	29.9	6.3	23	SSW	0
9/2/2016	58.8	88.0	29.9	5.7	24	SSW	0
9/3/2016	56.8	91.1	29.8	6.4	22	SSW	0
9/4/2016	56.8	88.4	29.8	5.6	23	SSW	0
9/5/2016	56.4	89.2	29.8	6.3	24	SSW	0
9/6/2016	58.3	88.9	29.9	6.2	25	SW	0
9/7/2016	61.9	83.8	29.9	6.1	25	SW	0
9/8/2016	58.4	92.4	30.1	6.4	26	SW	0
9/9/2016	55.5	95.7	30.0	5.2	25	SSW	0
9/10/2016	56.2	94.9	30.0	4.9	23	SW	0

Meterological Data
Air Monitoring
Presidio - Lendrum Court
San Francisco, California

Date	Average Temperature (°F)	Average Humidity (%)	Average Relative Pressure (in Hg)	Average Wind Speed (mph)	Peak Wind Gust (mph)	Predominant Wind Direction	Daily Precipitation (inches)
9/11/2016	56.5	93.7	30.0	4.0	21	SSW	0
9/12/2016	56.0	89.2	29.9	3.8	19	SSW	0
9/13/2016	60.7	79.3	29.9	3.4	19	SSW	0
9/14/2016	59.8	88.7	30.1	3.9	21	SW	0
9/15/2016	55.7	94.8	30.0	6.4	22	SW	0
9/16/2016	55.0	93.9	30.0	6.0	25	SW	0
9/17/2016	55.0	95.7	30.0	5.8	25	SW	0
9/18/2016	62.3	84.1	29.9	5.4	21	SW	0
9/19/2016	62.5	84.2	29.9	6.5	22	SW	0
9/20/2016	56.9	93.4	29.9	7.3	24	SSW	0
9/21/2016	57.8	86.6	29.9	6.0	20	SSW	0
9/22/2016	57.6	85.0	30.0	4.3	22	SSW	0
9/23/2016	58.6	83.6	30.1	4.1	18	SSW	0
9/24/2016	60.9	84.5	30.1	4.0	21	SW	0
9/25/2016	68.7	60.1	30.0	2.9	17	SW	0
9/26/2016	71.1	48.0	29.9	3.3	17	SW	0
9/27/2016	57.5	86.9	29.9	7.1	26	SW	0
9/28/2016	54.1	97.7	29.9	6.5	26	SSW	0
9/29/2016	54.0	95.5	30.0	5.4	26	SSW	0
9/30/2016	55.2	87.4	30.1	5.1	14.6	SSW	0
10/1/2016	57.4	85.7	30.1	4.5	11.1	SSW	0
10/2/2016	57.5	91.7	30.0	3.8	11.0	SSW	0
10/3/2016	57.3	89.4	30.1	1.2	4.2	SSW	0.04
10/4/2016	59.0	84.2	30.0	2.8	7.7	SSW	0
10/5/2016	58.7	76.6	30.0	2.9	7.7	SSW	0
10/6/2016	58.3	81.3	30.0	3.5	7.1	SW	0
10/7/2016	63.2	65.1	30.0	2.5	6.0	SW	0
10/8/2016	64.4	63.4	29.9	3.2	18.0	SW	0
10/9/2016	57.3	88.8	29.9	5.7	22.0	SSW	0
10/10/2016	54.7	92.9	30.0	5.4	13.6	SSW	0
10/11/2016	58.1	81.5	30.0	2.8	7.6	SSW	0
10/12/2016	54.6	93.0	30.1	4.2	11.4	SW	0
10/13/2016	58.8	89.8	30.0	2.6	7.7	SSW	0
10/14/2016	60.9	93.0	29.9	3.4	11.1	SSW	0.38
10/15/2016	60.2	93.2	29.9	3.4	10.7	SSW	0.39
10/16/2016	59.9	96.7	29.8	3.4	10.8	SSW	0.38
10/17/2016	59.2	91.2	30.0	2.7	8.0	SSW	0
10/18/2016	58.3	89.1	30.1	2.9	7.6	SSW	0
10/19/2016	58.9	79.4	30.2	2.8	6.8	SSW	0.01
10/20/2016	59.2	80.8	30.1	2.1	5.2	SSW	0

Meterological Data
Air Monitoring
Presidio - Lendrum Court
San Francisco, California

Date	Average Temperature (°F)	Average Humidity (%)	Average Relative Pressure (in Hg)	Average Wind Speed (mph)	Peak Wind Gust (mph)	Predominant Wind Direction	Daily Precipitation (inches)
10/21/2016	58.4	92.0	29.9	4.5	9.6	SW	0.0
10/22/2016	57.6	88.1	29.9	4.0	9.3	SW	0.0
10/23/2016	56.4	89.5	29.9	4.2	10.8	SSW	0.0
10/24/2016	61.3	78.6	29.9	3.0	11.9	SSE	0.0
10/25/2016	64.0	83.0	30.0	2.1	8.4	S	0.1
10/26/2016	59.7	88.0	30.0	3.8	9.4	SSW	0.0
10/27/2016	59.9	92.8	29.9	1.3	4.2	NE	0.5
10/28/2016	60.8	96.7	29.9	2.1	6.8	SSW	0.3
10/29/2016	60.6	94.1	29.9	2.5	7.2	SW	0.0
10/30/2016	59.2	90.5	29.9	3.7	12.0	S	0.6
10/31/2016	58.9	87.8	30.0	2.0	7.4	SSW	0.0
11/1/2016	58.0	85.3	30.1	2.7	7.8	SSW	0.0
11/2/2016	57.3	85.0	30.2	1.5	4.8	NE	0.0
11/3/2016	60.3	76.5	30.1	2.2	6.5	ENE	0.0
11/4/2016	61.4	77.0	30.1	2.9	7.8	ENE/SW	0.0
11/5/2016	57.8	92.6	30.1	2.1	6.1	SSW	0.0
11/6/2016	59.7	95.3	30.1	2.1	6.2	SSW	0.0
11/7/2016	61.9	85.0	30.1	1.5	4.5	NE	0.0
11/8/2016	63.5	81.8	30.1	2.8	7.2	ENE	0.0
11/9/2016	62.1	86.6	30.1	1.4	4.2	SW	0.0
11/10/2016	62.8	85.2	30.0	2.1	5.8	SSW	0.0
11/11/2016	59.7	90.8	30.0	2.9	6.8	SSW	0.0
11/12/2016	59.6	93.1	30.1	2.9	6.8	SSW	0.0
11/13/2016	58.1	93.6	30.2	2.5	6.3	SW	0.0
11/14/2016	56.6	96.7	30.1	3.0	6.8	SSW	0.0
11/15/2016	57.9	88.7	30.1	2.3	7.9	SSW	0.0
11/16/2016	54.5	70.2	30.1	2.6	9.1	SW	0.0
11/17/2016	51.8	75.7	30.1	1.6	4.8	ENE	0.0
11/18/2016	55.7	64.6	30.0	2.6	8.3	ENE	0.0
11/19/2016	56.9	85.9	29.9	2.4	9.9	SSE	0.4
11/20/2016	56.1	96.3	29.9	1.2	4.6	SW	0.4
11/21/2016	54.5	88.9	30.0	2.0	6.1	SSW	0.0
11/22/2016	53.5	88.7	30.2	1.3	4.2	SSW	0.5
11/23/2016	52.7	84.7	30.3	1.6	5.1	SSW	0.03
11/24/2016	50.0	83.9	30.3	1.3	4.0	ENE	0.0
11/25/2016	51.5	87.0	30.0	1.0	3.9	NE	0.0
11/26/2016	52.0	91.0	29.9	2.1	9.3	SSW	0.7
11/27/2016	53.2	79.1	30.0	2.4	8.9	SW	0.1
11/28/2016	53.9	78.5	30.0	1.1	5.6	SE	0.1
11/29/2016	51.8	71.4	30.1	1.0	3.3	SSW	0.0

Meterological Data
Air Monitoring
Presidio - Lendrum Court
San Francisco, California

Date	Average Temperature (°F)	Average Humidity (%)	Average Relative Pressure (in Hg)	Average Wind Speed (mph)	Peak Wind Gust (mph)	Predominant Wind Direction	Daily Precipitation (inches)
11/30/2016	50.4	91.6	30.1	0.5	2.8	WSW	0.1
12/1/2016	51.4	77.7	30.1	1.4	4.7	ESE	0.0
12/2/2016	55.4	49.3	30.2	3.5	10.6	NE	0.0
12/3/2016	52.6	80.6	30.2	1.4	3.8	SSW	0.0
12/4/2016	52.2	90.0	30.1	2.4	6.4	SSW	0.0
12/4/2016	52.2	90.0	30.1	2.4	6.4	SSW	0.0
12/5/2016	51.2	88.8	30.1	1.6	4.3	SSW	0.0
12/6/2016	48.3	74.9	30.1	1.5	5.5	SW	0.0
12/7/2016	46.6	79.4	30.1	2.1	6.4	ENE	0.4

APPENDIX D

AS-BUILT CONSTRUCTION AND IRRIGATION DRAWINGS

AS-BUILT CONSTRUCTION DRAWINGS

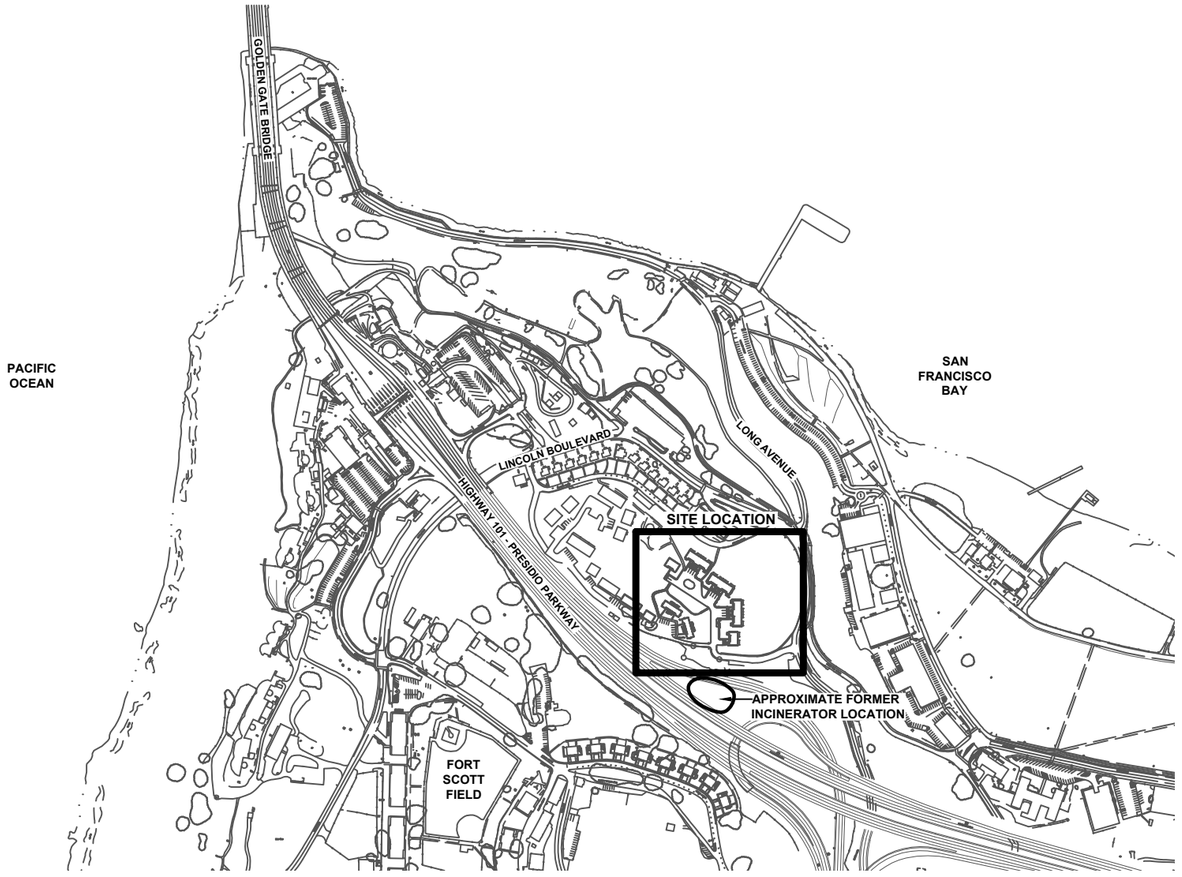
CONSTRUCTION DRAWINGS
REMEDIAL ACTION

LENDRUM COURT AREA
THE PRESIDO TRUST
SAN FRANCISCO, CALIFORNIA

OWNER	PRESIDIO TRUST
CONSULTANT	TRC SOLUTIONS, INC
CONTRACTOR	ENGINEERING/REMEDIATION RESOURCE GROUP, INC.

INDEX OF DRAWINGS

G-001	TITLE SHEET
G-002A	NOTES, LEGEND AND ABBREVIATIONS
G-002B	NOTES, LEGEND AND ABBREVIATIONS
C-101	EXISTING SITE PLAN AND TOPOGRAPHIC SURVEY CONTROL PLAN
C-102	DEMOLITION PLAN
C-103	POST CONSTRUCTION GRADING PLAN
C-104	DETAILS - CONFORMANCE
C-105	DETAILS - TREE PROTECTION CAP
C-106	DETAILS - BOX STEP
C-107	DETAILS - CURB □ CONCRETE CONSTRUCTION
C-108	DETAILS - CONCRETE STEPS □ DG PATH
C-109	POST CONSTRUCTION CAP PLAN
C-110	CAP DETAILS
C-111	DRAINAGE PLAN
C-112	BUILDING 1279 DRAINAGE GRADING PLAN
C-113	BUILDING 1278 DRAINAGE GRADING PLAN
C-114	BUILDING 1259 DRAINAGE GRADING PLAN
C-115	BUILDING 1257 DRAINAGE GRADING PLAN
C-116	DETAILS - BUILDING DRAINAGE PIPE
C-117	DETAILS - AB PAD □ BUILDING DRAINAGE
C-118	FINAL EROSION CONTROL PLAN
C-119	DETAILS - EROSION CONTROLS



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0 600 1200

SCALE IN FEET

SEAL:

PROFESSIONAL ENGINEER□

ALFONSO ANG

DATE□

05/21/2019

NO.	BY	DATE	REVISION	APP'D.
C	KL	FEB 2019	AS-BUILT	AA/JHD
B	JHD	5/11/16	100% DESIGN DRAWING	WBC
A	JHD	1/21/16	60% DESIGN DRAWING	WBC

PROJECT:

THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:

TITLE SHEET

DRAWN BY: K. LI/J. HANZEL-DURBIN	PROJ NO.: 229649.00005A.00000D
CHECKED BY: A. ANG	**G-001**
APPROVED BY: J. HANZEL-DURBIN	
DATE: FEBRUARY 2019	

TRC
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: G-001 Title Sheet.dwg

11x17 --- USER: KLI --- ATTACHED XREFS: MASTER Presidio, Planimetrics, New Doyle Alignment, STAMP-ANG-RPE 09-30-19 --- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Lendrum Court As-Built 2019\ G-001 Title Sheet.dwg --- PLOT DATE: May 21, 2019 - 10:41AM --- LAYOUT: 11X17L
Version: 2017-10-21

GENERAL SCOPE OF WORK

1. MOBILIZATION
2. SITE PREPARATION, INCLUDING CLEARING AND GRUBBING, AND DEMOLITION, AS NEEDED
3. CONSTRUCTION OF ALTERNATE SITE ACCESS
4. EXCAVATION AND STOCKPILING OF UPPER 4-6 INCHES OF MATERIAL UNSUITABLE FOR REUSE
5. REMEDIAL GRADING AND WASTE CONSOLIDATION
6. HAULING OF EXCAVATED MATERIAL IDENTIFIED AS UNSUITABLE FOR REUSE TO APPROVED LANDFILLS
7. CONSTRUCTION OF SITE CAP
   - 7.1. PLACEMENT OF A MESH AND/OR GEOTEXTILE BARRIER TO CONTROL BURROWING ANIMALS
   - 7.2. PLACEMENT OF 1.5 FEET OF CLEAN SOIL FILL (CAP)
   - 7.3. CONSTRUCTION OF HARDSCAPE ELEMENTS
   - 7.4. CONSTRUCTION OF IRRIGATION SYSTEM
8. INSTALLATION OF ENGINEERING CONTROLS IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES (BMPS) USED AT THE PRESIDIO, INCLUDING TAPING OF NEARBY WINDOWS FACING THE WORK ZONES, COVERING AND/OR ESTABLISHING MISTING SYSTEMS AROUND THE WORK AREA, SURFACE WATER RUNOFF AND EROSION CONTROLS, AND MEANS OF KEEPING SOIL OFF PAVED ROADS
9. INSTALLATION OF TEMPORARY EXCLUSION FENCING AROUND THE ACTIVE WORK AREAS
10. ESTABLISHMENT OF TRAFFIC CONTROL SIGNAGE AND DEVICES, AS NEEDED, AT POINTS OF ENTRY TO PUBLIC ROADWAYS
11. DUST MONITORING (TO BE PERFORMED BY OTHERS)
12. STOCKPILE PROFILE SAMPLING OF EXCAVATED MATERIAL FOR DISPOSAL
13. PLANTING IN ACCORDANCE WITH THE PRESIDIO TRUST'S MANAGEMENT PLAN (PTMP) AND ASSOCIATED LANDSCAPE DESIGN DOCUMENTS

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING DAMAGE TO EXISTING ROADWAYS AND PARKING AREAS CAUSED BY CONSTRUCTION ACTIVITIES. REPAIRS SHALL BE IN KIND OR BETTER THAN EXISTING CONDITIONS AND TO THE SATISFACTION OF THE OWNER REPRESENTATIVE AT NO ADDITIONAL COST TO THE PRESIDIO TRUST. CONTRACTOR WILL DOCUMENT EXISTING CONDITIONS OF SITE ROADWAYS PRIOR TO START OF CONSTRUCTION.

2. APPROXIMATE LOCATION OF KNOWN UTILITIES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL VERIFY UTILITY LOCATIONS AND NOTIFY THE RESPECTIVE UTILITY COMPANIES FOR FIELD LOCATION AND VERIFICATION PRIOR TO ALL CONSTRUCTION. THE CONTRACTOR SHALL VERIFY LOCATIONS AND ELEVATIONS OF ALL EXISTING PIPES AND BURIED UTILITIES. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF EXISTING UNDERGROUND UTILITIES THAT MAY BE ENCOUNTERED, BUT WHICH ARE NOT SHOWN ON THE PLAN. WHERE EXISTING UTILITY ELEVATIONS ARE IDENTIFIED, THE CONTRACTOR SHALL VERIFY ELEVATIONS IN THE FIELD AT THE LOCATION INDICATED. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (USA) A MINIMUM OF 3 BUSINESS DAYS PRIOR TO CONSTRUCTION ACTIVITIES.

3. THE CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT AND PROVIDE THE TRUST WITH A MINIMUM OF 2 BUSINESS DAYS NOTIFICATION PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.

4. THE CONTRACTORS SHALL PROVIDE TRAFFIC AND PEDESTRIAN ACCESS AROUND THE CONSTRUCTION SITE AT ALL TIMES. ACCESS SHALL BE COORDINATED WITH AND APPROVED BY THE PRESIDIO TRUST.

5. NO MATERIAL SHALL BE STOCKPILED OR LEFT OUTSIDE THE PERIMETER FENCE AT ANY TIME DURING CONSTRUCTION.

6. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL REVIEW THE LIMITS AND TYPES OF WORK TO BE PERFORMED WITH THE ENGINEER IN THE FIELD.

7. SITE TOPOGRAPHY AND SITE FEATURES PROVIDED BY PRESIDIO TRUST, AS PERFORMED BY PLS SURVEYS, INC. UNDER SUBCONTRACT TO EKI, INC. ON OCTOBER 2014 AND TOWILL, OCTOBER 29-NOVEMBER 4, 2105. SURVEY CONTROL POINTS FOR THE WORK INCLUDE ALL OF THOSE IDENTIFIED IN THE TABLE FOUND ON DRAWINGS C-101. COORDINATES ARE BASED ON NORTH AMERICAN DATUM OF 1983 (NAD 83), CALIFORNIA STATE PLANE - ZONE 3 - U.S. SURVEY FEET. ELEVATIONS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) - U.S. SURVEY FEET.

8. SEE CONTRACT SPECIAL PROVISIONS AND TECHNICAL SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING SITE CONDITIONS AND REQUIREMENTS OF WORK.

9. EXCAVATION ACTIVITIES WILL BE OBSERVED BY BIOLOGICAL AND CULTURAL RESOURCE MONITORS AND ARBORISTS AS NECESSARY. PRIOR TO CONDUCTING EXCAVATION ACTIVITIES, THE CONTRACTOR SHALL MEET WITH THE ENGINEER AND MONITORS TO ESTABLISH PROTOCOLS FOR WORKING AROUND BIOLOGICAL AND CULTURAL RESOURCES, TREES, AND TEMPORARILY HALTING EXCAVATION IF NEEDED TO PROTECT RESOURCES.

10. THE CONTRACTOR SHALL REVIEW AND CONDUCT WORK IN ACCORDANCE WITH RECOMMENDATIONS PRESENTED IN THE GEOTECHNICAL EVALUATION (APPENDIX B OF THE REMEDIAL DESIGN IMPLEMENTATION PLAN (RDIP), TRC 2015) UNLESS OTHERWISE DIRECTED BY THE TRUST.

C-103 POST CONSTRUCTION GRADING PLAN NOTES

1. CONTRACTOR SHALL PROTECT EXISTING UTILITIES AS SHOWN ON THE DRAWINGS AND/OR DISCOVERED IN THE FIELD.
2. CONTRACTOR SHALL PLACE SOIL WITHIN THE LIMITS OF GRADING AS SHOWN ON THE DRAWINGS AND AS DIRECTED BY THE TRUST. CONTRACTOR SHALL BE RESPONSIBLE FOR STABLE SLOPE CONDITIONS.
3. SURVEY CONTROL POINTS ARE SHOWN ON DRAWING C-101.
4. GRADING OUTSIDE OF THE SPECIFIED REMEDIAL EXCAVATION AREA MAY REQUIRE CUT AND FILL TO MEET FINAL GRADES. ALL GRADING IN THESE AREAS MUST BE OBSERVED BY TRUST REPRESENTATIVES.
5. THE UPPERMOST 18 INCHES SHALL BE COMPACTED TO 85-90% RELATIVE COMPACTION IN ALL AREAS TO BE PLANTED. ALL OTHER AREAS AND FILLS DEEPER THAN 18 INCHES SHALL BE COMPACTED TO A MINIMUM OF 90%.
6. ALL GRADING AND COMPACTION SHALL BE PERFORMED IN ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS AND RECOMMENDATIONS IN THE GEOTECHNICAL EVALUATION REPORT.
7. COMPACTION WITHIN 3 FEET OF EXISTING BUILDINGS SHALL BE PERFORMED USING SMALL EQUIPMENT SUCH AS A JUMPING JACK OR VIBRO PLATE TO PROTECT THE STRUCTURE AND FOUNDATIONS.
8. CONTRACTOR WILL HAVE ARBORIST PRESENT DURING ALL WORK WITHIN TREE PROTECTION ZONES (TYP).
9. CONTRACTOR TO UTILIZE HAND TOOLS OR SMALL TRACK MOUNTED EQUIPMENT WHEN WORKING IN TPZ.
10. EXCAVATIONS LOCATED ADJACENT TO FOOTINGS SHOULD NOT EXTEND BELOW AN IMAGINARY 1:1 (HORIZONATL:VERTICAL) PLANE PROJECTED DOWNWARD FROM THE FOOTING BEARING SURFACE TO THE BOTTOM EDGE OF THE EXCAVATION. WHERE NECESSARY, EXCAVATIONS NEAR EXISTING FOUNDATIONS SHOULD BE PERFORMED IN INCREMENTS (I.E. EXCAVATE, CONSTRUCT AND BACKFILL SHORT SECTIONS).
11. BACKFILL CLEAN CLOSED AREAS AS NECESSARY TO MEET FINAL GRADES.

SEAL:

REGISTERED PROFESSIONAL ENGINEER ALFONSO ANG No. C 81607 Exp. 09/30/19 CIVIL STATE OF CALIFORNIA

PROFESSIONAL ENGINEER:
ALFONSO ANG

DATE:
05/21/2019

NO.	BY	DATE	REVISION	APP'D.
C	KL	FEB 2019	AS-BUILT	AA/JHD
B	JHD	3/25/16	100% DESIGN DRAWING	WBC
A	JHD	1/21/16	60% DESIGN DRAWING	WBC

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
NOTES, LEGEND AND ABBREVIATIONS

DRAWN BY: K. LI/J. HANZEL-DURBIN	PROJ NO.: 229649.00005A.00000D
CHECKED BY: A. ANG	
APPROVED BY: J. HANZEL-DURBIN	**G-002A**
DATE: FEBRUARY 2019	

TRC
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: G-002A Notes, Legend and Abbreviations.dwg

11x17 -- USER: KLI -- ATTACHED XREFS: STAMP-ANG-RPE 09-30-19 -- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Lendrum Court As-Built 2019\ G-002A Notes, Legend and Abbreviations.dwg -- PLOT DATE: May 21, 2019 - 10:42AM -- LAYOUT: 11X17L
Version: 2017-10-21

LEGEND

SITE FEATURES

- E — HIGH VOLTAGE
- SS — SANITARY SEWER
- GAS — GAS
- SD — STORM SEWER
- W — WATER
- SL — STREET LIGHTS
- TV — TELECOM
- FENCE LINE
- SF — SILT FENCE
- APPROXIMATE SITE BOUNDARY
- EDGE OF CAP
- TREE PROTECTION ZONE
- 140 — FINAL GRADE CONTOURS
- 140 — EXISTING GRADE CONTOURS

SYMBOLS

- ECTC TYPE 4 EROSION CONTROL BLANKET ANCHORING PATTERN A
- ECTC TYPE 4 EROSION CONTROL BLANKET ANCHORING PATTERN B
- GRAVEL SPREAD BELOW ROOF GUTTER DOWNSPOUTS
- STRAW WATTLE
- AREA TO BE DEMOLISHED AND REMOVED
- PROPOSED STAGING AREAS
- STAGING AREAS
- STABILIZED CONSTRUCTION ENTRANCE OR EXIT
- SUBGRADE SOIL
- CONCRETE
- AGGREGATE BASE
- ASPHALT
- IMPORT CLEAN FILL
- DECOMPOSED GRANITE
- NEW CONCRETE PATIO/SIDEWALKS/STAIRS
- NEW DG PATH
- NEW ASPHALT PATH
- GRAVEL PATH
- STORM DRAIN INLET PROTECTION
- FIRE HYDRANT
- SITE TREE
- SITE TOYON (HETEROMELES ARBUTIFOLIA

ABBREVIATIONS

AC	ASPHALT CONCRETE
AGG	AGGREGATE
DG	DECOMPOSED GRANITE
(E)	EXISTING
FT	FEET
IN	INCHES
MAX	MAXIMUM
MIN	MINIMUM
(N)	NEW
NAVD	NORTH AMERICA VERTICAL DATUM
O.C.	ON CENTER
TYP	TYPICAL
TPZ	TREE PROTECTION ZONE

SEAL:

REGISTERED PROFESSIONAL ENGINEER ALFONSO ANG No. C 81607 Exp. 09/30/19 CIVIL STATE OF CALIFORNIA

PROFESSIONAL ENGINEER

ALFONSO ANG

DATE

05/21/2019

NO.	BY	DATE	REVISION	APP'D.
C	KL	FEB 2019	AS-BUILT	AA/JHD
B	JHD	3/25/16	100% DESIGN DRAWING	WBC
A	JHD	1/21/16	60% DESIGN DRAWING	WBC

PROJECT:

THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:

NOTES, LEGEND AND ABBREVIATIONS

DRAWN BY: K. LI/J. HANZEL-DURBIN	PROJ NO.: 229649.00005A.00000D
CHECKED BY: A. ANG	
APPROVED BY: J. HANZEL-DURBIN	**G-002B**
DATE: FEBRUARY 2019	

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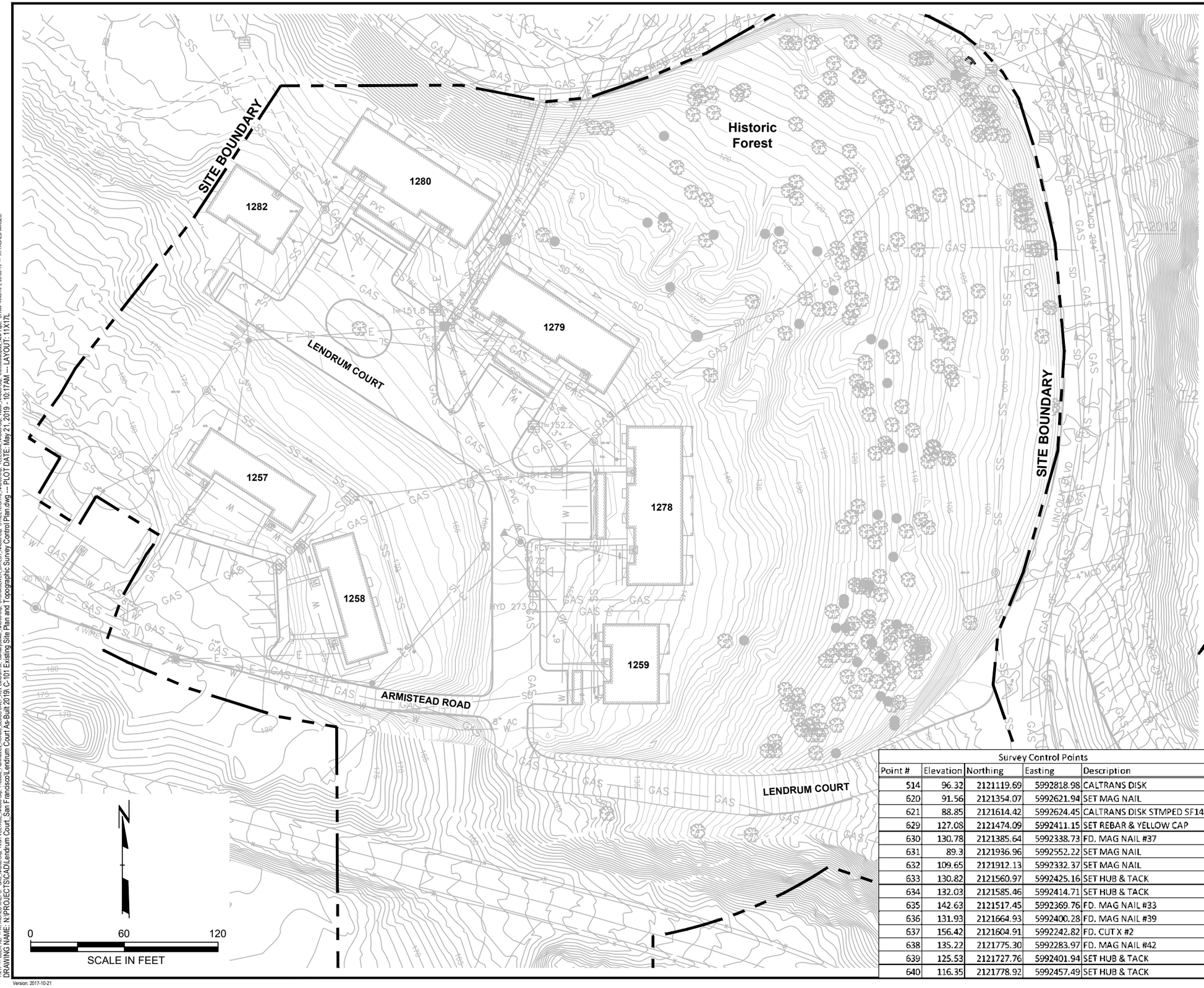
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: G-002B Notes, Legend and Abbreviations.dwg

11x17 -- USER: KLI -- ATTACHED XREFS: - STAMP-ANG-RPE (09-30-19 -- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Lendrum Court As-Built 2019\ G-002B Notes, Legend and Abbreviations.dwg -- PLOT DATE: May 21, 2019 - 10:43AM -- LAYOUT: 11X17L
Version: 2017-10-21



LEGEND

APPROXIMATE SITE BOUNDARY

NOTES

1. SITE FEATURES AND TOPOGRAPHY PROVIDED BY PRESIDIO TRUST AS PERFORMED BY PLS SURVEYS, INC. UNDER SUBCONTRACT TO EKI, INC. ON OCTOBER 2014 AND TOWILL, OCTOBER 29-NOVEMBER 4, 2015.
2. ALL COORDINATES ARE REPORTED IN U.S. SURVEY FEET.
3. HORIZONTAL COORDINATES ARE REFERENCED TO THE NORTH AMERICAN DATUM OF 1983, CALIFORNIA COORDINATE SYSTEM ZONE 3, (2007.0).
4. ELEVATIONS ARE BASED ON NAVD 88. PROJECT BENCHMARK IS NGS MONUMENT N813, ELEVATION □ 11.09 FEET.
5. CONTRACTOR TO SEE TABLE BELOW FOR THE CLOSEST SURVEY CONTROL POINTS TO BE UTILIZED FOR BRINGING CONTROL TO THE PROJECT AREA. ALL POINTS ARE WITHIN SITE BOUNDARY. FOR ADDITIONAL CONTROL POINTS OR SURVEY CONTROL DATA, CONTACT PROJECT ENGINEER.

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

Survey Control Points

Point #	Elevation	Northing	Easting	Description
514	96.32	2121119.69	5992818.98	CALTRANS DISK
620	91.56	2121354.07	5992621.94	SET MAG NAIL
621	88.85	2121614.42	5992624.45	CALTRANS DISK STMPED SF14
629	127.08	2121474.09	5992411.15	SET REBAR & YELLOW CAP
630	130.78	2121385.64	5992338.73	FD. MAG NAIL #37
631	89.3	2121936.96	5992552.22	SET MAG NAIL
632	109.65	2121912.13	5992332.37	SET MAG NAIL
633	130.82	2121560.97	5992425.16	SET HUB & TACK
634	132.03	2121585.46	5992414.71	SET HUB & TACK
635	142.63	2121517.45	5992369.76	FD. MAG NAIL #33
636	131.93	2121664.93	5992400.28	FD. MAG NAIL #39
637	156.42	2121604.91	5992242.82	FD. CUT X #2
638	135.22	2121775.30	5992283.97	FD. MAG NAIL #42
639	125.53	2121727.76	5992401.94	SET HUB & TACK
640	116.35	2121778.92	5992457.49	SET HUB & TACK

SEAL:

REGISTERED PROFESSIONAL ENGINEER ALFONSO ANG No. C 81607 Exp. 09/30/19 CIVIL STATE OF CALIFORNIA

PROFESSIONAL ENGINEER□

ALFONSO ANG

DATE□

05/21/2019

NO.	BY	DATE	REVISION	APP'D.
C	KL	FEB 2019	AS-BUILT	AA/JHD
B	JHD	3/25/16	100% DESIGN DRAWING	WBC
A	JHD	1/21/16	60% DESIGN DRAWING	WBC

PROJECT:

THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:

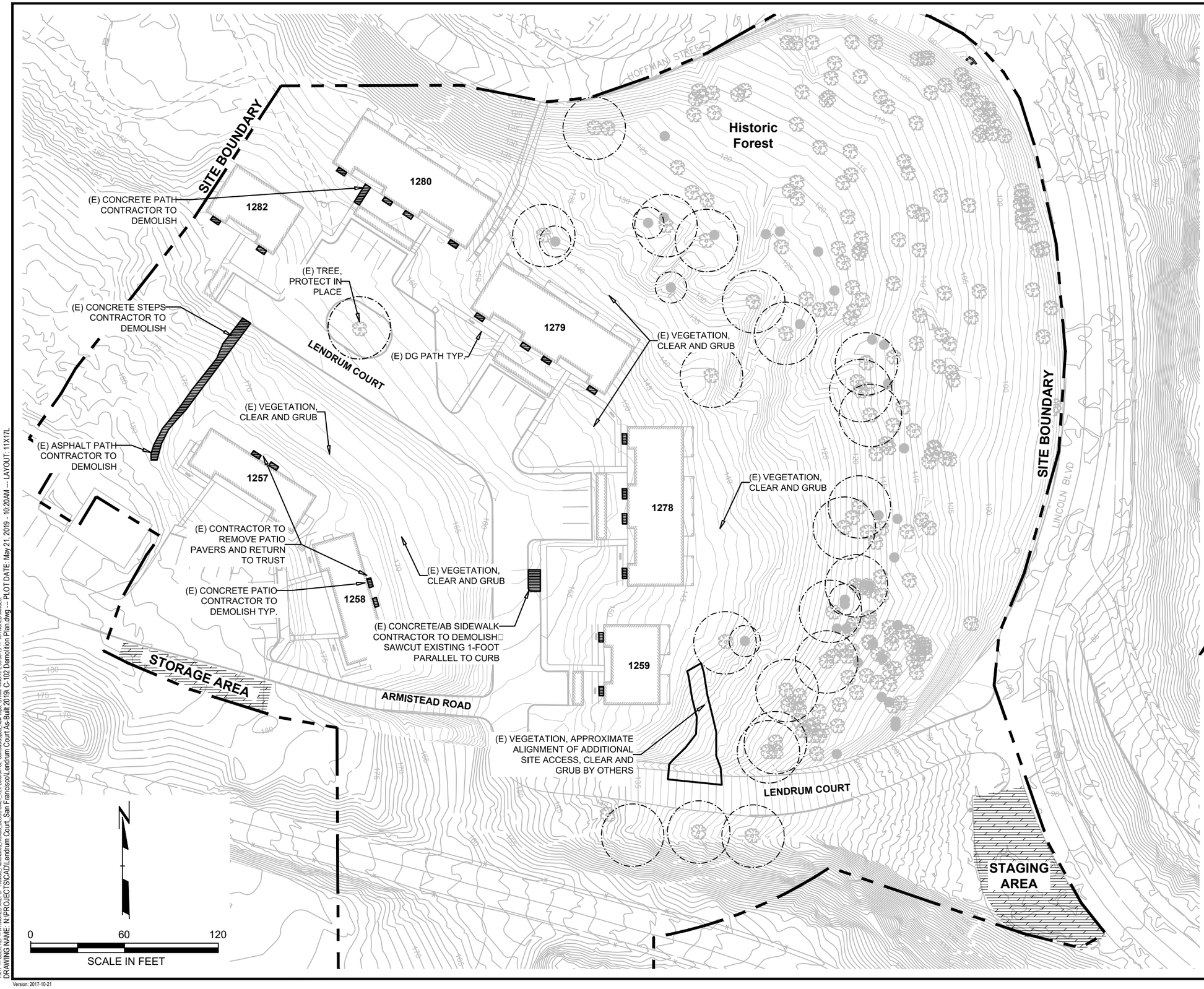
EXISTING SITE PLAN AND TOPOGRAPHIC SURVEY CONTROL PLAN

DRAWN BY: K. LI/J. HANZEL-DURBIN	PROJ NO.: 229649.00005A.00000D
CHECKED BY: A. ANG	
APPROVED BY: J. HANZEL-DURBIN	**C-101**
DATE: FEBRUARY 2019	

TRC
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: C-101 Existing Site Plan and To□ogra□hi□Surve□Control Plan.dwg

11x17 -- USER: KLI -- ATTACHED XREFS: GAS_NAD83-Clip; HIGH VOLTAGE_NAD83-Clip; Presidio_Planimetrics_ROADS_BLDGS ONLY_REV Lendrum Ct.; SanitarySewer_NAD83-Clip; STORMSEWER_LATEST_NAD83-clip; STREETLIGHTS_NAD83-Clip; TELECOM_NAD83-Clip; Water



LEGEND

PAVEMENT TO BE DEMOLISHED AND REMOVED FROM SITE

STAGING AREAS

NOTES

1. SITE FEATURES AND TOPOGRAPHY PROVIDED BY PRESIDIO TRUST AS PERFORMED BY TOWILL DURING OCTOBER 29-NOVEMBER 4, 2015. SURVEY CONTROL POINTS FOR THE WORK ARE SHOWN ON C-106.
2. CONTRACTOR TO DEMOLISH AND REMOVE APPROXIMATELY 100 FEET OF AC TRAIL AND RECYCLE PER THE SPECIFICATIONS.
3. CONTRACTOR TO DEMOLISH AND REMOVE EXISTING CONCRETE PATIOS AND RECYCLE PER SPECIFICATIONS AS SHOWN.
4. CONTRACTOR TO CLEAR AND GRUB ALL GRADING AND EXCAVATION AREAS PER THE SPECIFICATIONS.
5. CONTRACTOR TO PROTECT ALL TREES AND ESTABLISH A PROTECTION ZONE AROUND EACH TREE.
6. STUMPS ARE TO BE GRINDED TO APPROXIMATELY 1 FT. BELOW ROUGH SURFACE GRADE OR AS DIRECTED BY THE ENGINEER.
7. CONTRACTOR TO DEMOLISH CONCRETE CURB AND ASPHALTIC BASE (AB) SIDEWALK ADJACENT TO FIRE HYDRANT WHILE PROTECTING THE FIRE HYDRANT IN PLACE. CONCRETE AND AB TO BE RECYCLED PER THE SPECIFICATIONS.
8. UNLESS NOTED CONTRACTOR SHALL PROTECT ALL CONCRETE FEATURES SUCH AS SIDEWALKS, CURBS, AND BUILDING ACCESS PATHS. DG PATHS TO BE REMOVED DURING INITIAL GRADING ACTIVITIES.
9. ARBORIST SHALL OBSERVE WORK PERFORMED WITHIN TREE PROTECTION ZONE.
10. IN AREAS WHERE GRASSES ARE PRESENT CONTRACTOR TO MOW AREA INITIALLY AND SAVE CLIPPINGS FOR FUTURE USE.
11. IF CONCRETE PATIO IS CONNECTED TO BUILDING FOUNDATION, THEN SAWCUT BEFORE DEMOLITION.
12. CONTRACTOR TO REMOVE AND SAVE EXISTING STEEL POST AND CABLE FENCE THROUGHOUT SITE.

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

SEAL:

REGISTERED PROFESSIONAL ENGINEER ALFONSO ANG No. C 81607 Exp. 09/30/19 CIVIL STATE OF CALIFORNIA

PROFESSIONAL ENGINEER□

ALFONSO ANG

DATE□

05/21/2019

NO.	BY	DATE	REVISION	APP'D.
C	KL	FEB 2019	AS-BUILT	AA/JHD
B	JHD	3/25/16	100% DESIGN DRAWING	WBC
A	JHD	1/21/16	60% DESIGN DRAWING	WBC

PROJECT:

THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:

DEMOLITION PLAN

DRAWN BY: K. LI/J. HANZEL-DURBIN	PROJ NO.: 229649.00005A.00000D
CHECKED BY: A. ANG	
APPROVED BY: J. HANZEL-DURBIN	**C-102**
DATE: FEBRUARY 2019	

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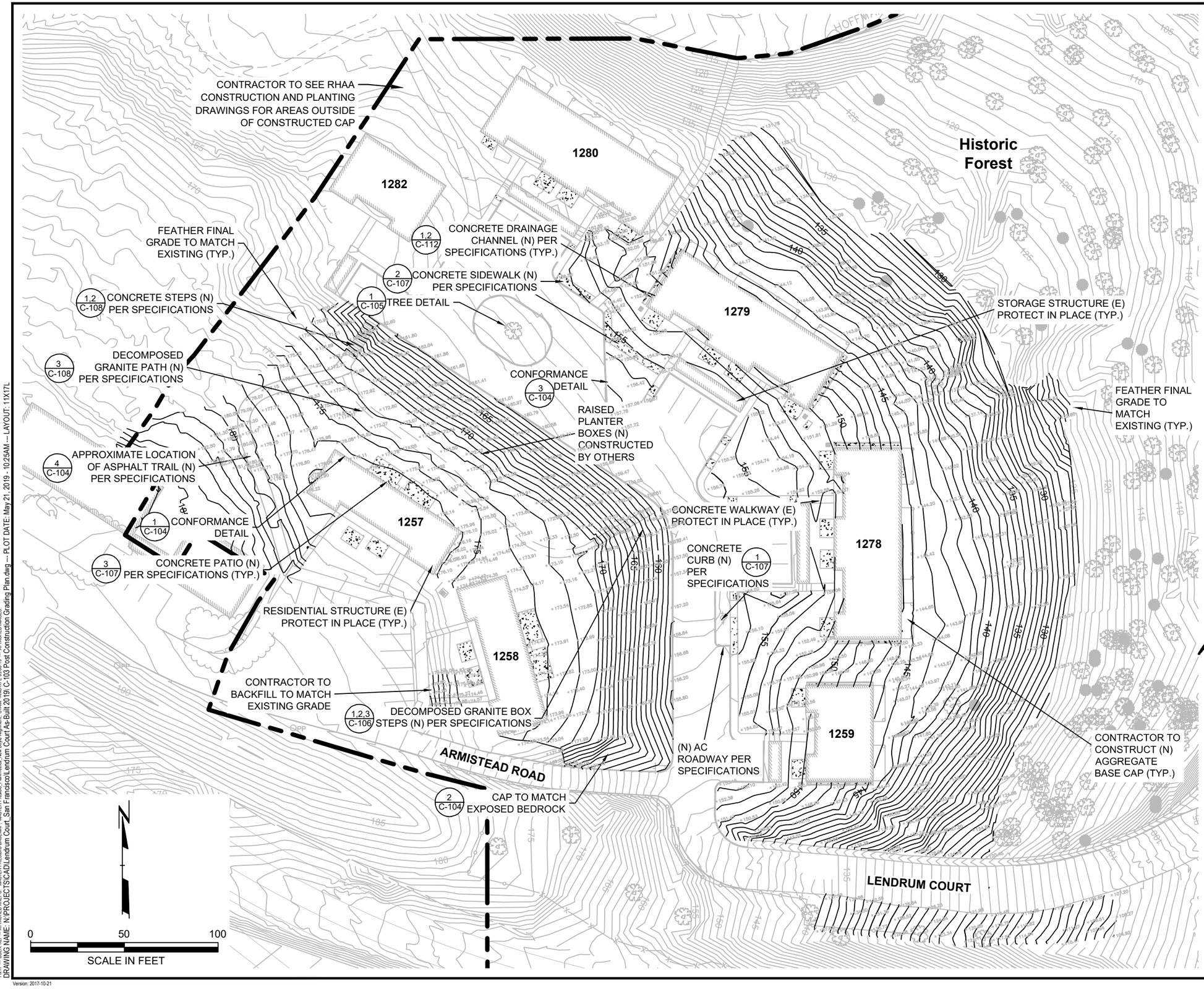
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: C-102 Demolition Plan.dwg

11x17 -- USER: KLI -- ATTACHED XREFS: Presidio_Planimetrics_ROADS_BLDGS ONLY_REV Lendrum Ct_ Contours&Spots_New Topo_STAMP-ANG-RPE 09-30-19 -- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Lendrum Court As-Built 2019\ C-102 Demolition Plan.dwg -- PLOT DATE: May 21, 2019 - 10:20AM -- LAYOUT: 11X17L
Version: 2017-10-21



LEGEND

x 156.84	FINAL ELEVATION
140	FINAL GRADE CONTOURS

NOTES

1. SEE DRAWING G-002A FOR CONSTRUCTION NOTES.

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

SEAL:

REGISTERED PROFESSIONAL ENGINEER ALFONSO ANG No. C 81607 Exp. 09/30/19 CIVIL STATE OF CALIFORNIA

PROFESSIONAL ENGINEER

ALFONSO ANG

DATE

05/21/2019

NO.	BY	DATE	REVISION	APP'D.
C	KL	FEB 2019	AS-BUILT	AA/JHD
B	JHD	5/10/16	100% DESIGN DRAWING	WBC
A	JHD	1/21/16	60% DESIGN DRAWING	WBC

PROJECT:

THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:

POST CONSTRUCTION GRADING PLAN

DRAWN BY: K. LI/J. HANZEL-DURBIN	PROJ NO.: 229649.00005A.00000D
CHECKED BY: A. ANG	
APPROVED BY: J. HANZEL-DURBIN	**C-103**
DATE: FEBRUARY 2019	

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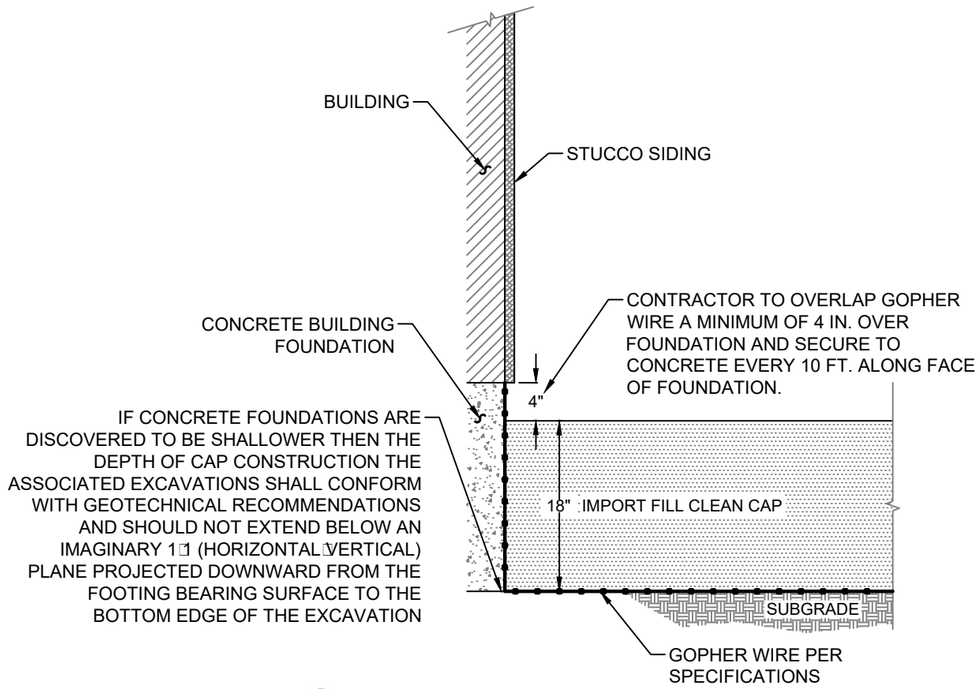
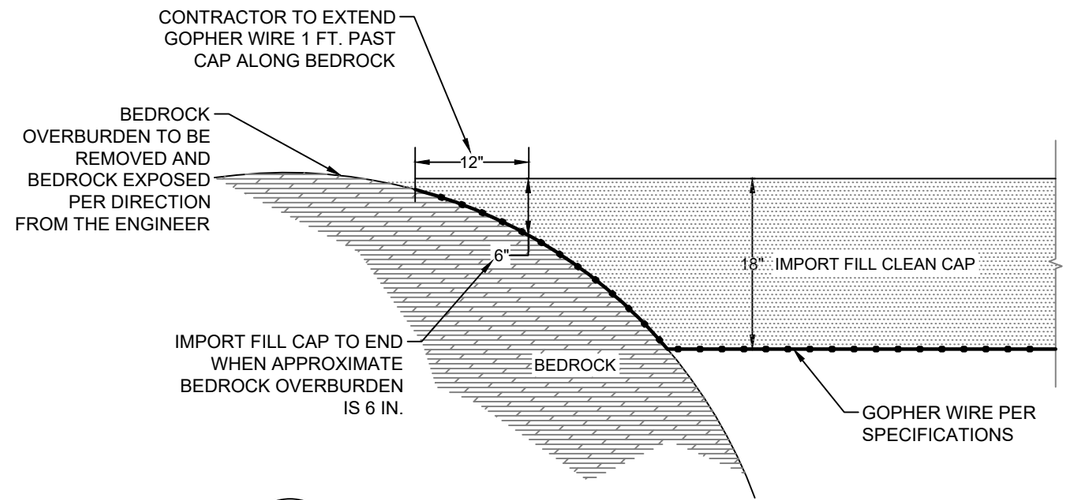
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: C-103 Post Construction Grading Plan.dwg

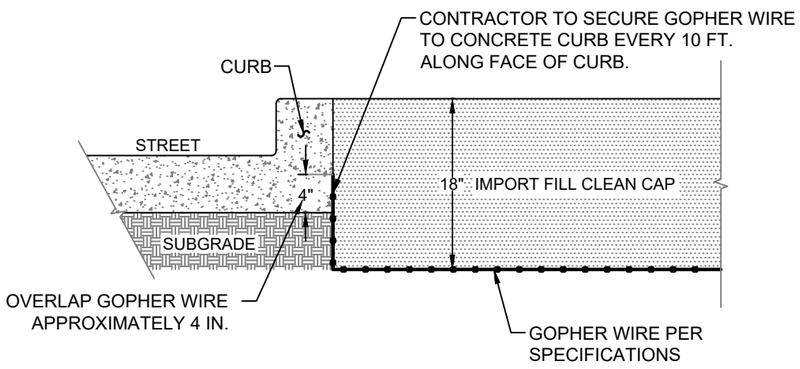
1x17 -- USER: KLI -- ATTACHED XREFS: MASTER PRESIDIO BASEMAP; MASTER Presidio_Planimetrics_New Doyle Alignment; STAMP-ANG-RFE 09-30-19 -- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Lendrum Court As-Built 2019\ C-103 Post Construction Grading Plan.dwg -- PLOT DATE: May 21, 2019 - 10:25AM -- LAYOUT: 11X17L
Version: 2017-10-21



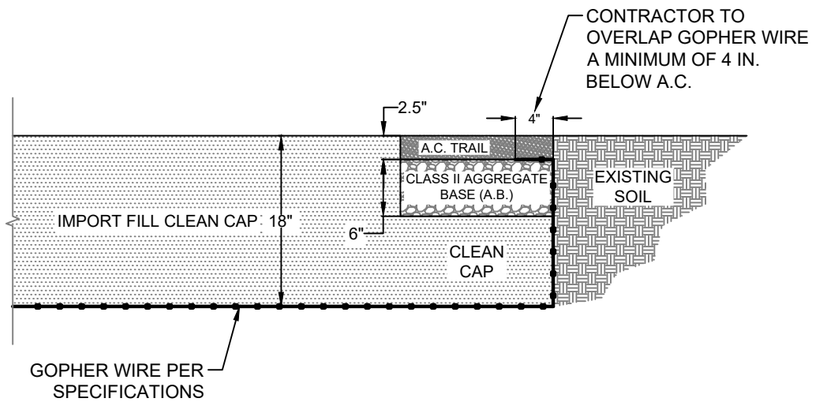
1 C-103 TYP. BUILDING CONFORMANCE DETAIL



2 C-103 TYP. BEDROCK CONFORMANCE DETAIL



3 C-103 TYP. CURB CONFORMANCE DETAIL



4 C-103 TYP. A.C. PATH CONFORMANCE DETAIL

SEAL:

REGISTERED PROFESSIONAL ENGINEER ALFONSO ANG No. C 81607 Exp. 09/30/19 CIVIL STATE OF CALIFORNIA

PROFESSIONAL ENGINEER□
ALFONSO ANG
DATE□
05/21/2019

NO.	BY	DATE	REVISION	APP'D.
C	KL	FEB 2019	AS-BUILT	AA/JHD
B	JHD	5/10/16	CONSTRUCTION 100%	WBC
A	JHD	1/21/16	CONSTRUCTION 60%	WBC

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
DETAILS - CONFORMANCE

DRAWN BY: K. LI/J. HANZEL-DURBIN	PROJ NO.: 229649.00005A.00000D
CHECKED BY: A. ANG	**C-104**
APPROVED BY: J. HANZEL-DURBIN	
DATE: FEBRUARY 2019	

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505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: C-104 Details - Conforman□e.dwg

11x17 --- USER: KLI --- ATTACHED DREFS: STAMP-ANG-RPE 09-30-19 --- ATTACHED IMAGES:
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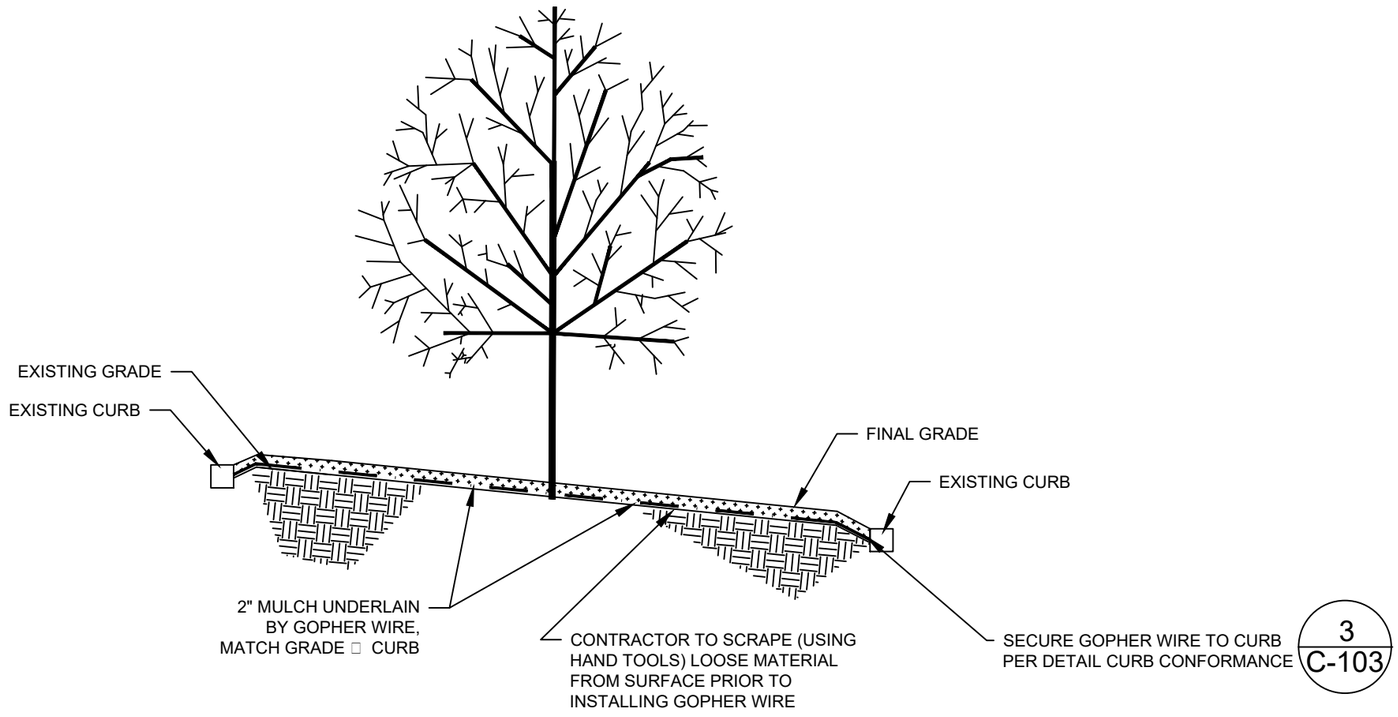
Version: 2017-10-21



3
C-103

1
C-103

TREE DETAIL

(NOT TO SCALE)

SEAL:

REGISTERED PROFESSIONAL ENGINEER ALFONSO ANG No. C 81607 Exp. 09/30/19 CIVIL STATE OF CALIFORNIA

PROFESSIONAL ENGINEER□

ALFONSO ANG

DATE□

05/21/2019

NO.	BY	DATE	REVISION	APP'D.
C	KL	FEB 2019	AS-BUILT	AA/JHD
B	JHD	3/25/16	CONSTRUCTION 100%	WBC
A	JHD	1/21/16	CONSTRUCTION 60%	WBC

PROJECT:

THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:

DETAILS - TREE PROTECTION CAP

DRAWN BY: K. LI/J. HANZEL-DURBIN	PROJ NO.: 229649.00005A.00000D
CHECKED BY: A. ANG	**C-105**
APPROVED BY: J. HANZEL-DURBIN	
DATE: FEBRUARY 2019	

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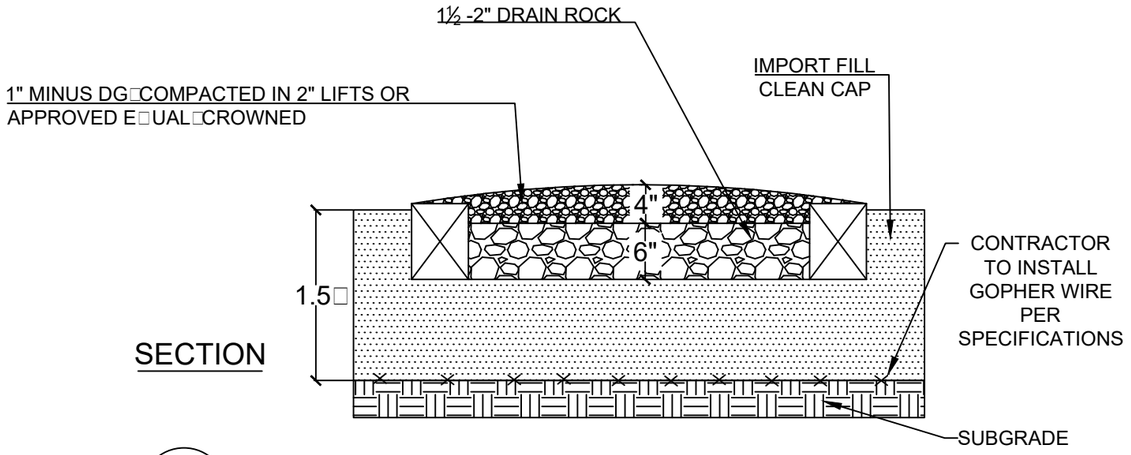
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: C-105 Details - Tree Prote□tion Ca□.dwg

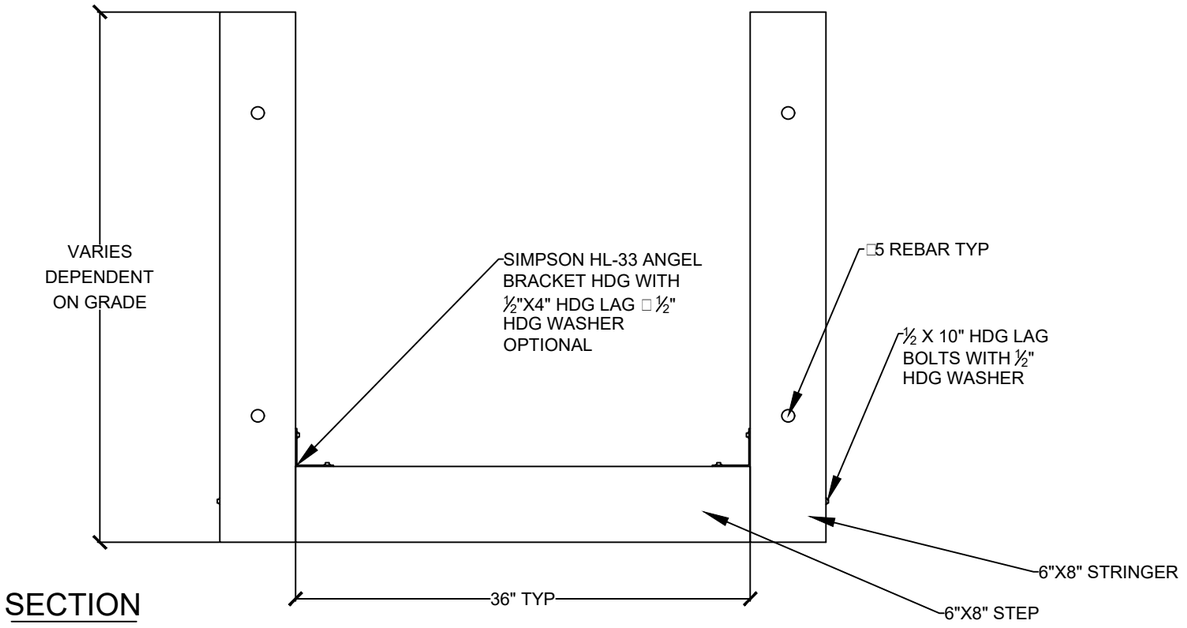
11x17 -- USER: KLI -- ATTACHED XREFS: STAMP-ANG-RPE 09-30-19 -- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Lendrum Court As-Built 2019\ C-105 Details - Tree Protection Cap.dwg -- PLOT DATE: May 21, 2019 - 10:30AM -- LAYOUT: 11X17L
Version: 2017-10-21



SECTION

1 / C-103 BOX STEP FILL CROSS SECTION

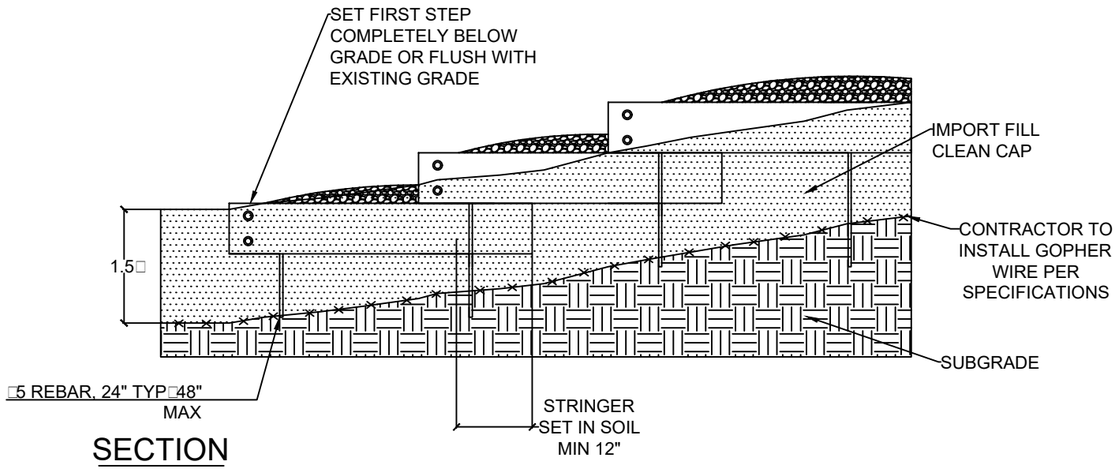
1" □ 1□4"



SECTION

3 / C-103 BOX STEP PLAN VIEW

1" □ 1□0"



SECTION

2 / C-103 BOX STEP FINISHED GRADE PROFILE VIEW

1" □ 2□0"

NOTES

1. ALL WOOD AC□ GREEN.
2. ALL HARDWARE HOT-DIPPED GALVANIZED.
3. ALL HOLES PREDRILLED.
4. ALL CUT LUMBER ENDS ARE TO BE TREATED WITH COPPER NAPHTENATE OR E□UIVALENT FUNGI/INSECTICIDE WOOD PRESERVATIVE TREATMENT (JASCO).
5. MINIMUM 4" TREAD MATERIAL INSTALLED IN SMALL LIFTS. MAINTAIN PROPER MOISTURE THROUGHOUT.
6. THE COMPLETED TREAD SURFACE SHALL HAVE A CROWNED CENTER THAT ALLOWS WATER TO SHED OFF THE STRUCTURE.
7. CUT JOINTS MUST BE FLUSH WITH OUTSIDE FACES AND TOPS, ALLOWING NO FILL MATERIAL TO ESCAPE.
8. THE MAXIMUM RISE IS 8" AND THE MINIMUM RUN IS 12".
9. THE STRUCTURE SHOULD BE RECEDED INTO HILLSIDE AS MUCH AS POSSIBLE.

SEAL:

REGISTERED PROFESSIONAL ENGINEER
ALFONSO ANG
No. C 81607
Exp. 09/30/19
CIVIL
STATE OF CALIFORNIA

PROFESSIONAL ENGINEER□

ALFONSO ANG

DATE□

05/21/2019

NO.	BY	DATE	REVISION	APP'D.
C	KL	FEB 2019	AS-BUILT	AA/JHD
B	JHD	3/25/16	100% DESIGN DRAWING	WBC
A	JHD	1/21/16	60% DESIGN DRAWING	WBC

PROJECT:

THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:

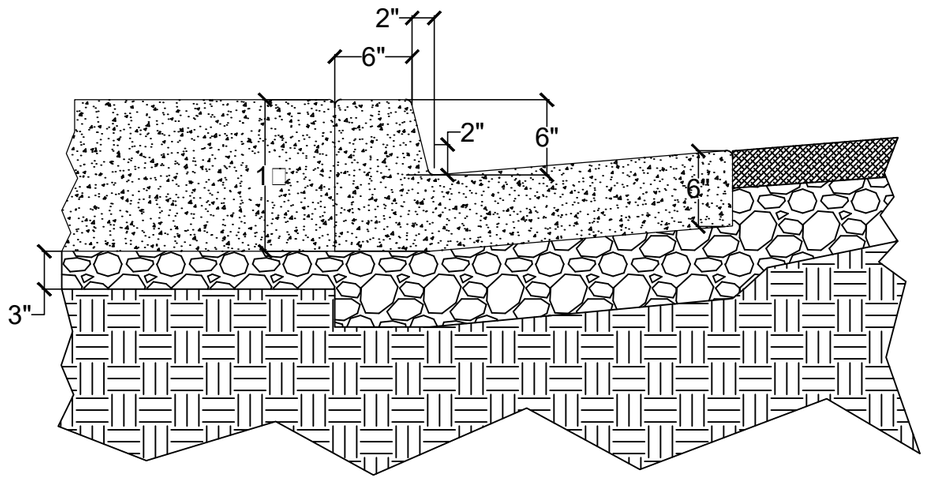
DETAILS - BOX STEP

DRAWN BY: K. LI/J. HANZEL-DURBIN	PROJ NO.: 229649.00005A.00000D
CHECKED BY: A. ANG	C-106
APPROVED BY: J. HANZEL-DURBIN	
DATE: FEBRUARY 2019	

TRC
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: C-106 Details - Box Ste□dwg

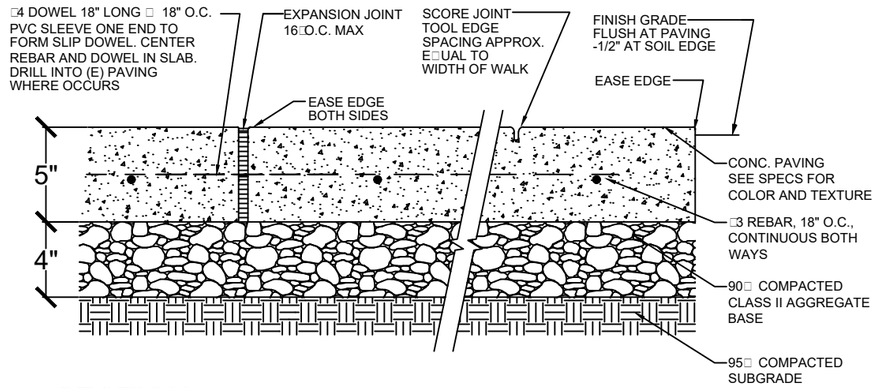
11x17 -- USER: KLI -- ATTACHED XREFS: STAMP-ANG-RPE 09-30-19 -- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Lendrum Court As-Built 2019\C-106 Details - Box Step.dwg -- PLOT DATE: May 21, 2019 - 10:31AM
Version: 2017-10-21



SECTION

1 / C-103 CURB CONSTRUCTION

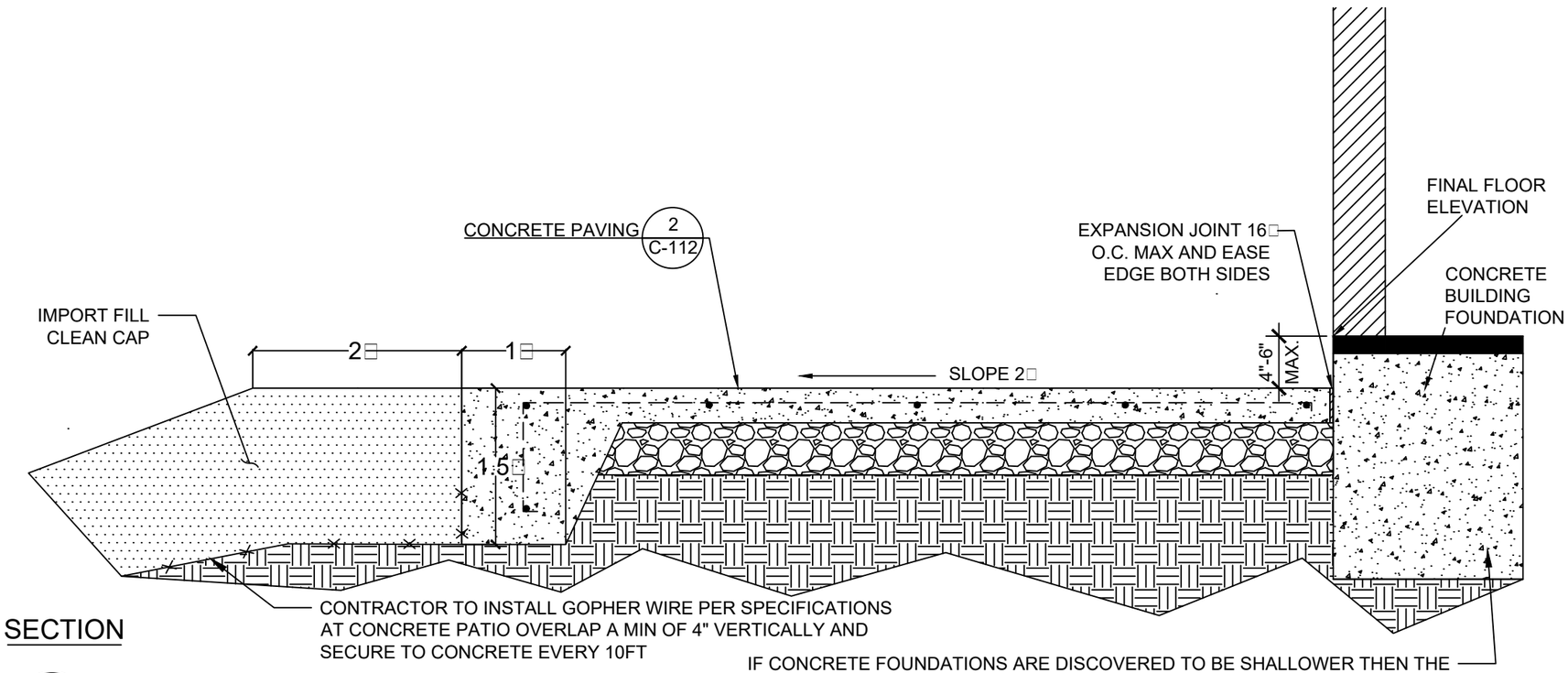
1" = 1'-0"



SECTION

2 / C-103 CONCRETE PAVING

1" = 8"



SECTION

3 / C-103 CONCRETE PATIO

1" = 1'-4"

NOTES

1. MINIMUM WIDTH OF CLEAR PASSAGEWAY FOR SIDEWALK SHALL BE 4'-2".
2. THREE INCHES OF AGGREGATE BASE IS REUIRED BENEATH SIDEWALKS AND 6" BENEATH CURBS.
3. AGGREGATE BASE MUST BE COMPACTED ACCORDING TO CALTRANS SPECIFICATIONS.
4. DURING SIDEWALK AND CURB REPAIR, ENTIRE SECTION BETWEEN CONTRACTION OR EXPANSION JOINTS MUST BE REPLACED.

SEAL:

REGISTERED PROFESSIONAL ENGINEER ALFONSO ANG No. C 81607 Exp. 09/30/19 CIVIL STATE OF CALIFORNIA

PROFESSIONAL ENGINEER

ALFONSO ANG

DATE

05/21/2019

NO.	BY	DATE	REVISION	APP'D
C	KL	FEB 2019	AS-BUILT	AA/JHD
B	JHD	5/10/16	100% DESIGN DRAWING	WBC
A	JHD	1/21/16	60% DESIGN DRAWING	WBC

PROJECT:

THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:

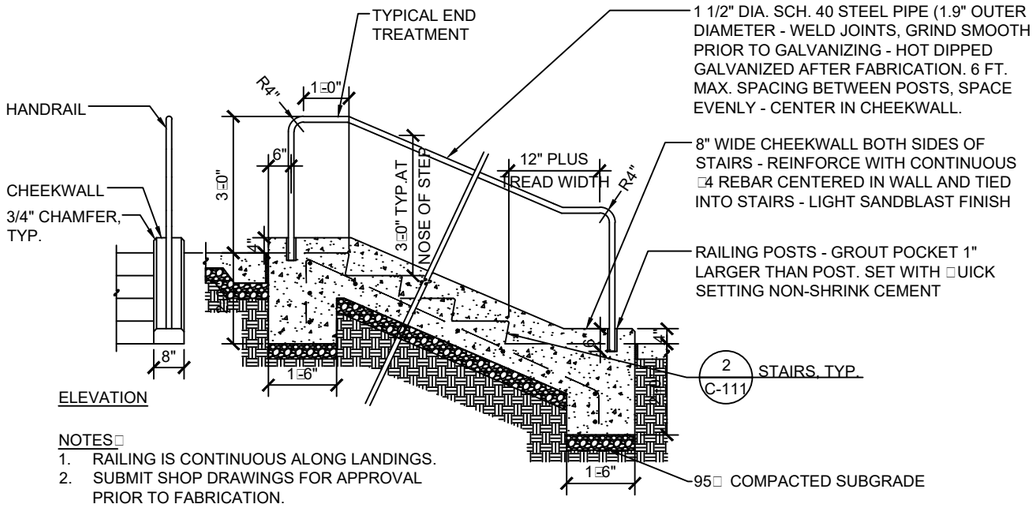
DETAILS - CURB AND CONCRETE CONSTRUCTION

DRAWN BY: K. LI/J. HANZEL-DURBIN	PROJ NO.: 229649.00005A.00000D
CHECKED BY: A. ANG	**C-107**
APPROVED BY: J. HANZEL-DURBIN	
DATE: FEBRUARY 2019	

TRC
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: C-107 Details - Curb Concrete Construction.dwg

11x17 -- USER: KLI -- ATTACHED XREFS: STAMP-ANG-RPE 09-30-19 -- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Lendrum Court As-Built 2019\ C-107 Details - Curb & Concrete Construction.dwg -- PLOT DATE: May 21, 2019 - 10:32AM -- LAYOUT: 11X17L
Version: 2017-10-21



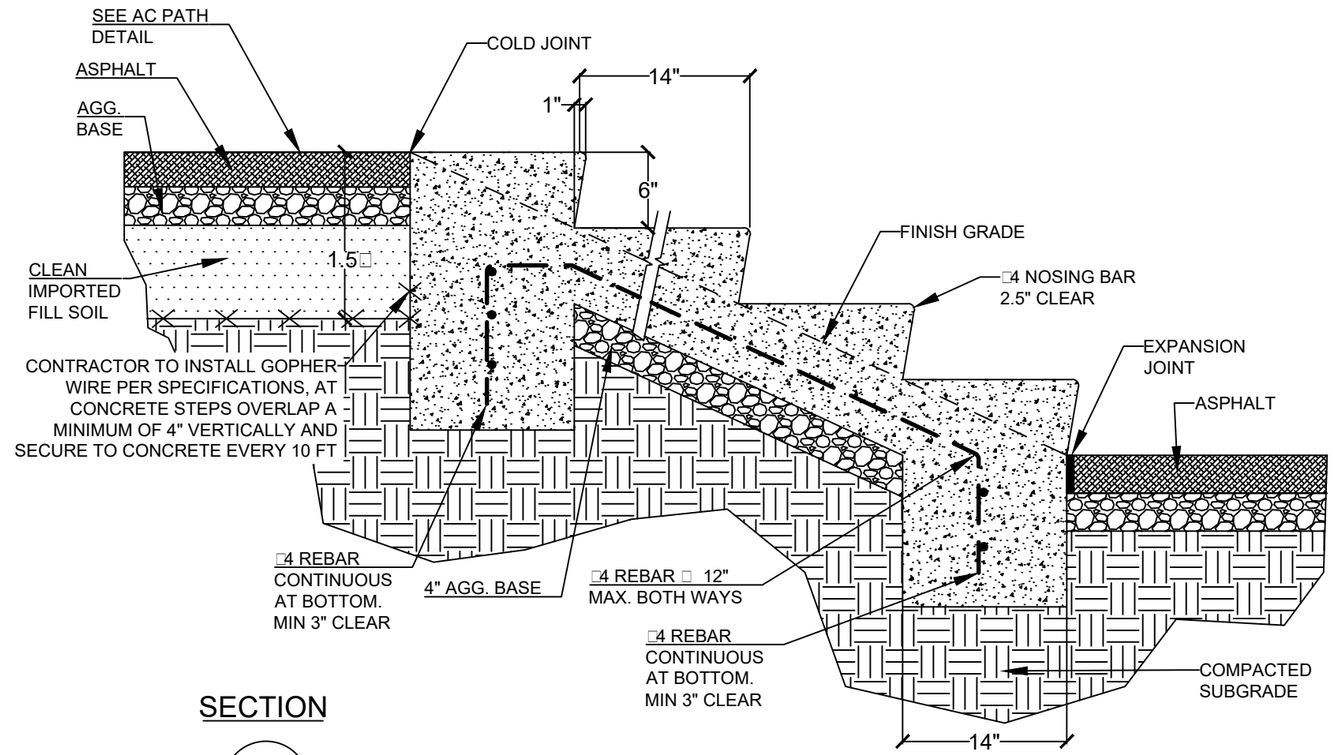
ELEVATION

NOTES:
1. RAILING IS CONTINUOUS ALONG LANDINGS.
2. SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION.
3. PAINT HANDRAIL BLACK, SEMIGLOSS, PER SPECIFICATIONS.

SECTION

1 C-103 HANDRAIL

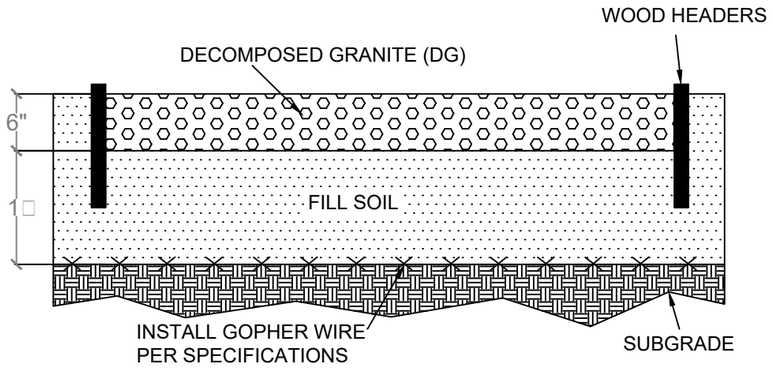
NTS



SECTION

2 C-103 CONCRETE STEPS

NTS



NOTES:
1. SIX INCHES OF DG TO BE PLACED OVER 1' OF SOIL.

SECTION

3 C-103 DG PATH CROSS SECTION

1" = 1'-4"

SEAL:

REGISTERED PROFESSIONAL ENGINEER ALFONSO ANG No. C 81607 Exp. 09/30/19 CIVIL STATE OF CALIFORNIA

PROFESSIONAL ENGINEER:
ALFONSO ANG

DATE:
05/21/2019

NO.	BY	DATE	REVISION	APP'D.
C	KL	FEB 2019	AS-BUILT	AA/JHD
B	JHD	3/25/16	100% DESIGN DRAWING	WBC
A	JHD	1/21/16	60% DESIGN DRAWING	WBC

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

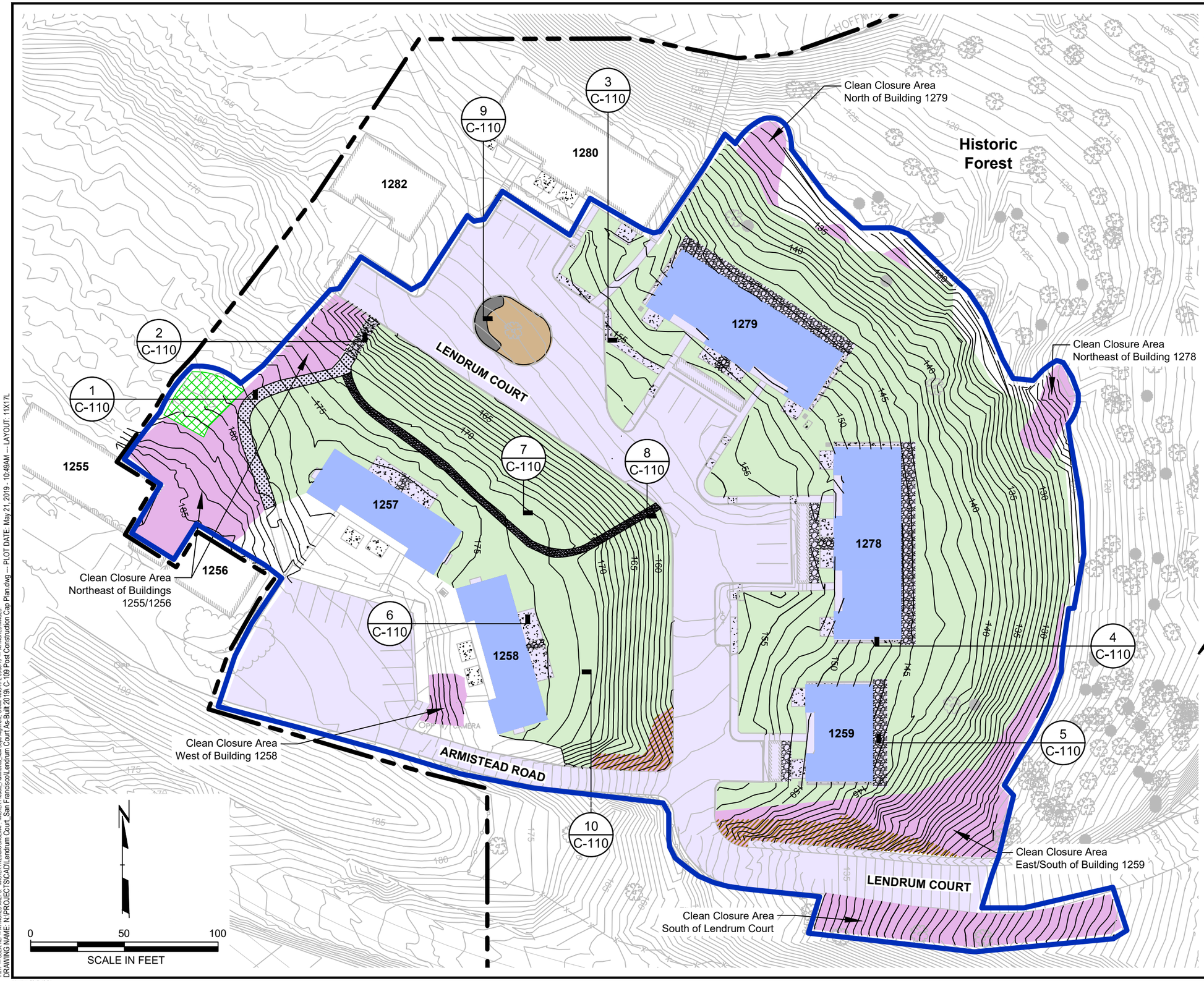
TITLE:
DETAILS - CONCRETE STEPS AND DG PATH

DRAWN BY: K. LI/J. HANZEL-DURBIN	PROJ NO.: 229649.00005A.00000D
CHECKED BY: A. ANG	
APPROVED BY: J. HANZEL-DURBIN	**C-108**
DATE: FEBRUARY 2019	

TRC
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: C-108 Details - Concrete Steps & DG Path.dwg

11x17 -- USER: KLI -- ATTACHED XREFS: STAMP-ANG-RPE (09-30-19 --- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Lendrum Court As-Built 2019\ C-108 Details - Concrete Steps & DG Path.dwg --- PLOT DATE: May 21, 2019 - 10:32AM --- LAYOUT: 11X17L
Version: 2017-10-21



LEGEND

- APPROXIMATE REMEDIAL ACTION AREA
- APPROXIMATE LIMITS OF VEGETATED SOIL CAP
- APPROXIMATE AREAS OF BUILDING THAT SERVE AS CAP
- AREAS OF ASPHALT, PAVEMENT, AB PADS, AND HARDSCAPE THAT SERVE AS CAP
- APPROXIMATE AREAS EXCAVATED AND CLEAN CLOSED
- APPROXIMATE AREAS EXCAVATED TO EXPOSED BEDROCK (CLEAN CLOSURE AREA)
- TREE ISLAND CAP COMPACTED AGGREGATE BASE
- TREE ISLAND CAP WOOD MULCH
- NEW CONCRETE PATIOS, SIDEWALKS AND STAIRS
- RECYCLED CONCRETE AGGREGATE BASE PATH AND BOX STEPS
- NEW ASPHALT PATH
- NEW AGGREGATE BASE CAP
- VEGETATED LUC (NORTH 1255/1256 FOREST AREA)

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

SEAL:

REGISTERED PROFESSIONAL ENGINEER ALFONSO ANG No. C 81007 Exp. 09/30/19 CIVIL STATE OF CALIFORNIA

PROFESSIONAL ENGINEER□

ALFONSO ANG

DATE□

05/21/2019

NO.	BY	DATE	REVISION	APP'D.
A	KL	FEB 2019	AS-BUILT	AA/JHD

PROJECT:

THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:

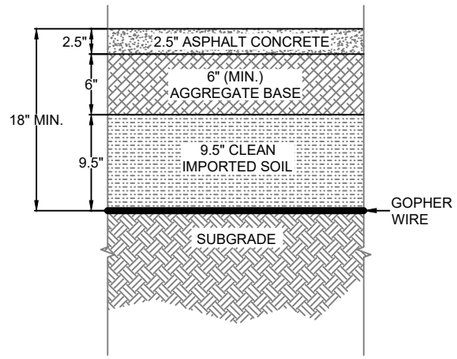
POST CONSTRUCTION CAP PLAN

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		
APPROVED BY:	J. HANZEL-DURBIN		**C-109**
DATE:	FEBRUARY 2019		

TRC
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

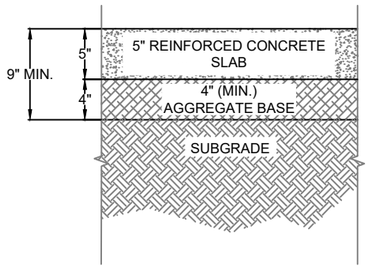
FILE NO.: C-109 Post Construc□tion Ca□ Plan.dwg

11x17 -- USER: KLI -- ATTACHED XREFS: MASTER PRESIDIO BASEMAP - MASTER Presidio_Planimetrics_New Doyle Alignment; STAMP-ANG-RPE 09-30-19 -- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Lendrum Court As-Built 2019\ C-109 Post Construction Cap Plan.dwg -- PLOT DATE: May 21, 2019 - 10:49AM -- LAYOUT: 11X17L
Version: 2017-10-21



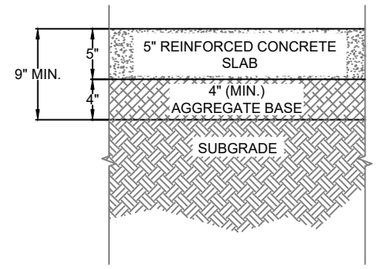
1 C-109 **SECTION**

ASPHALT CONCRETE PATH



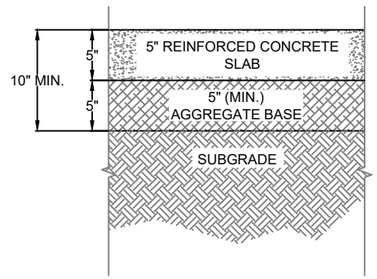
2 C-109 **SECTION**

CONCRETE STAIRCASE



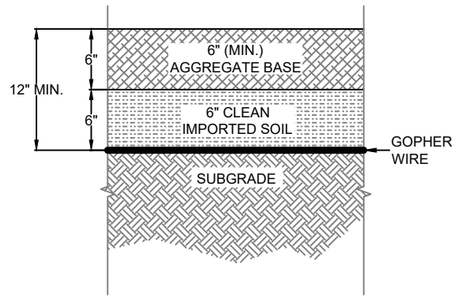
3 C-109 **SECTION**

CONCRETE SIDEWALK



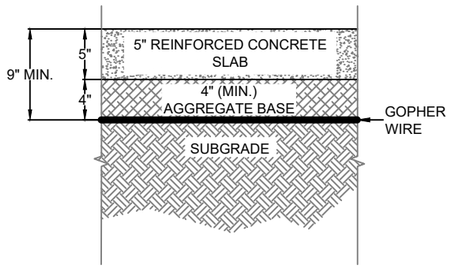
4 C-109 **SECTION**

CONCRETE DRAIN



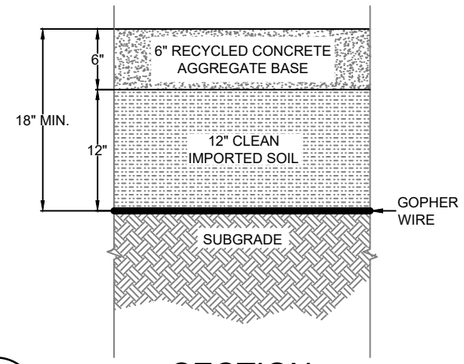
5 C-109 **SECTION**

AGGREGATE BASE PAD



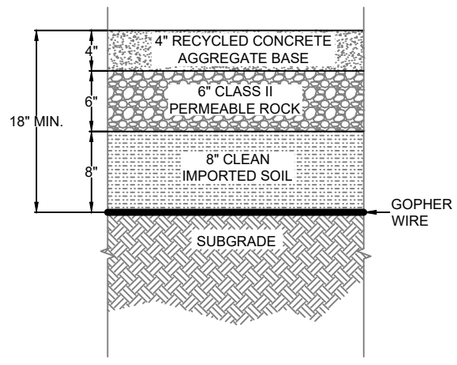
6 C-109 **SECTION**

CONCRETE PATIO



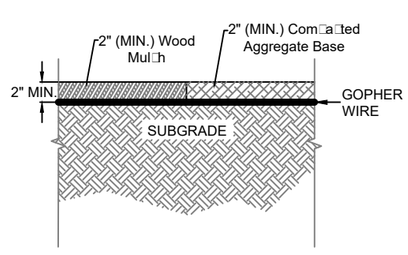
7 C-109 **SECTION**

RECYCLED CONCRETE
AGGREGATE BASE PATH



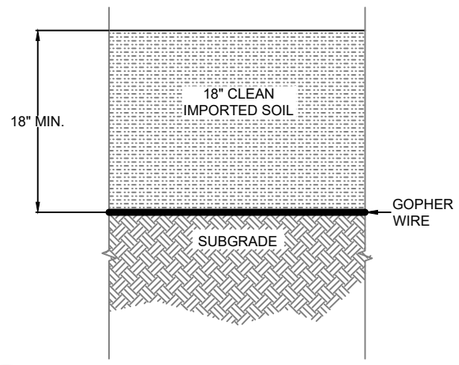
8 C-109 **SECTION**

RECYCLED CONCRETE
AGGREGATE BASE STAIRS



9 C-109 **SECTION**

TREE ISLAND CAP



10 C-109 **SECTION**

VEGETATED SOIL CAP

SEAL:

REGISTERED PROFESSIONAL ENGINEER
ALFONSO ANG
No. C 81607
Exp. 09/30/19
CIVIL
STATE OF CALIFORNIA

PROFESSIONAL ENGINEER□

ALFONSO ANG

DATE□

05/21/2019

NO.	BY	DATE	REVISION	APP'D.
A	KL	FEB 2019	AS-BUILT	AA/JHD

PROJECT:

THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:

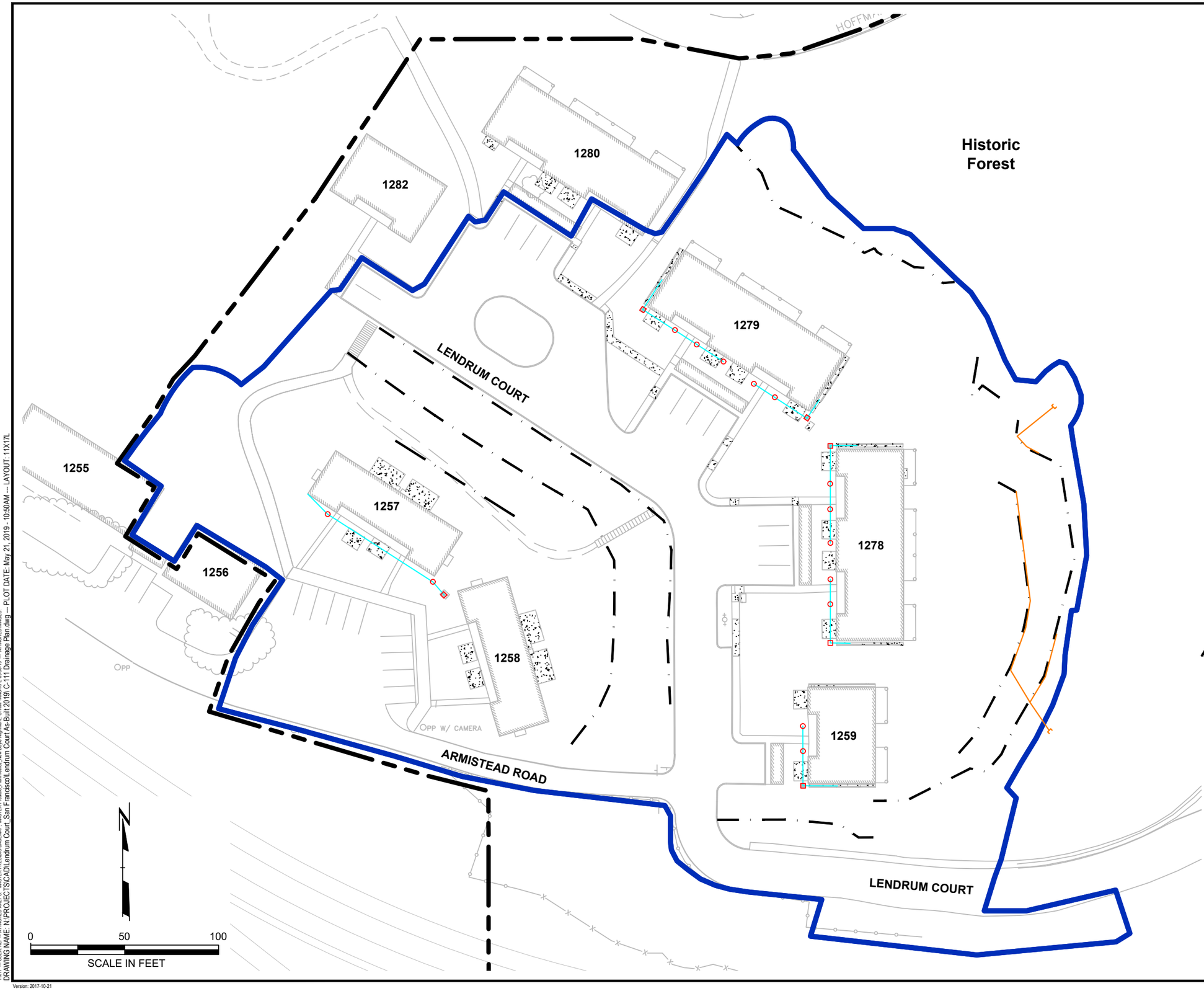
CAP DETAILS

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		
APPROVED BY:	J. HANZEL-DURBIN		**C-110**
DATE:	FEBRUARY 2019		

TRC
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: C-110 Ca□ Details.dwg

11x17 -- USER: KLI -- ATTACHED XREFS: Fig12 Cap Cross Sections; STAMP: ANG-RPE:09-30-19 -- ATTACHED IMAGES: TRC_Reversed Out Blue Logo;
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Lendrum Court As-Built 2019\ C-110 Cap Details.dwg -- PLOT DATE: May 21, 2019 - 10:33AM -- LAYOUT: 11X17L
Version: 2017-10-21



LEGEND

- APPROXIMATE REMEDIAL ACTION AREA
- KEY TRENCHES
- DRAINAGE LINES
- DRAIN LINE CLEANOUT
- SURFACE DRAIN OUTLET
- APPROXIMATE KEY TRENCH SUBDRAIN AND DISCHARGE POINT LOCATIONS

NOTES

1. FIGURE DOES NOT SHOW IRRIGATION LINES.
2. ALL IRRIGATION LINES WERE CONSTRUCTED WITHIN CAP.

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

SEAL:

REGISTERED PROFESSIONAL ENGINEER ALFONSO ANG No. C 81007 Exp. 09/30/19 CIVIL STATE OF CALIFORNIA

PROFESSIONAL ENGINEER□

ALFONSO ANG

DATE□

05/21/2019

NO.	BY	DATE	REVISION	APP'D.
A	KL	FEB 2019	AS-BUILT	AA/JHD

PROJECT:

THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:

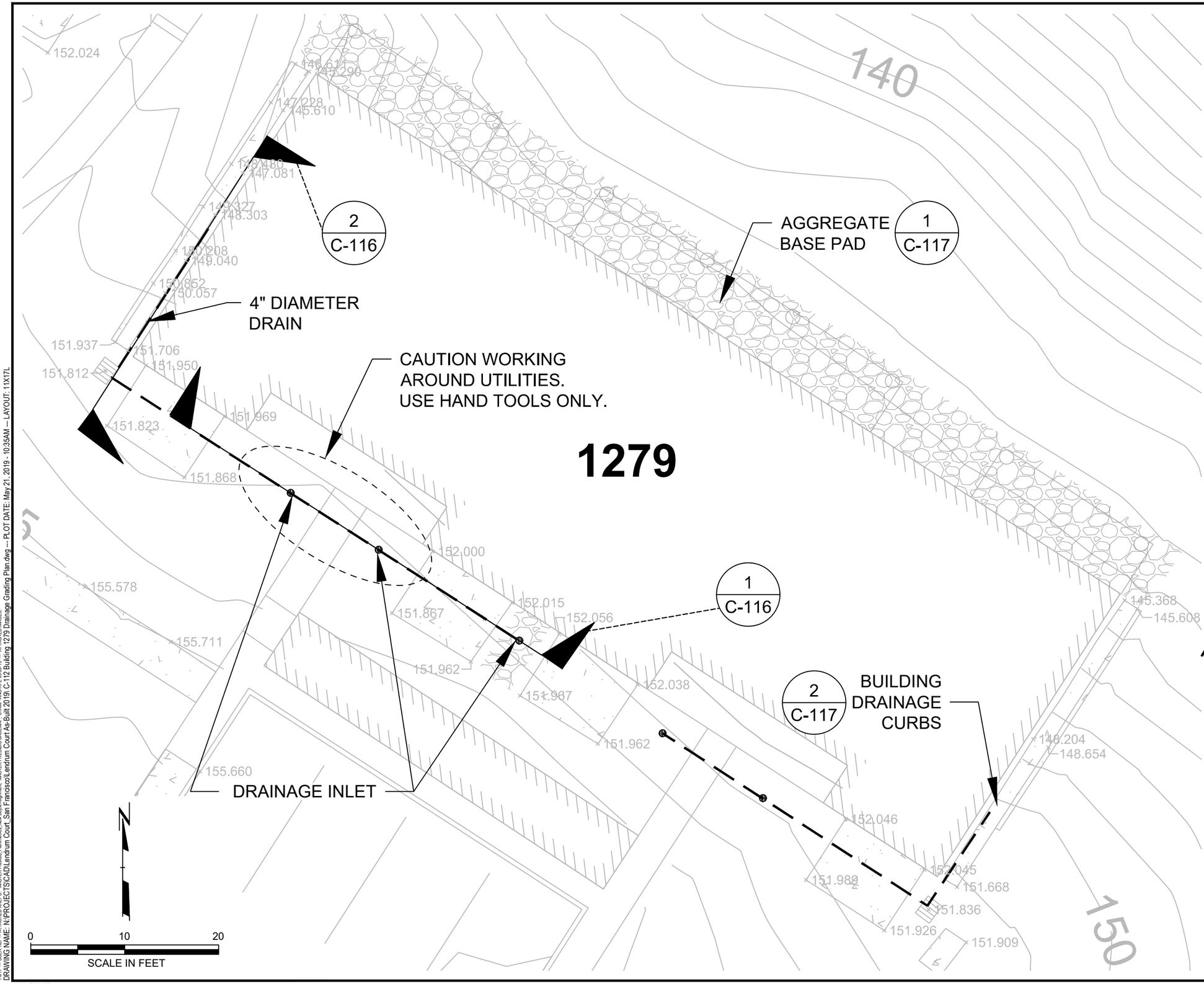
DRAINAGE PLAN

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		
APPROVED BY:	J. HANZEL-DURBIN		**C-111**
DATE:	FEBRUARY 2019		

TRC
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: C-111 Drainage Plan.dwg

11x17 -- USER: KLI -- ATTACHED XREFS: MASTER PRESIDIO BASEMAP; MASTER Presidio_Planimetrics_New Doyle Alignment; STAMP-ANG-RPE 09-30-19 -- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Lendrum Court As-Built 2019\ C-111 Drainage Plan.dwg -- PLOT DATE: May 21, 2019 - 10:50AM -- LAYOUT: 11X17L
Version: 2017-10-21



LEGEND

151.867 SPOT ELEVATION

TRACE OF DRAINAGE PIPE

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

SEAL:

REGISTERED PROFESSIONAL ENGINEER ALFONSO ANG No. C 81607 Exp. 09/30/19 CIVIL STATE OF CALIFORNIA

PROFESSIONAL ENGINEER

ALFONSO ANG

DATE

05/21/2019

NO.	BY	DATE	REVISION	APP'D.
C	KL	FEB 2019	AS-BUILT	AA/JHD
B	JHD	3/25/16	100% DESIGN DRAWING	WBC
A	JHD	1/21/16	60% DESIGN DRAWING	WBC

PROJECT:

THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:

BUILDING 1279 DRAINAGE GRADING PLAN

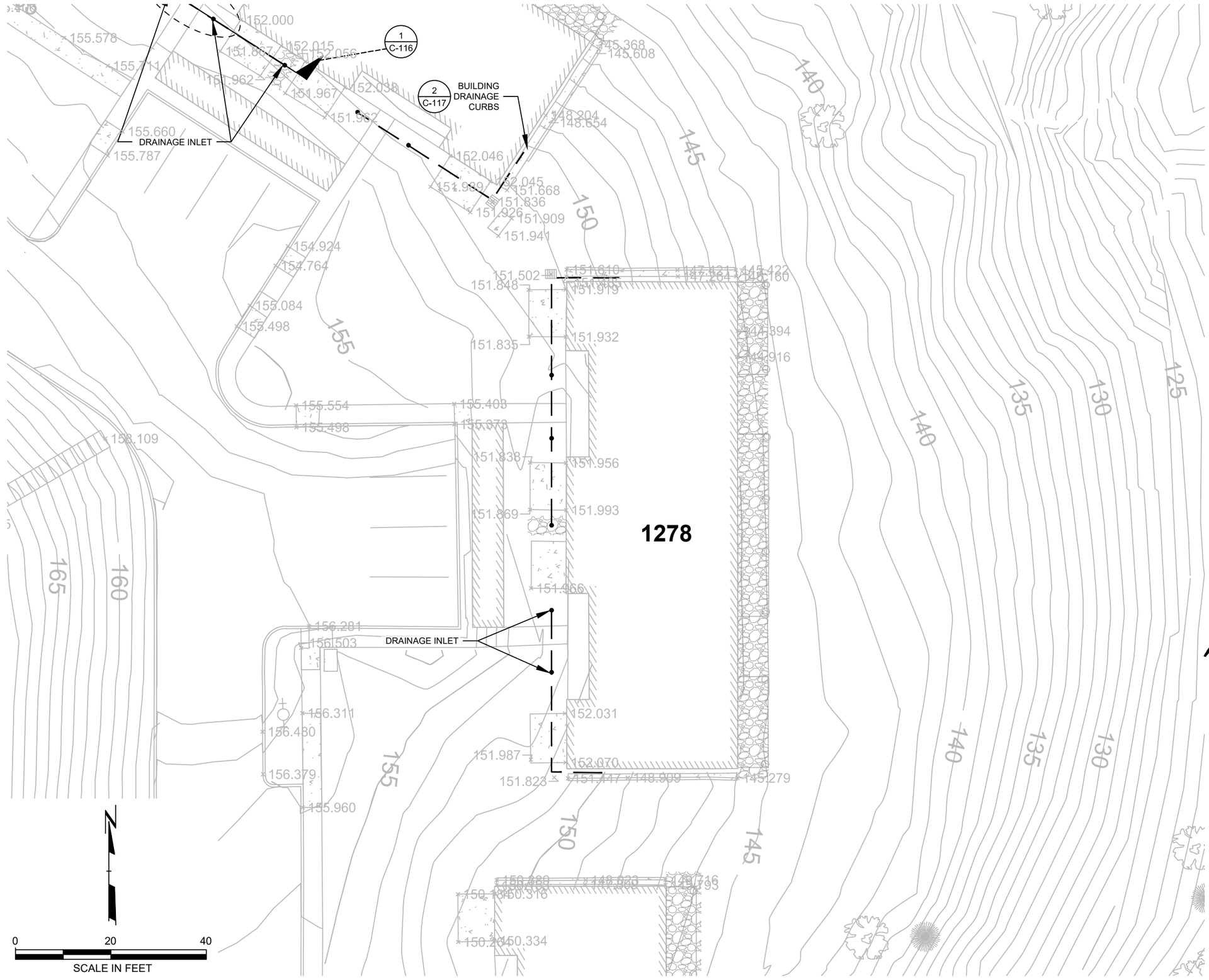
DRAWN BY:	K. LI/J. HANZEL-DURBIN	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		C-112
APPROVED BY:	J. HANZEL-DURBIN		
DATE:	FEBRUARY 2019		

TRC
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: C-112 Building 1279 Drainage Grading Plan.dwg

11x17 --- USER: KLI --- ATTACHED XREFS: - MASTER Presidio_Planimetrics_New Doyle Alignment - MASTER PRESIDIO BASEMAP - STAMP-ANG-R0E 09-30-19 --- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Lendrum Court As-Built 2019\ C-112 Building 1279 Drainage Grading Plan.dwg --- PLOT DATE: May 21, 2019 - 10:35AM --- LAYOUT: 11X17L
Version: 2017-10-21

1x17 -- USER: KLJ -- ATTACHED XREFS: MASTER Presidio, Palmetto's, New Doyle Alignment, MASTER PRESIDIO BASEMAP, STAMP-ANG-RFE 09-30-19 -- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Lendrum Court As-Built 2019\ C-113 Building 1278 Drainage Grading Plan.dwg -- PLOT DATE: May 21, 2019 - 10:36AM -- LAYOUT: 11X17L



LEGEND

151.867 SPOT ELEVATION

TRACE OF DRAINAGE PIPE

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

SEAL:

REGISTERED PROFESSIONAL ENGINEER ALFONSO ANG No. C 81607 Exp. 09/30/19 CIVIL STATE OF CALIFORNIA

PROFESSIONAL ENGINEER

ALFONSO ANG

DATE

05/21/2019

NO.	BY	DATE	REVISION	APP'D.
C	KL	FEB 2019	AS-BUILT	AA/JHD
B	JHD	3/25/16	100% DESIGN DRAWING	WBC
A	JHD	1/21/16	60% DESIGN DRAWING	WBC

PROJECT:

THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:

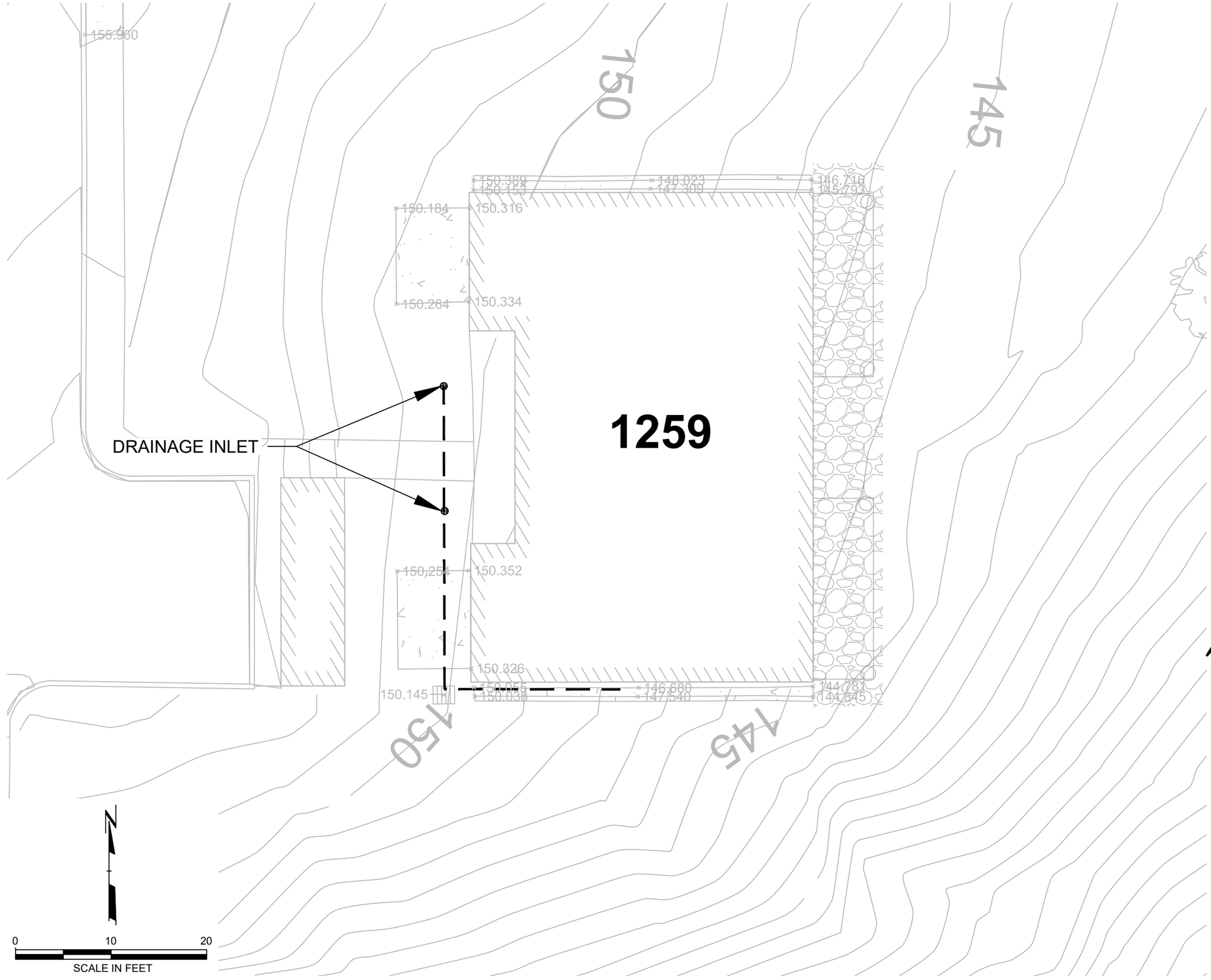
BUILDING 1278 DRAINAGE GRADING PLAN

DRAWN BY: K. LI/J. HANZEL-DURBIN	PROJ NO.: 229649.00005A.00000D
CHECKED BY: A. ANG	
APPROVED BY: J. HANZEL-DURBIN	**C-113**
DATE: FEBRUARY 2019	

TRC
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: C-113 Building 1278 Drainage Grading Plan.dwg

Version: 2017-10-21



LEGEND

151.867 SPOT ELEVATION

TRACE OF DRAINAGE PIPE

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

SEAL:

REGISTERED PROFESSIONAL ENGINEER ALFONSO ANG No. C 81607 Exp. 09/30/19 CIVIL STATE OF CALIFORNIA

PROFESSIONAL ENGINEER

ALFONSO ANG

DATE

05/21/2019

NO.	BY	DATE	REVISION	APP'D.
C	KL	FEB 2019	AS-BUILT	AA/JHD
B	JHD	3/25/16	100% DESIGN DRAWING	WBC
A	JHD	1/21/16	60% DESIGN DRAWING	WBC

PROJECT:

THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:

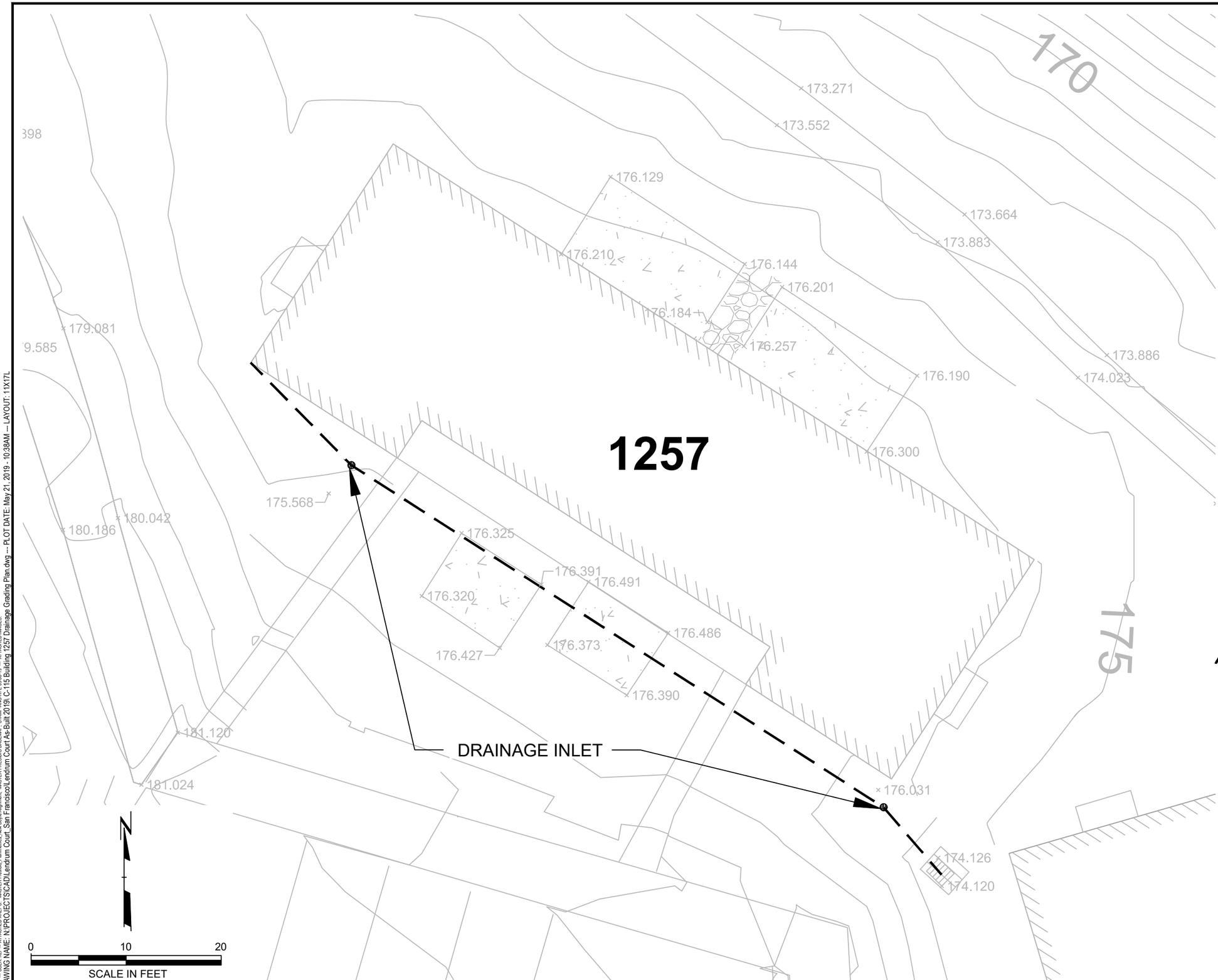
BUILDING 1259 DRAINAGE GRADING PLAN

DRAWN BY: K. LI/J. HANZEL-DURBIN	PROJ NO.: 229649.00005A.00000D
CHECKED BY: A. ANG	C-114
APPROVED BY: J. HANZEL-DURBIN	
DATE: FEBRUARY 2019	

TRC
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: C-114 Building 1259 Drainage Grading Plan.dwg

11x17 -- USER: KLI -- ATTACHED XREFS: MASTER Presidio, Planmetrics, New Doyle Alignment, MASTER PRESIDIO BASEMAP, STAMP-ANG-RFE 09-30-19 -- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court, San Francisco\Lendrum Court As-Built 2019\ C-114 Building 1259 Drainage Grading Plan.dwg -- PLOT DATE: May 21, 2019 - 10:38AM -- LAYOUT: 11X17L
Version: 2017-10-21



LEGEND

151.867 SPOT ELEVATION

TRACE OF DRAINAGE PIPE

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

SEAL:

REGISTERED PROFESSIONAL ENGINEER ALFONSO ANG No. C 81607 Exp. 09/30/19 CIVIL STATE OF CALIFORNIA

PROFESSIONAL ENGINEER: ALFONSO ANG

DATE: 05/21/2019

NO.	BY	DATE	REVISION	APP'D.
C	KL	FEB 2019	AS-BUILT	AA/JHD
B	JHD	3/25/16	100% DESIGN DRAWING	WBC
A	JHD	1/21/16	60% DESIGN DRAWING	WBC

PROJECT:

THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:

BUILDING 1257 DRAINAGE GRADING PLAN

DRAWN BY: K. LI/J. HANZEL-DURBIN	PROJ NO.: 229649.00005A.00000D
CHECKED BY: A. ANG	C-115
APPROVED BY: J. HANZEL-DURBIN	
DATE: FEBRUARY 2019	

TRC
505 Sansome Street
Suite 1600
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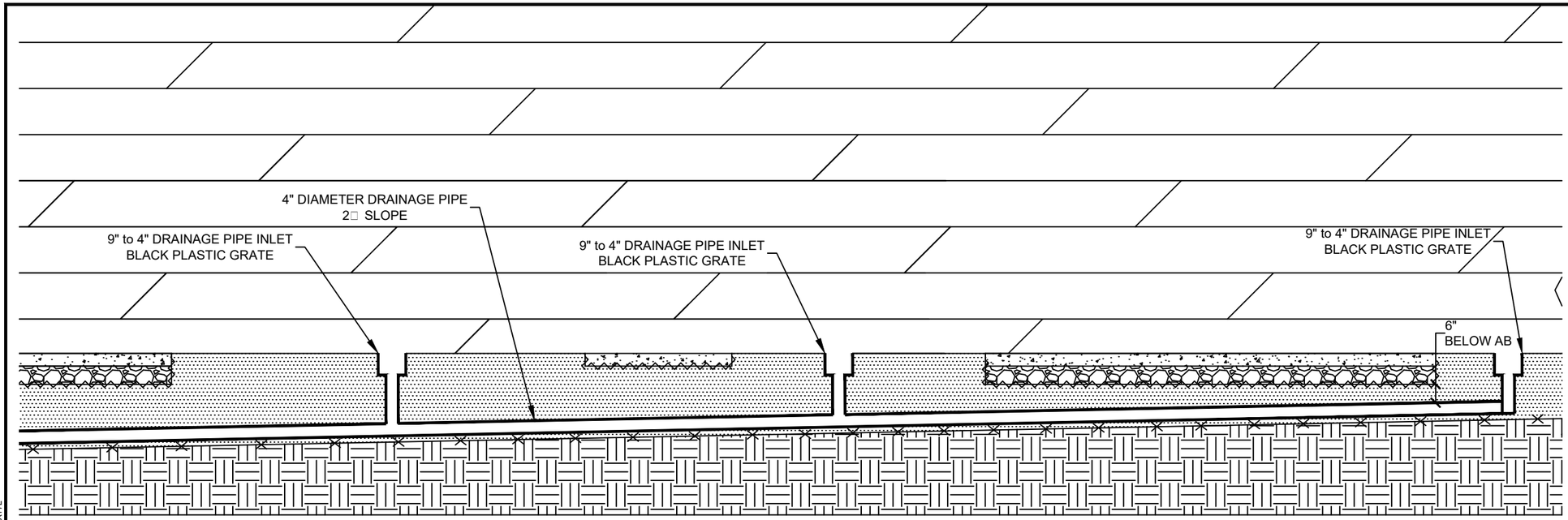
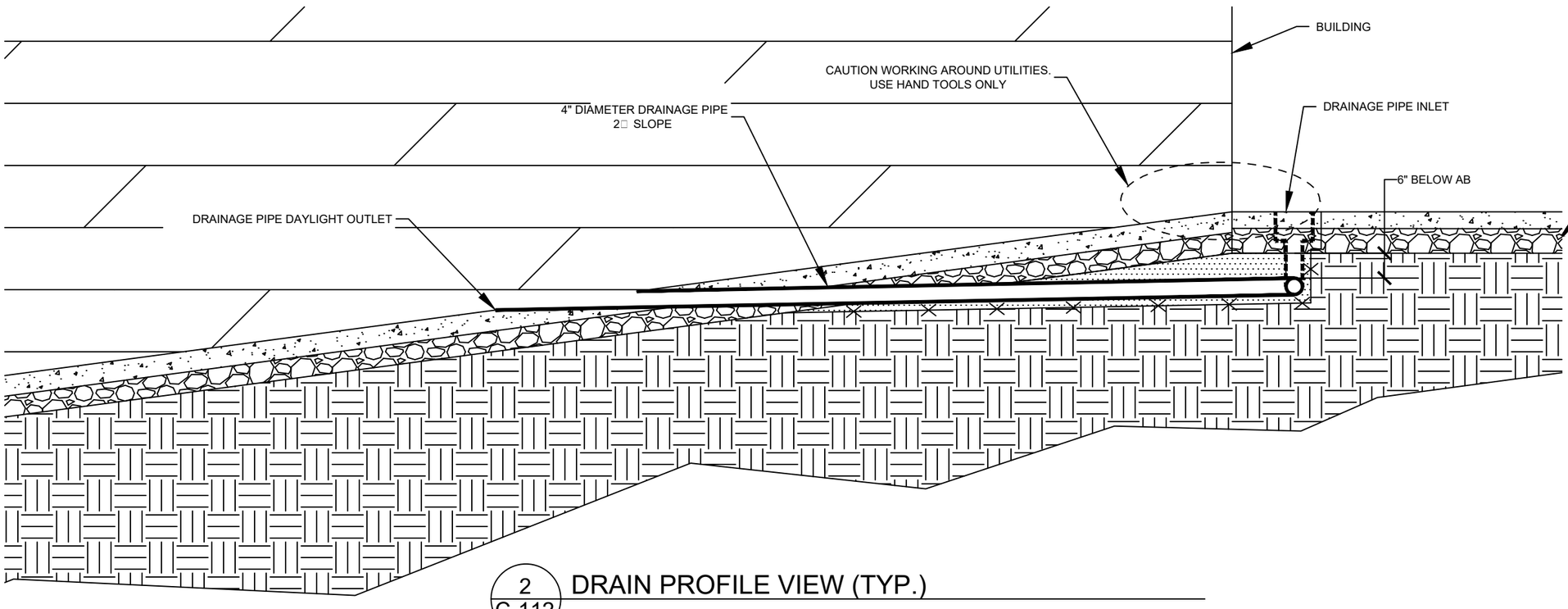
Phone: 415.434.2600

FILE NO.: C-115 Building 1257 Drainage Grading Plan.dwg

11x17 --- USER: KLI --- ATTACHED XREFS: MASTER Presidio, Planimetrics, New Doyle Alignment, MASTER PRESIDIO BASEMAP, STAMP-ANG-RPE 09-30-19 --- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Lendrum Court As-Built 2019\ C-115 Building 1257 Drainage Grading Plan.dwg --- PLOT DATE: May 21, 2019 - 10:38AM --- LAYOUT: 11X17L
Version: 2017-10-21



1
C-112
DRAIN PROFILE VIEW (TYP.)



2
C-112
DRAIN PROFILE VIEW (TYP.)

LEGEND

- SIDE OF BUILDING
- DRAINAGE PIPE
- DRAINAGE INLET
- GEOTEXTILE FABRIC
- GOPHER WIRE

NOTES

1. USE GREYDOCK StormDrain FSD-090-RCB 9" ROUND BLACK CATCH BASIN, WITH 4" BOTTOM OUTLET, OR E□UIVALENT.
2. USE 9" ROUND BLACK GRATE FOR INLET.
3. USE 4" DIAMETER SCH 40 PVC PIPE FOR SUBSURFACE DRAIN.
4. DRAINAGE TO BE CONSTRUCTED BEFORE HARDSCAPE FEATURES. HARDSCAPE FEATURES ARE TO BE BUILT AROUND THE DRAINAGE.

SEAL:

REGISTERED PROFESSIONAL ENGINEER
ALFONSO ANG
No. C 81607
Exp. 09/30/19
CIVIL
STATE OF CALIFORNIA

PROFESSIONAL ENGINEER□
ALFONSO ANG

DATE□
05/21/2019

NO.	BY	DATE	REVISION	APP'D.
B	KL	FEB 2019	AS-BUILT	AA/JHD
A	JHD	3/25/16	100% DESIGN DRAWING	WBC

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
DETAILS - BUILDING DRAINAGE PIPE

DRAWN BY: K. LI/J. HANZEL-DURBIN	PROJ NO.: 229649.00005A.00000D
CHECKED BY: A. ANG	**C-116**
APPROVED BY: J. HANZEL-DURBIN	
DATE: FEBRUARY 2019	

TRC
505 Sansome Street
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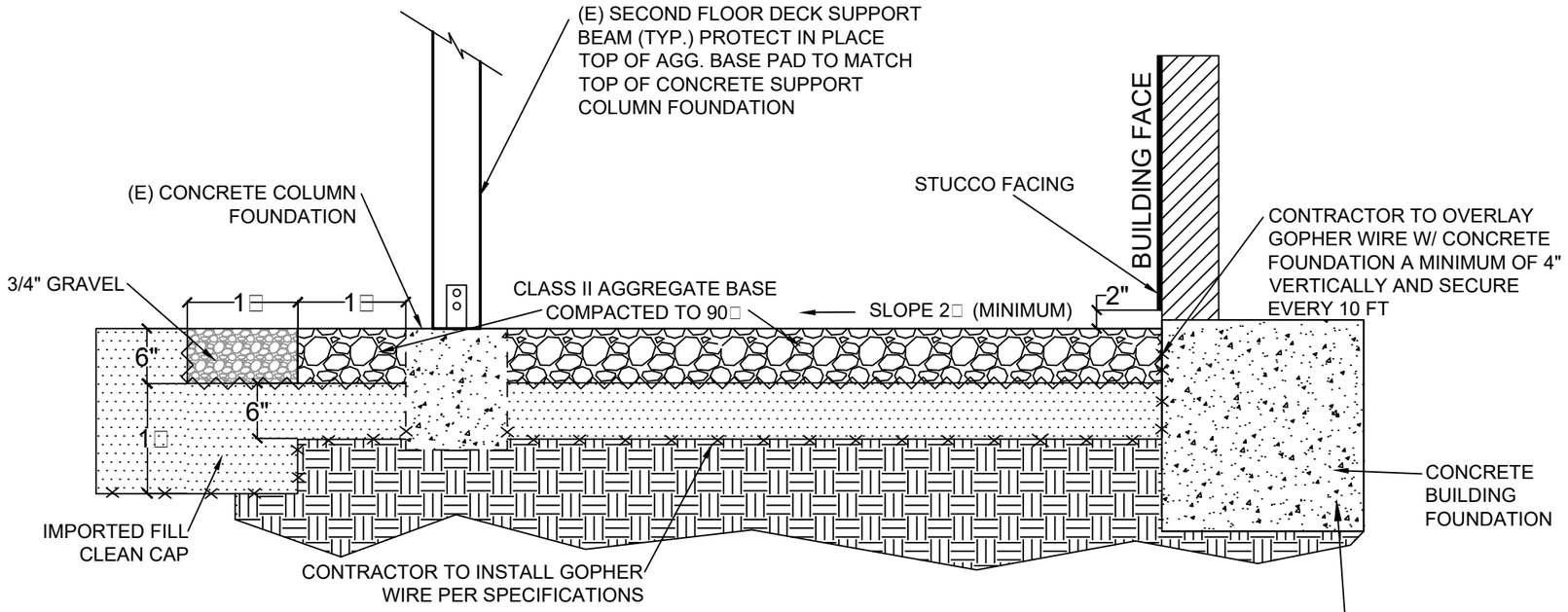
Phone: 415.434.2600

FILE NO.: C-116 Details - Building Drainage Pi□e.dwg

11x17 -- USER: KLI -- ATTACHED XREFS: STAMP-ANG-RPE 09-30-19 -- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Lendrum Court As-Built 2019\ C-116 Details - Building Drainage Pipe.dwg --- PLOT DATE: May 21, 2019 - 10:39AM --- LAYOUT: 11X17L
Version: 2017-10-21



SECTION

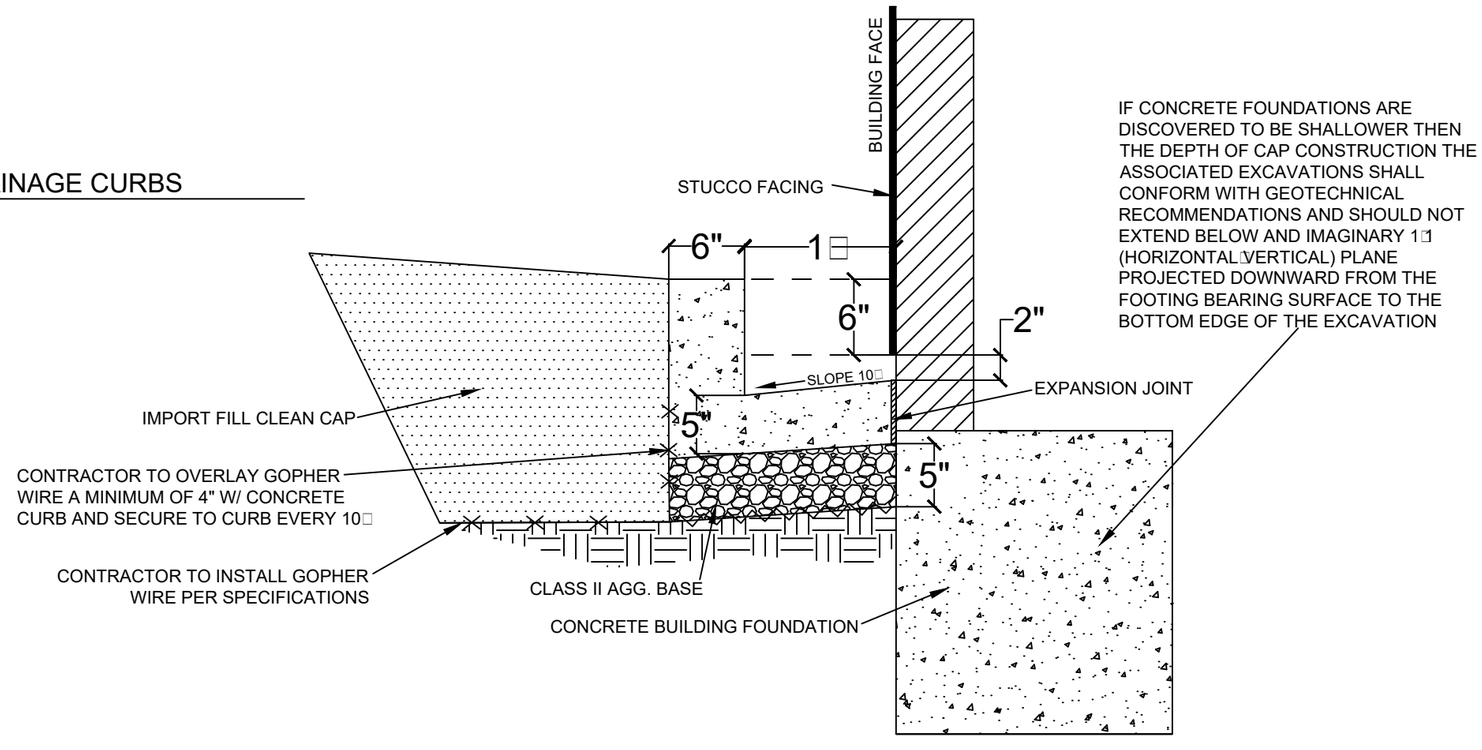
1 / C-112 AGGREGATE BASE PAD

1" □ 1□4"

SECTION

2 / C-112 BUILDING DRAINAGE CURBS

1" □ 1□0"



SEAL:

REGISTERED PROFESSIONAL ENGINEER ALFONSO ANG No. C 81607 Exp. 09/30/19 CIVIL STATE OF CALIFORNIA

PROFESSIONAL ENGINEER□

ALFONSO ANG

DATE□

05/21/2019

NO.	BY	DATE	REVISION	APP'D.
C	KL	FEB 2019	AS-BUILT	AA/JHD
B	JHD	5/10/16	100% DESIGN DRAWING	WBC
A	JHD	1/21/16	60% DESIGN DRAWING	WBC

PROJECT:

THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:

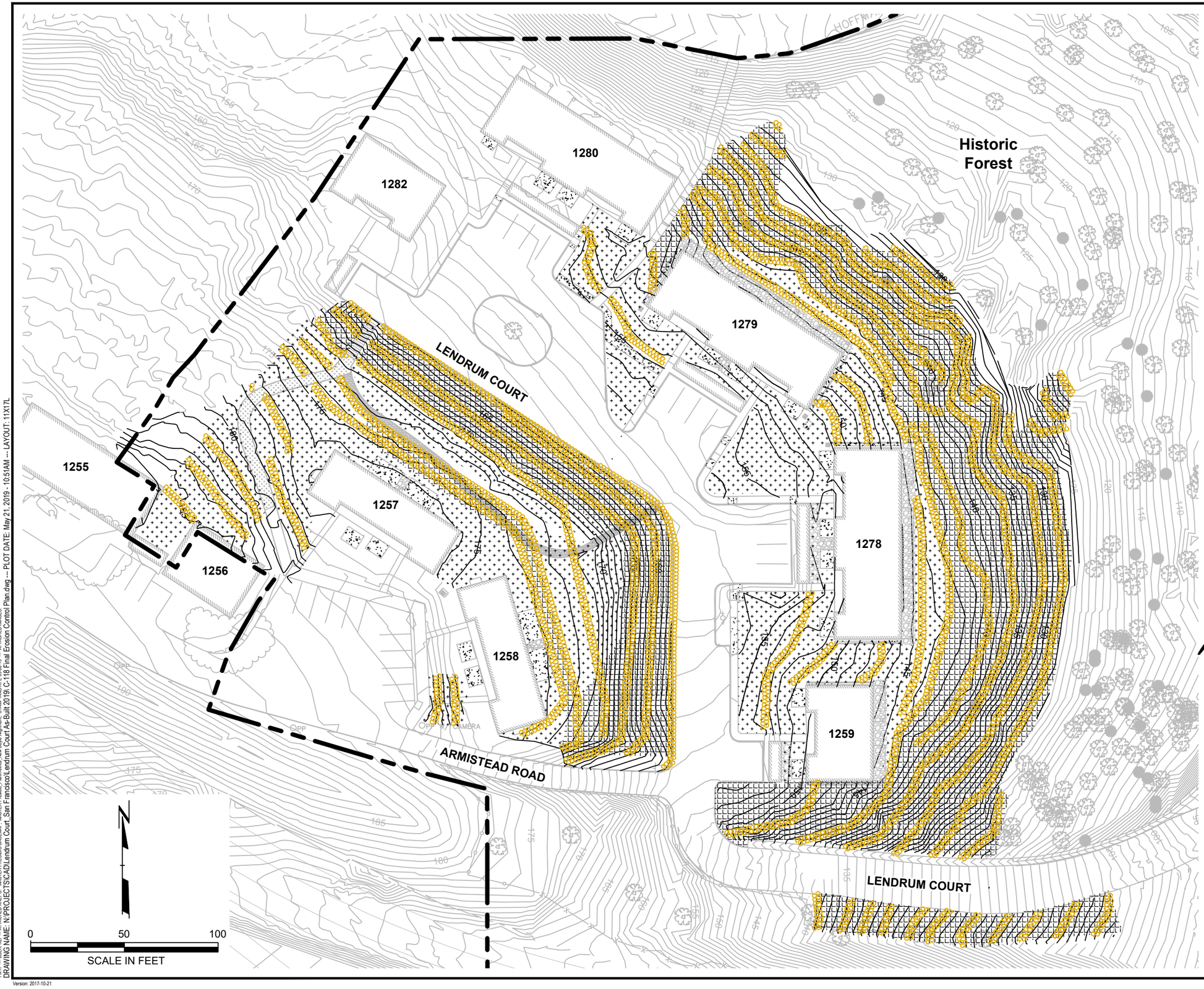
DETAILS - AB PAD & BUILDING DRAINAGE

DRAWN BY: K. LI/J. HANZEL-DURBIN	PROJ NO.: 229649.00005A.00000D
CHECKED BY: A. ANG	
APPROVED BY: J. HANZEL-DURBIN	**C-117**
DATE: FEBRUARY 2019	

TRC
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: C-117 Details - AB Pad □ Building Drainage.dwg

11x17 -- USER: KLI -- ATTACHED XREFS: STAMP-ANG-RPE (09-30-19 -- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Lendrum Court As-Built 2019\ C-117 Details - AB Pad & Building Drainage.dwg -- PLOT DATE: May 21, 2019 - 10:39AM -- LAYOUT: 11X17L
Version: 2017-10-21



LEGEND

- ECTC TYPE 4 EROSION CONTROL BLANKET ANCHORING PATTERN A, SEE DETAIL 2, C-119 (AS-BUILT)
- ECTC TYPE 4 EROSION CONTROL BLANKET ANCHORING PATTERN B, SEE DETAIL 2, C-119 (AS-BUILT)
- FIBER ROLL (STRAW WATTLE), SEE DETAIL 1, C-119 (AS-BUILT)

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

SEAL:

REGISTERED PROFESSIONAL ENGINEER ALFONSO ANG No. C 81607 Exp. 09/30/19 CIVIL STATE OF CALIFORNIA

PROFESSIONAL ENGINEER
ALFONSO ANG

DATE
05/21/2019

NO.	BY	DATE	REVISION	APP'D.
A	KL	FEB 2019	AS-BUILT	AA/JHD

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
FINAL EROSION CONTROL PLAN

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		
APPROVED BY:	J. HANZEL-DURBIN		C-118
DATE:	FEBRUARY 2019		

TRC
505 Sansome Street
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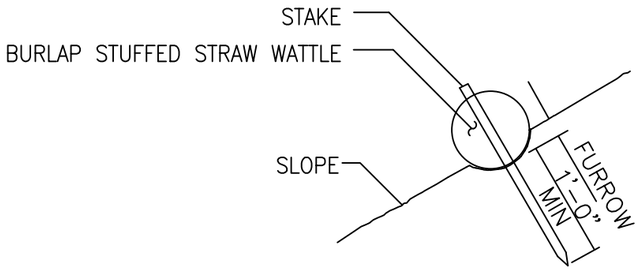
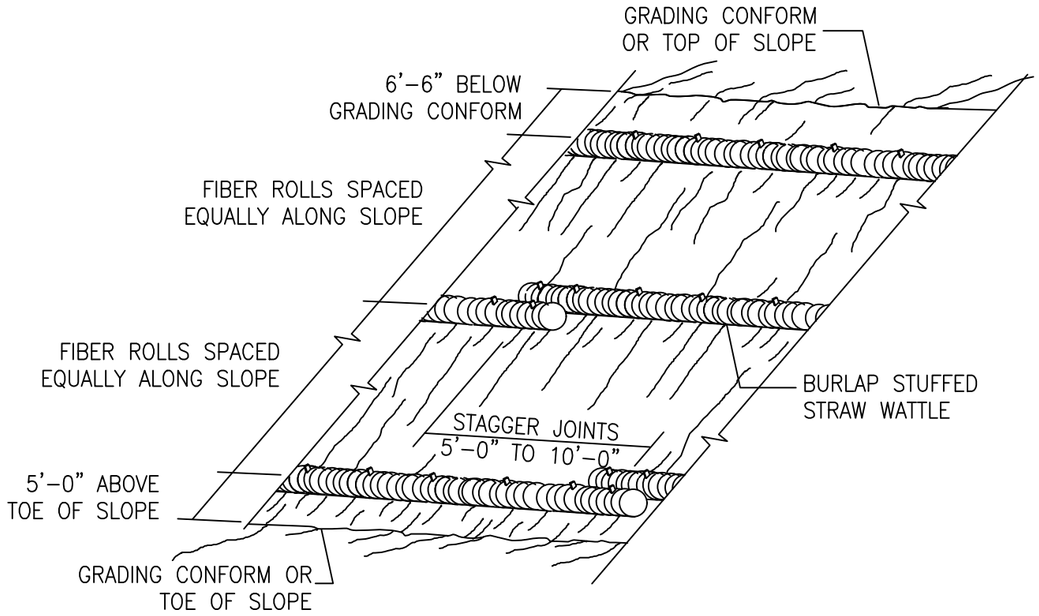
San Francisco, CA 94111
Phone: 415.434.2600

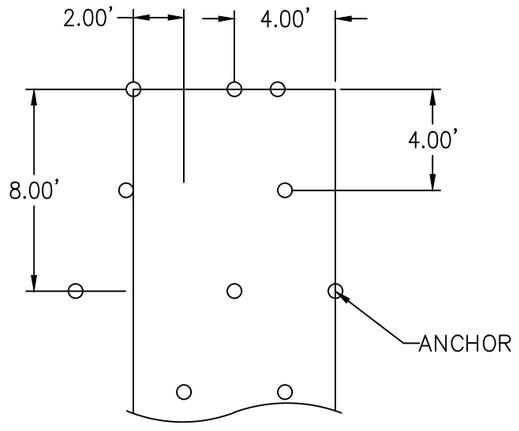
FILE NO.: C-118 Final Erosion Control Plan.dwg

11x17 --- USER: KLI --- ATTACHED XREFS: - MASTER PRESIDIO BASEMAP - MASTER Presidio_Planimetrics_New Doyle Alignment1 - STAMP-ANG-RPE 09-30-19 --- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court - San Francisco\Lendrum Court As-Built 2019\ C-118 Final Erosion Control Plan.dwg --- PLOT DATE: May 21, 2019 - 10:51AM --- LAYOUT: 11X17L
Version: 2017-10-21

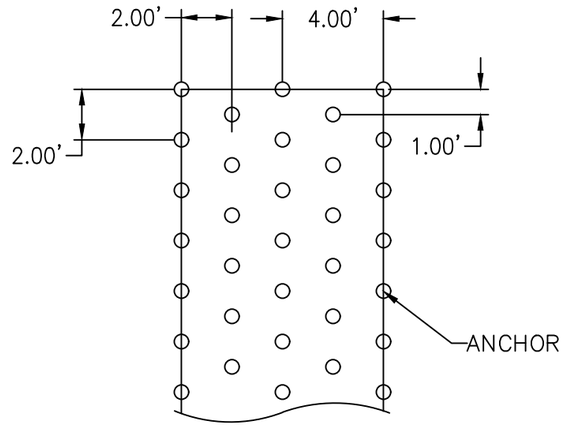




DETAIL 1- STRAW WADDLE LAYDOWN AND STAKING



A



B

DETAIL 2- ANCHORING PLAN

SEAL:

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No. C 81607
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ALFONSO ANG
DATE□
05/21/2019

NO.	BY	DATE	REVISION	APP'D.
C	KL	FEB 2019	AS-BUILT	AA/JHD
B	JHD	3/25/16	100% DESIGN DRAWING	WBC
A	JHD	1/21/16	60% DESIGN DRAWING	WBC

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
DETAILS - EROSION CONTROLS

DRAWN BY: K. LI/J. HANZEL-DURBIN	PROJ NO.: 229649.00005A.00000D
CHECKED BY: A. ANG	
APPROVED BY: J. HANZEL-DURBIN	**C-119**
DATE: FEBRUARY 2019	

TRC
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: C-119 Details - Erosion Controls.dwg

11x17 -- USER: KLI -- ATTACHED XREFS: STAMP-ANG-RPE 09-30-19 -- ATTACHED IMAGES:
DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court_San Francisco\Lendrum Court As-Built 2019\ C-119 Details - Erosion Controls.dwg -- PLOT DATE: May 21, 2019 - 10:41AM -- LAYOUT: 11X17L
Version: 2017-10-21

AS-BUILT IRRIGATION DRAWINGS

505 Sansome Street
Suite 1600
San Francisco, CA 94111

415.434.2600 PHONE
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www.trcsolutions.com

Irrigation As-Built Drawing Package

Irrigation at the Lendrum Court Site was installed in two distinct regions of the project:

- Neighborhood area irrigation is permanent and will be necessary to supplement rainfall for the designed landscape areas around the residences.
- Historic forest irrigation is temporary and is intended to be used for plant and tree establishment only and is anticipated to be abandoned in place within 5 years.

The irrigation system was installed by McGuire & Hester (M&H) following the completion of grading work and prior to installation of planting. All lines were installed within the soil cap and construction was overseen by TRC. Primary and lateral lines were installed just above the gopher wire that was placed at the base of the soil cap. At the street crossing and the deeper main line connection, ERRG was utilized to over excavate and tie in new gopher wire prior to construction of the irrigation lines. The trenches were then backfilled with clean cap soil to create a clean corridor. The following as built drawings were developed by M&H to provide the Trust irrigation staff with the location and make-up of the installed irrigation system for operation, future repairs, and general maintenance.

There has been one modification to the irrigation and planting since completion of the project. The Trust determined that a section of no-mow grass that was installed during initial planting was doing well enough to be expanded, with M&H contracted to perform this work. The work included removal of existing plants, installation of additional irrigation system, and placement of no-mow grass turf. All work was overseen by TRC and is documented in the irrigation as-built drawing package that follows.

The irrigation as-built drawing package are organized as follows:

- Cover Page
- Markup of irrigation main line placement with detailed measurements.
- Markup of irrigation design drawings
- Design details of how construction was performed
- No-mow grass expansion as-built
- Color line markup for irrigation controller operation

IRRIGATION NOTES

1. THESE IRRIGATION DRAWINGS ARE DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. ALL PIPING, VALVES, AND OTHER IRRIGATION COMPONENTS MAY BE SHOWN WITHIN PAVED AREAS FOR GRAPHIC CLARITY ONLY AND ARE TO BE INSTALLED WITHIN PLANTING AREAS. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, CONDUIT, AND OTHER ITEMS WHICH MAY BE REQUIRED. INVESTIGATE THE STRUCTURAL AND FINISHED CONDITION AFFECTING THE CONTRACT WORK INCLUDING OBSTRUCTIONS, GRADE DIFFERENCES OR AREA DIMENSIONAL DIFFERENCES. IN THE EVENT OF FIELD DISCREPANCY WITH CONTRACT DOCUMENTS, PLAN THE INSTALLATION WORK ACCORDINGLY BY NOTIFICATION AND APPROVAL OF THE OWNER'S AUTHORIZED REPRESENTATIVE AND ACCORDING TO THE CONTRACT SPECIFICATIONS. NOTIFY AND COORDINATE IRRIGATION CONTRACT WORK WITH APPLICABLE CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE, CONDUIT OR SLEEVES THROUGH OR UNDER WALLS, ROADWAYS, PAVING AND STRUCTURES BEFORE CONSTRUCTION. IN THE EVENT THESE NOTIFICATIONS ARE NOT PERFORMED, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR REQUIRED REVISIONS.

2. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, STANDARDS, AND REGULATIONS. ALL WORK AND MATERIALS SHALL BE IN FULL ACCORDANCE WITH THE LATEST RULES AND REGULATIONS OF THE NATIONAL ELECTRIC CODE; THE UNIFORM PLUMBING CODE, PUBLISHED BY THE WESTERN PLUMBING OFFICIALS ASSOCIATION; AND OTHER STATE OR LOCAL LAWS OR REGULATIONS. NOTHING IN THESE DRAWINGS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES OR REGULATIONS. THE CONTRACTOR SHALL FURNISH WITHOUT ANY EXTRA CHARGE, ANY ADDITIONAL MATERIAL AND LABOR WHEN REQUIRED BY THE COMPLIANCE WITH THESE CODES AND REGULATIONS.

3. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF IRRIGATION SYSTEM WITH LAYOUT AND INSTALLATION OF THE PLANT MATERIALS TO INSURE THAT THERE WILL BE COMPLETE AND UNIFORM IRRIGATION COVERAGE OF PLANTING IN ACCORDANCE WITH THESE DRAWINGS, AND CONTRACT DOCUMENTS. THE IRRIGATION LAYOUT SHALL BE CHECKED BY THE CONTRACTOR AND OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO CONSTRUCTION TO DETERMINE IF ANY CHANGES, DELETIONS, OR ADDITIONS ARE REQUIRED. IRRIGATION SYSTEM SHALL BE INSTALLED AND TESTED PRIOR TO INSTALLATION OF PLANT MATERIAL.

4. THE INTENT OF THIS IRRIGATION SYSTEM IS TO PROVIDE THE MINIMUM AMOUNT OF WATER REQUIRED TO SUSTAIN GOOD PLANT HEALTH.

5. IT IS THE RESPONSIBILITY OF THE MAINTENANCE CONTRACTOR AND/OR OWNER TO PROGRAM THE IRRIGATION CONTROLLER(S) TO PROVIDE THE MINIMUM AMOUNT OF WATER NEEDED TO SUSTAIN GOOD PLANT HEALTH. THIS INCLUDES MAKING ADJUSTMENTS TO THE PROGRAM FOR SEASONAL WEATHER CHANGES, PLANT MATERIAL, WATER REQUIREMENTS, MOUNDS, SLOPES, SUN, SHADE AND WIND EXPOSURE.

6. IT IS THE RESPONSIBILITY OF A LICENSED ELECTRICAL CONTRACTOR TO PROVIDE 120 VOLT A.C. (2.5 AMP DEMAND PER CONTROLLER) ELECTRICAL SERVICE TO THE CONTROLLER LOCATION(S). IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO COORDINATE THE ELECTRICAL SERVICE STUB-OUT TO THE CONTROLLER(S). PROVIDE PROPER GROUNDING PER CONTROLLER MANUFACTURER'S INSTRUCTIONS AND IN ACCORDANCE WITH LOCAL CODES.

7. PROVIDE EACH CONTROLLER WITH ITS OWN GROUND ROD. SEPARATE THE GROUND RODS BY A MINIMUM OF EIGHT FEET. THE GROUND ROD SHALL BE AN EIGHT FOOT LONG BY 5/8" DIAMETER U.L. APPROVED COPPER CLAD ROD. INSTALL NO MORE THAN 6" OF THE GROUND ROD ABOVE FINISH GRADE. CONNECT #6 GAUGE WIRE WITH A U.L. APPROVED GROUND ROD CLAMP TO ROD AND BACK TO GROUND SCREW AT BASE OF CONTROLLER WITH APPROPRIATE CONNECTOR. MAKE THIS WIRE AS SHORT AS POSSIBLE, AVOIDING KINKS OR BENDING.

8. PROVIDE EACH IRRIGATION CONTROLLER WITH ITS OWN INDEPENDENT LOW VOLTAGE COMMON GROUND WIRE.

9. INSTALL NEW BATTERIES IN THE IRRIGATION CONTROLLER(S) TO RETAIN PROGRAM IN MEMORY DURING TEMPORARY POWER FAILURES. USE QUANTITY, TYPE AND SIZE REQUIRED AS PER CONTROLLER MANUFACTURER'S INSTRUCTIONS.

10. SCHEDULE A MEETING WHICH INCLUDES REPRESENTATIVES OF THE IRRIGATION CONTROLLER MANUFACTURER, THE MAINTENANCE CONTRACTOR, THE OWNER AND THE IRRIGATION CONTRACTOR AT THE SITE FOR INSTRUCTION ON THE PROPER PROGRAMMING AND OPERATION OF THE IRRIGATION CONTROLLER.

11. IRRIGATION CONTROL WIRES: SOLID COPPER WITH U.L. APPROVAL FOR DIRECT BURIAL IN GROUND. COMMON GROUND WIRE: SIZE #12-1 WIRE WITH A WHITE INSULATING JACKET. CONTROL WIRE SERVICING REMOTE CONTROL VALVES: SIZE #14-1 WIRE WITH INSULATING JACKET OF COLOR OTHER THAN WHITE. SPLICES SHALL BE MADE WITH 3M-DBY SEAL PACKS OR APPROVED EQUAL.

12. INSTALL ONE ORANGE DEDICATED WIRE FROM A 'PULL BOX' AT EACH CONTROLLER TO EACH INDIVIDUAL REMOTE CONTROL VALVE MANIFOLD (NOT LOOPED) OR STAND ALONE VALVE. PROVIDE 30 INCHES (30") OF EXTRA WIRE. WRAP WIRE AROUND A 1" PIPE TO PROVIDE A NEAT, COMPACT COIL (REMOVE PIPE). PROVIDE SUFFICIENT WIRE AT PULL BOX TO REACH TERMINAL LOCATED IN THE CONTROLLER.

13. SPLICING OF LOW VOLTAGE WIRES IS PERMITTED IN VALVE BOXES ONLY. LEAVE A 36" LONG, 1" DIAMETER COIL OF EXCESS WIRE AT EACH SPLICE AND A 36" LONG EXPANSION LOOP EVERY 100 FEET ALONG WIRE RUN. TAPE WIRES TOGETHER EVERY TEN FEET. DO NOT TAPE WIRES TOGETHER WHERE CONTAINED WITHIN SLEEVING OR CONDUIT.

14. INSTALL CARSON 1419 AND OR CARSON 910 GREEN PLASTIC, BOLT DOWN VALVE BOX, NON HINGED COVER MARKED "IRRIGATION". BOX BODY SHALL HAVE KNOCK OUTS. ACCEPTABLE VALVE BOX MANUFACTURER'S INCLUDE NDS, CARSON OR APPROVED EQUAL.

15. INSTALL REMOTE CONTROL VALVE BOXES 12" FROM WALK, CURB, HEADER BOARD, BUILDING, OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS, INSTALL EACH BOX 12" FROM THE WALK, CURB, HEADER BOARD, BUILDING, OR LANDSCAPE FEATURE AND INSTALL EACH BOX 12" APART.

16. VALVE LOCATIONS SHOWN ARE DIAGRAMMATIC. INSTALL VALVES IN TURF AREAS WHENEVER POSSIBLE. OBTAIN LOCATION APPROVAL BY OWNER'S REPRESENTATIVE.

17. THE CONTRACTOR SHALL LABEL CONTROL LINE WIRE AT EACH REMOTE CONTROL VALVE WITH A 2 1/4" X 2 3/4" POLYURETHANE I.D. TAG, INDICATING IDENTIFICATION NUMBER OF VALVE (CONTROLLER AND STATION NUMBER). ATTACH LABEL TO CONTROL WIRE. THE CONTRACTOR SHALL PERMANENTLY STAMP ALL VALVE BOX LIDS WITH APPROPRIATE IDENTIFICATION AS NOTED IN CONSTRUCTION DETAILS.

18. INSTALL A GATE VALVE TO ISOLATE EACH REMOTE CONTROL VALVE OR GROUP OF RCV'S LOCATED TOGETHER. GATE VALVE SIZE SHALL BE SAME AS THE LARGEST REMOTE CONTROL VALVE IN MANIFOLD.

19. FLUSH AND ADJUST IRRIGATION OUTLETS AND NOZZLES FOR OPTIMUM PERFORMANCE AND TO PREVENT OVER SPRAY ONTO WALKS, ROADWAYS, AND/OR BUILDINGS. SELECT THE BEST DEGREE OF THE ARC AND RADIUS TO FIT THE EXISTING SITE CONDITIONS AND THROTTLE THE FLOW CONTROL AT EACH VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE FOR EACH CONTROL ZONE.

20. SET SPRINKLER HEADS PERPENDICULAR TO FINISH GRADE.

21. LOCATE EMITTER OUTLETS ON UPHILL SIDE OF PLANT OR TREE.

22. LOCATE BUBBLERS ON UPHILL SIDE OF PLANT OR TREE.

23. AT LOCATIONS WHERE LOW SPRINKLER HEAD DRAINAGE WILL CAUSE EROSION AND/OR EXCESS WATER, INSTALL A RAIN BIRD 1800-SAM SERIES POP-UP BODY WITH INTEGRAL CHECK VALVE. INSTALL A HUNTER HCV SERIES, KBI CV-SERIES, OR APPROVED EQUAL SPRING LOADED CHECK VALVE ON BUBBLER AND EMITTER RISERS WHERE REQUIRED.

24. INSTALL A HUNTER HCV SERIES, KBI CV SERIES, OR APPROVED EQUAL SPRING LOADED CHECK VALVE IN SPRINKLER RISER ASSEMBLIES WHERE LOW OUTLET DRAINAGE WILL CAUSE EROSION AND/OR EXCESS WATER.

25. WHERE IT IS NECESSARY TO EXCAVATE ADJACENT TO EXISTING TREES, USE CAUTION TO AVOID INJURY TO TREES AND TREE ROOTS. EXCAVATE BY HAND IN AREAS WHERE TWO (2) INCH AND LARGER ROOTS OCCUR. BACK FILL TRENCHES ADJACENT TO TREE WITHIN TWENTY-FOUR (24) HOURS. WHERE THIS IS NOT POSSIBLE, SHADE THE SIDE OF THE TRENCH ADJACENT TO THE TREE WITH WET BURLAP OR CANVAS.

26. NOTIFY LOCAL JURISDICTIONS FOR INSPECTION AND TESTING OF INSTALLED BACKFLOW PREVENTION DEVICE.

27. THE SPRINKLER SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE SHOWN ON THE IRRIGATION DRAWINGS. VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S AUTHORIZED REPRESENTATIVE.

28. IRRIGATION DEMAND: REFER TO PLANS.

29. PIPE SIZING SHOWN ON THE DRAWINGS IS TYPICAL. AS CHANGES IN LAYOUT OCCUR DURING STAKING AND CONSTRUCTION THE SIZE MAY NEED TO BE ADJUSTED ACCORDINGLY.

30. PIPE THREAD SEALANT COMPOUND SHALL BE RECTOR SEAL #5.

31. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MINOR CHANGES IN THE IRRIGATION LAYOUT DUE TO OBSTRUCTIONS NOT SHOWN ON THE IRRIGATION DRAWINGS SUCH AS LIGHTS, FIRE HYDRANTS, SIGNS, ELECTRICAL ENCLOSURES, ETC.

32. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR CHANGES IN THE IRRIGATION LAYOUT AND VALVE ZONING DUE TO VARIATIONS IN THE EXISTING SITE CONDITIONS SUCH AS EXPOSURE FROM BUILDINGS, TRELLISES, TREES, ETC., AS WELL AS SLOPE AND SOIL CONDITIONS. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AND IRRIGATION CONSULTANT OF THE PROPOSED CHANGES PRIOR TO INSTALLATION FOR APPROVAL.

33. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING THE IRRIGATION SYSTEM DESIGN IF THE PLANTING DESIGN CHANGES FROM THE ORIGINAL PLAN AND NEEDS TO ADAPT TO THE NEW PLANTING DESIGN. THE LANDSCAPE CONTRACTOR NEEDS TO NOTIFY THE LANDSCAPE ARCHITECT AND IRRIGATION CONSULTANT OF PROPOSED CHANGES PRIOR TO INSTALLATION FOR APPROVAL.

34. WHEN WORK OF THIS SECTION HAS BEEN COMPLETED AND SUCH OTHER TIMES AS MAY BE DIRECTED, REMOVE ALL TRASH, DEBRIS, SURPLUS MATERIALS AND EQUIPMENT FROM SITE.

35. CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLEMENTAL HAND WATERING OF ALL PLANT MATERIAL WITHIN DRIPLINE AREAS UNTIL THE PLANTS ARE SUFFICIENTLY ESTABLISHED.

36. VERIFY LOCATIONS OF ALL IRRIGATION COMPONENTS INSTALLED WITHIN A VALVE BOX WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. DO NOT INSTALL UNTIL LANDSCAPE ARCHITECT PROVIDES ACCEPTABLE LOCATIONS.

IRRIGATION LEGEND

SYMBOL	DESCRIPTION
	CONTROLLER AND STATION NUMBER
	FLOW (GPM)
	REMOTE CONTROL VALVE SIZE (IN INCHES)
	ASSOCIATED REMOTE CONTROL VALVE
	CONTROLLER AND STATION NUMBER
	AREA (SQ. FT.)
	FLOW (GPM)
	REMOTE CONTROL VALVE SIZE (IN INCHES)
	ASSOCIATED REMOTE CONTROL VALVE
	MAIN LINE: 2" AND SMALLER: 1120-SCHEDULE 40 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 18" COVER.
	LATERAL LINE: 1" AND LARGER: 1120-SCHEDULE 40 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 12" COVER.
	SLEEVING: 1120-CL. 200 PVC PLASTIC PIPE. COVER TO BE AS INDICATED IN SPECIFICATIONS OR AS INDICATED ABOVE FOR PIPE DEPTH OF COVER.
	NOTE: ALL PIPE SHALL BE PW PIPE "PW PURPLE PLUS", APACHE "PURPLE PIPE", OR APPROVED EQUAL FOR USE WITH RECYCLED WATER SYSTEMS.
	DRIP ZONE: NETAFIM TECHLINE SERIES DRIPLINE, PART # TL9-18. TUBING TO BE INSTALLED 4" BELOW GRADE IN A 18" O.C. GRID ACCORDING TO DETAILS. MINIMUM PIPE SIZE OF PVC LATERAL LINE WITHIN DRIP AREAS TO BE 1". EXTEND PVC HEADERS TO THE ENDS OF ALL DRIP ZONES TO BALANCE FLOW. SEE DETAILS FOR FURTHER INFORMATION. SEE DETAILS FOR FURTHER INFORMATION.
E E	ELECTRICAL CONDUIT: 1.5" SCHEDULE 40 ELECTRICAL CONDUIT AND PULL BOXES FOR CONTROLLER COMMUNICATION CABLE.

IRRIGATION LEGEND

SYMBOL	NUMBER	DESCRIPTION	NOZZLE GPM	OPERATING PSI	OPERATING RADIUS (FEET)
	PROS-12-PRS40-MP3000 360,180,90 (USE 6" POP-UPS IN TURF)	HUNTER MP ROTATOR POP-UP STREAM ROTOR (TURF OR SHRUB)	3.64,1.82, 0.86	40	22-30
	PROS-12-PRS40-CV-R/MP2000 360,180,90 (USE 6" POP-UPS IN TURF)	HUNTER MP ROTATOR POP-UP STREAM ROTOR (TURF OR SHRUB)	1.47,0.74, 0.40	40	16-21
	PROS-12-PRS40-CV-R/15 H,Q	HUNTER POP-UP SPRAY SPRINKLER WITH RAIN BIRD NOZZLE (SHRUB)	1.9,1	30	12-15
	PROS-12-PRS40-CV-R/12 H,Q	HUNTER POP-UP SPRAY SPRINKLER WITH RAIN BIRD NOZZLE (SHRUB)	1.3,0.7	30	10-12
	PROS-12-PRS40-CV-R/10 F,H	HUNTER POP-UP SPRAY SPRINKLER WITH RAIN BIRD NOZZLE (SHRUB)	1.6,0.8	30	8-10
	PROS-12-PRS40-CV-R/8 F,H,Q	HUNTER POP-UP SPRAY SPRINKLER WITH RAIN BIRD NOZZLE (SHRUB)	1,0.5,0.25	30	6-8
	PROS-12-PRS40-CV-R/5 F,H,Q	HUNTER POP-UP SPRAY SPRINKLER WITH RAIN BIRD NOZZLE (SHRUB)	0.41,0.2,0.1	30	4-5
	PROS-12-PRS40-CV-R/15 EST	HUNTER POP-UP SPRAY SPRINKLER WITH RAIN BIRD NOZZLE (SHRUB)	0.5	30	4 X 15
	TLCV9-12	NETAFIM TREE RING, 5 GAL = 13 EMITTERS 24" = 24 EMITTERS 36" = 48 EMITTERS	0.2-0.72	30	DRIP
	TLAVRV	NETAFIM AIR RELIEF VALVE			
	TLFV-1	NETAFIM FLUSH VALVE			
	DWS SERIES	GRISWOLD REMOTE CONTROL VALVE			
	DWS SERIES/DF100-40	GRISWOLD REMOTE CONTROL VALVE WITH A NETAFIM DISK FILTER AND PRESSURE REGULATOR			
	44NP	RAIN BIRD QUICK COUPLING VALVE			
	T113-IRR	NIBCO GATE VALVE (LINE SIZE)			
	-	SPLICE BOX FOR LOW VOLTAGE WIRES ELECTRICAL CONDUIT			
	DWS-2"	GRISWOLD MASTER VALVE (NORMALLY CLOSED)			
	FM-1B	CALSENSE FLOW SENSOR			
	975XLSEU/500XL-2"	WILKENS REDUCED PRESSURE BACKFLOW ASSEMBLY WITH A WILKENS PRESSURE REDUCING VALVE, AND A PLACERWORKS PW/E1A-(M) ENCLOSURE.			
M	T-10 USG-1.5"/R900i	NEPTUNE WATER METER WITH A R900i AND A 6" ANTENNA			
C	ET2000e-48-LR-M/RRe-SSE-R-TP-1	CALSENSE CONTROLLER ASSEMBLY (ET2000E CONTROLLER, RADIO REMOTE RECEIVER BOARD AND TRANSMITTER, TRANSIENT PROTECTION BOARD, STAINLESS STEEL TOP ENTRY ENCLOSURE WITH DOME ANTENNA AND A.C. LINE PROTECTION). RADIO TO BE FACTORY SET TO PRESIDIO TRUST RADIO FREQUENCY. ORIENT CONTROLLER AND DOME ANTENNA PER OWNER'S REPRESENTATIVE'S DIRECTION TOWARDS HUB ANTENNA.			
-	TPP	CALSENSE TRANSIENT PROTECTION PACKAGE			
-	RRe-DOME	CALSENSE DOME ANTENNA			
-	RRe-TRAN	CALSENSE REMOTE CONTROL			
-	LR YAGI	CALSENSE YAGI ANTENNA			
-	LMR-400-DB	CALSENSE YAGI ANTENNA CABLE. LENGTH TO BE DETERMINED BY CONTRACTOR IN THE FIELD.PROVIDE 30 FEET MINIMUM ANTENNA PROTECTOR.			

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PROJECT NUMBER

SUBMITTAL
90% CD

DATE
APRIL 22, 2016

CONSULTANTS
Irrigation Consultant:
Russell D. Mitchell Associates, Inc.
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ISSUES AND REVISIONS

No.	Date	Issues and Revisions	B□	Che□□
	05/11/15	S□hemati□Design		
	04/22/16	90□ CD		

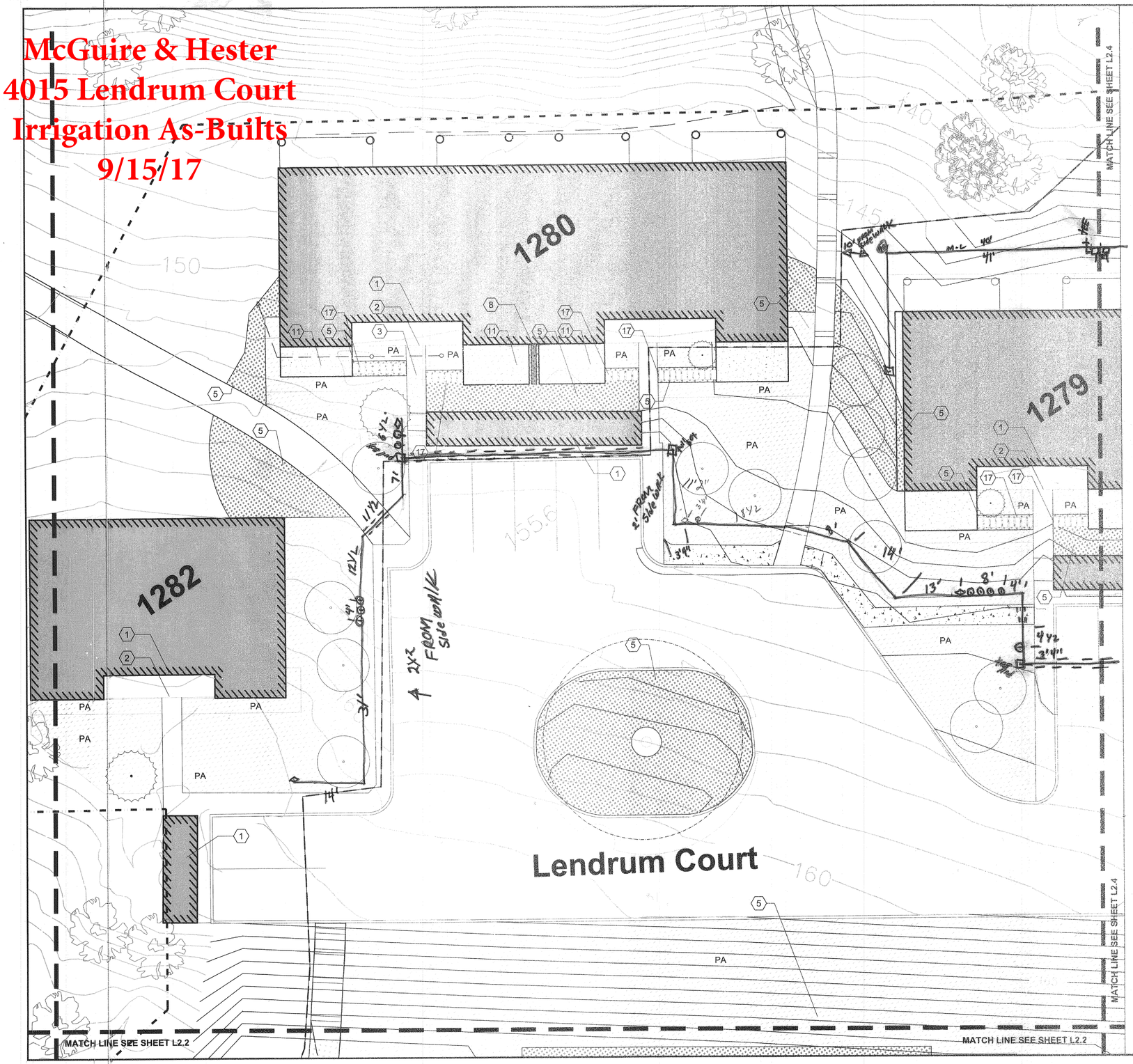
REGISTRATION AND SIGNATURE

PROJECT
NORTH FORT SCOTT
PHASE 3 - SITE IMPROVEMENTS

SHEET TITLE
IRRIGATION NOTES

L6.0

McGuire & Hester
4015 Lendrum Court
Irrigation As-Builts
9/15/17



LEGEND

- CONCRETE PAVING (1 / L3.0)
- PLANTING AREA (PA)
- TURF SOD (2 / L5.1)
- WOOD MULCH
- PHASE 1 CAP BOUNDARY
- LIMIT OF WORK
- PATIO SCREEN (1 / L3.1)
- SMALL TREE
- LARGE SHRUB
- EXISTING TREE

SHEET NOTES

1. BLDG. FOOTPRINT (TYP.)
2. BLDG. CANOPY OVERHANG
3. 4' WIDE CONCRETE PAVING PATH, CONTINUOUS SLOPE (1 / L3.0)
4. AC PAVING (2 / L3.0)
5. WOOD MULCH PAVING (3 / L3.0)
6. STONE MULCH (2 / L3.2)
7. SLOPING CONCRETE RETAINING WALL (2 / L3.1)
8. PATIO SCREEN (1 / L3.1)
9. CONCRETE STEPS AND HANDRAIL (3 / L3.1) (4 / L3.1)
10. CONFORM TO (E) GRADE (4 / L3.2)
11. CONCRETE PATIO (5 / L3.2)
12. (E) UTILITY, ADJUST TO GRADE
13. (E) UTILITY TO REMAIN
14. CUSTON PATIO SCREEN
15. (E) SCREEN
16. (E) THICKET TO REMAIN
17. STEPPING STONES

NOTES:
1. FOR ALL CONSTRUCTION (NON-PLANTING AND MULCHING) WITHIN PHASE 1 CAP (LANDSCAPE AREA), REFER TO DRAWINGS PREPARED BY TRC SOLUTIONS.
2. PLANTING ADJACENT TO THICKET (#16) TO BE DETERMINED IN THE FIELD BY THE EXTENT OF BEDROCK.

NORTH
0 5 10 20
1" = 10' AT 34"x22"

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PROJECT NUMBER

SUBMITTAL
BID SET

DATE
JULY 13, 2015

CONSULTANTS

ISSUES AND REVISIONS

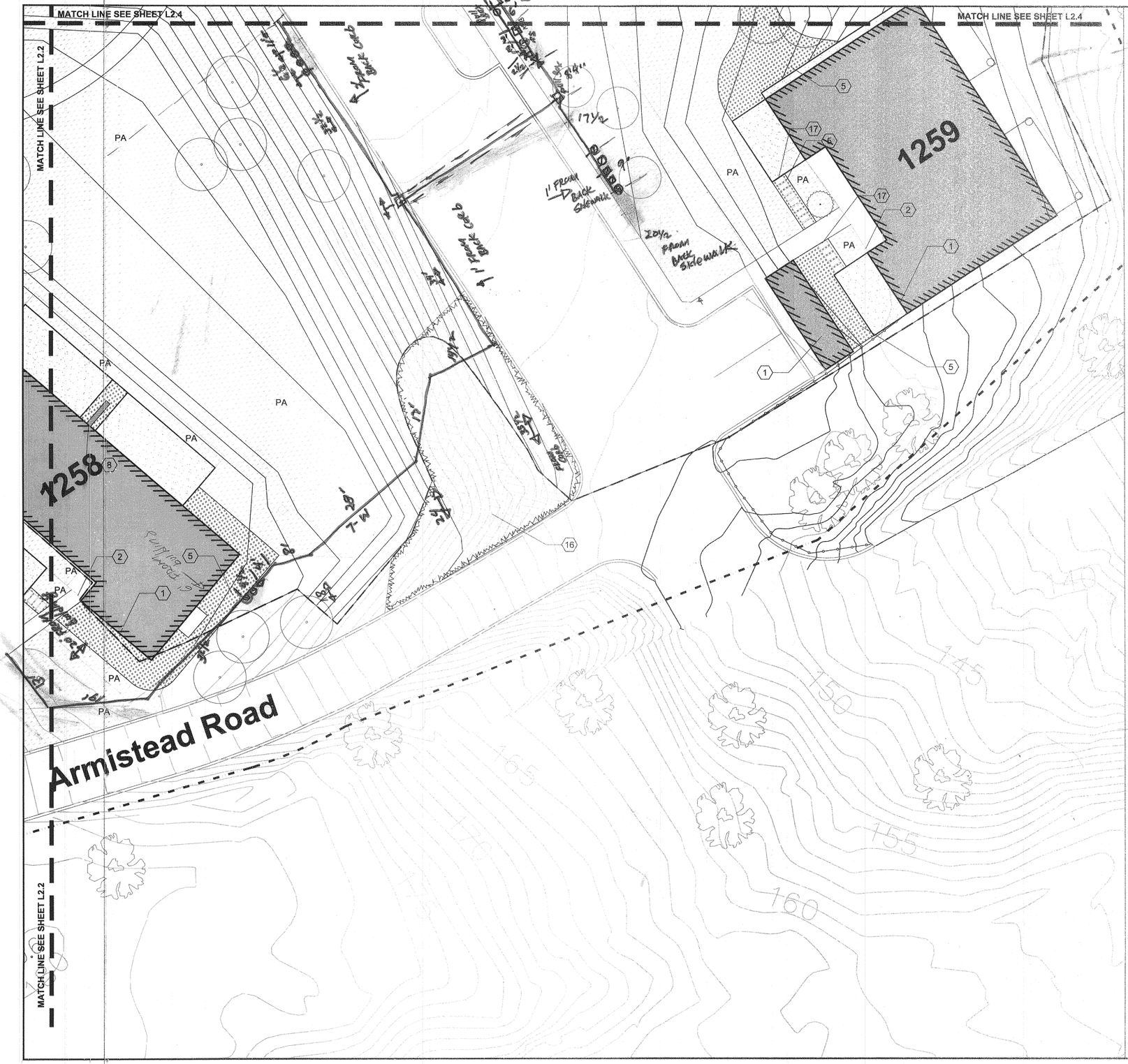
No.	Date	Issues and Revisions	By	Check
	07/13/15	Bid Set		

REGISTRATION AND SIGNATURE

PROJECT
NORTH FORT SCOTT
PHASE 3 - SITE IMPROVEMENTS

SHEET TITLE
CONSTRUCTION PLAN

L2.3



LEGEND

- CONCRETE PAVING (1 / L3.0)
- PLANTING AREA (PA)
- TURF SOD (2 / L5.1)
- WOOD MULCH
- PHASE 1 CAP BOUNDARY
- LIMIT OF WORK
- PATIO SCREEN (1 / L3.1)
- SMALL TREE
- LARGE SHRUB
- EXISTING TREE

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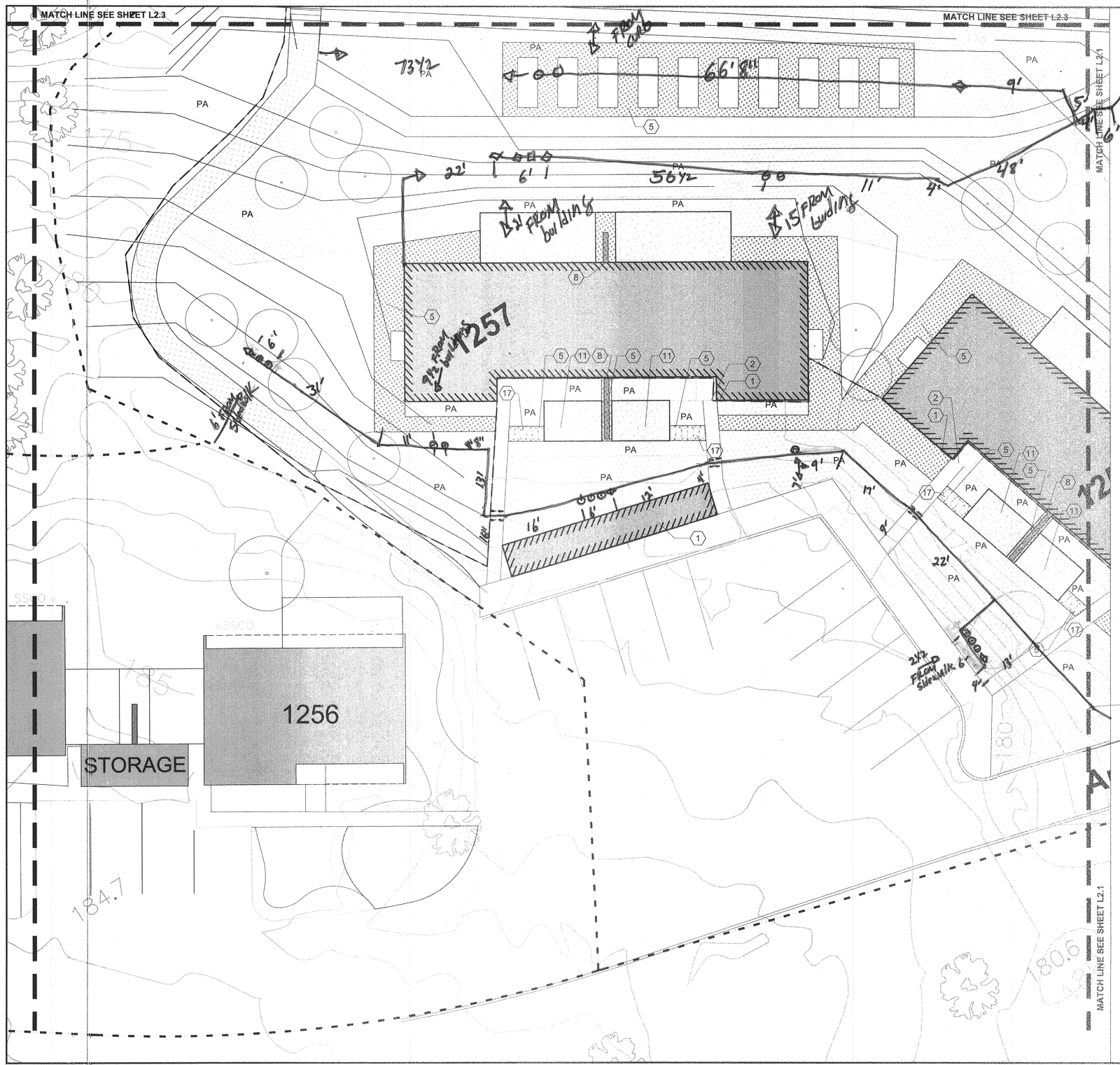
PROJECT
NORTH FORT SCOTT
PHASE 3 - SITE IMPROVEMENTS

SHEET TITLE
CONSTRUCTION PLAN

L2.1



LEGEND

- CONCRETE PAVING (1 / L3.0)
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- TURF SOD (2 / L5.1)
- WOOD MULCH
- PHASE 1 CAP BOUNDARY
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PROJECT

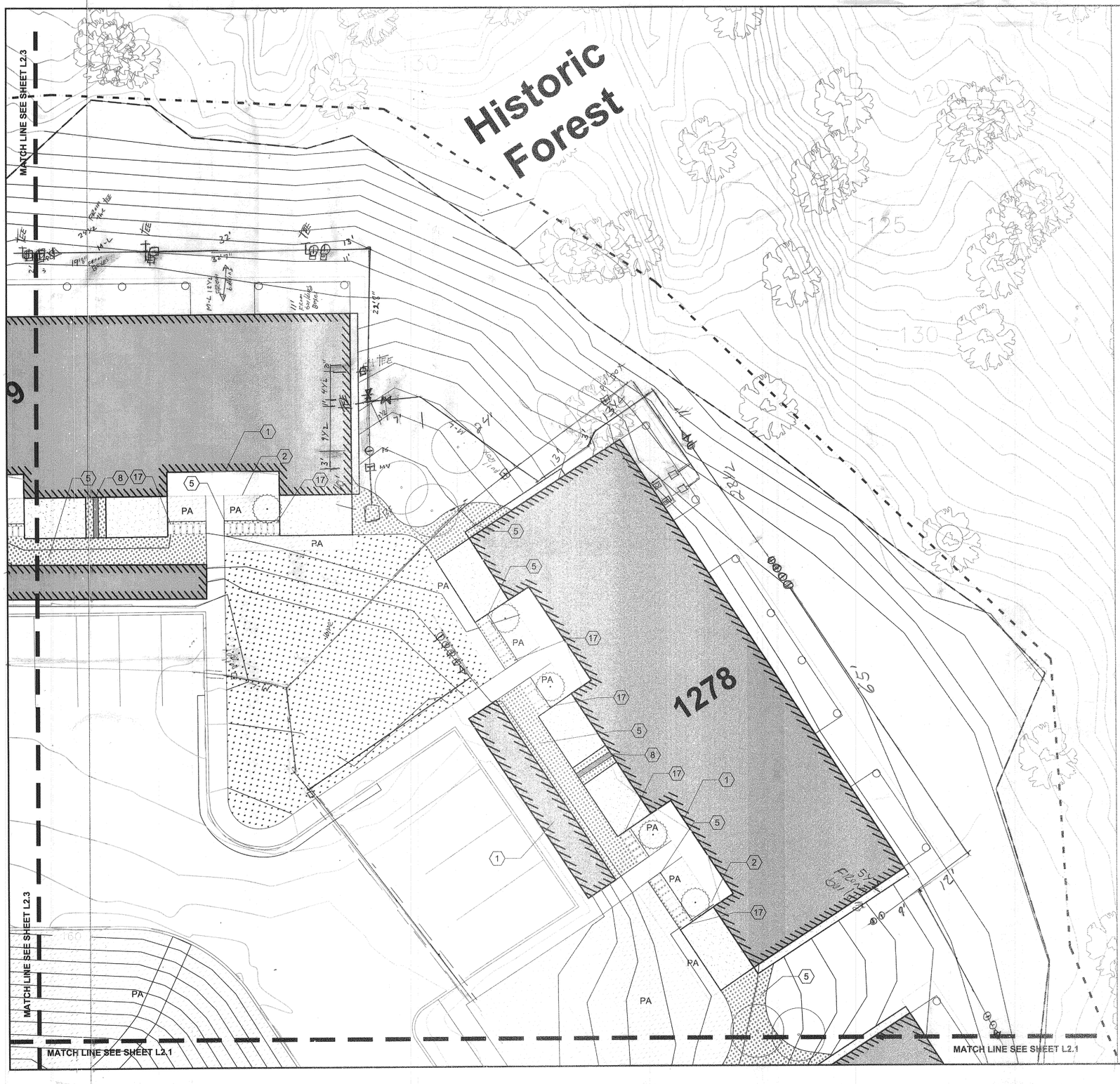
NORTH FORT SCOTT

PHASE 3 - SITE IMPROVEMENTS

SHEET TITLE

CONSTRUCTION PLAN

L2.2



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- TURF SOD (2 / L5.1)
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- LIMIT OF WORK
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- EXISTING TREE

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DATE

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ISSUES AND REVISIONS

No.	Date	Issues and Revisions	By	Check
	07/13/15	Bid Set		

REGISTRATION AND SIGNATURE

PROJECT

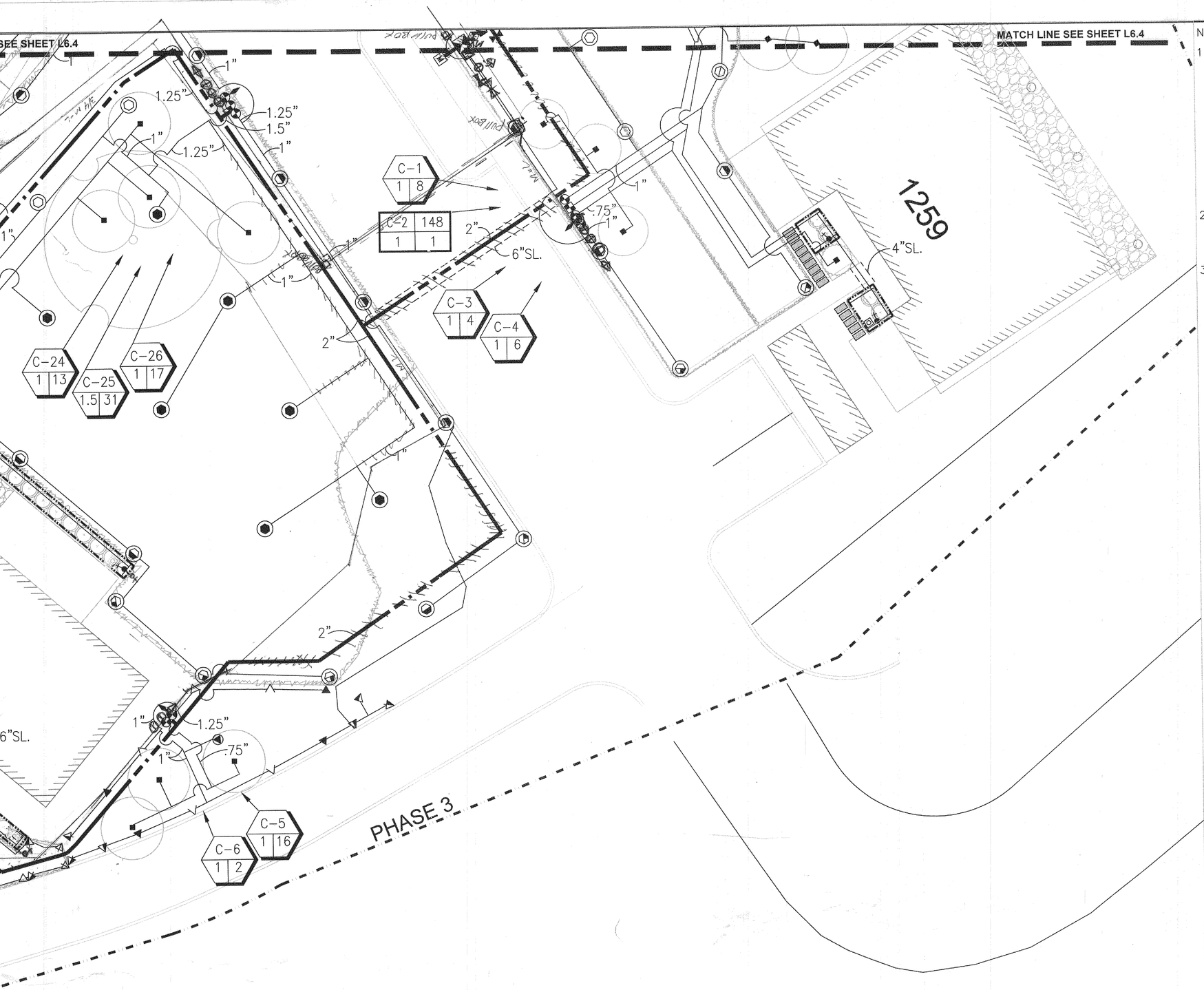
NORTH FORT SCOTT

PHASE 3 - SITE IMPROVEMENTS

SHEET TITLE

CONSTRUCTION PLAN

L2.4



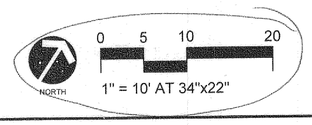
NOTES:

1. IRRIGATION EQUIPMENT MAY BE SHOWN WITHIN HARDSCAPE FOR GRAPHIC CLARITY ONLY. INSTALL ALL IRRIGATION EQUIPMENT WITHIN PLANTED AREAS. IRRIGATION PIPE AND WIRE CROSSING BENEATH HARDSCAPE SURFACES SHALL BE CONTAINED WITHIN SLEEVING OR SCHEDULE 40 PVC CONDUIT. SLEEVING SIZE SHALL BE A MINIMUM OF TWO TIMES THE AGGREGATE DIAMETER OF ALL PIPES CONTAINED WITHIN SLEEVE. PROVIDE VERTICAL SWEEP FOR ALL ELECTRICAL CONDUIT ON EACH SIDE OF HARDSCAPE AND TERMINATE ENDS AT 12" MINIMUM DEPTH AND 12" FROM HARDSCAPE SURFACE.

2. UNSIZED LATERAL LINE PIPING LOCATED DOWN STREAM OF 1" PIPING SHALL BE 3/4" IN SIZE (TYPICAL).

3. SIZING OF LATERAL PIPE SHALL BE AS FOLLOWS:

.75"	0–6 GPM
1"	7–12 GPM
1.25"	13–20 GPM
1.5"	21–32 GPM



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PROJECT NUMBER

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90% CD

DATE

APRIL 22, 2016

CONSULTANTS

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www.rmairrigation.com

ISSUES AND REVISIONS

No.	Date	Issues and Revisions	By	Check
	05/11/15	Schematic Design		
	04/22/16	90% CD		

REGISTRATION AND SIGNATURE

PROJECT

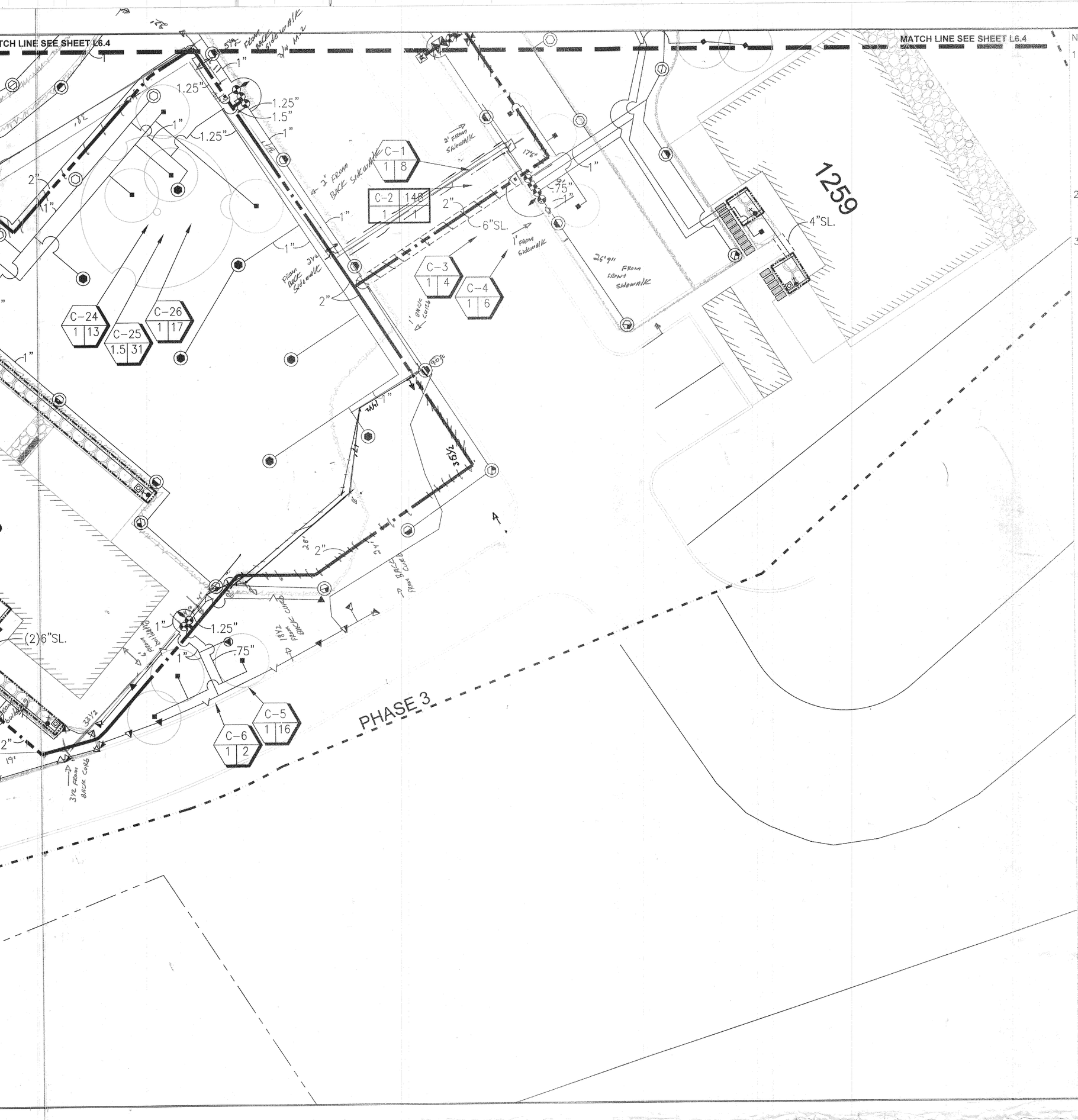
NORTH FORT SCOTT

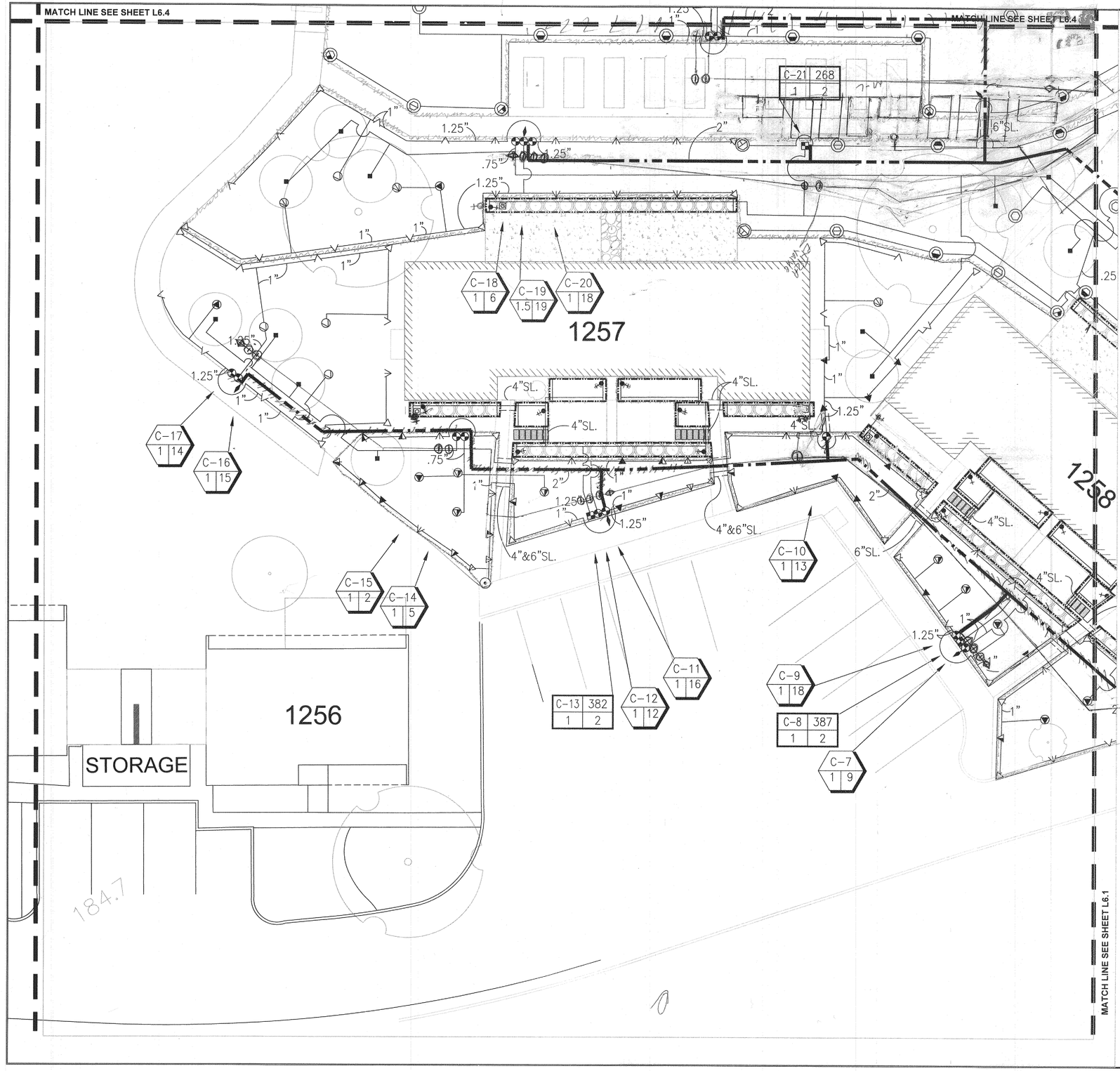
PHASE 3 - SITE IMPROVEMENTS

SHEET TITLE

IRRIGATION PLAN

L6.1


MATCH LINE SEE SHEET L6.4
MATCH LINE SEE SHEET L6.4
1259
PHASE 3
C-1 1 8
C-2 1.5 1
C-3 1 4
C-4 1 6
C-5 1 16
C-6 1 2
C-24 1 13
C-25 1.5 31
C-26 1 17
1.25"
1.5"
1"
.75"
2"
6"SL.
4"SL.
(2)6"SL.
3" FROM BACK SIDEWALK
1' FROM SIDEWALK
26'9" FROM FRONT SIDEWALK
3½ FROM BACK CURB
3½ FROM BACK SIDEWALK
1' FROM BACK CURB
5½ FROM BACK SIDEWALK
3½ FROM BACK CURB
3½ FROM BACK CURB
3½ FROM BACK CURB



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3. SIZING OF LATERAL PIPE SHALL BE AS FOLLOWS:

.75"	0–6 GPM
1"	7–12 GPM
1.25"	13–20 GPM
1.5"	21–32 GPM

Presidio Trust
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323 Geary St., Suite #602, San Francisco, CA 94102
T 415 861 7900 F 415 861 7908 www.rhaa.com

PROJECT NUMBER

SUBMITTAL

90% CD

DATE

APRIL 22, 2016

CONSULTANTS

Irrigation Consultant:
Russell D. Mitchell Associates, Inc.
2760 Camino Diablo
Walnut Creek, CA 94597
tel 925.939.3985 fax 925.932.5671
www.rmairrigation.com

ISSUES AND REVISIONS

No.	Date	Issues and Revisions	By	Check
	05/11/15	Schematic Design		
	04/22/16	90% CD		

REGISTRATION AND SIGNATURE

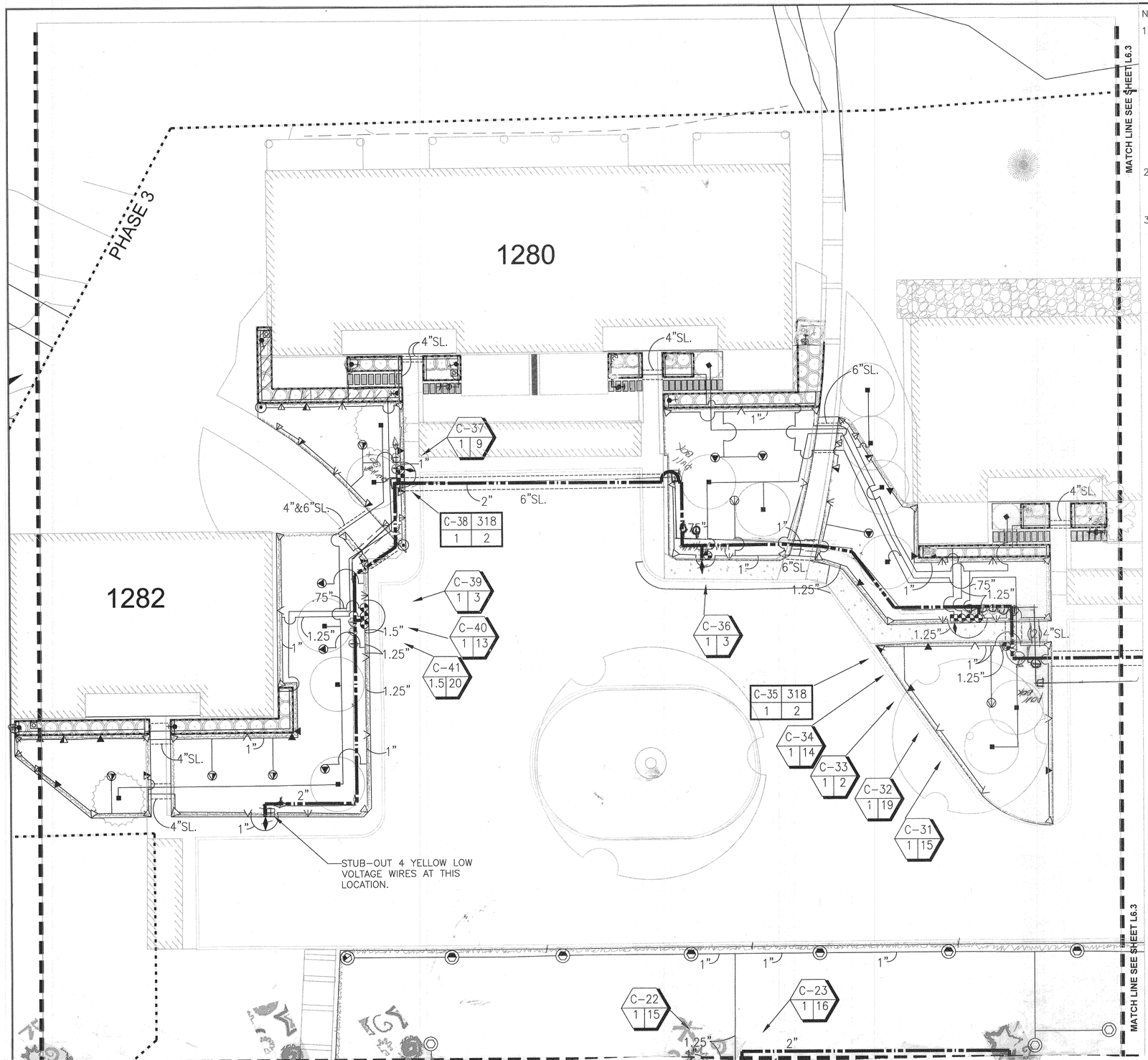
PROJECT

NORTH FORT SCOTT
PHASE 3 - SITE IMPROVEMENTS

SHEET TITLE

IRRIGATION PLAN

L6.2



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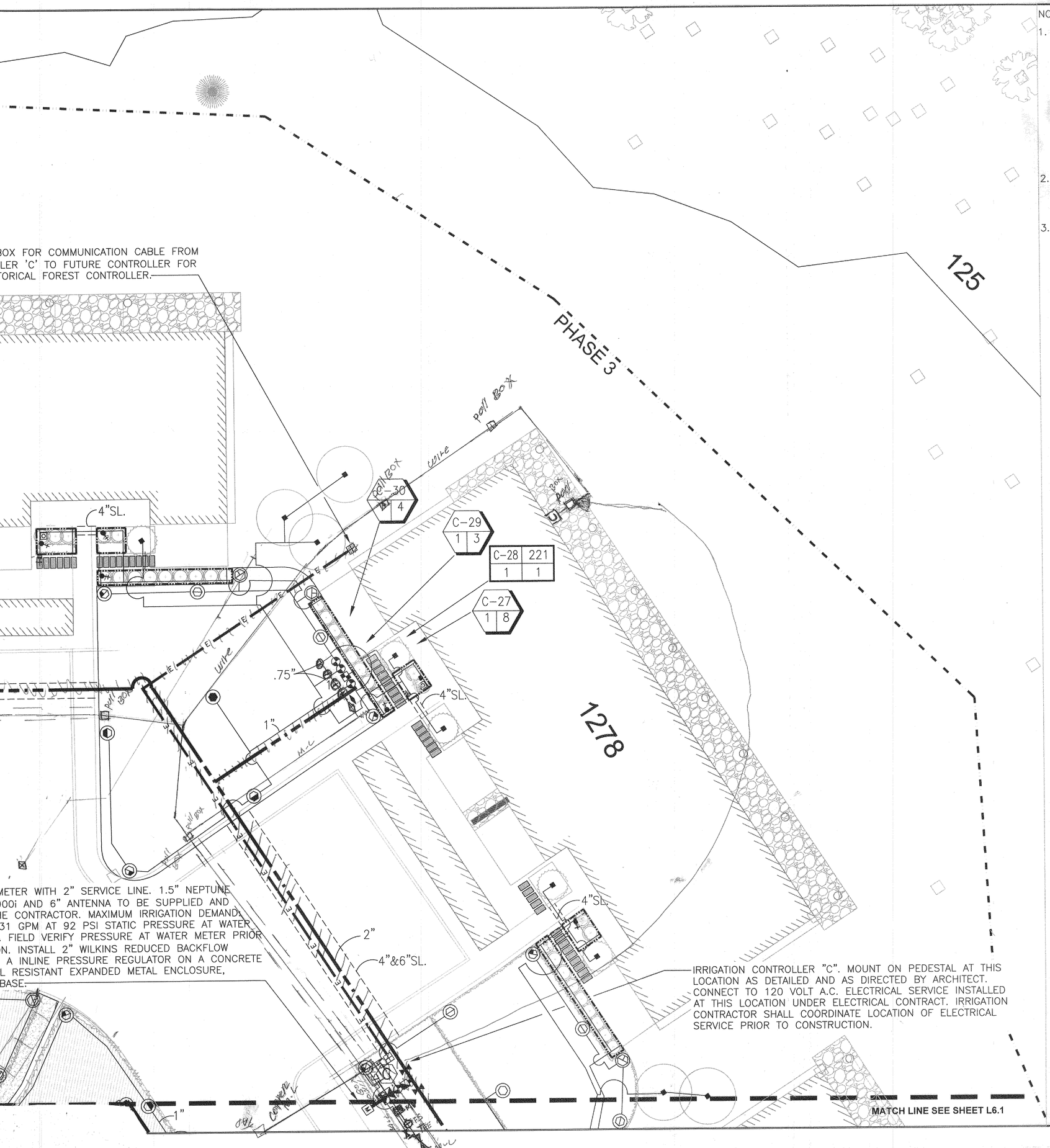
NORTH FORT SCOTT

PHASE 3 - SITE IMPROVEMENTS

SHEET TITLE

IRRIGATION PLAN

L6.3



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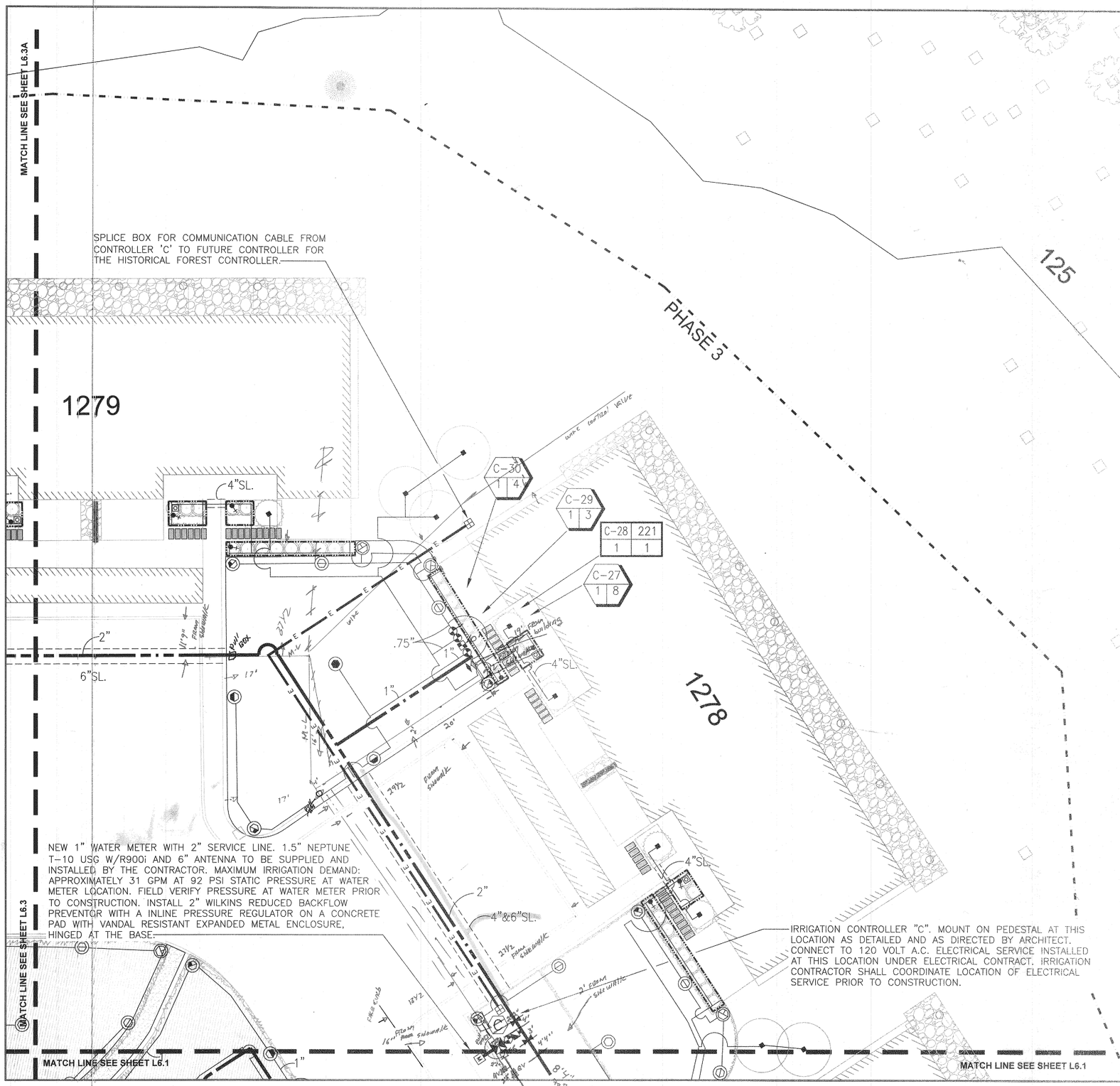
PHASE 3 - SITE IMPROVEMENTS

SHEET TITLE

IRRIGATION PLAN

L6.4



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NORTH FORT SCOTT
PHASE 3 - SITE IMPROVEMENTS

SHEET TITLE

IRRIGATION PLAN

L6.4

J:\4015 - Presidio - Lendrum Court Site Restoration\100 Bid File - XXXXXX\10 Plans\Updated Plans 6-8-2016

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SOURCE: Base plan by TRC

	DATE	DESCRIPTION	DESIGN BY	CHK'D BY
	5/31/16	100% Construction Documents	JD	JD

Lendrum Court Area
The Presidio Trust
San Francisco, California

IRRIGATION PLAN

TRC — Always you can rely on.

229649 | REV | SHEET L 8.0

FILE NAME: C:\Carlos DWG\15-079 North Fort Scott Remediation\CAD\Historical Forest\5-9-16\3686-02 Irrigation 20160414.dwg | Layout: Tab L8.0

MATCHLINE - SEE SHEET L8.0

IRRIGATION CONTROLLER "A". MOUNT ON PEDESTAL AT THIS LOCATION AS DETAILED AND AS DIRECTED BY ARCHITECT. CONNECT TO 120 VOLT A.C. ELECTRICAL SERVICE INSTALLED AT THIS LOCATION UNDER ELECTRICAL CONTRACT. IRRIGATION CONTRACTOR SHALL COORDINATE LOCATION OF ELECTRICAL SERVICE PRIOR TO CONSTRUCTION.

A-8 | 1 | 12

A-9 | 1.5 | 21

A-10 | 1.5 | 20

A-11 | 1 | 10

A-12 | 1 | 11

A-14 | 1 | 12

A-13 | 1 | 11

A-15 | 1 | 17

A-16 | 1 | 11

A-18 | 1.5 | 24

A-19 | 1 | 14

A-17 | 1 | 7

MATCHLINE - SEE SHEET L8.2

INSTALL ALL LATERAL LINES WITHIN CAPPED AND VERY STEEP AREAS 4-6" DEEP. (TYPICAL).

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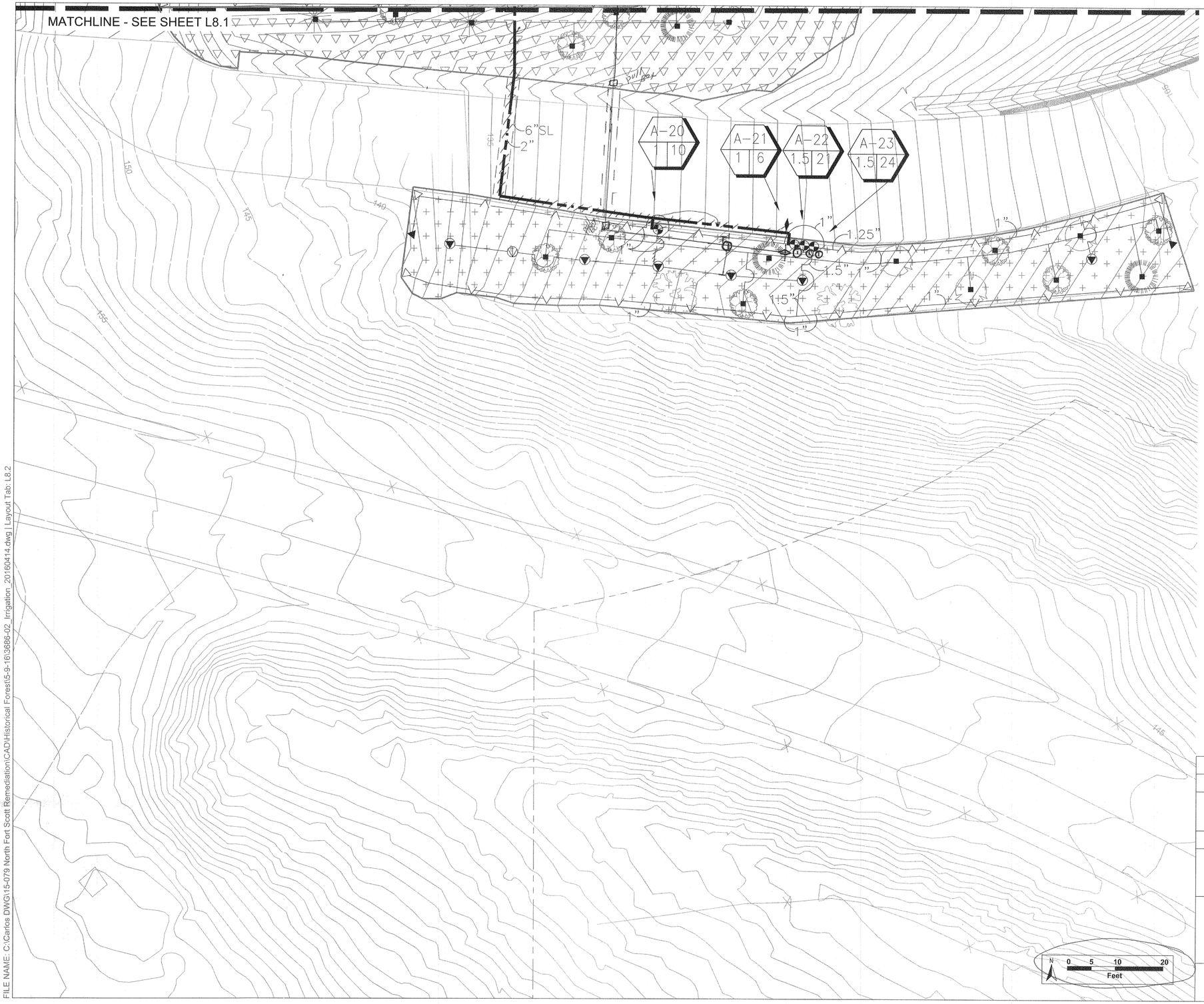
Lendrum Court Area
The Presidio Trust
San Francisco, California

IRRIGATION PLAN

TRC | 229649 | REV | SHEET L 8.1

N 0 5 10 20 Feet

FILE NAME: C:\Carlos DWG\15-079 North Fort Scott Remediation\CAD\Historical Forest\5-9-16\3686-02_Irrigation_20160414.dwg | Layout Tab: L8.1



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San Francisco, California

IRRIGATION PLAN

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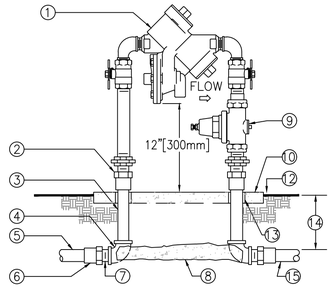
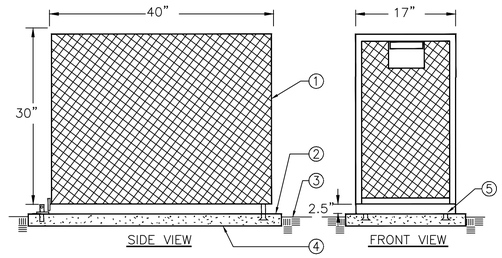
FILE NAME: C:\Carlos DWG\15-079 North Fort Scott Remediation\CAD\Historical Forest\5-9-16\3886-02_Irrigation_20160414.dwg | Layout Tab: L8.2



1. REDUCED PRESSURE BACKFLOW ASSEMBLY.
2. WROUGHT COPPER MALE ADAPTER–2 TOTAL (SOLDER x THREAD CONNECTION).
3. COPPER TYPE "K" PIPE (LENGTH AS REQUIRED).
4. WROUGHT COPPER 90° ELBOW–2 TOTAL(SOLDER x THREAD CONNECTION).
5. PVC MAIN LINE TO POINT OF CONNECTION.
6. BUSH AS NECESSARY FOR SIZE TRANSITION.
7. SCHEDULE 40 PVC MALE ADAPTER–2 TOTAL.
8. CONCRETE SUPPORT BLOCK.
9. PRESSURE REDUCING VALVE SET DISCHARGE PRESSURE AS INDICATED ON PLANS (AS REQUIRED).
10. CONCRETE PAD–SEE ENCLOSURE DETAIL.
12. FINISH GRADE.
13. PVC SLEEVE BOTH SIDES.
14. REFER TO IRRIGATION LEGEND.
15. PVC MAIN LINE TO IRRIGATION SYSTEM.

NOTES:
1. INSTALL A FREEZE PREVENTATIVE BLANKET AROUND BACKFLOW ASSEMBLY. BLANKET SHALL BE GREEN.
2. DO NOT SOLDER CONNECT FITTINGS WHILE THREADED INTO BACKFLOW ASSEMBLY. THIS MAY CAUSE DAMAGE TO DEVICE.
3. NIPPLES AND FITTINGS TO BE SAME IPT SIZE AS BACKFLOW ASSEMBLY.
4. PROVIDE A STAINLESS STEEL ENCLOSURE TO COMPLETELY ENCLOSE DEVICE. INSTALL ENCLOSURE TO CONCRETE BASE AS DIRECTED BY MANUFACTURER.

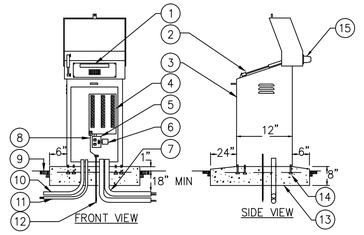
1 REDUCED PRESSURE BACKFLOW ASSEMBLY
SCALE: NONE
DET: RPB–1



1. EXPANDED METAL SCREEN ENCLOSURE(PLACER WATERWORKS MODEL PW/E1A–(M)
2. SET PAD 1/2" ABOVE FINISH GRADE
3. FINISH GRADE
4. 6" THICK CLASS "B" CONCRETE PAD FOR ENCLOSURE SUPPORT TO EXTEND 6" BEYOND ENCLOSURE ON ALL SIDES. CONCRETE TO HAVE MEDIUM BROOM FINISH.
5. SET ANCHOR PLATES INTO CONCRETE PAD.

2 BACKFLOW PREVENTER ENCLOSURE
SCALE: NONE
DET:

NOTES:
1. PROVIDE (CONTRACTOR) #6 BARE COPPER GROUND WIRE AND 5/8" DIA. COPPER CLAD GROUNDING ROD(S) AS DIRECTED BY MANUFACTURER. (PER CONTROLLER)
2. UNIT IS TO BE ASSEMBLED, WIRED, AND TESTED BY A MANUFACTURER TRAINED VENDOR.
3. INSTALL (CONTRACTOR) ENCLOSURE TO CONCRETE PAD AS DIRECTED BY ENCLOSURE MANUFACTURER.
4. CONCRETE SLAB TO BE POURED LEVEL. CONTRACTOR TO PROVIDE SLOPE TO TOP OF SLAB SURFACE FOR DRAINAGE.
5. ENTIRE CONTROLLER AND ENCLOSURE ASSEMBLY IS TO BE PRE–ASSEMBLED BY CALSENSE. CONTACT LOCAL CALSENSE REPRESENTATIVE AT 1–800–572–8608 WITH QUESTIONS. SEE LEGEND FOR MODEL NUMBER.



1. CALSENSE STAINLESS STEEL CONTROLLER PANEL MOUNTED FLUSH ON FACE OF ENCLOSURE AT 25 DEGREE ANGLE FOR EASY ACCESS AND VIEWING.
2. PISTON CONNECTED TO FLIP TOP.
3. CALSENSE STAINLESS STEEL CONTROLLER ENCLOSURE MODEL SSE OR SSE–R (FOR RADIO).
4. TP–1 TRANSIENT PROTECTION BOARD.
5. GFI OUTLET AND SWITCH.
6. TP–110 SURGE PROTECTOR.
7. SCHEDULE 40 GREY PVC ELECTRICAL CONDUITS WITH SWEEP ELL FOR LOW VOLTAGE WIRE AND COMMUNICATION CABLE.
8. #6 AWG GROUNDING WIRE
9. FINISH GRADE.
10. 2" SPARE CONDUIT WITH SWEEP ELLS TO BE STUBBED OUT INTO A CARSON 910 GREEN VALVE BOX.
11. 120 VOLT ELECTRICAL IN CONDUIT SERVICE PER LOCAL CODES.
12. 5/8" X 8' LONG COPPER CLAD GROUNDING ROD (INSIDE ENCLOSURE) PER CONTROLLER.
13. 4" THICK CONCRETE SLAB OVER 4" COMPACTED AGGREGATE BASE. EXTEND 6" BEYOND SIDES AND REAR OF ENCLOSURE, WITH 24" AT THE FRONT.
14. STEEL TEMPLATE WITH MOUNTING BOLTS ATTACHED (INCLUDED WITH WITH ENCLOSURE) SET IN CONCRETE BASE.
15. RADIO ANTENNA, ORIENTED AS DIRECTED BY TRUST REPRESENTATIVE.

3 CALSENSE CONTROLLER IN ENCLOSURE
SCALE: NONE
DET: Calsense_cont

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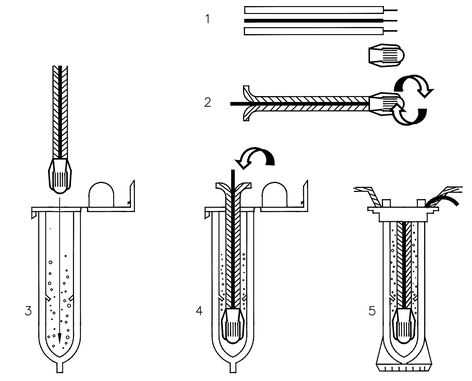

INSTRUCTIONS:
1. STRIP WIRES APPROXIMATELY 1/2" (12.7 MM) TO EXPOSE WIRE.
2. TWIST CONNECTOR AROUND WIRES CLOCKWISE UNTIL HAND TIGHT, DO NOT OVERTIGHTEN.
3. INSERT WIRE ASSEMBLY INTO PLASTIC TUBE UNTIL WIRE CONNECTOR SNAPS PAST LIP IN BOTTOM OF TUBE.
4. PLACE WIRES WHICH EXIT TUBE IN WIRE EXIT HOLES AND CLOSE CAP UNTIL IT SNAPS.
5. INSPECT FINAL SPLICE ASSEMBLY TO BE SECURE AND FINISHED.

4 WEATHERPROOF SPLICE ASSEMBLY
SCALE: NONE
DET: WIRE–SPL

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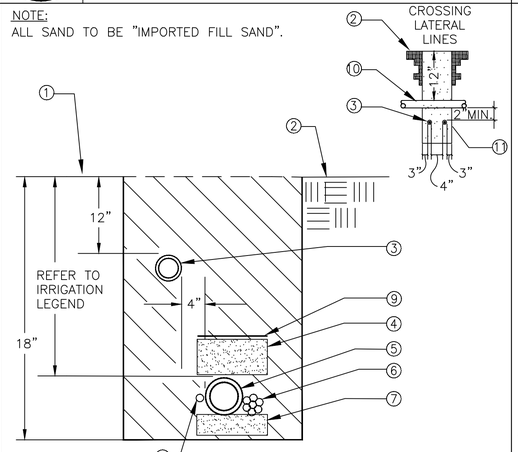
NOTE:
ALL SAND TO BE "IMPORTED FILL SAND".



1. CLEAN BACKFILL MATERIAL.
2. FINISH GRADE.
3. LATERAL LINE.
4. 4" OF SAND ABOVE PIPE WITH METALLIC WARNING TAPE ABOVE SAND.
5. MAIN LINE.
6. LOW VOLTAGE CONTROL WIRE.
7. 2" OF SAND BELOW PIPE.
8. #14 BARE COPPER TRACE WIRE.
9. METALLIC WARNING TAPE
10. CROSSING LATERAL LINE
11. EDGE OF TRENCH

5 TRENCHING
SCALE: NONE
DET: TRENCH

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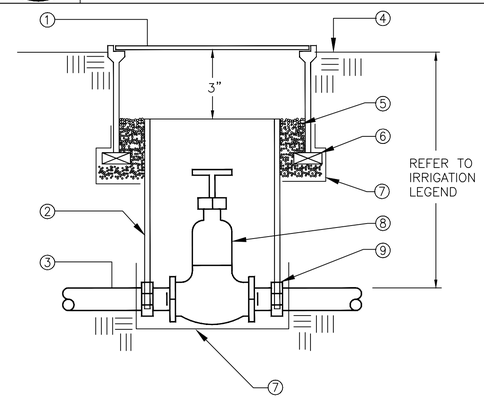

1. ROUND PLASTIC VALVE BOX WITH BOLT DOWN LID. TOP DIMENSION: 10".
2. 8" CLASS 160 OR SCHEDULE 40 PVC PIPE (NOTCH TO FIT OVER MAIN LINE PIPE).
3. PVC MAIN LINE
4. TOP OF VALVE BOX 2" ABOVE FINISH GRADE IN SHRUB BED AND 0" IN TURF.
5. PEA GRAVEL.
6. BRICK–2 TOTAL.
7. 1/2" GALVANIZED WIRE MESH. INSTALL AT BASE OF AND WRAP UP SIDE OF BOX. ALSO ADD ONE PIECE ON BASE OF VALVE AS SHOWN.
8. GATE VALVE.
9. SCHEDULE 40 PVC MALE ADAPTER.

6 2.5" AND SMALLER GATE VALVE
SCALE: NONE
DET: GV_3"

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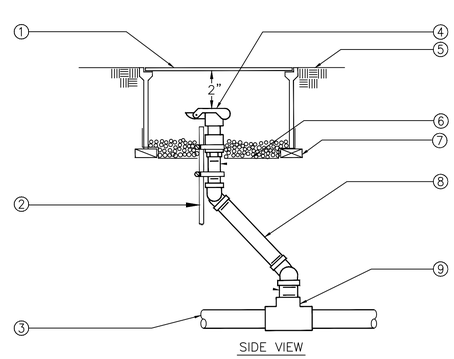
NOTE:
NIPPLES AND FITTINGS TO BE SAME SIZE AS VALVE IPT INLET THREAD SIZE.



1. ROUND CARSON #910 PLASTIC VALVE BOX WITH BOLT DOWN LID. TOP DIMENSION: 10".
2. 30" LONG #10 ANGLE IRON/RE–BAR W/2 STAINLESS STEEL STRAPS (ONE AROUND QCV).
3. PVC MAIN LINE.
4. QUICK COUPLING VALVE.
5. TOP OF VALVE BOX 2" ABOVE FINISH GRADE IN SHRUB BED AND 0" IN TURF.
6. 1/2" GALVANIZED WIRE MESH. INSTALL AT BASE OF AND WRAP UP SIDE OF BOX.
7. BRICK–2 TOTAL.
8. SPEARS SWING JOINT ASSEMBLY 1" MT X MT 12 INCH.
9. UPC APPROVED SCHEDULE 40 PVC TEE OR ELBOW.

7 QUICK COUPLING VALVE
SCALE: NONE
DET: QUICK–C2

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PROJECT NUMBER

SUBMITTAL
90% CD

DATE
APRIL 22, 2016

CONSULTANTS
Irrigation Consultant:
Russell D. Mitchell Associates, Inc.
2760 Camino Diablo
Walnut Creek, CA 94597
tel 925.939.3985 È fax 925.932.5671
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ISSUES AND REVISIONS

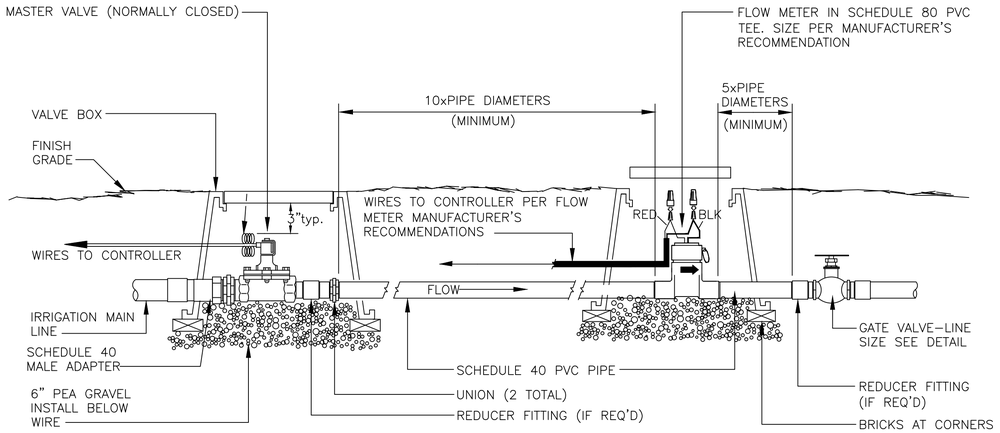
No.	Date	Issues and Revisions	B□	Che□
	05/11/15	S□hemati□Design		
	04/22/16	90□ CD		

REGISTRATION AND SIGNATURE

PROJECT
NORTH FORT SCOTT
PHASE 3 - SITE IMPROVEMENTS

SHEET TITLE
IRRIGATION DETAILS

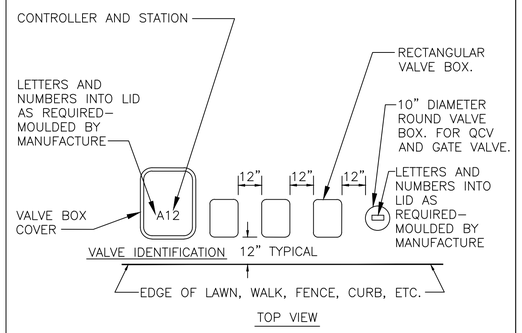
L6.5



NOTES:

1. NO UNDERGROUND SPLICES BETWEEN VALVE BOX AND CONTROLLER.
2. SPEARS #DS-100 W/#DS-300 SEALANT OR 3M SCOTCHLOCK #3570 WIRE CONNECTORS ONLY.
3. INSTALL IN MANNER TO ALLOW PROPER DRAINAGE OF ANY WATER THAT ACCUMULATES IN VALVE BOX. FLOW METER SHOULD NEVER BE SUBMERGED UNDERWATER.
4. WRAP ENTIRE VALVE BOX IN PRESIDIO TRUST APPROVED WIRE MESH TO KEEP GOPHERS OUT OF VALVE BOX. INSTALL WIRE ABOVE PEA GRAVEL.

1 MASTER VALVE/FLOWMETER RUN
SCALE: NONE
DET: ---------

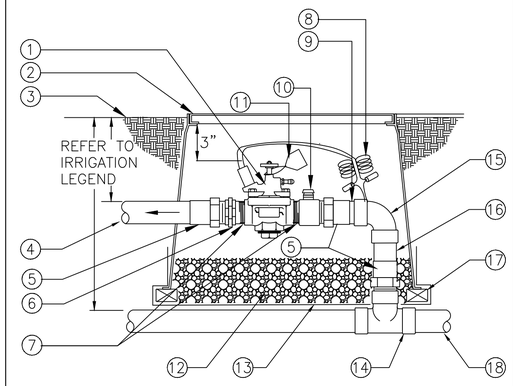


TOP VIEW

INSTRUCTIONS:

1. CENTER VALVE BOX OVER REMOTE CONTROL VALVE TO FACILITATE SERVICING VALVE.
2. SET BOXES 2" ABOVE FINISH GRADE OR MULCH COVER IN GROUND COVER/SHRUB AREA AND FLUSH WITH FINISH GRADE IN TURF AREA.
3. SET RCV AND VALVE BOX ASSEMBLY IN TURF AREAS WHENEVER POSSIBLE OBTAIN LOCATION APPROVAL BY OWNER'S REPRESENTATIVE.
4. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE OF LAWN, WALK, FENCE, CURB, ETC.
5. AVOID HEAVILY COMPACTING SOIL AROUND VALVE BOXES TO PREVENT COLLAPSE AND DEFORMATION OF VALVE BOX SIDES.
6. INSTALL EXTENSION BY VALVE BOX MANUFACTURER AS REQUIRED TO COMPLETELY ENCLOSE ASSEMBLY FOR EASY ACCESS.
7. ALIGN ALL BOXES AND PLACE LOCK BOLT AND ID IN SAME ORIENTATION.

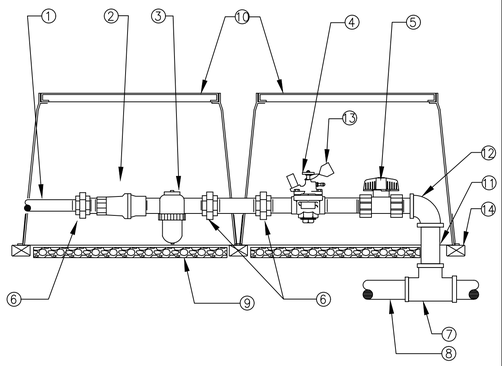
2 VALVE BOX INSTALLATION
SCALE: NONE
DET: VALVE-B1



3 REMOTE CONTROL VALVE
SCALE: NONE
DET: RCV

1. REMOTE CONTROL VALVE WITH FLOW CONTROL AND MANUAL BLEED.
2. RECTANGULAR PLASTIC VALVE BOX WITH BOLT DOWN LID. ONE VALVE PER BOX- NO EXCEPTIONS. INSTALL BOX AS SHOWN IN BOX INSTALLATION DETAIL.
   TOP DIMENSION:
   1¼" AND SMALLER VALVES-11¾" X 17" (12" DEEP). 1½" AND LARGER VALVES -15" X 21" (12" DEEP)
3. TOP OF VALVE BOX 2" ABOVE FINISH GRADE IN SHRUB BED AND 0" IN TURF.
4. PVC LATERAL LINE.
5. SCHEDULE 40 MALE ADAPTER (3 TOTAL)
6. SCHEDULE 80 PVC THREADED UNION
7. 3" SCHEDULE 80 NIPPLE.
8. VALVE CONTROL WIRE- PROVIDE 3M-DBY SEAL PACKS AT ALL SPLICES AND 36" OF EXCESS UF WIRE IN A 1" DIAMETER COIL.
9. SCHEDULE 40 PVC PIPING.
10. SCHEDULE 80 UNION BALL VALVE (TxT)(ONE PER VALVE).
11. VALVE I.D. TAG (CONTROLLER AND STATION NUMBER).
12. PEA GRAVEL-4" DEEP BELOW VALVE (NO SOIL IN VALVE BOX).
13. 1/2" GALVANIZED WIRE MESH. INSTALL AT BASE OF AND WRAP UP SIDE OF BOX.
14. UPC APPROVED SCHEDULE 40 PVC TEE (SxSxT) FITTING.
15. SCHEDULE 40 PVC 90° (SxS) FITTING.
16. SCHEDULE 40 PVC PIPING- LENGTH AS REQUIRED.
17. BRICK-1 EACH CORNER
18. PVC MAIN LINE

4 REMOTE CONTROL VALVE-NOTES
SCALE: NONE
DET: RCV



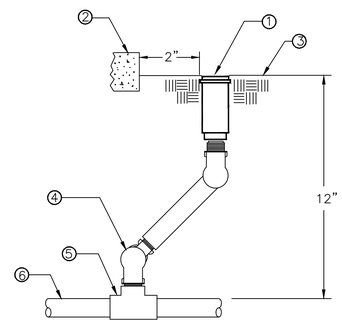
5 REMOTE CONTROL VALVE, REGULATOR AND FILTER DETAIL FOR DRIP ZONES
SCALE: NONE
DET:

1. SCHEDULE 40 PVC LATERAL.
2. NETAFIM PRV-SIZE PER MANUFACTURES. (PSI& GPM).
3. NETAFIM DF100-140 FILTER.
4. REMOTE CONTROL VALVE.
5. KBI BTU-E SERIES UNION BALL VALVE.
6. SCHEDULE 80 PVC UNIONS.
7. SCHEDULE 40 PVC TEE.
8. SCHEDULE 40 PVC MAIN LINE.
9. PEA GRAVEL- 4" DEEP BELOW VALVE (NO SOIL IN VALVE BOX).
10. RECTANGULAR PLASTIC VALVE BOX WITH BOLT DOWN LID. ONE VALVE PER BOX- NO EXCEPTIONS. INSTALL BOX AS SHOWN IN BOX INSTALLATION DETAIL. TOP DIMENSION: 11 3/4" X 17" (12" DEEP).
11. SCHEDULE 40 PVC NIPPLE- LENGTH AS REQUIRED.
12. SCHEDULE 40 PVC 90° ELBOW (SXT).
13. VALVE I.D. TAG (CONTROLLER AND STATION NUMBER).
14. BRICK.
15. 1/2" GALVANIZED WIRE MESH. INSTALL AT BASE OF AND WRAP UP SIDE OF BOX.

6 REMOTE CONTROL VALVE, REGULATOR AND FILTER DETAIL FOR DRIP ZONES-NOTES
SCALE: NONE
DET:

NOTES:

1. SET SPRINKLER 1" ABOVE FINISH GRADE AT TIME OF INSTALLATION - LOWER TO FINISH GRADE WHEN TURF IS WELL ESTABLISHED.
2. NIPPLES AND FITTINGS TO BE SAME IPT SIZE AS ROTARY SPRINKLER IPT INLET THREAD SIZE.



1. LAWN POP-UP ROTARY SPRINKLER.
2. WALL, WALK, OR CURB.
3. FINISH GRADE.
4. SWING JOINT: HUNTER MODEL 3/4"=SJ-712, FOR 1" ROTORS USE LASCO G132-212-SERIES SWING JOINT.
5. SCHEDULE 40 PVC TEE OR ELBOW WITH THREADED OUTLET.
6. PVC LATERAL LINE.

7 POP-UP ROTARY TURF SPRINKLER RISER
SCALE: NONE

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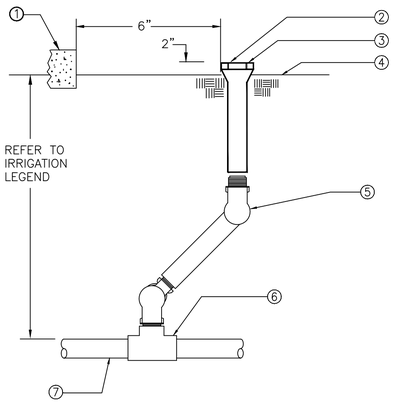
NOTES:

1. INSTALL ONE INDICATOR AT THE END OF EVERY DRIP ZONE.
2. INSTALL SPRINKLERS 6" FROM HARDSCAPE EDGE.



① WALL, WALK, OR CURB.
② RAINBIRD NOZZLE SCREWED SHUT/OFF.
③ 6" POP-UP SPRAY SPRINKLER.
④ FINISH GRADE.
⑤ SWING JOINT: HUNTER MODEL SJ-512.
⑥ UPC APPROVED SCHEDULE 40 PVC TEE (SST) OR ELBOW (ST).
⑦ PVC LATERAL LINE.

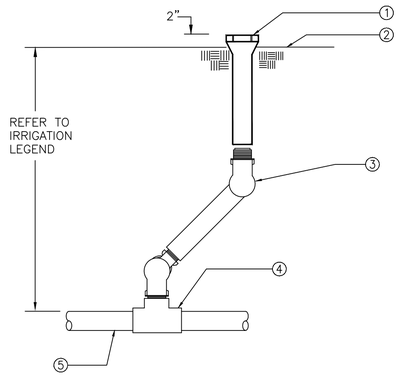
1 DRIP OPERATION INDICATOR

SCALE: NONE

34 Graham Street San Francisco, CA. 94129-0052

NOTES:

1. NIPPLES AND FITTINGS TO BE SAME IPT SIZE AS SPRAY SPRINKLER IPT INLET THREAD SIZE.
2. INSTALL SPRINKLERS 6" FROM HARDSCAPE EDGE.



① POP-UP SPRAY SPRINKLER.
② FINISH GRADE.
③ SWING JOINT: HUNTER MODEL SJ-512.
④ UPC APPROVED SCHEDULE 40 PVC TEE (SST) OR ELBOW (ST).
⑤ PVC LATERAL LINE.

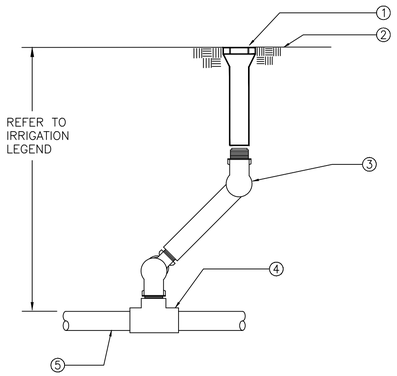
2 POP-UP SHRUB SPRAY SPRINKLER RISER

SCALE: NONE

34 Graham Street San Francisco, CA. 94129-0052

NOTES:

1. NIPPLES AND FITTINGS TO BE SAME IPT SIZE AS SPRAY SPRINKLER IPT INLET THREAD SIZE.
2. INSTALL SPRINKLERS 2" FROM HARDSCAPE EDGE.



① POP-UP SPRAY SPRINKLER.
② FINISH GRADE.
③ SWING JOINT: HUNTER MODEL SJ-512.
④ UPC APPROVED SCHEDULE 40 PVC TEE (SST) OR ELBOW (ST).
⑤ PVC LATERAL LINE.

3 POP-UP TURF SPRAY SPRINKLER RISER

SCALE: NONE

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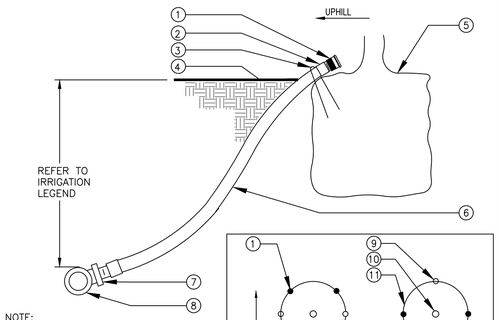

TREE BUBBLER PLACEMENT EXAMPLES

NOTE:
SUGGESTED QUANTITY OF BUBBLERS PER TREES AND SHRUBS SIZE:

- SHRUBS = 1 BUBBLER
- 15 GAL OR 24" BOX = 2 BUBBLERS
- 36 GAL OR 48" BOX = 4 BUBBLERS
- 60 GAL OR 72" BOX = 6 BUBBLERS

① BUBBLER (TO BE INSTALLED ON TOP OF ROOTBALL).
② 1/2" [13mm] SCH. 40 MALE ADAPTER.
③ 6" [150mm] STEEL STAPLE.
④ FINISH GRADE.
⑤ TREE OR SHRUB ROOTBALL.
⑥ 1/2" [13mm] IPS FLEXIBLE PVC.
⑦ PVC TEE (SST), ELBOW (ST) OR FEMALE ADAPTER.
⑧ PVC LATERAL LINE.
⑨ STAKES.
⑩ SHRUB.
⑪ EDGE OF ROOTBALL (TYPICAL).

4 SHRUB BUBBLER

SCALE: NONE
DET: SBUB

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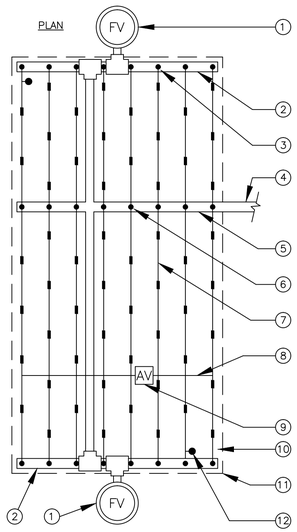
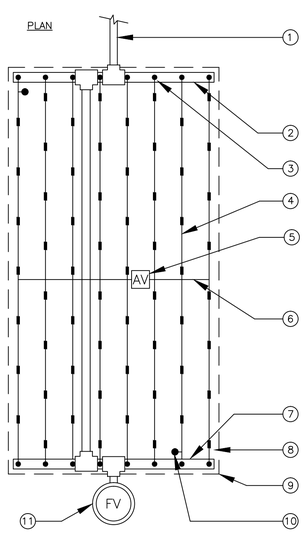


1. AUTOMATIC FLUSH VALVE PLUMBED TO FLUSH MANIFOLD AT LOW POINT
2. PVC FLUSH MANIFOLD.
3. MANIFOLD–TO–ELBOW CONNECTION (TYP).
4. PVC LATERAL LINE FORM DRIP ZONE KIT.
5. PVC SUPPLY MANIFOLD.
6. MANIFOLD–TO–TEE CONNECTION.
7. DRIPLINE LATERAL.
8. AIR/VACUUM RELIEF LATERAL, BLANK POLY TUBING CENTERED ON MOUND OR BERM.
9. AIR/VACUUM RELIEF PLUMBED TO BLANK POLY TUBING AT EACH HIGH POINT.
10. PERIMETER LATERALS 2" [50mm] TO 4" [100mm] FROM EDGE.
11. AREA PERIMETER.
12. DRIPLINE OPERATION INDICATOR LOCATED AT THE ENDS OF EACH DRIPLINE ZONE.

NOTE:
1. THE TOTAL LENGTH OF A SINGLE DRIP LINE RUN SHALL NOT EXCEED 250 FT.
2. INSTALL NETAFIM DRIPLINE 2–4" BELOW GRADE AND STAKE DOWN EVERY 4' OR AS REQUIRED.

1 TECHLINE CENTER FEED LAYOUT

SCALE: NONE
DET:

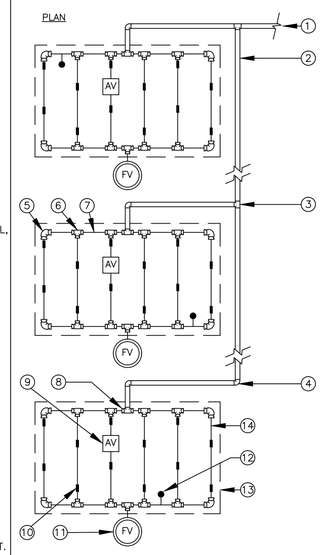


1. PVC LATERAL LINE FROM DRIP ZONE KIT.
2. PVC SUPPLY MANIFOLD.
3. MANIFOLD–TO–ELBOW CONNECTION (TYP).
4. DRIPLINE LATERAL.
5. AIR/VACUUM RELIEF VALVE PLUMBED TO BLANK 5/8" [16mm] TUBING AT EACH HIGH POINT.
6. AIR/VACUUM RELIEF LATERAL, BLANK 5/8" [16mm] POLY TUBING CENTERED ON MOUND OR BERM.
7. PVC FLUSH MANIFOLD.
8. PERIMETER LATERALS 2" [50mm] TO 4" [100mm] FROM EDGE.
9. AREA PERIMETER.
10. DRIP OPERATION INDICATOR LOCATED AT THE ENDS OF EACH DRIPLINE ZONES.
11. AUTOMATIC FLUSH VALVE PLUMBED TO FLUSH MANIFOLD AT LOW POINT.

NOTE:
1. THE TOTAL LENGTH OF A SINGLE DRIP LINE RUN SHALL NOT EXCEED 250 FT.
2. INSTALL NETAFIM DRIPLINE 2–4" BELOW GRADE AND STAKE DOWN EVERY 4' OR AS REQUIRED.

2 TECHLINE END FEED LAYOUT

SCALE: NONE
DET:

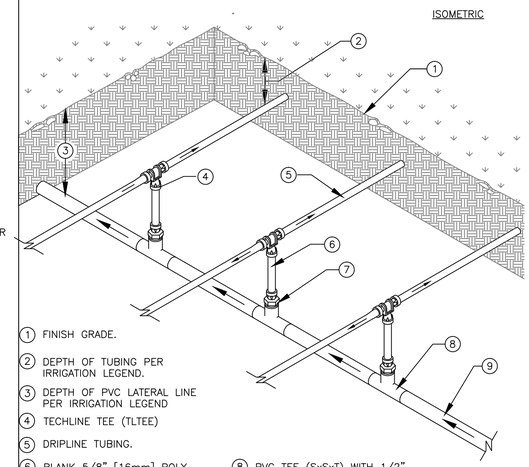


1. PVC LATERAL LINE FROM DRIP ZONE KIT.
2. PVC SUPPLY MANIFOLD.
3. PVC TEE (SxSxS).
4. PVC ELL (SxS).
5. TECHLINE LINE ELL.
6. TECHLINE TEE (TLTEE)
7. BLANK 5/8" [16mm] POLY TUBING AT SUPPLY AND FLUSH END OF EACH ISLAND.
8. TECHLINE TEE (TLTEE) X 1/2" [13mm] SLIP ADAPTER (FTV16).
9. AIR/VACUUM RELIEF VALVE PLUMBED TO TUBING AT HIGH POINT.
10. DRIPLINE LATERAL.
11. MANUAL FLUSH VALVE PLUMBED TO TUBING AT LOW POINT.
12. DRIPLINE OPERATION INDICATOR LOCATED AT THE ENDS OF EACH DRIPLINE ZONE.
13. ISLAND PERIMETER.
14. PERIMETER LATERALS 2" [50mm] TO 4" [100mm] FROM EDGE.

NOTE:
1. THE TOTAL LENGTH OF A SINGLE DRIP LINE RUN SHALL NOT EXCEED 250 FT.
2. INSTALL NETAFIM DRIPLINE 2–4" BELOW GRADE AND STAKE DOWN EVERY 4' OR AS REQUIRED.

3 TECHLINE ISLAND LAYOUT

SCALE: NONE
DET:

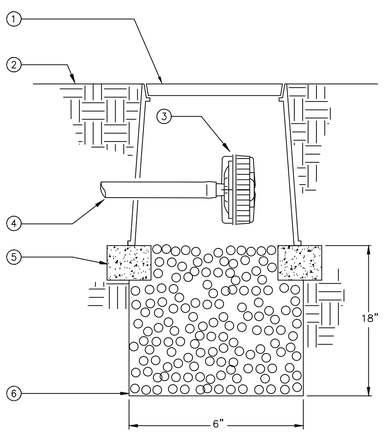


1. FINISH GRADE.
2. DEPTH OF TUBING PER IRRIGATION LEGEND.
3. DEPTH OF PVC LATERAL LINE PER IRRIGATION LEGEND
4. TECHLINE TEE (TLTEE)
5. DRIPLINE TUBING.
6. BLANK 5/8" [16mm] POLY TUBING, LENGTH AS NECESSARY.
7. TECHLINE X 1/2" MTP ADAPTER (TL075MA).
8. PVC TEE (SxSxT) WITH 1/2" [13mm] FPT OUTLET.
9. PVC LATERAL LINE FROM REMOTE CONTROL VALVE.

NOTE:
1. THE TOTAL LENGTH OF A SINGLE DRIP LINE RUN SHALL NOT EXCEED 250 FT.
2. INSTALL NETAFIM DRIPLINE 2–4" BELOW GRADE AND STAKE DOWN EVERY 4' OR AS REQUIRED.

4 TECHLINE CENTER FEED MANIFOLD

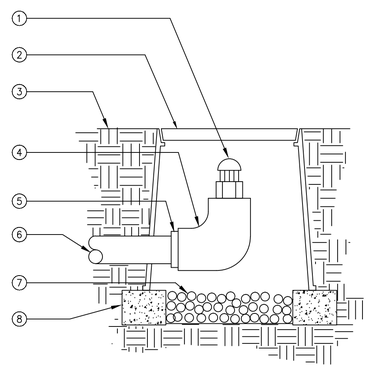
SCALE: NONE
DET:



1. 6" ROUND VALVE BOX WITH BOLT DOWN LID
2. FINISH GRADE
3. NETAFIM AUTOMATIC FLUSH VALVE, MODEL TLFV–1
4. BLANK NETAFIM TUBING
5. BRICK SUPPORTS (TWO)
6. PEA GRAVEL SUMP

5 AUTOMATIC LINE FLUSHING VALVE FOR SUB–SURFACE DRIPLINE

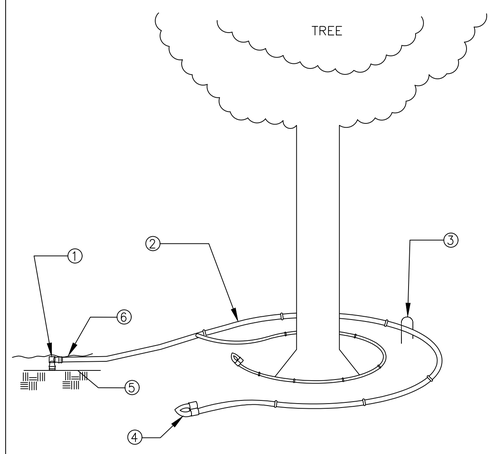
SCALE: NONE
DET:



1. AIR/VACUUM RELIEF VALVE
2. 6" ROUND VALVE BOX WITH BOLT DOWN LID
3. FINISH GRADE
4. 1/2" PVC TEE (SxT)
5. 1/2" PVC TO COMPRESSION ADAPTER
6. BLANK NETAFIM DRIPLINE FROM SUB MANIFOLD
7. 6" DEPTH 3/4" DRAIN ROCK
8. BRICK SUPPORTS (TWO)

6 AIR/VACUUM RELIEF VALVE FOR SUB–SURFACE DRIPLINE

SCALE: NONE
DET:



1. NETAFIM DRIPLINE ELBOW ½" MALE ADAPTER.
2. NETAFIM TECHLINE CV, PART #TLCV9–12.
3. NETAFIM TECHLINE 6" SOIL STAPLE, STAPLE DRIPLINE DOWN EVERY 3 FEET.
4. FIGURE EIGHT END CLOSURE.
5. FINISH GRADE.
6. MULCH

7 OPEN LOOPED TREE DRIP TECHLINE WITH A FIGURE EIGHT CLOSURE DETAIL

SCALE: NONE
DET:

34 Graham Street
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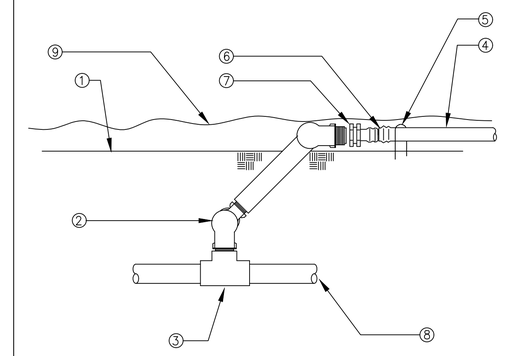
94129–0052



1. FINISH GRADE.
2. HUNTER SWING JOINT–SJ–512.
3. PVC TEE (SxSxT).
4. NETAFIM TECHLINE CV DRIPLINE, PART #TLCV9–12.
5. NETAFIM TECHLINE 6" SOIL STAPLE, STAPLE DRIPLINE DOWN EVERY 3 FEET.
6. MALE ADAPTER.
7. PVC COUPLING (TxT).
8. PVC LATERAL LINE.
9. MULCH

8 SCHEDULE 40 PVC PIPE TO DRIP LINE CONNECTION DETAIL

SCALE: NONE
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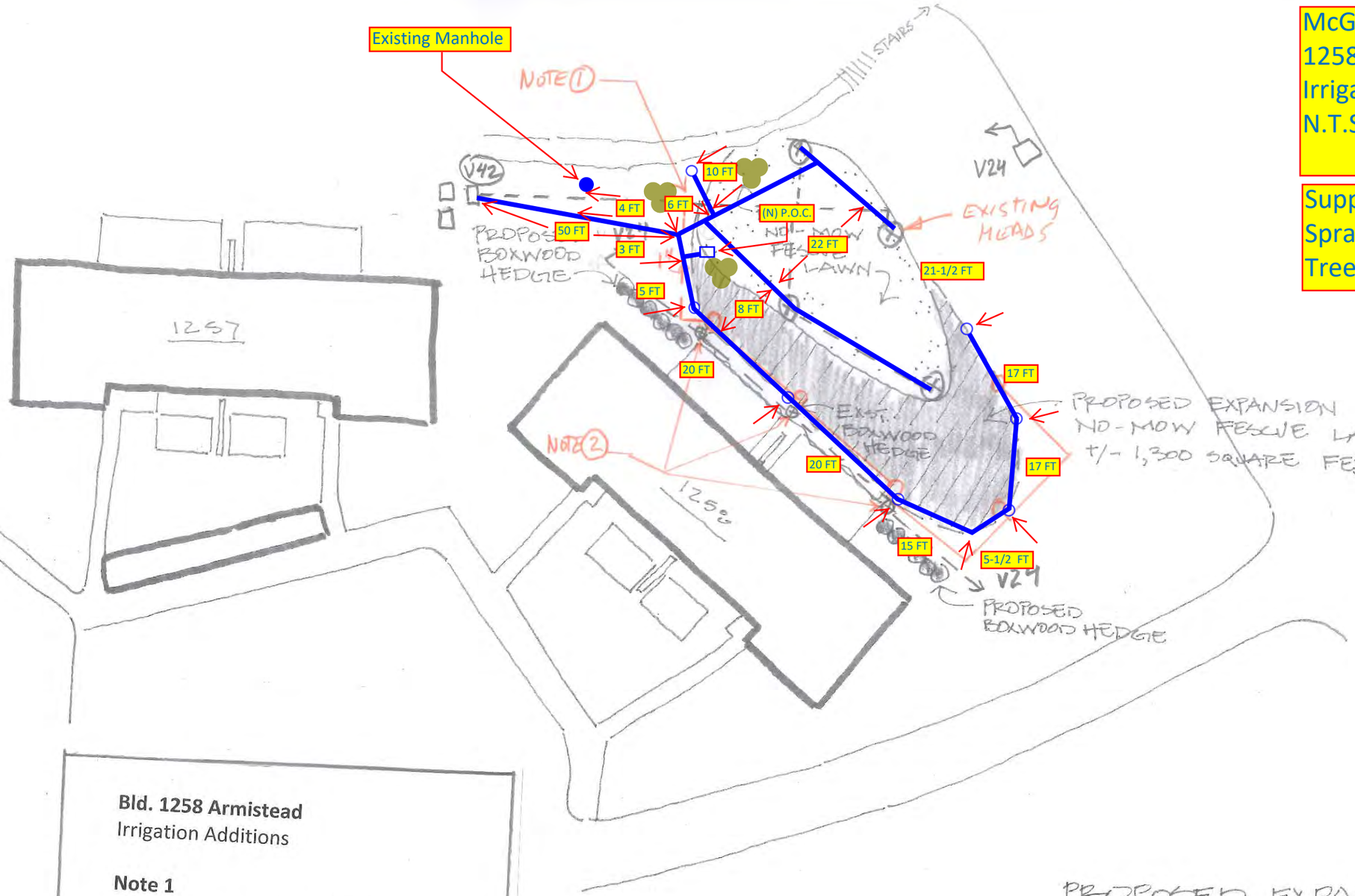
SHEET TITLE
IRRIGATION DETAILS

L6.8

McGuire and Hester
1258 Armistead Rd.
Irrigation As-built Record: 3/11/19
N.T.S

Supply Line
Spray Head ○
Tree/Large Shrub as ref.



Bld. 1258 Armistead
Irrigation Additions

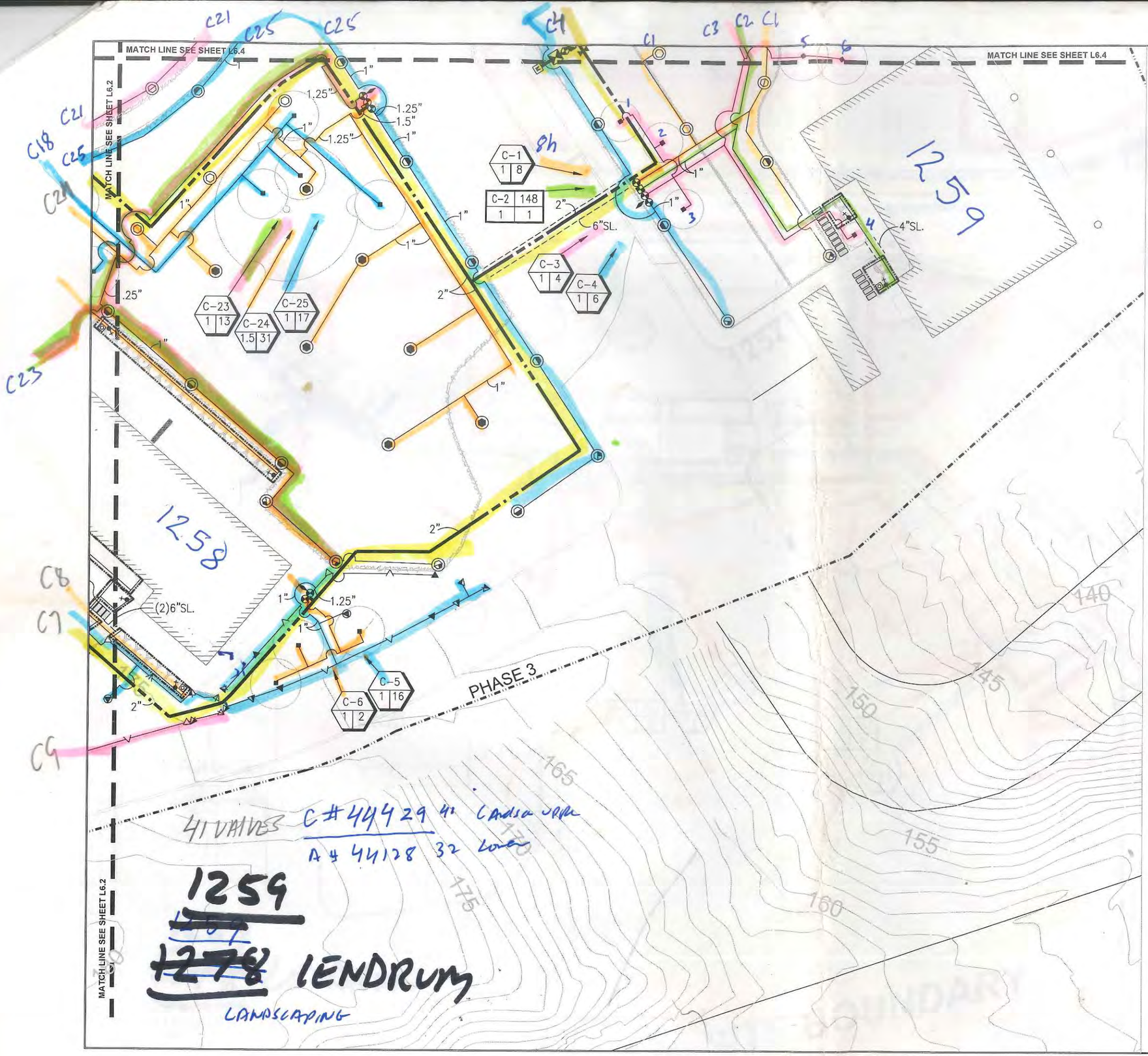
Note 1
Add 5 MP rotators to valve 42

Note 2
Replace 3 nozzles with 8 VAN turned off

PROPOSED EXPANSION OF NO-MOW FESCUE LAWN AND ADDITIONAL PLANTING AT 1258 ARMISTEAD N.F.S.

M1. LAMB
0 10' 40'
5' 20'

5.23.18
NORTH



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3. SIZING OF LATERAL PIPE SHALL BE AS FOLLOWS:

.75"	0–6 GPM
1"	7–12 GPM
1.25"	13–20 GPM
1.5"	21–32 GPM

41 VALVES C#44429 41 CAMSCO VRK
A4 44128 32 Lawn

1259
~~1258~~
~~1278~~ LENDRUM
LANDSCAPING

3 | 4
2 | 1

1/4

Presidio Trust
Building 103, Montogomery Street
P.P. Box 29052
San Francisco, CA, 94129
T 415.561.4482 F 415.561.4485

rhaa
LANDSCAPE ARCHITECTURE + PLANNING
323 Geary St., Suite #602, San Francisco, CA 94102
T 415 861 7900 F 415 861 7908 www.rhaa.com

PROJECT NUMBER

SUBMITTAL
90% CD

DATE
APRIL 22, 2016

CONSULTANTS

ISSUES AND REVISIONS

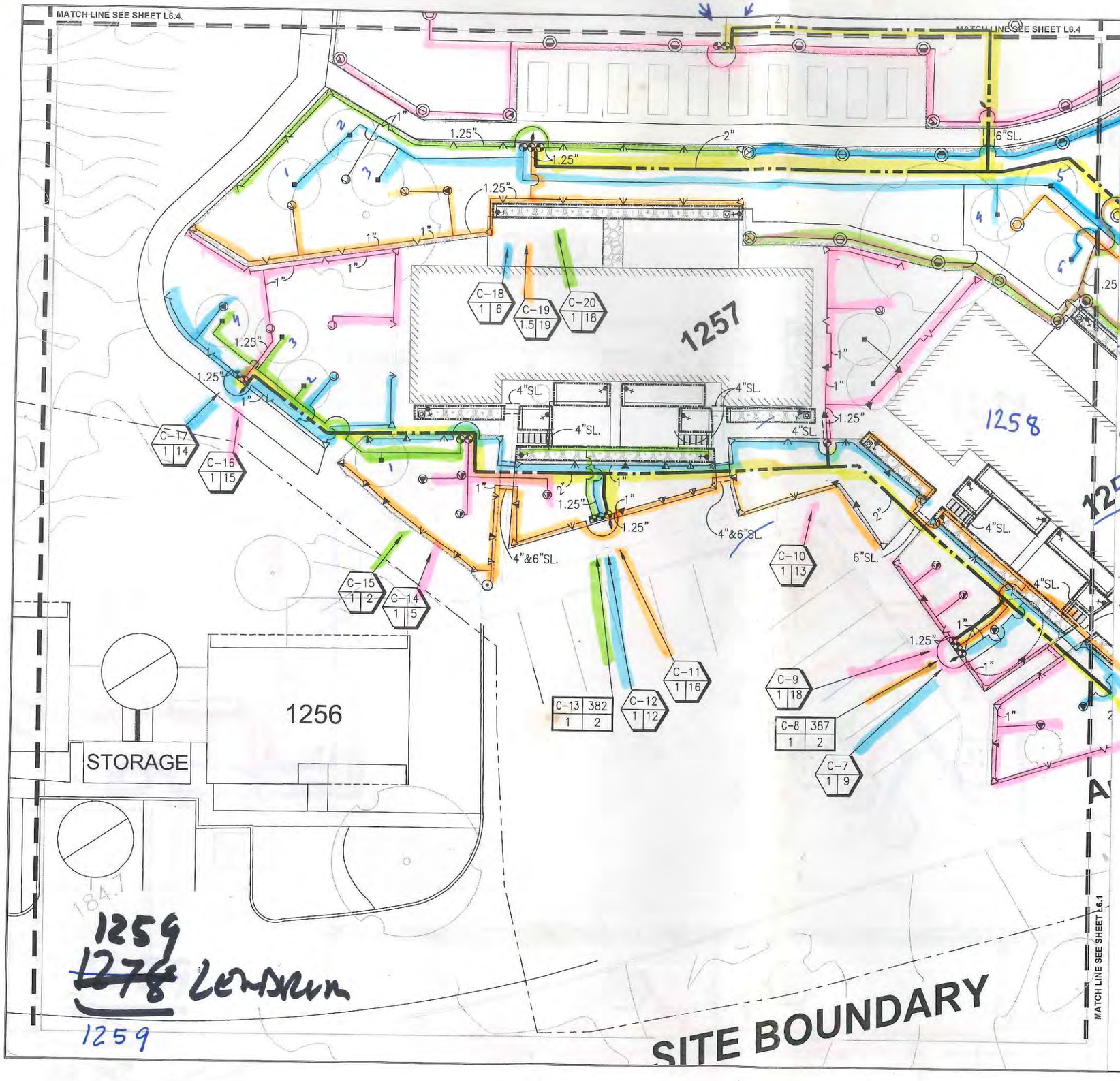
No.	Date	Issues and Revisions	By	Check
	05/11/15	Schematic Design		
	04/22/16	90% CD		

REGISTRATION AND SIGNATURE

PROJECT
NORTH FORT SCOTT
PHASE 3 - SITE IMPROVEMENTS

SHEET TITLE
IRRIGATION PLAN

L6.1



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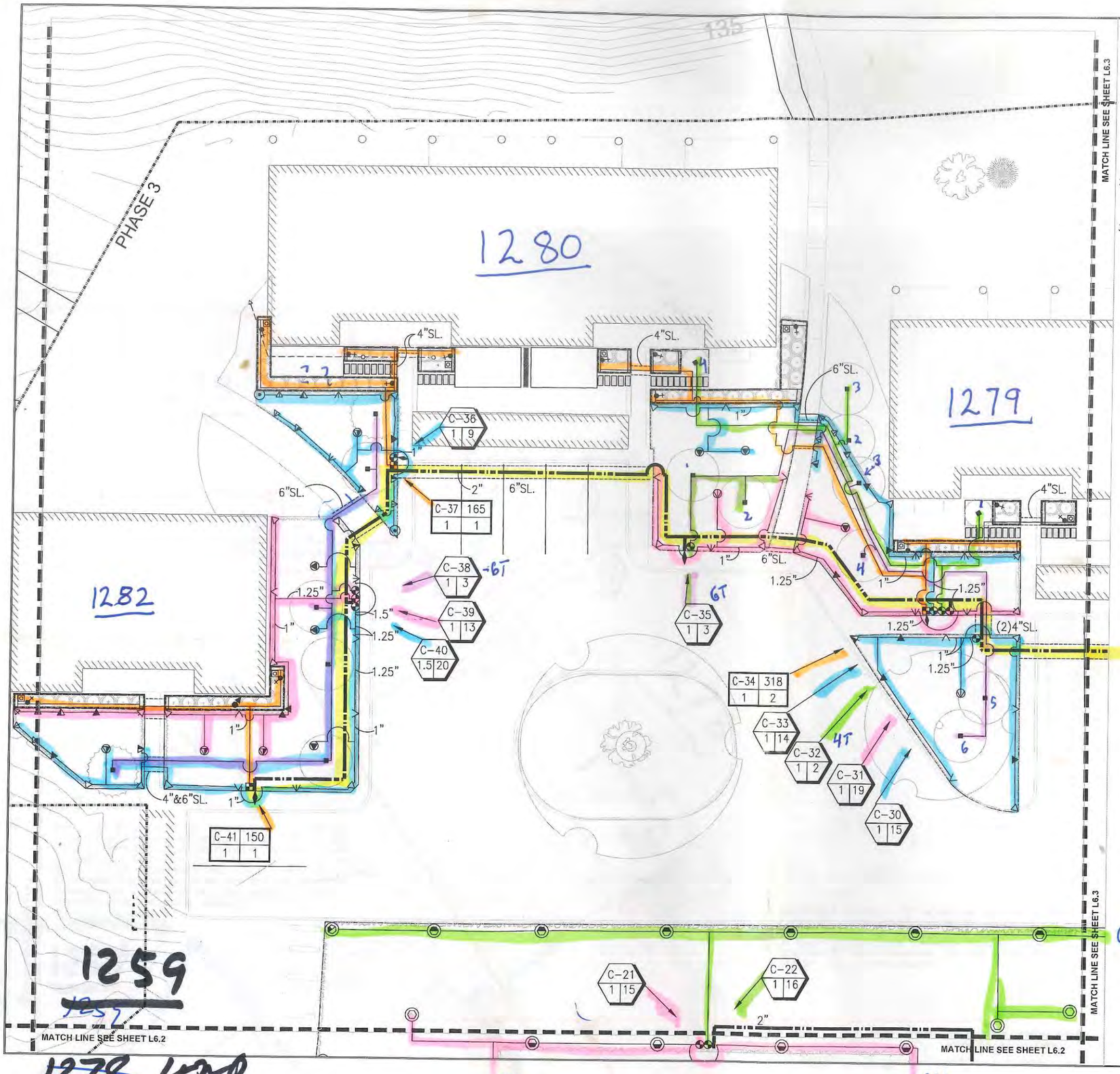
REGISTRATION AND SIGNATURE

PROJECT
NORTH FORT SCOTT
PHASE 3 - SITE IMPROVEMENTS

SHEET TITLE
IRRIGATION PLAN

L6.2



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1.5"	21–32 GPM

(3) | 4
2 | 1

3

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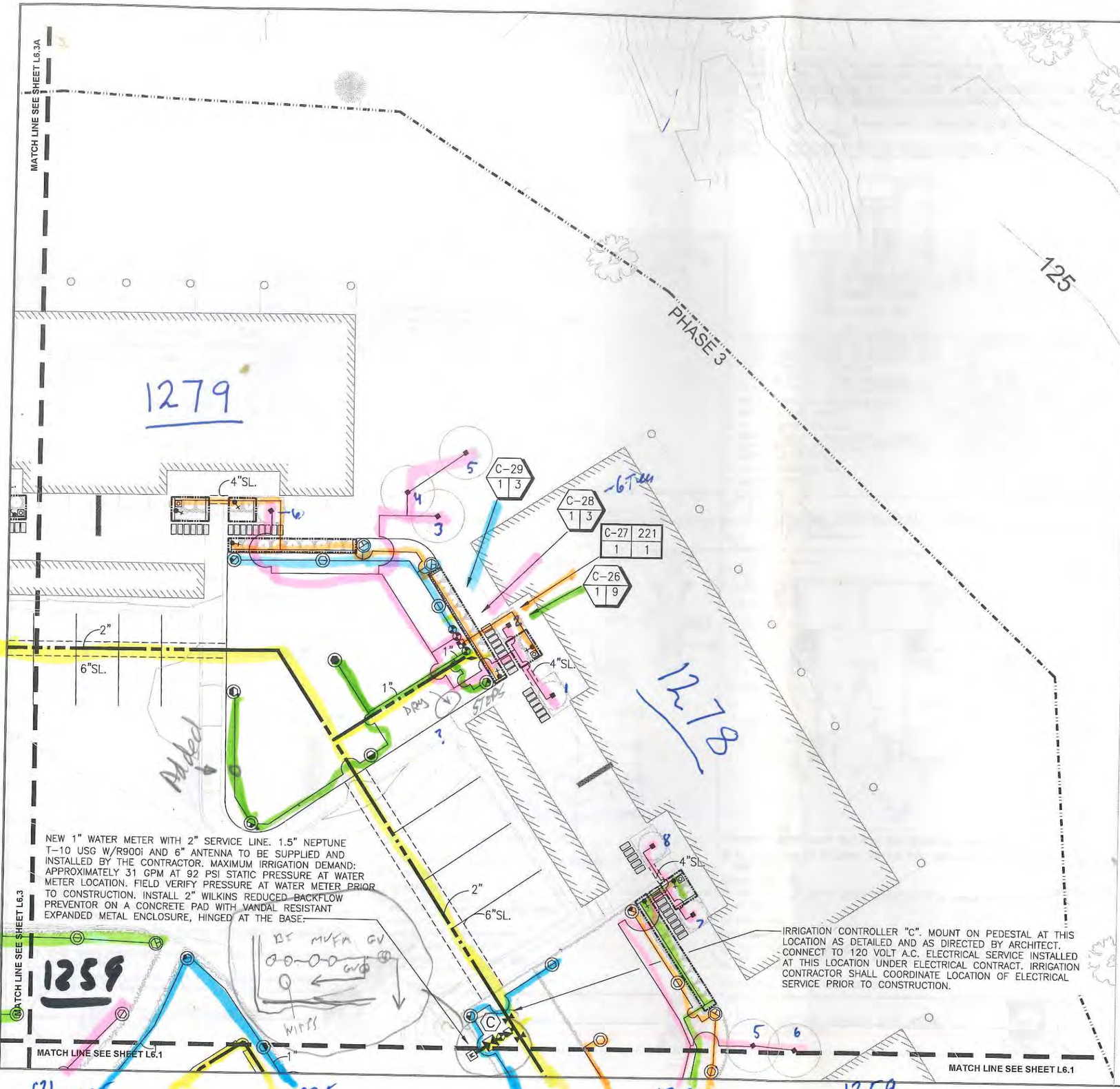
	04/22/16	90% CD		

REGISTRATION AND SIGNATURE

PROJECT
NORTH FORT SCOTT
PHASE 3 - SITE IMPROVEMENTS

SHEET TITLE
IRRIGATION PLAN

L6.3



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	04/22/16	90% CD		

REGISTRATION AND SIGNATURE

PROJECT
NORTH FORT SCOTT
PHASE 3 - SITE IMPROVEMENTS

SHEET TITLE
IRRIGATION PLAN

L6.4

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1"	7–12 GPM
1.25"	13–20 GPM
1.5"	21–32 GPM

23 VALVES

1 P/V
2 P/V
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23

INSTALL ALL LATERAL LINES WITHIN CAPPED AND VERY STEEP AREAS 4–6" DEEP. (TYPICAL).

A–1 1 | 12
A–2 1 | 15
A–3 1 | 17
A–4 1.5 | 24
A–5 1 | 8
A–6 1 | 16
A–7 1 | 18

1279

NEW 1" WATER METER WITH 2" SERVICE LINE. 1.5" NEPTUNE T–10 USG W/R900i AND 6" ANTENNA TO BE SUPPLIED AND INSTALLED BY THE CONTRACTOR. MAXIMUM IRRIGATION DEMAND: APPROXIMATELY 25 GPM AT 92 PSI STATIC PRESSURE AT WATER METER LOCATION. FIELD VERIFY PRESSURE AT WATER METER PRIOR TO CONSTRUCTION. INSTALL 2" WILKINS REDUCED BACKFLOW PREVENTOR ON A CONCRETE PAD WITH VANDAL RESISTANT EXPANDED METAL ENCLOSURE, HINGED AT THE BASE.

MATCHLINE - SEE SHEET L6.4

MATCHLINE - SEE SHEET L6.3

1279 LENDRUM. TREES

A11 A10 A8

N 0 5 10 20 Feet

Irrigation Consultant:
Russell D. Mitchell Associates, Inc.
2760 Camino Diablo
Walnut Creek, CA 94597
tel 925.939.3985 • • fax 925.932.5671
www.rmairrigation.com

DRAFT
NOT FOR CONSTRUCTION

SOURCE: Base plan by TRC

DATE	DESCRIPTION	DESIGN BY	CHK'D BY
3/31/16	DRAFT WORKING SET	JD	JD

Lendrum Court Area
The Presidio Trust
San Francisco, California

IRRIGATION PLAN

229649 | REV | SHEET L 6.3

FILE NAME: C:\Jeff\D WG\15-079 North Fort Scott Remediation\CAD\Historical Forest\4-14-16\3686-02_Irrigation_20160414.dwg | Layout Tab: L6.3

MATCHLINE - SEE SHEET L6.3

IRRIGATION CONTROLLER "A". MOUNT ON PEDESTAL AT THIS LOCATION AS DETAILED AND AS DIRECTED BY ARCHITECT. CONNECT TO 120 VOLT A.C. ELECTRICAL SERVICE INSTALLED AT THIS LOCATION UNDER ELECTRICAL CONTRACT. IRRIGATION CONTRACTOR SHALL COORDINATE LOCATION OF ELECTRICAL SERVICE PRIOR TO CONSTRUCTION.

A

A-8 | 1.5 | 25

A-9 | 1.5 | 21

A-10 | 1.5 | 20

A-11 | 1 | 19

A-12 | 1.5 | 22

BD 1278

A-14 | 1 | 12

A-13 | 1.5 | 22

A-15 | 1 | 17

A-16 | 1 | 11

1259

A-18 | 1.5 | 24

A-19 | 1 | 14

A-17 | 1 | 15

2"

MATCHLINE - SEE SHEET L6.5

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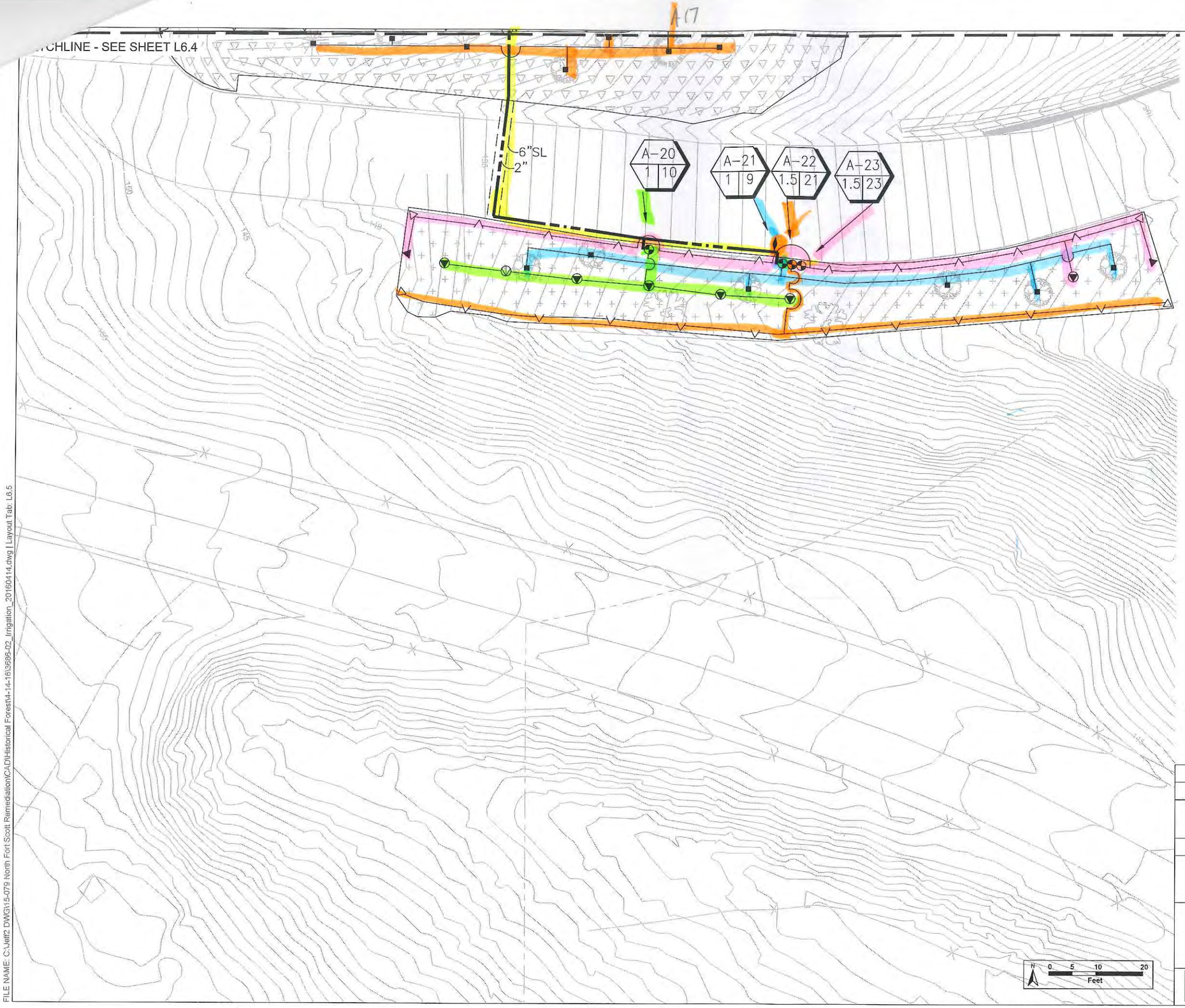
DATE	DESCRIPTION	DESIGN BY	CHK'D BY
3/31/16	DRAFT WORKING SET	JD	JD

Lendrum Court Area
The Presidio Trust
San Francisco, California

IRRIGATION PLAN

229649 | REV | SHEET L 6.4

FILE NAME: C:\Jeff2 DWGs\15-079 North Fort Scott Remediation\CAD\Historical Forest\4-14-16\3585-02_Irrigation_20160414.dwg | Layout Tab: L6.4



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SOURCE: Base plan by TRC

	DATE	DESCRIPTION	DESIGN BY	CHK'D BY
	3/31/16	DRAFT WORKING SET	JD	JD

Lendrum Court Area
The Presidio Trust
San Francisco, California

IRRIGATION PLAN

	229649	REV	SHEET L 6.5

FILE NAME: C:\Jeff2 DWG\15-079 North Fort Scott Remediation\CAD\Historical Forest\4-14-16\3699-02_Irrigation_20160414.dwg | Layout Tab: L6.5

APPENDIX E

EXCAVATED SOIL SAMPLING LOCATIONS, LAB REPORTS, AND TRANSPORTATION AND DISPOSAL RECORDS

EXCAVATED SOIL SAMPLING LOCATIONS

LC-WC-0101-070716
LC-WC-0102-070716
LC-WC-0103-070716
LC-WC-0104-070716

CLASS I

LC-WC-0301-070716
LC-WC-0302-070716
LC-WC-0303-070716
LC-WC-0304-070716

CLASS I

LC-WC-052716-04

CLASS II

LC-WC-052716-03

CLASS II

LC-WC-052716-05

CLASS I

LC-WC-052716-06

CLASS I

LC-WC-0201-070716
LC-WC-0202-070716
LC-WC-0203-070716
LC-WC-0204-070716

CLASS I

LC-WC-0501-070716
LC-WC-0502-070716
LC-WC-0503-070716
LC-WC-0504-070716

CLASS I

LC-WC-0401-070716
LC-WC-0402-070716
LC-WC-0403-070716
LC-WC-0404-070716

CLASS I

1280
1279
1278
1259
257
125

N

0' 50'

SCALE: 1"= 50'

FILE NAME: C:\Users\vclark\Desktop\SWPL\WMST_design.dwg LAYOUT NAME: 11x17 PLOTTED: Friday, April 08, 2016 - 10:24am

	1257PS111[0.0]
Lead	180
	1257PS111[0.5]
Lead	390
	1257PS111[1.0]
Lead	500

	1255SB108[0.25]
Lead	260
	1255SB108[0.75]
Lead	200
	1255SB108[1.5]
Lead	8.1

	1257PS104[0.0]
Lead	50

	1257PS105[0.0]
Lead	17

	1257PS107[0.0]
Lead	10

	1257PS106[0.0]
Lead	20

	1257EX101[0.5]
Lead	62

	1257PS205[0.25]
Lead	36

	1257EX102[0.5]
Lead	11

	1255SB107[0.75]
Lead	100

	1255SB101[1.5]
Lead	1,400
B	1255SB101[2.0]
Lead	25

	1255SB102[1.5]
Lead	52

	1255SB109[0.75]
Lead	34/110

1255-WC-071919-01
1255-WC-071917-02
1255-WC-071917-03
Calhaz

LC-WC-061217-01
Calhaz

LC-WC-061217-03
Calhaz

S	1255SB106[0.75]
Lead	96

S	1255SB105[0.75]
Lead	39

	1257PS204[0.25]
Lead	160

	1257EX103[0.5]
Lead	22

	1257PS203[2.0]
Lead	36

S	1255SB104[0.75]
Lead	13

	1257PS101[0.5]
Lead	4.4

	1255SB100[1.5]
Lead	230
B/S	1255SB100[2.0]
Lead	15

B	1255SB118[1.5]
Lead	8.5

1255SS05(0.25)/94
DUP041411-11/76
S1255SS05(0.75)/10

1255SS13(0.25)/87
S1255SS13(0.75)/6.0

	1255SB117[0.75]
Lead	200/260
B/S	1255SB117[1.5]
Lead	78

	1255SB116[0.75]
Lead	250/33
	1255SB116[1.5]
Lead	1,100
	1255SB116[2.0]
Lead	540
B	1255SB116[3.5]
Lead	9.0/6.5

	1255SB121[1.0]
Lead	71
S	1255SB121[2.0]
Lead	110

1254 1255 1256 1257 1258

1257EX101 1257EX102 1257EX103

1257PS101 1257PS104 1257PS105 1257PS111 1257PS203 1257PS204 1257PS205

1255SB100 1255SB102 1255SB104 1255SB105 1255SB106 1255SB107 1255SB109 1255SB116 1255SB117 1255SB118 1255SB121 1255SB108

Lendrum Court

Armistead Road

N

SCALE (FEET)

0 30 60

LEGEND

- 145 — Existing □ontour elevation
- A□□roximate limits of soil □a□
- A□□roximate areas of building that serve as □a□
- Areas of as□halt / □avement / hards□a□e that serve as □a□
- A□□roximate areas □onsolidated and □lean □losed (0.5□)
- A□□roximate areas □onsolidated and □lean □losed (2.0□)
- A□□roximate forested area
- LUC Area (to be determined)
- Ex□avation- 1.5 ft. (1130 ft^2, 63 □d^3)
- Ex□avation- 2 ft. (788 ft^2, 59 □d^3)
- Ex□avation- 3.5 ft. (622 ft^2, 81 □d^3)
- Perimeter □onfirmation sam□ling lo□ation
- Ex□avation □onfirmation sam□ling lo□ation
- Lands□a□ed / Residential Levels (80 mg/□g)
- Perimeter □onfirmation sam□ling lo□ation (2017)
- Ex□avation □onfirmation sam□ling lo□ation (2017)
- Hale□ □ Aldri□h sam□le (2011)
- 1256SS04(0.25)/89 — Sam□le identifi□ation(de□th in feet bgs)/Lead □on□entration in mg/Kg
- S — Sidewall Sam□le
- B — Bottom Sam□le

	Sample ID
Inorganic	Concentration (mg/kg)

SOURCE: Base plan by Towill, October 29-November 4, 2015

1255-1256 EXCAVATION LIMITS AND CONFIRMATION SAMPLE LOCATIONS

Lendrum Court Area
The Presidio Trust
San Fran□is□o, California

TRC | 229649 | **FIGURE 2**

FILE NAME□Sanfran-fs1:sanfran:PROJECTS:CAD:Lendrum Court:San Fran□is□o 1255-1256 Investigation Fig2 1255-1256 ex□avation limits and sam□les 5.12.17.dwg □La□out Tab□11x17

EXCAVATED SOIL LAB REPORTS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-80075-1
Client Project/Site: 20150063 - Lendrum G
Revision: 1

For:
Engineering Remediation Resources Group.
115 Sansome Street
Suite 200
San Francisco, California 94104

Attn: Joe Corrick

Authorized for release by:
6/21/2017 10:40:34 AM

Micah Smith, Project Manager II
(916)374-4302
micah.smith@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client Sample Results 6
QC Sample Results 9
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Lab Chronicle 11
Certification Summary 12
Method Summary 13
Sample Summary 14
Chain of Custody 15
Receipt Checklists 16

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-80075-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-80075-1

Comments
This report was revised on 6/21/17 to correct the report to contact person.

Receipt
The samples were received on 6/13/2017 1:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.4° C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Engineering Remediation Resources Group.
Project/Site: 20150063 - Lendrum G

TestAmerica Job ID: 720-80075-1

Client Sample ID: LC-WC-061217-01 — Lab Sample ID: 720-80075-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	1.5		0.050		mg/L	1		6010B	TCLP

Client Sample ID: LC-WC-061217-02 — Lab Sample ID: 720-80075-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	12		0.050		mg/L	1		6010B	TCLP
Lead	230		0.050		mg/L	1		6010B	STLC Citrate

Client Sample ID: LC-WC-061217-03 — Lab Sample ID: 720-80075-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	42		0.050		mg/L	1		6010B	STLC Citrate

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Engineering Remediation Resources Group.
Project/Site: 20150063 - Lendrum G

TestAmerica Job ID: 720-80075-1

Client Sample ID: LC-WC-061217-01
Date Collected: 06/12/17 08:34
Date Received: 06/13/17 13:25

Lab Sample ID: 720-80075-1
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1.5		0.050		mg/L		06/15/17 11:57	06/16/17 16:24	1

Client: Engineering Remediation Resources Group.
Project/Site: 20150063 - Lendrum G

TestAmerica Job ID: 720-80075-1

Client Sample ID: LC-WC-061217-02
Date Collected: 06/12/17 08:50
Date Received: 06/13/17 13:25

Lab Sample ID: 720-80075-2
Matrix: Solid

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	12		0.050		mg/L		06/15/17 11:57	06/16/17 16:29	1

Method: 6010B - Metals (ICP) - STLC Citrate

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	230		0.050		mg/L		06/17/17 11:32	06/19/17 13:45	1

Client: Engineering Remediation Resources Group.
Project/Site: 20150063 - Lendrum G

TestAmerica Job ID: 720-80075-1

Client Sample ID: LC-WC-061217-03
Date Collected: 06/12/17 08:50
Date Received: 06/13/17 13:25

Lab Sample ID: 720-80075-3
Matrix: Solid

Method: 6010B - Metals (ICP) - STLC Citrate

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	42		0.050		mg/L		06/17/17 11:32	06/19/17 13:49	1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-224869/1-A
Matrix: Solid
Analysis Batch: 225009

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 224869

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0050		mg/L		06/15/17 11:57	06/16/17 15:32	1

Lab Sample ID: LCS 720-224869/2-A
Matrix: Solid
Analysis Batch: 225009

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 224869

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	1.00	1.06		mg/L		106	80 - 120

Lab Sample ID: MB 720-225029/1-A
Matrix: Solid
Analysis Batch: 225107

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 225029

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0050		mg/L		06/17/17 11:32	06/19/17 11:57	1

Lab Sample ID: LCS 720-225029/2-A
Matrix: Solid
Analysis Batch: 225107

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 225029

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	1.00	0.993		mg/L		99	80 - 120

Lab Sample ID: LB 720-224776/1-B
Matrix: Solid
Analysis Batch: 225122

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 224869

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.050		mg/L		06/15/17 11:57	06/19/17 16:47	1

Lab Sample ID: LB4 720-224808/1-B
Matrix: Solid
Analysis Batch: 225107

Client Sample ID: Method Blank
Prep Type: STLC Citrate
Prep Batch: 225029

Analyte	LB4 Result	LB4 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.050		mg/L		06/17/17 11:32	06/19/17 12:01	1

Metals

Leach Batch: 224776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-80075-1	LC-WC-061217-01	TCLP	Solid	1311	
720-80075-2	LC-WC-061217-02	TCLP	Solid	1311	
LB 720-224776/1-B	Method Blank	TCLP	Solid	1311	

Leach Batch: 224808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-80075-2	LC-WC-061217-02	STLC Citrate	Solid	CA WET Citrate	
720-80075-3	LC-WC-061217-03	STLC Citrate	Solid	CA WET Citrate	
LB4 720-224808/1-B	Method Blank	STLC Citrate	Solid	CA WET Citrate	

Prep Batch: 224869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-80075-1	LC-WC-061217-01	TCLP	Solid	3010A	224776
720-80075-2	LC-WC-061217-02	TCLP	Solid	3010A	224776
LB 720-224776/1-B	Method Blank	TCLP	Solid	3010A	224776
MB 720-224869/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 720-224869/2-A	Lab Control Sample	Total/NA	Solid	3010A	

Analysis Batch: 225009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-80075-1	LC-WC-061217-01	TCLP	Solid	6010B	224869
720-80075-2	LC-WC-061217-02	TCLP	Solid	6010B	224869
MB 720-224869/1-A	Method Blank	Total/NA	Solid	6010B	224869
LCS 720-224869/2-A	Lab Control Sample	Total/NA	Solid	6010B	224869

Prep Batch: 225029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-80075-2	LC-WC-061217-02	STLC Citrate	Solid	3005A	224808
720-80075-3	LC-WC-061217-03	STLC Citrate	Solid	3005A	224808
LB4 720-224808/1-B	Method Blank	STLC Citrate	Solid	3005A	224808
MB 720-225029/1-A	Method Blank	Total Recoverable	Solid	3005A	
LCS 720-225029/2-A	Lab Control Sample	Total Recoverable	Solid	3005A	

Analysis Batch: 225107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-80075-2	LC-WC-061217-02	STLC Citrate	Solid	6010B	225029
720-80075-3	LC-WC-061217-03	STLC Citrate	Solid	6010B	225029
LB4 720-224808/1-B	Method Blank	STLC Citrate	Solid	6010B	225029
MB 720-225029/1-A	Method Blank	Total Recoverable	Solid	6010B	225029
LCS 720-225029/2-A	Lab Control Sample	Total Recoverable	Solid	6010B	225029

Analysis Batch: 225122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 720-224776/1-B	Method Blank	TCLP	Solid	6010B	224869

Lab Chronicle

Client: Engineering Remediation Resources Group.
Project/Site: 20150063 - Lendrum G

TestAmerica Job ID: 720-80075-1

Client Sample ID: LC-WC-061217-01

Lab Sample ID: 720-80075-1

Date Collected: 06/12/17 08:34

Matrix: Solid

Date Received: 06/13/17 13:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			224776	06/14/17 15:20	DA1	TAL PLS
TCLP	Prep	3010A			224869	06/15/17 11:57	JNG	TAL PLS
TCLP	Analysis	6010B		1	225009	06/16/17 16:24	CAM	TAL PLS

Client Sample ID: LC-WC-061217-02

Lab Sample ID: 720-80075-2

Date Collected: 06/12/17 08:50

Matrix: Solid

Date Received: 06/13/17 13:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			224808	06/15/17 10:06	AJS	TAL PLS
STLC Citrate	Prep	3005A			225029	06/17/17 11:32	JNG	TAL PLS
STLC Citrate	Analysis	6010B		1	225107	06/19/17 13:45	ASB	TAL PLS
TCLP	Leach	1311			224776	06/14/17 15:20	DA1	TAL PLS
TCLP	Prep	3010A			224869	06/15/17 11:57	JNG	TAL PLS
TCLP	Analysis	6010B		1	225009	06/16/17 16:29	CAM	TAL PLS

Client Sample ID: LC-WC-061217-03

Lab Sample ID: 720-80075-3

Date Collected: 06/12/17 08:50

Matrix: Solid

Date Received: 06/13/17 13:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			224808	06/15/17 10:06	AJS	TAL PLS
STLC Citrate	Prep	3005A			225029	06/17/17 11:32	JNG	TAL PLS
STLC Citrate	Analysis	6010B		1	225107	06/19/17 13:49	ASB	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Accreditation/Certification Summary

Client: Engineering Remediation Resources Group. TestAmerica Job ID: 720-80075-1
Project/Site: 20150063 - Lendrum G

Laboratory: TestAmerica Pleasanton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: Engineering Remediation Resources Group.
Project/Site: 20150063 - Lendrum G

TestAmerica Job ID: 720-80075-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL PLS

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: Engineering Remediation Resources Group.
Project/Site: 20150063 - Lendrum G

TestAmerica Job ID: 720-80075-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-80075-1	LC-WC-061217-01	Solid	06/12/17 08:34	06/13/17 13:25
720-80075-2	LC-WC-061217-02	Solid	06/12/17 08:50	06/13/17 13:25
720-80075-3	LC-WC-061217-03	Solid	06/12/17 08:50	06/13/17 13:25

1.4°C

720-80075

1764860

CHAIN OF CUSTODY

Curtis & Tompkins Laboratories
ENVIRONMENTAL ANALYTICAL TESTING LABORATORY
In Business Since 1878

2323 Fifth Street
Berkeley, CA 94710

Phone (510) 486-0900
Fax (510) 486-0532

Chain of Custody # _____

C&T LOGIN # _____

Project No: 20150063
Project Name: LENDRUM CT
Project P. O. No:
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☐ RUSH 3-Day ☐ Standard

Sampler: J. GERICK
Report To: J. GERICK
Company: ERM
Telephone: 415-933-0264
Email:

ANALYTICAL REQUEST

Lab No.	Sample ID.	SAMPLING Date Collected	SAMPLING Time Collected	MATRIX Water	MATRIX Solid	# of Containers	CHEMICAL PRESERVATIVE HCl	H2SO4	HNO3	NaOH	None	STLC (Pb)	TCLP (Pb)
	LC-WC-061217-01	6/12/17	0834		X	1					X	X	X
	LC-WC-061217-02	6/12/17	0850		X	1					X		
	LC-WC-061217-03	6/12/17	0950		X	1					X	X	X

720-80075 Chain of Custody

Notes:
-01 3' EXCAVATION
-02 1.5' EXCAV
-03 9ST STOCKPILE

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
DATE: 6/13 TIME: 1325
DATE: 6/13/17 TIME: 1455
DATE: TIME:

RECEIVED BY:
DATE: 6/13/17 TIME: 1325
DATE: 6/13/17 TIME: 13:25
DATE: TIME:

06-13-17 Per client 5 DAYS is acceptable TAT. 06-13-17

Login Sample Receipt Checklist

Client: Engineering Remediation Resources Group. Job Number: 720-80075-1

Login Number: 80075 **List Source: TestAmerica Pleasanton**
List Number: 1
Creator: Mullen, Joan

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 290985
ANALYTICAL REPORT

Engineering/Remediation Resource Grp	Project : 201501063
4585 Pacheco Blvd.	Location : Presidio Lendrum Court
Martinez, CA 94553	Level : II

Sample ID	Lab ID
1255-WC-071917-1	290985-001
1255-WC-071917-2	290985-002
1255-WC-071917-3	290985-003

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 07/31/2017

Patrick McCarthy
Project Manager
patrick.mccarthy@enthalpy.com
(510) 204-2236

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**290985**
Client:	**Engineering/Remediation Resource Grp**
Project:	**201501063**
Location:	**Presidio Lendrum Court**
Request Date:	**07/27/17**
Samples Received:	**07/19/17**

This data package contains sample and QC results for three soil samples, requested for the above referenced project on 07/27/17. The samples were received cold and intact.

Metals (EPA 6010B) TCLP Leachate:
No analytical problems were encountered.

Metals (EPA 6010B) WET Leachate:
No analytical problems were encountered.

MONTROSE
AIR QUALITY SERVICES

Tracy Babjar <tbabjar@montrose-env.com>

Re: 201501063 - C&T Data (~~290727~~)

CT# 290985

1 message

William Schmidt <william.schmidt@errg.com> Thu, Jul 27, 2017 at 8:05 AM
To: Tracy Babjar <tracy.babjar@ctberk.com>

Please run stlc and tclp for lead on all three samples.

> William "Don" Schmidt, P.E.
>
> Engineering/Remediation Resources Group, Inc. (ERRG, Inc.)
> 115 Sansome Street, Suite 200
> San Francisco, CA 94104
> Main: 415.395.9974 | Fax: 415.395.9983
> Mobile: 707.799.0584 | Direct: 415.848.7421

On Jul 26, 2017, at 3:23 PM, Tracy Babjar <tracy.babjar@ctberk.com> wrote:

> Hi William,
>
> Data qualifiers and additional information necessary for the interpretation of the test results are contained in the PDF file and may not be included in the EDD.
>
> Please find attached the following files:
> • Invoice
> • PDF Deliverable
> • C&T standard format EDD (290727_standard.zip)
>
> You may also access this data at https://labline.ctberk.com/
> Email was also sent to: ap@errg.com
>
> C&T sends its e-reports via the Internet as Portable Document Format (PDF) files. Reports in this format, when accompanied by a signed cover page, are considered official reports. **No hardcopy reports will be sent either by fax or U.S. Postal Service unless otherwise requested.** You may distribute your PDF files electronically or as printed hardcopies, as long as they are distributed in their entirety.

<290727_invoice.pdf>

<290727_level2.pdf>

<290727_standard.zip>

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Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900 Phone
(510) 486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # : _____

C&T LOGIN # 290727

Project No: 201501063
Project Name: Presidio Lendrum court
EDD Format: _____ Rpt Level: ☒ II ☐ III ☐ IV
Turnaround Time: ☐ RUSH ____2 day___ ☐ Standard

Sampler: W Schmidt
Report To: William Schmidt
Company : ERRG
Telephone: 7077990584
Email: william.schmidt@errg.com

Lab No.	Sample ID.	Sampling		Matrix				Chemical Preservative					Analytical Request
		Date	Time	Water	Soil		# of Containers	HCl	H_2SO_4	HNO_3	NaOH	None	Lead 6010
	1255-WC-071917-1	07/19/17	855		x		1					x	x
	1255-WC-071917-2	07/19/17	858		x		1					x	x
	1255-WC-071917-3	07/19/17	903		x		1					x	x

Notes:

Please extract and hold samples for possible STLC/TCLP.

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient

RELINQUISHED BY:	RECEIVED BY:
7-19 1346 DATE/TIME	7 19 1346 DATE/TIME
7 19 1542 DATE/TIME	07.19.17:12 DATE/TIME
DATE/TIME	DATE/TIME

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 290727 Date Received 01-19-2017 Number of coolers 1
Client Engineering Remediation Resource Grp Project Presidio Letterman court

Date Opened 01-19-2017 By (print) EHS (sign)
Date Logged in ↓ By (print) ↓ (sign) ↓
Date Labelled ↓ By (print) ↓ (sign) ↓

1. Did cooler come with a shipping slip (airbill, etc) _____ YES (NO)
   Shipping info _____
2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples ☐ NO
   How many _____ Name _____ Date _____
2B. Were custody seals intact upon arrival? _____ YES NO (N/A)
3. Were custody papers dry and intact when received? _____ (YES) NO
4. Were custody papers filled out properly (ink, signed, etc)? _____ (YES) NO
5. Is the project identifiable from custody papers? (If so fill out top of form) (YES) NO
6. Indicate the packing in cooler: (if other, describe) _____

☑ Bubble Wrap ☐ Foam blocks ☑ Bags ☐ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☑ Wet ☐ Blue/Gel ☐ None Temp(°C) 2.5

☑ Temperature blank(s) included? ☐ Thermometer# _____ ☒ IR Gun# A

☐ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? _____ YES (NO)
   If YES, what time were they transferred to freezer? _____
9. Did all bottles arrive unbroken/unopened? _____ (YES) NO
10. Are there any missing / extra samples? _____ YES (NO)
11. Are samples in the appropriate containers for indicated tests? _____ (YES) NO
12. Are sample labels present, in good condition and complete? _____ (YES) NO
13. Do the sample labels agree with custody papers? _____ (YES) NO
14. Was sufficient amount of sample sent for tests requested? _____ (YES) NO
15. Are the samples appropriately preserved? _____ YES NO (N/A)
16. Did you check preservatives for all bottles for each sample? _____ YES NO (N/A)
17. Did you document your preservative check? (pH strip lot# _____) YES NO (N/A)
18. Did you change the hold time in LIMS for unpreserved VOAs? _____ YES NO (N/A)
19. Did you change the hold time in LIMS for preserved terracores? _____ YES NO (N/A)
20. Are bubbles > 6mm absent in VOA samples? _____ YES NO (N/A)
21. Was the client contacted concerning this sample delivery? _____ YES (NO)
   If YES, Who was called? _____ By _____ Date: _____

COMMENTS _____

Rev 13, 6/01/16

ENTHALPY ANALYTICAL

Detections Summary for 290985

Results for any subcontracted analyses are not included in this summary.

Client : Engineering/Remediation Resource Grp
Project : 201501063
Location : Presidio Lendrum Court

Client Sample ID : 1255-WC-071917-1 Laboratory Sample ID : 290985-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	0.18		0.050	mg/L	TCLP	10.00	EPA 6010B	EPA 3010A
Lead	15		0.25	mg/L	STLC	10.00	EPA 6010B	WET

Client Sample ID : 1255-WC-071917-2 Laboratory Sample ID : 290985-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	0.14		0.050	mg/L	TCLP	10.00	EPA 6010B	EPA 3010A
Lead	7.1		0.25	mg/L	STLC	10.00	EPA 6010B	WET

Client Sample ID : 1255-WC-071917-3 Laboratory Sample ID : 290985-003

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	0.17		0.050	mg/L	TCLP	10.00	EPA 6010B	EPA 3010A
Lead	23		0.25	mg/L	STLC	10.00	EPA 6010B	WET

ENTHALPY ANALYTICAL

Lead

Lab #:	290985	Location:	Presidio Lendrum Court
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3010A
Project#:	201501063	Analysis:	EPA 6010B
Analyte:	Lead	Sampled:	07/19/17
Matrix:	TCLP Leachate	Received:	07/19/17
Units:	mg/L	Prepared:	07/29/17
Diln Fac:	10.00	Analyzed:	07/31/17
Batch#:	250182		

Field ID	Type	Lab ID	Result	RL
1255-WC-071917-1	SAMPLE	290985-001	0.18	0.050
1255-WC-071917-2	SAMPLE	290985-002	0.14	0.050
1255-WC-071917-3	SAMPLE	290985-003	0.17	0.050
	BLANK	QC895120	ND	0.050

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Lead

Lab #:	290985	Location:	Presidio Lendrum Court
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3010A
Project#:	201501063	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	250182
Field ID:	ZZZZZZZZZZ	Sampled:	05/11/17
MSS Lab ID:	290943-015	Received:	05/11/17
Matrix:	TCLP Leachate	Prepared:	07/29/17
Units:	mg/L	Analyzed:	07/31/17

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac
BS	QC895121		0.1000	0.1109	111	77-120			1.000
BSD	QC895122		0.1000	0.1059	106	77-120	5	20	1.000
MS	QC895123	0.04164	0.1000	0.1500	108	56-127			10.00
MSD	QC895124		0.1000	0.1381	96	56-127	8	33	10.00

RPD= Relative Percent Difference

ENTHALPY ANALYTICAL

Lead

Lab #:	290985	Location:	Presidio Lendrum Court
Client:	Engineering/Remediation Resource Grp	Prep:	WET
Project#:	201501063	Analysis:	EPA 6010B
Analyte:	Lead	Sampled:	07/19/17
Matrix:	WET Leachate	Received:	07/19/17
Units:	mg/L	Prepared:	07/30/17
Diln Fac:	10.00	Analyzed:	07/31/17
Batch#:	250194		

Field ID	Type	Lab ID	Result	RL
1255-WC-071917-1	SAMPLE	290985-001	15	0.25
1255-WC-071917-2	SAMPLE	290985-002	7.1	0.25
1255-WC-071917-3	SAMPLE	290985-003	23	0.25
	BLANK	QC895161	ND	0.25

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Lead

Lab #:	290985	Location:	Presidio Lendrum Court
Client:	Engineering/Remediation Resource Grp	Prep:	WET
Project#:	201501063	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	250194
Field ID:	ZZZZZZZZZZ	Sampled:	07/07/17
MSS Lab ID:	290902-001	Received:	07/07/17
Matrix:	WET Leachate	Prepared:	07/30/17
Units:	mg/L	Analyzed:	07/31/17

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac
BS	QC895162		0.1000	0.1116	112	77-120			1.000
BSD	QC895163		0.1000	0.1111	111	77-120	0	20	1.000
MS	QC895164	0.2988	0.5000	0.7195	84	56-127			10.00
MSD	QC895165		0.5000	0.8386	108	56-127	15	33	10.00

RPD= Relative Percent Difference

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Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 290727
ANALYTICAL REPORT

Engineering/Remediation Resource Grp	Project : 201501063
4585 Pacheco Blvd.	Location : Presidio Lendrum Court
Martinez, CA 94553	Level : II

Sample ID	Lab ID
1255-WC-071917-1	290727-001
1255-WC-071917-2	290727-002
1255-WC-071917-3	290727-003

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Tracy Babjar Date: 07/26/2017

Tracy Babjar
Project Manager
tracy.babjar@ctberk.com
(510) 204-2226 Ext 13107

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**290727**
Client:	**Engineering/Remediation Resource Grp**
Project:	**201501063**
Location:	**Presidio Lendrum Court**
Request Date:	**07/19/17**
Samples Received:	**07/19/17**

This data package contains sample and QC results for three soil samples, requested for the above referenced project on 07/19/17. The samples were received cold and intact.

Metals (EPA 6010B):
No analytical problems were encountered.

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Berkeley, CA 94710
(510) 486-0900 Phone
(510) 486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # : _____

C&T LOGIN # 290727

Project No: 201501063
Project Name: Presidio Lendrum court
EDD Format: _____ Rpt Level: ☒ II ☐ III ☐ IV
Turnaround Time: ☐ RUSH ____2 day___ ☐ Standard

Sampler: W Schmidt
Report To: William Schmidt
Company : ERRG
Telephone: 7077990584
Email: william.schmidt@errg.com

Lab No.	Sample ID.	Sampling		Matrix				Chemical Preservative					Analytical Request
		Date	Time	Water	Soil		# of Containers	HCl	H_2SO_4	HNO_3	NaOH	None	Lead 6010
	1255-WC-071917-1	07/19/17	855		x		1					x	x
	1255-WC-071917-2	07/19/17	858		x		1					x	x
	1255-WC-071917-3	07/19/17	903		x		1					x	x

Notes:

Please extract and hold samples for possible STLC/TCLP.

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient

RELINQUISHED BY:	RECEIVED BY:
7-19 1346 DATE/TIME	7 19 1346 DATE/TIME
7-19 1542 DATE/TIME	07.19.17:12 DATE/TIME
DATE/TIME	DATE/TIME

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 290727 Date Received 01-19-2017 Number of coolers 1
Client Engineering Remediation Resource Grp Project Presidio Letdown Court

Date Opened 01-19-2017 By (print) EHS (sign)
Date Logged in ↓ By (print) ↓ (sign) ↓
Date Labelled ↓ By (print) ↓ (sign) ↓

1. Did cooler come with a shipping slip (airbill, etc) YES (NO)
   Shipping info
2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples ☒ NO
   How many Name Date
2B. Were custody seals intact upon arrival? YES NO (N/A)
3. Were custody papers dry and intact when received? (YES) NO
4. Were custody papers filled out properly (ink, signed, etc)? (YES) NO
5. Is the project identifiable from custody papers? (If so fill out top of form) (YES) NO
6. Indicate the packing in cooler: (if other, describe)

☑ Bubble Wrap ☐ Foam blocks ☑ Bags ☐ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☑ Wet ☐ Blue/Gel ☐ None Temp(°C) 2.5

☑ Temperature blank(s) included? ☐ Thermometer# ☒ IR Gun# A

☐ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? YES (NO)
   If YES, what time were they transferred to freezer?
9. Did all bottles arrive unbroken/unopened? (YES) NO
10. Are there any missing / extra samples? YES (NO)
11. Are samples in the appropriate containers for indicated tests? (YES) NO
12. Are sample labels present, in good condition and complete? (YES) NO
13. Do the sample labels agree with custody papers? (YES) NO
14. Was sufficient amount of sample sent for tests requested? (YES) NO
15. Are the samples appropriately preserved? YES NO (N/A)
16. Did you check preservatives for all bottles for each sample? YES NO (N/A)
17. Did you document your preservative check? (pH strip lot#) YES NO (N/A)
18. Did you change the hold time in LIMS for unpreserved VOAs? YES NO (N/A)
19. Did you change the hold time in LIMS for preserved terracores? YES NO (N/A)
20. Are bubbles > 6mm absent in VOA samples? YES NO (N/A)
21. Was the client contacted concerning this sample delivery? YES (NO)
   If YES, Who was called? By Date:

COMMENTS

Rev 13, 6/01/16

Curtis & Tompkins, Ltd.

Detections Summary for 290727

Results for any subcontracted analyses are not included in this summary.

Client : Engineering/Remediation Resource Grp
Project : 201501063
Location : Presidio Lendrum Court

Client Sample ID : 1255-WC-071917-1 Laboratory Sample ID : 290727-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	200		1.0	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255-WC-071917-2 Laboratory Sample ID : 290727-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	140		0.91	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255-WC-071917-3 Laboratory Sample ID : 290727-003

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	250		1.0	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Curtis & Tompkins, Ltd.

Lead

Lab #:	290727	Location:	Presidio Lendrum Court
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3050B
Project#:	201501063	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	249972
Matrix:	Soil	Sampled:	07/19/17
Units:	mg/Kg	Received:	07/19/17
Basis:	as received	Prepared:	07/24/17
Diln Fac:	1.000	Analyzed:	07/24/17

Field ID	Type	Lab ID	Result	RL
1255-WC-071917-1	SAMPLE	290727-001	200	1.0
1255-WC-071917-2	SAMPLE	290727-002	140	0.91
1255-WC-071917-3	SAMPLE	290727-003	250	1.0
	BLANK	QC894316	ND	1.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Lead

Lab #:	290727	Location:	Presidio Lendrum Court
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3050B
Project#:	201501063	Analysis:	EPA 6010B
Analyte:	Lead	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	249972
MSS Lab ID:	290744-001	Sampled:	07/17/17
Matrix:	Soil	Received:	07/20/17
Units:	mg/Kg	Prepared:	07/24/17
Basis:	as received	Analyzed:	07/24/17

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC894317		53.76	53.55	100	80-120		
BSD	QC894318		51.02	48.92	96	80-120	4	20
MS	QC894319	3.158	52.08	50.81	91	50-131		
MSD	QC894320		50.51	49.11	91	50-131	1	48

RPD= Relative Percent Difference

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Laboratory Job Number 277952
ANALYTICAL REPORT

Engineering Remediation Resource Grp	Project : 2015-063
115 Sansome St	Location : Lendrum Court
San Francisco, CA 94104	Level : II

Sample ID	Lab ID
LC-WC-052716-05	277952-001
LC-WC-052716-06	277952-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 06/27/2016

John Goyette
Laboratory Director
goyette@ctberk.com
(510) 204-2233

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**277952**
Client:	**Engineering Remediation Resource Grp**
Project:	**2015-063**
Location:	**Lendrum Court**
Request Date:	**06/24/16**
Samples Received:	**05/27/16**

This data package contains sample and QC results for two soil samples, requested for the above referenced project on 06/24/16. The samples were received cold and intact.

Metals (EPA 6010B) TCLP Leachate:

Low recoveries were observed for chromium in the MS/MSD of LC-WC-052716-05 (lab # 277952-001); the BS/BSD were within limits, and the associated RPD was within limits. No other analytical problems were encountered.

Metals (EPA 6010B) WET Leachate:

No analytical problems were encountered.

277952

Subject: RE: 2015-063 - C&T Data (277804)
From: Joseph Corrick <joseph.corrick@errg.com>
Date: 6/23/2016 7:14 PM
To: "tracy.babjar@ctberk.com" <tracy.babjar@ctberk.com>
CC: "John.Goyette@ctberk.com" <John.Goyette@ctberk.com>

Tracy,
I just spoke with my PM and we absolutely need this STLC and TCLP squared away as soon as possible. Please see below.

I know that the extraction takes two and three days respectively. Does CT have the ability to conduct this over the weekend? If so please do. Getting these results sooner than later is the difference between us shutting down a job and not. This is a critical item for us.

Please let me know ASAP.

Thanks,

Joe Corrick
ERRG, INC./ Assistant Project Scientist
115 Sansome St., Ste 200
San Francisco, CA
Cell: (415) 933-0264
Office (415) 848-7423

From: Joseph Corrick
Sent: Thursday, June 23, 2016 6:21 PM
To: tracy.babjar@ctberk.com
Subject: Re: 2015-063 - C&T Data (277804)

Tracy, can you also please run a STLC and TCLP for samples LC-WC-052716-05 and -06 for lead and chrome each?

I'd like to get these ASAP please.

Sent from my Verizon Wireless 4G LTE DROID
On Jun 23, 2016 5:16 PM, Tracy Babjar <tracy.babjar@ctberk.com> wrote:

> Hi Joe,
>
> Data qualifiers and additional information necessary for the interpretation of the test results are contained in the PDF file and may not be included in the EDD.
>
> Final report, edd and invoice.
>
> Have a great evening!
>
> Tracy

CT # 277804

Subject: Lendrum TCLP and STLC
From: Joseph Corrick <joseph.corrick@errg.com>
Date: 6/20/2016 11:05 AM
To: "'tracy.babjar@ctberk.com'" <tracy.babjar@ctberk.com>
CC: Christine Wang <christine.wang@errg.com>

Tracy,
Please have the following run for STLC and TCLP

Sample LC-WC-052716-01 needs STLC and TCLP for Chromium and Lead; 277284-001
Sample LC-WC-052716-02 needs STLC and TCLP for Chromium and Lead; -002
Sample LC-WC-052716-03 needs STLC and TCLP for Chromium and Lead; -003
Sample LC-WC-052716-04 needs STLC and TCLP for Chromium and Lead -004

We will need these ASAP. Thanks!

Joe Corrick
ERRG, INC./ Assistant Project Scientist
115 Sansome St., Ste 200
San Francisco, CA
Cell: (415) 933-0264
Office (415) 848-7423

CHAIN OF CUSTODY

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Fax (510) 486-0532

Chain of Custody #

C&T LOGIN # 277284

Project No: 2015-063
Project Name: Landrum Court
Project P. O. No: 2015-063
EDD Format: Report Level ☒ II ☐ III ☐ IV
Turnaround Time: ☐ RUSH 5-Day ☒ Standard

Sampler: Brian Starling
Report To: Joe Cornick
Company: ERRG
Telephone: 415-933-0264
Email: Joseph.Cornick@ERRG.com

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST						
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	VOC 8260	SVOC 8270	TPH d/mo 8015 (Hc29)	Asbestos by PLM	Pesticides 8081	Herbicides 8185	
1	LC-WC-052716-01	5/27/16	920		X								X	X	X	X	X	X	X	
2	LC-WC-052716-02		950		X								X	X	X	X	X	X	X	
3	LC-WC-052716-03		1010		X								X	X	X	X	X	X	X	
4	LC-WC-052716-04		1035		X								X	X	X	X	X	X	X	
5	LC-WC-052716-05		1100		X								X	X	X	X	X	X	X	
6	LC-WC-052716-06		1130		X								X	X	X	X	X	X	X	

Notes:
Hold Samples for possible TCLP wet

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:		RECEIVED BY: 5/27/16	
RLS	DATE: 5/27/16 TIME: 12:18	DU	DATE: TIME: 12:18
	DATE: TIME:		DATE: TIME:
	DATE: TIME:		DATE: TIME:

Subject: RE: (Response Required) 2015-063 - C&T Login Summary (277284)
From: Joseph Corrick <joseph.corrick@errg.com>
Date: 5/31/2016 3:37 PM
To: Mikelle Chong <mikelle.chong@ctberk.com>, "Mike.Dahlquist@ctberk.com" <Mike.Dahlquist@ctberk.com>, "Dina.Ali@ctberk.com" <Dina.Ali@ctberk.com>, "John.Goyette@ctberk.com" <John.Goyette@ctberk.com>

Yes. The method is 8290.

I realize that this will take something like 21 days. I believe last time this went to Cape Fear Analytical in NC.

Thanks!

Joe Corrick
ERRG, INC./ Assistant Project Scientist
115 Sansome St., Ste 200
San Francisco, CA
Cell: (415) 933-0264
Office (415) 848-7423

From: Mikelle Chong [mailto:mikelle.chong@ctberk.com]
Sent: Tuesday, May 31, 2016 3:35 PM
To: Joseph Corrick <joseph.corrick@errg.com>; Mike.Dahlquist@ctberk.com; Dina.Ali@ctberk.com; John.Goyette@ctberk.com
Cc: Brian Starling <brian.starling@errg.com>
Subject: Re: (Response Required) 2015-063 - C&T Login Summary (277284)

Hi Joseph,
Do you have the method for doxins/furans?

Thanks,

Mikelle Chong
Project Manager
Curtis & Tompkins
(510) 204-2236
www.curtisandtompkins.com

On 5/31/2016 2:54 PM, Joseph Corrick wrote:

Please see below in response to Tracy's request for clarification.

From: Joseph Corrick
Sent: Tuesday, May 31, 2016 2:52 PM
To: 'Tracy Babjar' <tracy.babjar@ctberk.com>
Cc: Brian Starling <brian.starling@errg.com>
Subject: RE: (Response Required) 2015-063 - C&T Login Summary (277284)

Yes, please include T22 by 6010. Please also include doxins/ furans.

Thanks,

Joe Corrick
ERRG, INC./ Assistant Project Scientist
115 Sansome St., Ste 200

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 277284 Date Received 5/27/16 Number of coolers 0
Client ERRG Project 2015-063

Date Opened 5/27 By (print) CJP (sign) [signature]
Date Logged in 5/31 By (print) " (sign) "

1. Did cooler come with a shipping slip (airbill, etc) ____ YES NO
   Shipping info ____
2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples ☒ NO
   How many ____ Name ____ Date ____
2B. Were custody seals intact upon arrival? ____ YES NO N/A
3. Were custody papers dry and intact when received? ____ YES NO
4. Were custody papers filled out properly (ink, signed, etc)? ____ YES NO
5. Is the project identifiable from custody papers? (If so fill out top of form) ____ YES NO
6. Indicate the packing in cooler: (if other, describe) ____

☐ Bubble Wrap ☐ Foam blocks ☐ Bags ☐ None
☐ Cloth material ☒ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☐ Wet ☐ Blue/Gel ☒ None Temp(°C) ____

☐ Temperature blank(s) included? ☐ Thermometer# ____ ☐ IR Gun# ____

☐ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? ____ YES NO
   If YES, what time were they transferred to freezer? ____
9. Did all bottles arrive unbroken/unopened? ____ YES NO
10. Are there any missing / extra samples? ____ YES NO
11. Are samples in the appropriate containers for indicated tests? ____ YES NO
12. Are sample labels present, in good condition and complete? ____ YES NO
13. Do the sample labels agree with custody papers? ____ YES NO
14. Was sufficient amount of sample sent for tests requested? ____ YES NO
15. Are the samples appropriately preserved? ____ YES NO N/A
16. Did you check preservatives for all bottles for each sample? ____ YES NO N/A
17. Did you document your preservative check? (pH strip lot# ____) YES NO N/A
18. Did you change the hold time in LIMS for unpreserved VOAs? ____ YES NO N/A
19. Did you change the hold time in LIMS for preserved terracores? ____ YES NO N/A
20. Are bubbles > 6mm absent in VOA samples? ____ YES NO N/A
21. Was the client contacted concerning this sample delivery? ____ YES NO
   If YES, Who was called? Joe Coreta By T. Babjak Date: 6/2/16

COMMENTS

Called Joe to let him know SMS 165 for 8290 received samples intact for 8290 but the temp was out of specs. It was 9.9 °C per Joe please go ahead with the analysis

Curtis & Tompkins, Ltd.

Detections Summary for 277952

Results for any subcontracted analyses are not included in this summary.

Client : Engineering Remediation Resource Grp
Project : 2015-063
Location : Lendrum Court

Client Sample ID : LC-WC-052716-05 Laboratory Sample ID : 277952-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Chromium	0.11		0.050	mg/L	TCLP	10.00	EPA 6010B	EPA 3010A
Chromium	0.54		0.25	mg/L	STLC	10.00	EPA 6010B	WET
Lead	4.1		0.25	mg/L	STLC	10.00	EPA 6010B	WET

Client Sample ID : LC-WC-052716-06 Laboratory Sample ID : 277952-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Chromium	0.92		0.25	mg/L	STLC	10.00	EPA 6010B	WET
Lead	3.5		0.25	mg/L	STLC	10.00	EPA 6010B	WET

Curtis & Tompkins, Ltd.

Chromium

Lab #:	277952	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3010A
Project#:	2015-063	Analysis:	EPA 6010B
Analyte:	Chromium	Sampled:	05/27/16
Matrix:	TCLP Leachate	Received:	05/27/16
Units:	mg/L	Prepared:	06/26/16
Diln Fac:	10.00	Analyzed:	06/27/16
Batch#:	236436		

Field ID	Type	Lab ID	Result	RL
LC-WC-052716-05	SAMPLE	277952-001	0.11	0.050
LC-WC-052716-06	SAMPLE	277952-002	ND	0.050
	BLANK	QC840856	ND	0.050

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Lead

Lab #:	277952	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3010A
Project#:	2015-063	Analysis:	EPA 6010B
Analyte:	Lead	Sampled:	05/27/16
Matrix:	TCLP Leachate	Received:	05/27/16
Units:	mg/L	Prepared:	06/26/16
Diln Fac:	10.00	Analyzed:	06/27/16
Batch#:	236436		

Field ID	Type	Lab ID	Result	RL
LC-WC-052716-05	SAMPLE	277952-001	ND	0.050
LC-WC-052716-06	SAMPLE	277952-002	ND	0.050
	BLANK	QC840856	ND	0.050

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Chromium

Lab #:	277952	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3010A
Project#:	2015-063	Analysis:	EPA 6010B
Analyte:	Chromium	Batch#:	236436
Field ID:	LC-WC-052716-05	Sampled:	05/27/16
MSS Lab ID:	277952-001	Received:	05/27/16
Matrix:	TCLP Leachate	Prepared:	06/26/16
Units:	mg/L	Analyzed:	06/27/16

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac
BS	QC840857		0.1000	0.09961	100	80-120			1.000
BSD	QC840858		0.1000	0.1005	101	80-120	1	20	1.000
MS	QC840859	0.1099	0.1000	0.1198	10 *	80-120			10.00
MSD	QC840860		0.1000	0.1288	19 *	80-120	7	20	10.00

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Lead

Lab #:	277952	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3010A
Project#:	2015-063	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	236436
Field ID:	LC-WC-052716-05	Sampled:	05/27/16
MSS Lab ID:	277952-001	Received:	05/27/16
Matrix:	TCLP Leachate	Prepared:	06/26/16
Units:	mg/L	Analyzed:	06/27/16

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac
BS	QC840857		0.1000	0.1022	102	80-120			1.000
BSD	QC840858		0.1000	0.1007	101	80-120	1	20	1.000
MS	QC840859	0.04745	0.1000	0.1356	88	67-120			10.00
MSD	QC840860		0.1000	0.1434	96	67-120	6	23	10.00

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Chromium

Lab #:	277952	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	WET
Project#:	2015-063	Analysis:	EPA 6010B
Analyte:	Chromium	Sampled:	05/27/16
Matrix:	WET Leachate	Received:	05/27/16
Units:	mg/L	Prepared:	06/27/16
Diln Fac:	10.00	Analyzed:	06/27/16
Batch#:	236439		

Field ID	Type	Lab ID	Result	RL
LC-WC-052716-05	SAMPLE	277952-001	0.54	0.25
LC-WC-052716-06	SAMPLE	277952-002	0.92	0.25
	BLANK	QC840869	ND	0.25

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Lead

Lab #:	277952	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	WET
Project#:	2015-063	Analysis:	EPA 6010B
Analyte:	Lead	Sampled:	05/27/16
Matrix:	WET Leachate	Received:	05/27/16
Units:	mg/L	Prepared:	06/27/16
Diln Fac:	10.00	Analyzed:	06/27/16
Batch#:	236439		

Field ID	Type	Lab ID	Result	RL
LC-WC-052716-05	SAMPLE	277952-001	4.1	0.25
LC-WC-052716-06	SAMPLE	277952-002	3.5	0.25
	BLANK	QC840869	ND	0.25

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Chromium

Lab #:	277952	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	WET
Project#:	2015-063	Analysis:	EPA 6010B
Analyte:	Chromium	Batch#:	236439
Field ID:	ZZZZZZZZZZ	Sampled:	06/06/16
MSS Lab ID:	277941-001	Received:	06/08/16
Matrix:	WET Leachate	Prepared:	06/27/16
Units:	mg/L	Analyzed:	06/27/16

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac
BS	QC840870		0.5000	0.4785	96	80-120			1.000
BSD	QC840871		0.5000	0.4792	96	80-120	0	20	1.000
MS	QC840872	0.4175	0.5000	0.8951	96	80-120			10.00
MSD	QC840873		0.5000	0.8849	93	80-120	1	20	10.00

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Lead

Lab #:	277952	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	WET
Project#:	2015-063	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	236439
Field ID:	ZZZZZZZZZZ	Sampled:	06/06/16
MSS Lab ID:	277941-001	Received:	06/08/16
Matrix:	WET Leachate	Prepared:	06/27/16
Units:	mg/L	Analyzed:	06/27/16

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac
BS	QC840870		0.5000	0.4471	89	80-120			1.000
BSD	QC840871		0.5000	0.4435	89	80-120	1	20	1.000
MS	QC840872	0.1383	0.5000	0.6364	100	67-120			10.00
MSD	QC840873		0.5000	0.5704	86	67-120	11	23	10.00

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 277804
ANALYTICAL REPORT

Engineering Remediation Resource Grp	Project : 2015-063
115 Sansome St	Location : Lendrum Court
San Francisco, CA 94104	Level : II

Sample ID	Lab ID
LC-WC-052716-01	277804-001
LC-WC-052716-02	277804-002
LC-WC-052716-03	277804-003
LC-WC-052716-04	277804-004

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Tracy Babjar Date: 06/23/2016

Tracy Babjar
Project Manager
tracy.babjar@ctberk.com
(510) 204-2226

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**277804**
Client:	**Engineering Remediation Resource Grp**
Project:	**2015-063**
Location:	**Lendrum Court**
Request Date:	**06/20/16**
Samples Received:	**05/27/16**

This data package contains sample and QC results for four soil samples, requested for the above referenced project on 06/20/16. The samples were received cold and intact.

Metals (EPA 6010B) TCLP Leachate:
No analytical problems were encountered.

Metals (EPA 6010B) WET Leachate:
No analytical problems were encountered.

CT # 277804

Subject: Lendrum TCLP and STLC
From: Joseph Corrick <joseph.corrick@errg.com>
Date: 6/20/2016 11:05 AM
To: "'tracy.babjar@ctberk.com'" <tracy.babjar@ctberk.com>
CC: Christine Wang <christine.wang@errg.com>

Tracy,
Please have the following run for STLC and TCLP

Sample LC-WC-052716-01 needs STLC and TCLP for Chromium and Lead; 277284-001
Sample LC-WC-052716-02 needs STLC and TCLP for Chromium and Lead; -002
Sample LC-WC-052716-03 needs STLC and TCLP for Chromium and Lead; -003
Sample LC-WC-052716-04 needs STLC and TCLP for Chromium and Lead -004

We will need these ASAP. Thanks!

Joe Corrick
ERRG, INC./ Assistant Project Scientist
115 Sansome St., Ste 200
San Francisco, CA
Cell: (415) 933-0264
Office (415) 848-7423

CHAIN OF CUSTODY

Curtis & Tompkins Laboratories
ENVIRONMENTAL ANALYTICAL TESTING LABORATORY
In Business Since 1878

2323 Fifth Street
Berkeley, CA 94710

Phone (510) 486-0900
Fax (510) 486-0532

Chain of Custody # _____

C&T LOGIN # 277284

Project No: 2015-063
Project Name: Lendrum Court
Project P. O. No: 2015-063
EDD Format: Report Level ☒ II ☐ III ☐ IV
Turnaround Time: ☐ RUSH 5-Day ☒ Standard

Sampler: Brian Starling
Report To: Joe Corrick
Company: ERRG
Telephone: 415-933-0264
Email: Joseph.Corrick@ERRG.com

Lab No.	Sample ID.	SAMPLING		MATRIX			# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST																							
		Date Collected	Time Collected	Water	Solid			HCl	H2SO4	HNO3	NaOH	None	VOC 8260	SVOC 8270	TPH d/mo 8015 (with 2 4)	Asbestos by PLM	Pesticides 8081	Herbicides 8185																	
1	LC-WC-052716-01	5/27/16	920		X							X	X	X	X	X	X																	
2	LC-WC-052716-02		950		X							X	X	X	X	X	X																	
3	LC-WC-052716-03		1010		X							X	X	X	X	X	X																	
4	LC-WC-052716-04		1035		X							X	X	X	X	X	X																	
5	LC-WC-052716-05		1100		X							X	X	X	X	X	X																	
6	LC-WC-052716-06		1130		X							X	X	X	X	X	X																	

Notes:
Hold Samples for possible TPH wet

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
_____ DATE: 5/27/16 TIME: 12:18
_____ DATE: TIME:
_____ DATE: TIME:

RECEIVED BY: 5/27/16
_____ DATE: TIME: 12:18
_____ DATE: TIME:
_____ DATE: TIME:

Subject: RE: (Response Required) 2015-063 - C&T Login Summary (277284)
From: Joseph Corrick <joseph.corrick@errg.com>
Date: 5/31/2016 3:37 PM
To: Mikelle Chong <mikelle.chong@ctberk.com>, "Mike.Dahlquist@ctberk.com" <Mike.Dahlquist@ctberk.com>, "Dina.Ali@ctberk.com" <Dina.Ali@ctberk.com>, "John.Goyette@ctberk.com" <John.Goyette@ctberk.com>

Yes. The method is 8290.

I realize that this will take something like 21 days. I believe last time this went to Cape Fear Analytical in NC.

Thanks!

Joe Corrick
ERRG, INC./ Assistant Project Scientist
115 Sansome St., Ste 200
San Francisco, CA
Cell: (415) 933-0264
Office (415) 848-7423

From: Mikelle Chong [mailto:mikelle.chong@ctberk.com]
Sent: Tuesday, May 31, 2016 3:35 PM
To: Joseph Corrick <joseph.corrick@errg.com>; Mike.Dahlquist@ctberk.com; Dina.Ali@ctberk.com; John.Goyette@ctberk.com
Cc: Brian Starling <brian.starling@errg.com>
Subject: Re: (Response Required) 2015-063 - C&T Login Summary (277284)

Hi Joseph,
Do you have the method for doxins/furans?

Thanks,

Mikelle Chong
Project Manager
Curtis & Tompkins
(510) 204-2236
www.curtisandtompkins.com

On 5/31/2016 2:54 PM, Joseph Corrick wrote:

> Please see below in response to Tracy's request for clarification.
>
> ---
>
> **From:** Joseph Corrick
> **Sent:** Tuesday, May 31, 2016 2:52 PM
> **To:** 'Tracy Babjar' <tracy.babjar@ctberk.com>
> **Cc:** Brian Starling <brian.starling@errg.com>
> **Subject:** RE: (Response Required) 2015-063 - C&T Login Summary (277284)
>
> Yes, please include T22 by 6010. Please also include doxins/ furans.
>
> Thanks,
>
> Joe Corrick
> ERRG, INC./ Assistant Project Scientist
> 115 Sansome St., Ste 200

COOLER RECEIPT CHECKLIST Curtis & Tompkins, Ltd.

Login # 277284 Date Received 5/27/16 Number of coolers 0
Client ERRG Project 2015-063

Date Opened 5/27 By (print) CJP (sign)
Date Logged in 5/31 By (print) (sign)

1. Did cooler come with a shipping slip (airbill, etc) YES NO
Shipping info

2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples ☒ NO
How many Name Date
2B. Were custody seals intact upon arrival? YES NO N/A
3. Were custody papers dry and intact when received? YES NO
4. Were custody papers filled out properly (ink, signed, etc)? YES NO
5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO
6. Indicate the packing in cooler: (if other, describe)

☐ Bubble Wrap ☐ Foam blocks ☐ Bags ☐ None
☐ Cloth material ☒ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☐ Wet ☐ Blue/Gel ☒ None Temp(°C)

☐ Temperature blank(s) included? ☐ Thermometer# ☐ IR Gun#

☐ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? YES NO
If YES, what time were they transferred to freezer?
9. Did all bottles arrive unbroken/unopened? YES NO
10. Are there any missing / extra samples? YES NO
11. Are samples in the appropriate containers for indicated tests? YES NO
12. Are sample labels present, in good condition and complete? YES NO
13. Do the sample labels agree with custody papers? YES NO
14. Was sufficient amount of sample sent for tests requested? YES NO
15. Are the samples appropriately preserved? YES NO N/A
16. Did you check preservatives for all bottles for each sample? YES NO N/A
17. Did you document your preservative check? (pH strip lot#) YES NO N/A
18. Did you change the hold time in LIMS for unpreserved VOAs? YES NO N/A
19. Did you change the hold time in LIMS for preserved terracores? YES NO N/A
20. Are bubbles > 6mm absent in VOA samples? YES NO N/A
21. Was the client contacted concerning this sample delivery? YES NO
If YES, Who was called? Joe Coreck By T. Bobic Date: 6/2/16

COMMENTS
called Joe to let him know Jobs ICB for 8290 received samples intact for 8290 but the temp was out of specs. It was 9.9 °C per Joe please go ahead with ELAP 6020A

Curtis & Tompkins, Ltd.

Detections Summary for 277804

Results for any subcontracted analyses are not included in this summary.

Client : Engineering Remediation Resource Grp
Project : 2015-063
Location : Lendrum Court

Client Sample ID : LC-WC-052716-01 Laboratory Sample ID : 277804-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	29		0.25	mg/L	STLC	10.00	EPA 6010B	WET

Client Sample ID : LC-WC-052716-02 Laboratory Sample ID : 277804-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	0.16		0.050	mg/L	TCLP	10.00	EPA 6010B	EPA 3010A
Chromium	0.30		0.25	mg/L	STLC	10.00	EPA 6010B	WET
Lead	11		0.25	mg/L	STLC	10.00	EPA 6010B	WET

Client Sample ID : LC-WC-052716-03 Laboratory Sample ID : 277804-003

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	3.9		0.25	mg/L	STLC	10.00	EPA 6010B	WET

Client Sample ID : LC-WC-052716-04 Laboratory Sample ID : 277804-004

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	1.2		0.25	mg/L	STLC	10.00	EPA 6010B	WET

Curtis & Tompkins, Ltd.

Chromium

Lab #:	277804	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3010A
Project#:	2015-063	Analysis:	EPA 6010B
Analyte:	Chromium	Sampled:	05/27/16
Matrix:	TCLP Leachate	Received:	05/27/16
Units:	mg/L	Prepared:	06/22/16
Diln Fac:	10.00	Analyzed:	06/23/16
Batch#:	236337		

Field ID	Type	Lab ID	Result	RL
LC-WC-052716-01	SAMPLE	277804-001	ND	0.050
LC-WC-052716-02	SAMPLE	277804-002	ND	0.050
LC-WC-052716-03	SAMPLE	277804-003	ND	0.050
LC-WC-052716-04	SAMPLE	277804-004	ND	0.050
	BLANK	QC840483	ND	0.050

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Lead

Lab #:	277804	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3010A
Project#:	2015-063	Analysis:	EPA 6010B
Analyte:	Lead	Sampled:	05/27/16
Matrix:	TCLP Leachate	Received:	05/27/16
Units:	mg/L	Prepared:	06/22/16
Diln Fac:	10.00	Analyzed:	06/23/16
Batch#:	236337		

Field ID	Type	Lab ID	Result	RL
LC-WC-052716-01	SAMPLE	277804-001	ND	0.050
LC-WC-052716-02	SAMPLE	277804-002	0.16	0.050
LC-WC-052716-03	SAMPLE	277804-003	ND	0.050
LC-WC-052716-04	SAMPLE	277804-004	ND	0.050
	BLANK	QC840483	ND	0.050

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Chromium

Lab #:	277804	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3010A
Project#:	2015-063	Analysis:	EPA 6010B
Analyte:	Chromium	Batch#:	236337
Field ID:	LC-WC-052716-01	Sampled:	05/27/16
MSS Lab ID:	277804-001	Received:	05/27/16
Matrix:	TCLP Leachate	Prepared:	06/22/16
Units:	mg/L	Analyzed:	06/23/16

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac
BS	QC840484		0.1000	0.1022	102	80-120			1.000
BSD	QC840485		0.1000	0.09936	99	80-120	3	20	1.000
MS	QC840486	0.01425	0.1000	0.1116	97	80-120			10.00
MSD	QC840487		0.1000	0.1171	103	80-120	5	20	10.00

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Lead

Lab #:	277804	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3010A
Project#:	2015-063	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	236337
Field ID:	LC-WC-052716-01	Sampled:	05/27/16
MSS Lab ID:	277804-001	Received:	05/27/16
Matrix:	TCLP Leachate	Prepared:	06/22/16
Units:	mg/L	Analyzed:	06/23/16

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac
BS	QC840484		0.1000	0.1001	100	80-120			1.000
BSD	QC840485		0.1000	0.1001	100	80-120	0	20	1.000
MS	QC840486	0.04633	0.1000	0.1499	104	67-120			10.00
MSD	QC840487		0.1000	0.1450	99	67-120	3	23	10.00

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Chromium

Lab #:	277804	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	WET
Project#:	2015-063	Analysis:	EPA 6010B
Analyte:	Chromium	Sampled:	05/27/16
Matrix:	WET Leachate	Received:	05/27/16
Units:	mg/L	Prepared:	06/23/16
Diln Fac:	10.00	Analyzed:	06/23/16
Batch#:	236340		

Field ID	Type	Lab ID	Result	RL
LC-WC-052716-01	SAMPLE	277804-001	ND	0.25
LC-WC-052716-02	SAMPLE	277804-002	0.30	0.25
LC-WC-052716-03	SAMPLE	277804-003	ND	0.25
LC-WC-052716-04	SAMPLE	277804-004	ND	0.25
	BLANK	QC840492	ND	0.25

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Lead

Lab #:	277804	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	WET
Project#:	2015-063	Analysis:	EPA 6010B
Analyte:	Lead	Sampled:	05/27/16
Matrix:	WET Leachate	Received:	05/27/16
Units:	mg/L	Prepared:	06/23/16
Diln Fac:	10.00	Analyzed:	06/23/16
Batch#:	236340		

Field ID	Type	Lab ID	Result	RL
LC-WC-052716-01	SAMPLE	277804-001	29	0.25
LC-WC-052716-02	SAMPLE	277804-002	11	0.25
LC-WC-052716-03	SAMPLE	277804-003	3.9	0.25
LC-WC-052716-04	SAMPLE	277804-004	1.2	0.25
	BLANK	QC840492	ND	0.25

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Chromium

Lab #:	277804	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	WET
Project#:	2015-063	Analysis:	EPA 6010B
Analyte:	Chromium	Batch#:	236340
Field ID:	LC-WC-052716-01	Sampled:	05/27/16
MSS Lab ID:	277804-001	Received:	05/27/16
Matrix:	WET Leachate	Prepared:	06/23/16
Units:	mg/L	Analyzed:	06/23/16

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac
BS	QC840493		0.1000	0.09129	91	80-120			1.000
BSD	QC840494		0.1000	0.09576	96	80-120	5	20	1.000
MS	QC840495	0.1601	0.5000	0.6139	91	80-120			10.00
MSD	QC840496		0.5000	0.6818	104	80-120	10	20	10.00

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Lead

Lab #:	277804	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	WET
Project#:	2015-063	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	236340
Field ID:	LC-WC-052716-01	Sampled:	05/27/16
MSS Lab ID:	277804-001	Received:	05/27/16
Matrix:	WET Leachate	Prepared:	06/23/16
Units:	mg/L	Analyzed:	06/23/16

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac
BS	QC840493		0.1000	0.09207	92	80-120			1.000
BSD	QC840494		0.1000	0.09557	96	80-120	4	20	1.000
MS	QC840495	28.66	0.5000	31.02	472 NM	67-120			10.00
MSD	QC840496		0.5000	33.76	1020 NM	67-120	8	23	10.00

NM= Not Meaningful: Sample concentration > 4X spike concentration
RPD= Relative Percent Difference

Forensic Analytical LABORATORIES

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Curtis & Tompkins Ltd
Tracy Babjar
2323 Fifth St.

Berkeley, CA 94710

Client ID: 1137
Report Number: B222227
Date Received: 06/01/16
Date Analyzed: 06/06/16
Date Printed: 06/06/16
First Reported: 06/06/16

Job ID/Site: 277284 - Lendrum Court

Date(s) Collected: 05/27/2016

FALI Job ID: 1137
Total Samples Submitted: 6
Total Samples Analyzed: 6

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
LC-WC-052716-01	11771002						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
LC-WC-052716-02	11771003						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
LC-WC-052716-03	11771004						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
LC-WC-052716-04	11771005						
Layer: Brown Soil		Chrysotile	**Trace**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (Trace)**					
LC-WC-052716-05	11771006						
Layer: Dark Brown Soil		Chrysotile	**Trace**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (Trace)**					
LC-WC-052716-06	11771007						
Layer: Dark Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					

Tad Thrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

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3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

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www.capefearanalytical.com

June 15, 2016

Ms. Tracy Babjar
Curtis & Tompkins, LTD
2323 Fifth Street
Berkeley, California 94710

Re: Subcontract DXN / PCB's
Work Order: 9270
SDG: 277284

Dear Ms. Babjar:

Cape Fear Analytical LLC (CFA) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on June 02, 2016. This original data report has been prepared and reviewed in accordance with CFA's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at 910-795-0421.

Sincerely,

Cynde Larkins

Cynde Larkins
Project Manager

Enclosures

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900
(510) 486-0532

Project Number: 277284
Site: Lendrum Court

Subcontract Laboratory:
Cape Fear Analytical
3306 Kitty Hawk Road, Suite 120
Wilmington, NC 28405
(910) 795-0421
ATTN: Cynde Larkins

Results due: Report Level: II

Please send report to: Tracy Babjar (tracy.babjar@ctberk.com)
*** Please report using Sample ID rather than C&T Lab #.

Sample ID	Sampled	Matrix	Analysis	C&T Lab #	Comments
LC-WC-052716-01	05/27 09:20	Soil	8290	277284-001	
LC-WC-052716-02	05/27 09:50	Soil	8290	277284-002	
LC-WC-052716-03	05/27 10:10	Soil	8290	277284-003	
LC-WC-052716-04	05/27 10:35	Soil	8290	277284-004	
LC-WC-052716-05	05/27 11:00	Soil	8290	277284-005	
LC-WC-052716-06	05/27 11:30	Soil	8290	277284-006	

CFA WO #9270

Notes:	Relinquished By:	Received By:
	Charles Bell	
	Date/Time: 6/1/16 @ 15:30	Date/Time: 02 JUN 2016 10:20
	Date/Time:	Date/Time:

Signature on this form constitutes a firm Purchase Order for the services requested above.

9,9 2

SAMPLE RECEIPT CHECKLIST

Cape Fear Analytical

Client: CURL	Work Order: 9270
Shipping Company: Fed Ex	Date/Time Received: 02 JUN 2016 10:20

Suspected Hazard Information	Yes	NA	No
Shipped as DOT Hazardous?			✓
Samples identified as Foreign Soil?			✓

DOE Site Sample Packages	Yes	NA	No*
Screened <0.5 mR/hr?		✓	
Samples < 2x background?		✓	

* Notify RSO of any responses in this column immediately.

Air Sample Receipt Specifics	Yes	NA	No
Air sample in shipment?			✓

Air Witness: _____

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other(describe)
2	Chain of Custody documents included with shipment?	✓			
3	Samples requiring cold preservation within 0-6°C?			✓	Preservation Method: ice bags blue ice dry ice none other (describe) 9.6 +0.3=9.9°C
4	Aqueous samples found to have visible solids?		✓		Sample IDs, containers affected:
5	Samples requiring chemical preservation at proper pH?		✓		Sample IDs, containers affected and pH observed: If preservative added, Lot#:
6	Samples requiring preservation have no residual chlorine?		✓		Sample IDs, containers affected: If preservative added, Lot#:
7	Samples received within holding time?	✓			Sample IDs, tests affected:
8	Sample IDs on COC match IDs on containers?	✓			Sample IDs, containers affected:
9	Date & time of COC match date & time on containers?			✓	Sample IDs, containers affected: NO collection date or time on container
10	Number of containers received match number indicated on COC?	✓			List type and number of containers / Sample IDs, containers affected: 1-2oz clear jar each, 6 total
11	COC form is properly signed in relinquished/received sections?	✓			

Comments:

Client gave CFA permission to proceed with extraction of out-of-temp. sample. CA 02JUN16

Checklist performed by: Initials: MJD Date: 02 JUN 2016

CF-UD-F-7

Subject: Re: 277284
From: Tracy Babjar <tracy.babjar@ctberk.com>
Date: 6/2/2016 11:32 AM
To: Cynde Larkins <cynde.larkins@cfanalytical.com>
CC: Melissa O'Dorisio <mel00770@cfanalytical.com>

Hi Cynde,

I spoke with my client and they asked that you please proceed with analysis.

Thanks and have a great day!

WO#9270

Tracy

Tracy Babjar
Project Manager
Curtis & Tompkins, Ltd.
510 204-2226
www.curtisandtompkins.com

On 6/2/2016 8:04 AM, Cynde Larkins wrote:

> Tracy,
>
> CFA received your soil samples today in good condition but out of recommended temperature at 9.9°C. Please let us know if we can proceed with extraction and analysis of these out-of-temp samples.
>
> Thank you,
>
> --
> Cynde Larkins
> Project Manager
> Cape Fear Analytical, LLC
> 3306 Kitty Hawk Road Suite 120
> Wilmington, NC 28405
> (910) 795-0421
>
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High Resolution Dioxins and Furans Analysis

Case Narrative

HDOX Case Narrative
Curtis & Tompkins, LTD (CURL)
SDG 277284
Work Order 9270

Method/Analysis Information

Product:	**Dioxins/Furans by SW846 Method 8290A in Solids**
Analytical Method:	SW846 8290A
Extraction Method:	SW846 3540C
Analytical Batch Number:	32021
Clean Up Batch Number:	32020
Extraction Batch Number:	32019

Sample Analysis

The following samples were analyzed using the analytical protocol as established in Method 8290A:

Sample ID	Client ID
9270001	LC-WC-052716-01
9270002	LC-WC-052716-02
9270003	LC-WC-052716-03
9270004	LC-WC-052716-04
9270005	LC-WC-052716-05
9270006	LC-WC-052716-06
12016156	Method Blank (MB)
12016157	Laboratory Control Sample (LCS)
12016158	Laboratory Control Sample Duplicate (LCSD)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by Cape Fear Analytical LLC (CFA) as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with CF-OA-E-002 REV# 14.

Raw data reports are processed and reviewed by the analyst using the TargetLynx software package.

Calibration Information

Initial Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (CCV) met the acceptance criteria.

Quality Control (QC) Information

Certification Statement
The test results presented in this document are certified to meet all requirements of the 2009 TNI Standard.

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery
The LCSD spike recoveries met the acceptance limits.

LCS/LCSD Relative Percent Difference (RPD) Statement
The RPD(s) between the LCS and LCSD met the acceptance limits.

QC Sample Designation
A matrix spike and matrix spike duplicate analysis was not required for this SDG.

Technical Information

Holding Time Specifications
CFA assigns holding times based on the associated methodology, which assigns the date and time from sample collection. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Nonconformance (NCR) Documentation
A NCR was not required for this SDG.

Manual Integrations
Certain standards and QC samples required manual integrations to correctly position the baseline as set in the calibration standard injections. Where manual integrations were performed, copies of all manual integration peak profiles are included in the raw data section of this fraction. Manual integrations were required for data files in this SDG.

Sample preparation
No difficulties were encountered during sample preparation.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Sample Data Summary

Cape Fear Analytical, LLC
3306 Kitty Hawk Road Suite 120, Wilmington, NC 28405 - (910) 795-0421 - www.capefearanalytical.com

Certificate of Analysis Report
for

CURL001 Curtis & Tompkins, LTD

Client SDG: 277284 CFA Work Order: 9270

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria
** Analyte is a surrogate compound
E Value is estimated - Concentration of the target analyte exceeds the instrument calibration range
J Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

Review/Validation

Cape Fear Analytical requires all analytical data to be verified by a qualified data reviewer.

The following data validator verified the information presented in this case narrative:

Signature: **Name: Heather Patterson**

Date: 15 JUN 2016 **Title: Group Leader**

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Project:**	**CURL00312**
Lab Sample ID:	**9270001**	**Date Collected:**	**05/27/2016 09:20**	**Matrix:**	**SOIL**
Client Sample:	**8290 Soil**	**Date Received:**	**06/02/2016 10:20**	**%Moisture:**	**9.3**
Client ID:	**LC-WC-052716-01**			**Prep Basis:**	**Dry Weight**
Batch ID:	**32021**	**Method:**	**SW846 8290A**		
Run Date:	**06/09/2016 17:47**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b09jun16b-3**			**Dilution:**	**1**
Prep Batch:	**32019**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-JUN-16**	**Prep Aliquot:**	**12.01 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	J	0.806		pg/g	0.0562	0.918
40321-76-4	1,2,3,7,8-PeCDD		7.72		pg/g	0.0555	4.59
39227-28-6	1,2,3,4,7,8-HxCDD		6.66		pg/g	0.138	4.59
57653-85-7	1,2,3,6,7,8-HxCDD		14.6		pg/g	0.134	4.59
19408-74-3	1,2,3,7,8,9-HxCDD		16.4		pg/g	0.141	4.59
35822-46-9	1,2,3,4,6,7,8-HpCDD		168		pg/g	0.347	4.59
3268-87-9	1,2,3,4,6,7,8,9-OCDD		1190		pg/g	0.523	9.18
51207-31-9	2,3,7,8-TCDF	J	0.701		pg/g	0.0914	0.918
57117-41-6	1,2,3,7,8-PeCDF	J	0.645		pg/g	0.0465	4.59
57117-31-4	2,3,4,7,8-PeCDF	J	1.21		pg/g	0.0448	4.59
70648-26-9	1,2,3,4,7,8-HxCDF	J	2.06		pg/g	0.0681	4.59
57117-44-9	1,2,3,6,7,8-HxCDF	J	2.07		pg/g	0.0633	4.59
60851-34-5	2,3,4,6,7,8-HxCDF	J	2.22		pg/g	0.0657	4.59
72918-21-9	1,2,3,7,8,9-HxCDF	J	0.380		pg/g	0.0791	4.59
67562-39-4	1,2,3,4,6,7,8-HpCDF		24.7		pg/g	0.0872	4.59
55673-89-7	1,2,3,4,7,8,9-HpCDF	J	1.02		pg/g	0.111	4.59
39001-02-0	1,2,3,4,6,7,8,9-OCDF		45.6		pg/g	0.180	9.18
41903-57-5	Total TCDDs		5.14		pg/g	0.0562	0.918
36088-22-9	Total PeCDDs		22.4		pg/g	0.0555	4.59
34465-46-8	Total HxCDDs		91.5		pg/g	0.134	4.59
37871-00-4	Total HpCDDs		308		pg/g	0.347	4.59
30402-14-3	Total TCDFs		12.9		pg/g	0.0914	0.918
30402-15-4	Total PeCDFs		26.2		pg/g	0.0233	4.59
55684-94-1	Total HxCDFs		36.7		pg/g	0.0633	4.59
38998-75-3	Total HpCDFs		54.1		pg/g	0.0872	4.59
3333-30-0	TEQ WHO2005 ND=0		15.7	15.7	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		15.7	15.7	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		162	184	pg/g	88.2	(40%-135%)
13C-1,2,3,7,8-PeCDD		123	184	pg/g	67.0	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		140	184	pg/g	76.5	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		127	184	pg/g	69.3	(40%-135%)
13C-OCDD		253	367	pg/g	68.8	(40%-135%)
13C-2,3,7,8-TCDF		141	184	pg/g	76.9	(40%-135%)
13C-1,2,3,7,8-PeCDF		121	184	pg/g	65.9	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		126	184	pg/g	68.7	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		113	184	pg/g	61.5	(40%-135%)

Comments:

J Value is estimated

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Project:**	**CURL00312**
Lab Sample ID:	**9270002**	**Date Collected:**	**05/27/2016 09:50**	**Matrix:**	**SOIL**
Client Sample:	**8290 Soil**	**Date Received:**	**06/02/2016 10:20**	**%Moisture:**	**7.7**
Client ID:	**LC-WC-052716-02**			**Prep Basis:**	**Dry Weight**
Batch ID:	**32021**	**Method:**	**SW846 8290A**		
Run Date:	**06/10/2016 11:14**	**Analyst:**	**JTF**	**Instrument:**	**HRP750**
Data File:	**A10JUN16A-5**			**Dilution:**	**1**
Prep Batch:	**32019**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-JUN-16**	**Prep Aliquot:**	**11.19 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
51207-31-9	2,3,7,8-TCDF	J	0.886		pg/g	0.110	0.968

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Project:**	**CURL00312**
Lab Sample ID:	**9270002**	**Date Collected:**	**05/27/2016 09:50**	**Matrix:**	**SOIL**
Client Sample:	**8290 Soil**	**Date Received:**	**06/02/2016 10:20**	**%Moisture:**	**7.7**
Client ID:	**LC-WC-052716-02**			**Prep Basis:**	**Dry Weight**
Batch ID:	**32021**	**Method:**	**SW846 8290A**		
Run Date:	**06/09/2016 18:35**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b09jun16b-4**			**Dilution:**	**1**
Prep Batch:	**32019**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-JUN-16**	**Prep Aliquot:**	**11.19 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	J	0.172		pg/g	0.0588	0.968
40321-76-4	1,2,3,7,8-PeCDD	J	0.904		pg/g	0.065	4.84
39227-28-6	1,2,3,4,7,8-HxCDD	J	1.42		pg/g	0.0815	4.84
57653-85-7	1,2,3,6,7,8-HxCDD	J	3.42		pg/g	0.0794	4.84
19408-74-3	1,2,3,7,8,9-HxCDD	J	3.39		pg/g	0.0836	4.84
35822-46-9	1,2,3,4,6,7,8-HpCDD		91.9		pg/g	0.254	4.84
3268-87-9	1,2,3,4,6,7,8,9-OCDD		718		pg/g	0.368	9.68
51207-31-9	2,3,7,8-TCDF		1.03		pg/g	0.0933	0.968
57117-41-6	1,2,3,7,8-PeCDF	J	0.561		pg/g	0.0604	4.84
57117-31-4	2,3,4,7,8-PeCDF	J	1.10		pg/g	0.0583	4.84
70648-26-9	1,2,3,4,7,8-HxCDF	J	1.04		pg/g	0.162	4.84
57117-44-9	1,2,3,6,7,8-HxCDF	J	0.972		pg/g	0.150	4.84
60851-34-5	2,3,4,6,7,8-HxCDF	J	1.29		pg/g	0.156	4.84
72918-21-9	1,2,3,7,8,9-HxCDF	U	.188		pg/g	0.188	4.84
67562-39-4	1,2,3,4,6,7,8-HpCDF		18.6		pg/g	0.0962	4.84
55673-89-7	1,2,3,4,7,8,9-HpCDF	J	0.737		pg/g	0.123	4.84
39001-02-0	1,2,3,4,6,7,8,9-OCDF		61.5		pg/g	0.207	9.68
41903-57-5	Total TCDDs		5.67	5.99	pg/g	0.0588	0.968
36088-22-9	Total PeCDDs		7.29		pg/g	0.065	4.84
34465-46-8	Total HxCDDs		23.5		pg/g	0.0794	4.84
37871-00-4	Total HpCDDs		151		pg/g	0.254	4.84
30402-14-3	Total TCDFs		19.6		pg/g	0.0933	0.968
30402-15-4	Total PeCDFs		18.7		pg/g	0.025	4.84
55684-94-1	Total HxCDFs		19.7		pg/g	0.150	4.84
38998-75-3	Total HpCDFs		50.9		pg/g	0.0962	4.84
3333-30-0	TEQ WHO2005 ND=0		4.03	4.03	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		4.04	4.04	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		181	194	pg/g	93.7	(40%-135%)
13C-1,2,3,7,8-PeCDD		143	194	pg/g	73.8	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		159	194	pg/g	82.1	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		142	194	pg/g	73.6	(40%-135%)
13C-OCDD		279	387	pg/g	72.1	(40%-135%)
13C-2,3,7,8-TCDF		158	194	pg/g	81.5	(40%-135%)
13C-1,2,3,7,8-PeCDF		139	194	pg/g	71.9	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		145	194	pg/g	74.8	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		128	194	pg/g	66.1	(40%-135%)

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Project:**	**CURL00312**
Lab Sample ID:	**9270003**	**Date Collected:**	**05/27/2016 10:10**	**Matrix:**	**SOIL**
Client Sample:	**8290 Soil**	**Date Received:**	**06/02/2016 10:20**	**%Moisture:**	**9.1**
Client ID:	**LC-WC-052716-03**			**Prep Basis:**	**Dry Weight**
Batch ID:	**32021**	**Method:**	**SW846 8290A**		
Run Date:	**06/09/2016 19:22**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b09jun16b-5**			**Dilution:**	**1**
Prep Batch:	**32019**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-JUN-16**	**Prep Aliquot:**	**11.1 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	J	0.722		pg/g	0.0618	0.991
40321-76-4	1,2,3,7,8-PeCDD		5.86		pg/g	0.0616	4.96
39227-28-6	1,2,3,4,7,8-HxCDD		12.6		pg/g	0.220	4.96
57653-85-7	1,2,3,6,7,8-HxCDD		32.3		pg/g	0.214	4.96
19408-74-3	1,2,3,7,8,9-HxCDD		28.1		pg/g	0.226	4.96
35822-46-9	1,2,3,4,6,7,8-HpCDD		997		pg/g	0.783	4.96
3268-87-9	1,2,3,4,6,7,8,9-OCDD	E	8610		pg/g	0.434	9.91
51207-31-9	2,3,7,8-TCDF	J	0.640		pg/g	0.158	0.991
57117-41-6	1,2,3,7,8-PeCDF	J	0.541		pg/g	0.0759	4.96
57117-31-4	2,3,4,7,8-PeCDF	J	1.28		pg/g	0.0731	4.96
70648-26-9	1,2,3,4,7,8-HxCDF	J	4.81		pg/g	0.154	4.96
57117-44-9	1,2,3,6,7,8-HxCDF	J	4.25		pg/g	0.143	4.96
60851-34-5	2,3,4,6,7,8-HxCDF		5.34		pg/g	0.148	4.96
72918-21-9	1,2,3,7,8,9-HxCDF	J	0.767		pg/g	0.178	4.96
67562-39-4	1,2,3,4,6,7,8-HpCDF		194		pg/g	0.250	4.96
55673-89-7	1,2,3,4,7,8,9-HpCDF		8.21		pg/g	0.317	4.96
39001-02-0	1,2,3,4,6,7,8,9-OCDF		766		pg/g	0.236	9.91
41903-57-5	Total TCDDs		8.81		pg/g	0.0618	0.991
36088-22-9	Total PeCDDs		19.6		pg/g	0.0616	4.96
34465-46-8	Total HxCDDs		183		pg/g	0.214	4.96
37871-00-4	Total HpCDDs		1630		pg/g	0.783	4.96
30402-14-3	Total TCDFs		11.7	12.0	pg/g	0.158	0.991
30402-15-4	Total PeCDFs		27.2		pg/g	0.0293	4.96
55684-94-1	Total HxCDFs		136	137	pg/g	0.143	4.96
38998-75-3	Total HpCDFs		638		pg/g	0.250	4.96
3333-30-0	TEQ WHO2005 ND=0		30.7	30.7	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		30.7	30.7	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		174	198	pg/g	87.9	(40%-135%)
13C-1,2,3,7,8-PeCDD		151	198	pg/g	76.1	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		152	198	pg/g	76.5	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		146	198	pg/g	73.7	(40%-135%)
13C-OCDD		334	396	pg/g	84.2	(40%-135%)
13C-2,3,7,8-TCDF		151	198	pg/g	76.2	(40%-135%)
13C-1,2,3,7,8-PeCDF		133	198	pg/g	67.3	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		138	198	pg/g	69.6	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		119	198	pg/g	60.2	(40%-135%)

Comments:

E Value is estimated - Concentration of the target analyte exceeds the instrument calibration range

J Value is estimated

K Estimated Maximum Possible Concentration

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Project:**	**CURL00312**
Lab Sample ID:	**9270004**	**Date Collected:**	**05/27/2016 10:35**	**Matrix:**	**SOIL**
Client Sample:	**8290 Soil**	**Date Received:**	**06/02/2016 10:20**	**%Moisture:**	**11**
Client ID:	**LC-WC-052716-04**			**Prep Basis:**	**Dry Weight**
Batch ID:	**32021**	**Method:**	**SW846 8290A**		
Run Date:	**06/09/2016 20:09**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b09jun16b-6**			**Dilution:**	**1**
Prep Batch:	**32019**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-JUN-16**	**Prep Aliquot:**	**12.06 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	J	0.158		pg/g	0.0524	0.932
40321-76-4	1,2,3,7,8-PeCDD	J	0.710		pg/g	0.0539	4.66
39227-28-6	1,2,3,4,7,8-HxCDD	J	1.18		pg/g	0.0958	4.66
57653-85-7	1,2,3,6,7,8-HxCDD		5.48		pg/g	0.0932	4.66
19408-74-3	1,2,3,7,8,9-HxCDD	J	2.98		pg/g	0.0982	4.66
35822-46-9	1,2,3,4,6,7,8-HpCDD		193		pg/g	0.371	4.66
3268-87-9	1,2,3,4,6,7,8,9-OCDD		1700		pg/g	0.399	9.32
51207-31-9	2,3,7,8-TCDF	J	0.531		pg/g	0.111	0.932
57117-41-6	1,2,3,7,8-PeCDF	J	0.306		pg/g	0.0544	4.66
57117-31-4	2,3,4,7,8-PeCDF	J	0.660		pg/g	0.0525	4.66
70648-26-9	1,2,3,4,7,8-HxCDF	J	0.831		pg/g	0.0794	4.66
57117-44-9	1,2,3,6,7,8-HxCDF	J	0.628		pg/g	0.0738	4.66
60851-34-5	2,3,4,6,7,8-HxCDF	J	0.850		pg/g	0.0766	4.66
72918-21-9	1,2,3,7,8,9-HxCDF	J	0.194		pg/g	0.092	4.66
67562-39-4	1,2,3,4,6,7,8-HpCDF		28.4		pg/g	0.156	4.66
55673-89-7	1,2,3,4,7,8,9-HpCDF	J	1.45		pg/g	0.199	4.66
39001-02-0	1,2,3,4,6,7,8,9-OCDF		179		pg/g	0.248	9.32
41903-57-5	Total TCDDs		1.76	1.84	pg/g	0.0524	0.932
36088-22-9	Total PeCDDs	J	4.45		pg/g	0.0539	4.66
34465-46-8	Total HxCDDs		26.2		pg/g	0.0932	4.66
37871-00-4	Total HpCDDs		307		pg/g	0.371	4.66
30402-14-3	Total TCDFs		9.08	9.21	pg/g	0.111	0.932
30402-15-4	Total PeCDFs		10.5		pg/g	0.0272	4.66
55684-94-1	Total HxCDFs		23.8	24.2	pg/g	0.0738	4.66
38998-75-3	Total HpCDFs		130		pg/g	0.156	4.66
3333-30-0	TEQ WHO2005 ND=0		5.13	5.13	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		5.13	5.13	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		173	186	pg/g	92.8	(40%-135%)
13C-1,2,3,7,8-PeCDD		148	186	pg/g	79.3	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		153	186	pg/g	82.2	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		137	186	pg/g	73.7	(40%-135%)
13C-OCDD		276	373	pg/g	74.0	(40%-135%)
13C-2,3,7,8-TCDF		147	186	pg/g	78.8	(40%-135%)
13C-1,2,3,7,8-PeCDF		137	186	pg/g	73.6	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		133	186	pg/g	71.5	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		115	186	pg/g	61.9	(40%-135%)

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Project:**	**CURL00312**
Lab Sample ID:	**9270005**	**Date Collected:**	**05/27/2016 11:00**	**Matrix:**	**SOIL**
Client Sample:	**8290 Soil**	**Date Received:**	**06/02/2016 10:20**	**%Moisture:**	**38.9**
Client ID:	**LC-WC-052716-05**			**Prep Basis:**	**Dry Weight**
Batch ID:	**32021**	**Method:**	**SW846 8290A**		
Run Date:	**06/10/2016 11:32**	**Analyst:**	**JTF**	**Instrument:**	**HRP750**
Data File:	**A10JUN16A-6**			**Dilution:**	**1**
Prep Batch:	**32019**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-JUN-16**	**Prep Aliquot:**	**17.17 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
51207-31-9	2,3,7,8-TCDF		2.17		pg/g	0.122	0.953

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Project:**	**CURL00312**
Lab Sample ID:	**9270005**	**Date Collected:**	**05/27/2016 11:00**	**Matrix:**	**SOIL**
Client Sample:	**8290 Soil**	**Date Received:**	**06/02/2016 10:20**	**%Moisture:**	**38.9**
Client ID:	**LC-WC-052716-05**			**Prep Basis:**	**Dry Weight**
Batch ID:	**32021**	**Method:**	**SW846 8290A**		
Run Date:	**06/09/2016 20:57**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b09jun16b-7**			**Dilution:**	**1**
Prep Batch:	**32019**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-JUN-16**	**Prep Aliquot:**	**17.17 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD		1.67		pg/g	0.0467	0.953
40321-76-4	1,2,3,7,8-PeCDD	J	1.21		pg/g	0.0486	4.76
39227-28-6	1,2,3,4,7,8-HxCDD	J	0.671		pg/g	0.0614	4.76
57653-85-7	1,2,3,6,7,8-HxCDD	J	1.58		pg/g	0.0598	4.76
19408-74-3	1,2,3,7,8,9-HxCDD	J	1.37		pg/g	0.0629	4.76
35822-46-9	1,2,3,4,6,7,8-HpCDD		22.4		pg/g	0.119	4.76
3268-87-9	1,2,3,4,6,7,8,9-OCDD		153		pg/g	0.244	9.53
51207-31-9	2,3,7,8-TCDF		2.56		pg/g	0.149	0.953
57117-41-6	1,2,3,7,8-PeCDF	J	1.40		pg/g	0.0589	4.76
57117-31-4	2,3,4,7,8-PeCDF	J	3.70		pg/g	0.0568	4.76
70648-26-9	1,2,3,4,7,8-HxCDF	J	1.53		pg/g	0.0667	4.76
57117-44-9	1,2,3,6,7,8-HxCDF	J	1.78		pg/g	0.0621	4.76
60851-34-5	2,3,4,6,7,8-HxCDF	J	2.67		pg/g	0.0644	4.76
72918-21-9	1,2,3,7,8,9-HxCDF	J	0.610		pg/g	0.0774	4.76
67562-39-4	1,2,3,4,6,7,8-HpCDF		7.97		pg/g	0.0612	4.76
55673-89-7	1,2,3,4,7,8,9-HpCDF	J	0.452		pg/g	0.0779	4.76
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	9.17		pg/g	0.120	9.53
41903-57-5	Total TCDDs		15.5	15.7	pg/g	0.0467	0.953
36088-22-9	Total PeCDDs		11.4		pg/g	0.0486	4.76
34465-46-8	Total HxCDDs		18.7		pg/g	0.0598	4.76
37871-00-4	Total HpCDDs		42.1		pg/g	0.119	4.76
30402-14-3	Total TCDFs		50.2		pg/g	0.149	0.953
30402-15-4	Total PeCDFs		56.0		pg/g	0.0221	4.76
55684-94-1	Total HxCDFs		30.6		pg/g	0.0621	4.76
38998-75-3	Total HpCDFs		14.2		pg/g	0.0612	4.76
3333-30-0	TEQ WHO2005 ND=0		5.66	5.66	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		5.66	5.66	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		174	191	pg/g	91.3	(40%-135%)
13C-1,2,3,7,8-PeCDD		150	191	pg/g	78.8	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		148	191	pg/g	77.7	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		129	191	pg/g	67.9	(40%-135%)
13C-OCDD		241	381	pg/g	63.3	(40%-135%)
13C-2,3,7,8-TCDF		145	191	pg/g	76.2	(40%-135%)
13C-1,2,3,7,8-PeCDF		138	191	pg/g	72.4	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		132	191	pg/g	69.3	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		116	191	pg/g	60.8	(40%-135%)

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Project:**	**CURL00312**
Lab Sample ID:	**9270006**	**Date Collected:**	**05/27/2016 11:30**	**Matrix:**	**SOIL**
Client Sample:	**8290 Soil**	**Date Received:**	**06/02/2016 10:20**	**%Moisture:**	**25.3**
Client ID:	**LC-WC-052716-06**			**Prep Basis:**	**Dry Weight**
Batch ID:	**32021**	**Method:**	**SW846 8290A**		
Run Date:	**06/10/2016 11:50**	**Analyst:**	**JTF**	**Instrument:**	**HRP750**
Data File:	**A10JUN16A-7**			**Dilution:**	**1**
Prep Batch:	**32019**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-JUN-16**	**Prep Aliquot:**	**14.26 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
51207-31-9	2,3,7,8-TCDF		1.80		pg/g	0.0914	0.938

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Project:**	**CURL00312**
Lab Sample ID:	**9270006**	**Date Collected:**	**05/27/2016 11:30**	**Matrix:**	**SOIL**
Client Sample:	**8290 Soil**	**Date Received:**	**06/02/2016 10:20**	**%Moisture:**	**25.3**
Client ID:	**LC-WC-052716-06**			**Prep Basis:**	**Dry Weight**
Batch ID:	**32021**	**Method:**	**SW846 8290A**		
Run Date:	**06/09/2016 21:44**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b09jun16b-8**			**Dilution:**	**1**
Prep Batch:	**32019**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-JUN-16**	**Prep Aliquot:**	**14.26 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD		6.11		pg/g	0.0723	0.938
40321-76-4	1,2,3,7,8-PeCDD	J	1.85		pg/g	0.0529	4.69
39227-28-6	1,2,3,4,7,8-HxCDD	J	0.531		pg/g	0.0693	4.69
57653-85-7	1,2,3,6,7,8-HxCDD	J	1.19		pg/g	0.0674	4.69
19408-74-3	1,2,3,7,8,9-HxCDD	J	1.20		pg/g	0.0709	4.69
35822-46-9	1,2,3,4,6,7,8-HpCDD		15.5		pg/g	0.147	4.69
3268-87-9	1,2,3,4,6,7,8,9-OCDD		102		pg/g	0.229	9.38
51207-31-9	2,3,7,8-TCDF		1.94		pg/g	0.128	0.938
57117-41-6	1,2,3,7,8-PeCDF	J	1.01		pg/g	0.0672	4.69
57117-31-4	2,3,4,7,8-PeCDF	J	2.48		pg/g	0.0648	4.69
70648-26-9	1,2,3,4,7,8-HxCDF	J	0.843		pg/g	0.0569	4.69
57117-44-9	1,2,3,6,7,8-HxCDF	J	0.952		pg/g	0.0529	4.69
60851-34-5	2,3,4,6,7,8-HxCDF	J	1.51		pg/g	0.0548	4.69
72918-21-9	1,2,3,7,8,9-HxCDF	J	0.614		pg/g	0.0659	4.69
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	3.86		pg/g	0.0557	4.69
55673-89-7	1,2,3,4,7,8,9-HpCDF	J	0.199		pg/g	0.0709	4.69
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	6.13		pg/g	0.143	9.38
41903-57-5	Total TCDDs		25.2		pg/g	0.0723	0.938
36088-22-9	Total PeCDDs		10.3		pg/g	0.0529	4.69
34465-46-8	Total HxCDDs		14.6		pg/g	0.0674	4.69
37871-00-4	Total HpCDDs		29.9		pg/g	0.147	4.69
30402-14-3	Total TCDFs		41.1		pg/g	0.128	0.938
30402-15-4	Total PeCDFs		45.5		pg/g	0.0342	4.69
55684-94-1	Total HxCDFs		19.7	20.0	pg/g	0.0529	4.69
38998-75-3	Total HpCDFs		8.14		pg/g	0.0557	4.69
3333-30-0	TEQ WHO2005 ND=0		9.83	9.83	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		9.83	9.83	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		162	188	pg/g	86.3	(40%-135%)
13C-1,2,3,7,8-PeCDD		137	188	pg/g	73.0	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		139	188	pg/g	74.2	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		122	188	pg/g	64.9	(40%-135%)
13C-OCDD		220	375	pg/g	58.5	(40%-135%)
13C-2,3,7,8-TCDF		135	188	pg/g	72.1	(40%-135%)
13C-1,2,3,7,8-PeCDF		126	188	pg/g	67.4	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		127	188	pg/g	67.7	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		108	188	pg/g	57.5	(40%-135%)

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for, but not detected above the specified detection limit.

Quality Control Summary

Hi-Res Dioxins/Furans

Surrogate Recovery Report

SDG Number: 277284

Matrix Type: SOLID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
12016157	LCS for batch 32019	13C-2,3,7,8-TCDD		92.7	(40%-135%)
		13C-1,2,3,7,8-PeCDD		99.0	(40%-135%)
		13C-1,2,3,6,7,8-HxCDD		82.4	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		78.0	(40%-135%)
		13C-OCDD		69.0	(40%-135%)
		13C-2,3,7,8-TCDF		97.6	(40%-135%)
		13C-1,2,3,7,8-PeCDF		102	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		90.1	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		82.3	(40%-135%)
12016158	LCSD for batch 32019	13C-2,3,7,8-TCDD		87.1	(40%-135%)
		13C-1,2,3,7,8-PeCDD		82.5	(40%-135%)
		13C-1,2,3,6,7,8-HxCDD		74.5	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		66.6	(40%-135%)
		13C-OCDD		60.8	(40%-135%)
		13C-2,3,7,8-TCDF		88.6	(40%-135%)
		13C-1,2,3,7,8-PeCDF		95.1	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		79.3	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		72.9	(40%-135%)
12016156	MB for batch 32019	13C-2,3,7,8-TCDD		94.8	(40%-135%)
		13C-1,2,3,7,8-PeCDD		93.4	(40%-135%)
		13C-1,2,3,6,7,8-HxCDD		81.4	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		74.7	(40%-135%)
		13C-OCDD		65.3	(40%-135%)
		13C-2,3,7,8-TCDF		95.7	(40%-135%)
		13C-1,2,3,7,8-PeCDF		96.6	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		89.3	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		77.8	(40%-135%)
9270001	LC-WC-052716-01	13C-2,3,7,8-TCDD		88.2	(40%-135%)
		13C-1,2,3,7,8-PeCDD		67.0	(40%-135%)
		13C-1,2,3,6,7,8-HxCDD		76.5	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		69.3	(40%-135%)
		13C-OCDD		68.8	(40%-135%)
		13C-2,3,7,8-TCDF		76.9	(40%-135%)
		13C-1,2,3,7,8-PeCDF		65.9	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		68.7	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		61.5	(40%-135%)
9270002	LC-WC-052716-02	13C-2,3,7,8-TCDD		93.7	(40%-135%)
		13C-1,2,3,7,8-PeCDD		73.8	(40%-135%)
		13C-1,2,3,6,7,8-HxCDD		82.1	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		73.6	(40%-135%)
		13C-OCDD		72.1	(40%-135%)
		13C-2,3,7,8-TCDF		81.5	(40%-135%)
		13C-1,2,3,7,8-PeCDF		71.9	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		74.8	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		66.1	(40%-135%)
9270003	LC-WC-052716-03	13C-2,3,7,8-TCDD		87.9	(40%-135%)
		13C-1,2,3,7,8-PeCDD		76.1	(40%-135%)

Hi-Res Dioxins/Furans

Surrogate Recovery Report

SDG Number: 277284

Matrix Type: SOLID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
9270003	LC-WC-052716-03	13C-1,2,3,6,7,8-HxCDD		76.5	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		73.7	(40%-135%)
		13C-OCDD		84.2	(40%-135%)
		13C-2,3,7,8-TCDF		76.2	(40%-135%)
		13C-1,2,3,7,8-PeCDF		67.3	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		69.6	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		60.2	(40%-135%)
9270004	LC-WC-052716-04	13C-2,3,7,8-TCDD		92.8	(40%-135%)
		13C-1,2,3,7,8-PeCDD		79.3	(40%-135%)
		13C-1,2,3,6,7,8-HxCDD		82.2	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		73.7	(40%-135%)
		13C-OCDD		74.0	(40%-135%)
		13C-2,3,7,8-TCDF		78.8	(40%-135%)
		13C-1,2,3,7,8-PeCDF		73.6	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		71.5	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		61.9	(40%-135%)
9270005	LC-WC-052716-05	13C-2,3,7,8-TCDD		91.3	(40%-135%)
		13C-1,2,3,7,8-PeCDD		78.8	(40%-135%)
		13C-1,2,3,6,7,8-HxCDD		77.7	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		67.9	(40%-135%)
		13C-OCDD		63.3	(40%-135%)
		13C-2,3,7,8-TCDF		76.2	(40%-135%)
		13C-1,2,3,7,8-PeCDF		72.4	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		69.3	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		60.8	(40%-135%)
9270006	LC-WC-052716-06	13C-2,3,7,8-TCDD		86.3	(40%-135%)
		13C-1,2,3,7,8-PeCDD		73.0	(40%-135%)
		13C-1,2,3,6,7,8-HxCDD		74.2	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		64.9	(40%-135%)
		13C-OCDD		58.5	(40%-135%)
		13C-2,3,7,8-TCDF		72.1	(40%-135%)
		13C-1,2,3,7,8-PeCDF		67.4	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		67.7	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		57.5	(40%-135%)

* Recovery outside Acceptance Limits
# Column to be used to flag recovery values
D Sample Diluted

Hi-Res Dioxins/Furans

Quality Control Summary
Spike Recovery Report

SDG Number: 277284 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 32019 **Matrix:** SOIL

Lab Sample ID: 12016157

Instrument: HRP763 **Analysis Date:** 06/08/2016 00:11 **Dilution:** 1

Analyst: JTF **Prep Batch ID:** 32019

Batch ID: 32021

CAS No.		Parmname	Amount Added pg/g	Spike Conc. pg/g	Recovery %	Acceptance Limits
1746-01-6	LCS	2,3,7,8-TCDD	20.0	20.1	101	70-130
40321-76-4	LCS	1,2,3,7,8-PeCDD	100	110	110	70-130
39227-28-6	LCS	1,2,3,4,7,8-HxCDD	100	109	109	70-130
57653-85-7	LCS	1,2,3,6,7,8-HxCDD	100	121	121	70-130
19408-74-3	LCS	1,2,3,7,8,9-HxCDD	100	122	122	70-130
35822-46-9	LCS	1,2,3,4,6,7,8-HpCDD	100	108	108	70-130
3268-87-9	LCS	1,2,3,4,6,7,8,9-OCDD	200	227	114	70-130
51207-31-9	LCS	2,3,7,8-TCDF	20.0	21.5	108	70-130
57117-41-6	LCS	1,2,3,7,8-PeCDF	100	108	108	70-130
57117-31-4	LCS	2,3,4,7,8-PeCDF	100	112	112	70-130
70648-26-9	LCS	1,2,3,4,7,8-HxCDF	100	109	109	70-130
57117-44-9	LCS	1,2,3,6,7,8-HxCDF	100	120	120	70-130
60851-34-5	LCS	2,3,4,6,7,8-HxCDF	100	113	113	70-130
72918-21-9	LCS	1,2,3,7,8,9-HxCDF	100	111	111	70-130
67562-39-4	LCS	1,2,3,4,6,7,8-HpCDF	100	114	114	70-130
55673-89-7	LCS	1,2,3,4,7,8,9-HpCDF	100	106	106	70-130
39001-02-0	LCS	1,2,3,4,6,7,8,9-OCDF	200	237	118	70-130

Hi-Res Dioxins/Furans

Quality Control Summary
Spike Recovery Report

SDG Number: **277284** **Sample Type:** **Laboratory Control Sample Duplicate**

Client ID: **LCSD for batch 32019** **Matrix:** **SOIL**

Lab Sample ID: **12016158**

Instrument: **HRP763** **Analysis Date:** **06/08/2016 00:58** **Dilution:** **1**

Analyst: **JTF** **Prep Batch ID:** **32019**

Batch ID: **32021**

CAS No.		Parmname	Amount Added pg/g	Spike Conc. pg/g	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
1746-01-6	LCSD	2,3,7,8-TCDD	20.0	19.1	95.6	70-130	5.09	0-20
40321-76-4	LCSD	1,2,3,7,8-PeCDD	100	107	107	70-130	2.81	0-20
39227-28-6	LCSD	1,2,3,4,7,8-HxCDD	100	99.9	99.9	70-130	8.94	0-20
57653-85-7	LCSD	1,2,3,6,7,8-HxCDD	100	121	121	70-130	0.0578	0-20
19408-74-3	LCSD	1,2,3,7,8,9-HxCDD	100	117	117	70-130	4.04	0-20
35822-46-9	LCSD	1,2,3,4,6,7,8-HpCDD	100	103	103	70-130	4.47	0-20
3268-87-9	LCSD	1,2,3,4,6,7,8,9-OCDD	200	217	109	70-130	4.45	0-20
51207-31-9	LCSD	2,3,7,8-TCDF	20.0	20.8	104	70-130	3.73	0-20
57117-41-6	LCSD	1,2,3,7,8-PeCDF	100	104	104	70-130	3.40	0-20
57117-31-4	LCSD	2,3,4,7,8-PeCDF	100	97.7	97.7	70-130	13.8	0-20
70648-26-9	LCSD	1,2,3,4,7,8-HxCDF	100	99.3	99.3	70-130	9.10	0-20
57117-44-9	LCSD	1,2,3,6,7,8-HxCDF	100	113	113	70-130	6.18	0-20
60851-34-5	LCSD	2,3,4,6,7,8-HxCDF	100	111	111	70-130	2.03	0-20
72918-21-9	LCSD	1,2,3,7,8,9-HxCDF	100	107	107	70-130	3.69	0-20
67562-39-4	LCSD	1,2,3,4,6,7,8-HpCDF	100	109	109	70-130	3.91	0-20
55673-89-7	LCSD	1,2,3,4,7,8,9-HpCDF	100	99.7	99.7	70-130	6.04	0-20
39001-02-0	LCSD	1,2,3,4,6,7,8,9-OCDF	200	223	112	70-130	5.87	0-20

Method Blank Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Matrix:**	**SOIL**
Client ID:	**MB for batch 32019**	**Instrument ID:**	**HRP763**	**Data File:**	**b07jun16a_3-3**
Lab Sample ID:	**12016156**	**Prep Date:**	**06-JUN-16**	**Analyzed:**	**06/08/16 01:45**
Column:					

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 32019	12016157	b07jun16a_3-1	06/08/16	0011
02	LCSD for batch 32019	12016158	b07jun16a_3-2	06/08/16	0058
03	LC-WC-052716-01	9270001	b09jun16b-3	06/09/16	1747
04	LC-WC-052716-02	9270002	b09jun16b-4	06/09/16	1835
05	LC-WC-052716-03	9270003	b09jun16b-5	06/09/16	1922
06	LC-WC-052716-04	9270004	b09jun16b-6	06/09/16	2009
07	LC-WC-052716-05	9270005	b09jun16b-7	06/09/16	2057
08	LC-WC-052716-06	9270006	b09jun16b-8	06/09/16	2144
09	LC-WC-052716-02	9270002	A10JUN16A-5	06/10/16	1114
10	LC-WC-052716-05	9270005	A10JUN16A-6	06/10/16	1132
11	LC-WC-052716-06	9270006	A10JUN16A-7	06/10/16	1150

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Project:**	**CURL00312**
Lab Sample ID:	**12016156**			**Matrix:**	**SOIL**
Client Sample:	**QC for batch 32019**				
Client ID:	**MB for batch 32019**			**Prep Basis:**	**As Received**
Batch ID:	**32021**	**Method:**	**SW846 8290A**		
Run Date:	**06/08/2016 01:45**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b07jun16a_3-3**			**Dilution:**	**1**
Prep Batch:	**32019**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-JUN-16**	**Prep Aliquot:**	**10 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	.186		pg/g	0.186	1.00
40321-76-4	1,2,3,7,8-PeCDD	U	.172		pg/g	0.172	5.00
39227-28-6	1,2,3,4,7,8-HxCDD	U	.206		pg/g	0.206	5.00
57653-85-7	1,2,3,6,7,8-HxCDD	U	.2		pg/g	0.200	5.00
19408-74-3	1,2,3,7,8,9-HxCDD	U	.21		pg/g	0.210	5.00
35822-46-9	1,2,3,4,6,7,8-HpCDD	U	.314		pg/g	0.314	5.00
3268-87-9	1,2,3,4,6,7,8,9-OCDD	J	0.880		pg/g	0.568	10.0
51207-31-9	2,3,7,8-TCDF	U	.185		pg/g	0.185	1.00
57117-41-6	1,2,3,7,8-PeCDF	J	0.170		pg/g	0.117	5.00
57117-31-4	2,3,4,7,8-PeCDF	U	.113		pg/g	0.113	5.00
70648-26-9	1,2,3,4,7,8-HxCDF	U	.135		pg/g	0.135	5.00
57117-44-9	1,2,3,6,7,8-HxCDF	U	.126		pg/g	0.126	5.00
60851-34-5	2,3,4,6,7,8-HxCDF	U	.131		pg/g	0.131	5.00
72918-21-9	1,2,3,7,8,9-HxCDF	U	.157		pg/g	0.157	5.00
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	0.200		pg/g	0.132	5.00
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	.168		pg/g	0.168	5.00
39001-02-0	1,2,3,4,6,7,8,9-OCDF	U	.62		pg/g	0.620	10.0
41903-57-5	Total TCDDs	U	.186		pg/g	0.186	1.00
36088-22-9	Total PeCDDs	U	.172		pg/g	0.172	5.00
34465-46-8	Total HxCDDs	U	.2		pg/g	0.200	5.00
37871-00-4	Total HpCDDs	U	.314		pg/g	0.314	5.00
30402-14-3	Total TCDFs	U	.185		pg/g	0.185	1.00
30402-15-4	Total PeCDFs	J	0.170		pg/g	0.113	5.00
55684-94-1	Total HxCDFs	U	.126		pg/g	0.126	5.00
38998-75-3	Total HpCDFs	J	0.200		pg/g	0.132	5.00
3333-30-0	TEQ WHO2005 ND=0		0.00736	0.00736	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		0.273	0.273	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		190	200	pg/g	94.8	(40%-135%)
13C-1,2,3,7,8-PeCDD		187	200	pg/g	93.4	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		163	200	pg/g	81.4	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		149	200	pg/g	74.7	(40%-135%)
13C-OCDD		261	400	pg/g	65.3	(40%-135%)
13C-2,3,7,8-TCDF		191	200	pg/g	95.7	(40%-135%)
13C-1,2,3,7,8-PeCDF		193	200	pg/g	96.6	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		179	200	pg/g	89.3	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		156	200	pg/g	77.8	(40%-135%)

Comments:

J Value is estimated

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Project:**	**CURL00312**
Lab Sample ID:	**12016157**			**Matrix:**	**SOIL**
Client Sample:	**QC for batch 32019**				
Client ID:	**LCS for batch 32019**			**Prep Basis:**	**As Received**
Batch ID:	**32021**	**Method:**	**SW846 8290A**		
Run Date:	**06/08/2016 00:11**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b07jun16a_3-1**			**Dilution:**	**1**
Prep Batch:	**32019**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-JUN-16**	**Prep Aliquot:**	**10 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD		20.1		pg/g	0.280	1.00
40321-76-4	1,2,3,7,8-PeCDD		110		pg/g	0.340	5.00
39227-28-6	1,2,3,4,7,8-HxCDD		109		pg/g	0.640	5.00
57653-85-7	1,2,3,6,7,8-HxCDD		121		pg/g	0.624	5.00
19408-74-3	1,2,3,7,8,9-HxCDD		122		pg/g	0.658	5.00
35822-46-9	1,2,3,4,6,7,8-HpCDD		108		pg/g	0.978	5.00
3268-87-9	1,2,3,4,6,7,8,9-OCDD		227		pg/g	1.76	10.0
51207-31-9	2,3,7,8-TCDF		21.5		pg/g	0.298	1.00
57117-41-6	1,2,3,7,8-PeCDF		108		pg/g	0.382	5.00
57117-31-4	2,3,4,7,8-PeCDF		112		pg/g	0.368	5.00
70648-26-9	1,2,3,4,7,8-HxCDF		109		pg/g	0.516	5.00
57117-44-9	1,2,3,6,7,8-HxCDF		120		pg/g	0.480	5.00
60851-34-5	2,3,4,6,7,8-HxCDF		113		pg/g	0.498	5.00
72918-21-9	1,2,3,7,8,9-HxCDF		111		pg/g	0.600	5.00
67562-39-4	1,2,3,4,6,7,8-HpCDF		114		pg/g	0.580	5.00
55673-89-7	1,2,3,4,7,8,9-HpCDF		106		pg/g	0.738	5.00
39001-02-0	1,2,3,4,6,7,8,9-OCDF		237		pg/g	1.50	10.0

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		185	200	pg/g	92.7	(40%-135%)
13C-1,2,3,7,8-PeCDD		198	200	pg/g	99.0	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		165	200	pg/g	82.4	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		156	200	pg/g	78.0	(40%-135%)
13C-OCDD		276	400	pg/g	69.0	(40%-135%)
13C-2,3,7,8-TCDF		195	200	pg/g	97.6	(40%-135%)
13C-1,2,3,7,8-PeCDF		204	200	pg/g	102	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		180	200	pg/g	90.1	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		165	200	pg/g	82.3	(40%-135%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Project:**	**CURL00312**
Lab Sample ID:	**12016158**			**Matrix:**	**SOIL**
Client Sample:	**QC for batch 32019**				
Client ID:	**LCSD for batch 32019**			**Prep Basis:**	**As Received**
Batch ID:	**32021**	**Method:**	**SW846 8290A**		
Run Date:	**06/08/2016 00:58**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b07jun16a_3-2**			**Dilution:**	**1**
Prep Batch:	**32019**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-JUN-16**	**Prep Aliquot:**	**10 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD		19.1		pg/g	0.230	1.00
40321-76-4	1,2,3,7,8-PeCDD		107		pg/g	0.258	5.00
39227-28-6	1,2,3,4,7,8-HxCDD		99.9		pg/g	0.534	5.00
57653-85-7	1,2,3,6,7,8-HxCDD		121		pg/g	0.520	5.00
19408-74-3	1,2,3,7,8,9-HxCDD		117		pg/g	0.546	5.00
35822-46-9	1,2,3,4,6,7,8-HpCDD		103		pg/g	0.830	5.00
3268-87-9	1,2,3,4,6,7,8,9-OCDD		217		pg/g	1.71	10.0
51207-31-9	2,3,7,8-TCDF		20.8		pg/g	0.288	1.00
57117-41-6	1,2,3,7,8-PeCDF		104		pg/g	0.388	5.00
57117-31-4	2,3,4,7,8-PeCDF		97.7		pg/g	0.374	5.00
70648-26-9	1,2,3,4,7,8-HxCDF		99.3		pg/g	0.488	5.00
57117-44-9	1,2,3,6,7,8-HxCDF		113		pg/g	0.454	5.00
60851-34-5	2,3,4,6,7,8-HxCDF		111		pg/g	0.472	5.00
72918-21-9	1,2,3,7,8,9-HxCDF		107		pg/g	0.566	5.00
67562-39-4	1,2,3,4,6,7,8-HpCDF		109		pg/g	0.518	5.00
55673-89-7	1,2,3,4,7,8,9-HpCDF		99.7		pg/g	0.660	5.00
39001-02-0	1,2,3,4,6,7,8,9-OCDF		223		pg/g	0.934	10.0

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		174	200	pg/g	87.1	(40%-135%)
13C-1,2,3,7,8-PeCDD		165	200	pg/g	82.5	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		149	200	pg/g	74.5	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		133	200	pg/g	66.6	(40%-135%)
13C-OCDD		243	400	pg/g	60.8	(40%-135%)
13C-2,3,7,8-TCDF		177	200	pg/g	88.6	(40%-135%)
13C-1,2,3,7,8-PeCDF		190	200	pg/g	95.1	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		159	200	pg/g	79.3	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		146	200	pg/g	72.9	(40%-135%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

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WORK ORDER NUMBER: 16-06-0007

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Curtis & Tompkins, Ltd.

Client Project Name: 277284

Attention: Tracy Babjar
2323 Fifth Street
Berkeley, CA 94710-2407

Vikas Patel

Approved for release on 06/14/2016 by:
Vikas Patel
Project Manager

ResultLink

Email your PM

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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Work Order Number: 16-06-0007

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Work Order Narrative

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 06/01/16. They were assigned to Work Order 16-06-0007.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

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Detections Summary

Client:	Curtis & Tompkins, Ltd.	Work Order:	16-06-0007
	2323 Fifth Street	Project Name:	277284
	Berkeley, CA 94710-2407	Received:	06/01/16
Attn:	Tracy Babjar		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
LC-WC-052716-01 (16-06-0007-1)						
Dalapon	260		250	ug/kg	EPA 8151A	EPA 8151A
LC-WC-052716-06 (16-06-0007-6)						
2,4,5-TP (Silvex)	26		10	ug/kg	EPA 8151A	EPA 8151A

Subcontracted analyses, if any, are not included in this summary.

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* MDL is shown

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Analytical Report

Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Project: 277284

Date Received: 06/01/16
Work Order: 16-06-0007
Preparation: EPA 8151A
Method: EPA 8151A
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LC-WC-052716-01	**16-06-0007-1-A**	**05/27/16 09:20**	**Solid**	**GC 40**	**06/06/16**	**06/10/16 12:04**	**160606L14**

Parameter	Result	RL	DF	Qualifiers
Dalapon	260	250	1.00	
Dicamba	ND	10	1.00	
MCPP	ND	10000	1.00	
MCPA	ND	10000	1.00	
Dichlorprop	ND	100	1.00	
2,4-D	ND	100	1.00	
2,4,5-TP (Silvex)	ND	10	1.00	
2,4,5-T	ND	10	1.00	
2,4-DB	ND	100	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	70	30-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LC-WC-052716-02	**16-06-0007-2-A**	**05/27/16 09:50**	**Solid**	**GC 40**	**06/06/16**	**06/10/16 12:27**	**160606L14**

Parameter	Result	RL	DF	Qualifiers
Dalapon	ND	250	1.00	
Dicamba	ND	10	1.00	
MCPP	ND	10000	1.00	
MCPA	ND	10000	1.00	
Dichlorprop	ND	100	1.00	
2,4-D	ND	100	1.00	
2,4,5-TP (Silvex)	ND	10	1.00	
2,4,5-T	ND	10	1.00	
2,4-DB	ND	100	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	82	30-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Project: 277284

Date Received: 06/01/16
Work Order: 16-06-0007
Preparation: EPA 8151A
Method: EPA 8151A
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LC-WC-052716-03	**16-06-0007-3-A**	**05/27/16 10:10**	**Solid**	**GC 40**	**06/06/16**	**06/10/16 12:50**	**160606L14**

Parameter	Result	RL	DF	Qualifiers
Dalapon	ND	250	1.00	
Dicamba	ND	10	1.00	
MCPP	ND	10000	1.00	
MCPA	ND	10000	1.00	
Dichlorprop	ND	100	1.00	
2,4-D	ND	100	1.00	
2,4,5-TP (Silvex)	ND	10	1.00	
2,4,5-T	ND	10	1.00	
2,4-DB	ND	100	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	77	30-130	

LC-WC-052716-04	16-06-0007-4-A	05/27/16 10:35	Solid	GC 40	06/06/16	06/10/16 13:13	160606L14

Parameter	Result	RL	DF	Qualifiers
Dalapon	ND	250	1.00	
Dicamba	ND	10	1.00	
MCPP	ND	10000	1.00	
MCPA	ND	10000	1.00	
Dichlorprop	ND	100	1.00	
2,4-D	ND	100	1.00	
2,4,5-TP (Silvex)	ND	10	1.00	
2,4,5-T	ND	10	1.00	
2,4-DB	ND	100	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	76	30-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Project: 277284

Date Received: 06/01/16
Work Order: 16-06-0007
Preparation: EPA 8151A
Method: EPA 8151A
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LC-WC-052716-05	**16-06-0007-5-A**	**05/27/16 11:00**	**Solid**	**GC 40**	**06/06/16**	**06/10/16 13:37**	**160606L14**

Parameter	Result	RL	DF	Qualifiers
Dalapon	ND	250	1.00	
Dicamba	ND	10	1.00	
MCPP	ND	10000	1.00	
MCPA	ND	10000	1.00	
Dichlorprop	ND	100	1.00	
2,4-D	ND	100	1.00	
2,4,5-TP (Silvex)	ND	10	1.00	
2,4,5-T	ND	10	1.00	
2,4-DB	ND	100	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	64	30-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LC-WC-052716-06	**16-06-0007-6-A**	**05/27/16 11:30**	**Solid**	**GC 40**	**06/06/16**	**06/10/16 14:00**	**160606L14**

Parameter	Result	RL	DF	Qualifiers
Dalapon	ND	250	1.00	
Dicamba	ND	10	1.00	
MCPP	ND	10000	1.00	
MCPA	ND	10000	1.00	
Dichlorprop	ND	100	1.00	
2,4-D	ND	100	1.00	
2,4,5-TP (Silvex)	26	10	1.00	
2,4,5-T	ND	10	1.00	
2,4-DB	ND	100	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	95	30-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Project: 277284

Date Received: 06/01/16
Work Order: 16-06-0007
Preparation: EPA 8151A
Method: EPA 8151A
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**095-01-033-1370**	**N/A**	**Solid**	**GC 40**	**06/06/16**	**06/08/16 01:40**	**160606L14**

Parameter	Result	RL	DF	Qualifiers
Dalapon	ND	250	1.00	
Dicamba	ND	10	1.00	
MCPP	ND	10000	1.00	
MCPA	ND	10000	1.00	
Dichlorprop	ND	100	1.00	
2,4-D	ND	100	1.00	
2,4,5-TP (Silvex)	ND	10	1.00	
2,4,5-T	ND	10	1.00	
2,4-DB	ND	100	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	98	30-130	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

Curtis & Tompkins, Ltd.		Date Received:	06/01/16
2323 Fifth Street		Work Order:	16-06-0007
Berkeley, CA 94710-2407		Preparation:	EPA 8151A
		Method:	EPA 8151A
Project: 277284			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-06-0334-7	**Sample**	**Solid**	**GC 40**	**06/06/16**	**06/08/16 05:10**	**160606S14**
16-06-0334-7	**Matrix Spike**	**Solid**	**GC 40**	**06/06/16**	**06/08/16 02:04**	**160606S14**
16-06-0334-7	**Matrix Spike Duplicate**	**Solid**	**GC 40**	**06/06/16**	**06/08/16 02:27**	**160606S14**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
2,4-D	ND	400.0	376.0	94	403.0	101	30-130	7	0-30	
2,4,5-T	ND	40.00	37.00	92	42.00	105	30-130	13	0-30	
2,4-DB	ND	400.0	369.0	92	390.0	98	30-130	6	0-30	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Curtis & Tompkins, Ltd.		Date Received:	06/01/16
2323 Fifth Street		Work Order:	16-06-0007
Berkeley, CA 94710-2407		Preparation:	EPA 8151A
		Method:	EPA 8151A
Project: 277284			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
095-01-033-1370	**LCS**	**Solid**	**GC 40**	**06/06/16**	**06/08/16 01:17**	**160606L14**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
2,4-D	400.0	467.0	117	30-130	
2,4,5-T	40.00	51.00	128	30-130	
2,4-DB	400.0	423.0	106	30-130	

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 16-06-0007 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8151A	EPA 8151A	669	GC 40	1

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Glossary of Terms and Qualifiers

Work Order: 16-06-0007 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900
(510) 486-0532

16-06-0007

Project Number: 277284
Site: Lendrum Court

Subcontract Laboratory:
Cal Science
7440 Lincoln Way
Garden Grove, CA 92841-1432
(714) 895-5494
ATTN: Vik Patel

Results due: Report Level: II

Please send report to: Tracy Babjar (tracy.babjar@ctberk.com)
*** Please report using Sample ID rather than C&T Lab #.

	Sample ID	Sampled	Matrix	Analysis	C&T Lab #	Comments
1	LC-WC-052716-01	05/27 09:20	Soil	8151	277284-001	
2	LC-WC-052716-02	05/27 09:50	Soil	8151	277284-002	
3	LC-WC-052716-03	05/27 10:10	Soil	8151	277284-003	
4	LC-WC-052716-04	05/27 10:35	Soil	8151	277284-004	
5	LC-WC-052716-05	05/27 11:00	Soil	8151	277284-005	
6	LC-WC-052716-06	05/27 11:30	Soil	8151	277284-006	

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Notes:	Relinquished By:	Received By:
	Date/Time: 5/31/16 15:35	Date/Time:
	Date/Time:	Date/Time: 6/1/16 1000

Signature on this form constitutes a firm Purchase Order for the services requested above.

0007

ORIGIN ID:JEMA (510) 486-0900
SAMPLE CONTROL
CURTIS & TOMPKINS
2323 5TH STREET

BERKELEY, CA 94710
UNITED STATES US

SHIP DATE: 31MAY16
ACTWGT: 12.00 LB
CAD: 7603800/INET3730

BILL THIRD PARTY

TO VIK PATEL
CAL SCIENCE ENVIRONMENTAL LAB
7440 LINCOLN WAY

GARDEN GROVE CA 92841
(714) 895-5494 REF: 277284, 277285, 277286, 277287
INV:
PO: DEPT:

540J/30BD/727F

FedEx Express

J1610160205011ur

WED - 01 JUN 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7764 1191 9130

92 APVA

92841
CA-US SNA

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WORK ORDER NUMBER: 16-06- 0007

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: CET

DATE: 06 / 01 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 3.4 °C (w/ CF): 3.4 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: IS

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: IS

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: SM6

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☐	☐	☑
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna_2 ☐ 100PJ ☐ 100PJna_2 ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 125PB

☐ 125PBznna ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 250PB ☐ 250PBn ☐ 500AGB ☐ 500AGJ ☐ 500AGJs

☐ 500PB ☐ 1AGB ☐ 1AGBna_2 ☐ 1AGBs ☐ 1PB ☐ 1PBna ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☑ 2 ozCGJ

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na_2** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = $Zn(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: SM6

Reviewed by: JR

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Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 277284
ANALYTICAL REPORT

Engineering Remediation Resource Grp	Project : 2015-063
115 Sansome St	Location : Lendrum Court
San Francisco, CA 94104	Level : II

Sample ID	Lab ID
LC-WC-052716-01	277284-001
LC-WC-052716-02	277284-002
LC-WC-052716-03	277284-003
LC-WC-052716-04	277284-004
LC-WC-052716-05	277284-005
LC-WC-052716-06	277284-006

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Tracy Babjar Date: 06/20/2016

Tracy Babjar
Project Manager
tracy.babjar@ctberk.com
(510) 204-2226

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**277284**
Client:	**Engineering Remediation Resource Grp**
Project:	**2015-063**
Location:	**Lendrum Court**
Request Date:	**05/27/16**
Samples Received:	**05/27/16**

This data package contains sample and QC results for six soil samples, requested for the above referenced project on 05/27/16. The samples were received intact.

TPH-Extractables by GC (EPA 8015B):
Matrix spikes QC837932,QC837933 (batch 235687) were not reported because the parent sample required a dilution that would have diluted out the spikes. A number of samples were diluted due to the dark and viscous nature of the sample extracts. No other analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
High recoveries were observed for benzene in the MS/MSD of LC-WC-052716-04 (lab # 277284-004); the LCS was within limits, the associated RPD was within limits, and this analyte was not detected at or above the RL in the associated samples. No other analytical problems were encountered.

Semivolatile Organics by GC/MS (EPA 8270C):
Matrix spikes QC837839,QC837840 (batch 235660) were not reported because the parent sample required a dilution that would have diluted out the spikes. High surrogate recovery was observed for 2-fluorophenol in LC-WC-052716-02 (lab # 277284-002); no target analytes were detected in the sample. High surrogate recovery was observed for phenol-d5 in LC-WC-052716-02 (lab # 277284-002); no target analytes were detected in the sample. Many samples were diluted due to the dark and viscous nature of the sample extracts. No other analytical problems were encountered.

Pesticides (EPA 8081A):
All samples underwent sulfur cleanup using the copper option in EPA Method 3660B. All samples underwent florisil cleanup using EPA Method 3620C. Matrix spikes QC838057,QC838058 (batch 235725) were not reported because the parent sample required a dilution that would have diluted out the spikes. Many samples were diluted due to the color of the sample extracts. No other analytical problems were encountered.

Metals (EPA 6010B and EPA 7471A):
Low recoveries were observed for silver in the MS/MSD for batch 235744; the parent sample was not a project sample, the BS/BSD were within limits, and the associated RPD was within limits. No other analytical problems were encountered.

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**277284**
Client:	**Engineering Remediation Resource Grp**
Project:	**2015-063**
Location:	**Lendrum Court**
Request Date:	**05/27/16**
Samples Received:	**05/27/16**

Asbestos PLM (EPA 600/R-93-116):
Forensic Analytical in Hayward, CA performed the analysis (not NELAP certified). Please see the Forensic Analytical case narrative.

Chlorophenoxy Herbicides (EPA 8151):
Cal Science in Garden Grove, CA performed the analysis (NELAP certified). Please see the Cal Science case narrative.

Dioxins and Furans (EPA 8290):
Cape Fear Analytical in Wilmington, NC performed the analysis (NELAP certified). Please see the Cape Fear Analytical case narrative.

CHAIN OF CUSTODY

Curtis & Tompkins Laboratories
ENVIRONMENTAL ANALYTICAL TESTING LABORATORY
In Business Since 1878

2323 Fifth Street
Berkeley, CA 94710

Phone (510) 486-0900
Fax (510) 486-0532

Chain of Custody # _____

C&T LOGIN # 272284

Project No: 2015-063
Project Name: Lendrum Court
Project P. O. No: 2015-063
EDD Format: Report Level ☒ II ☐ III ☐ IV
Turnaround Time: ☐ RUSH 5-Day ☒ Standard

Sampler: Brian Starling
Report To: Joe Corrick
Company: ERRG
Telephone: 415-933-0264
Email: Joseph.Corrick@ERRG.com

Lab No.	Sample ID.	SAMPLING		MATRIX			# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST																				
		Date Collected	Time Collected	Water	Solid			HCl	H2SO4	HNO3	NaOH	None	VOC 8260	SVOC 8270	TPH d/mo 8015 (C14-C22)	Asbestos by PLM	Pesticides 8081	Herbicides 8185														
1	LC-WC-052716-01	5/27/16	920		X							X	X	X	X	X	X														
2	LC-WC-052716-02	↓	950		X							X	X	X	X	X	X														
3	LC-WC-052716-03		1010		X							X	X	X	X	X	X														
4	LC-WC-052716-04		1035		X							X	X	X	X	X	X														
5	LC-WC-052716-05		1100		X							X	X	X	X	X	X														
6	LC-WC-052716-06		1130		X							X	X	X	X	X	X														

Notes:
Hold Samples for Possible TCLP/WET

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:		RECEIVED BY: 5/27/16	
[signature]	DATE: 5/27/16 TIME: 12:18	D U	DATE: TIME: 12:18
	DATE: TIME:		DATE: TIME:
	DATE: TIME:		DATE: TIME:

Subject: RE: (Response Required) 2015-063 - C&T Login Summary (277284)
From: Joseph Corrick <joseph.corrick@errg.com>
Date: 5/31/2016 3:37 PM
To: Mikelle Chong <mikelle.chong@ctberk.com>, "Mike.Dahlquist@ctberk.com" <Mike.Dahlquist@ctberk.com>, "Dina.Ali@ctberk.com" <Dina.Ali@ctberk.com>, "John.Goyette@ctberk.com" <John.Goyette@ctberk.com>

Yes. The method is 8290.

I realize that this will take something like 21 days. I believe last time this went to Cape Fear Analytical in NC.

Thanks!

Joe Corrick
ERRG, INC./ Assistant Project Scientist
115 Sansome St., Ste 200
San Francisco, CA
Cell: (415) 933-0264
Office (415) 848-7423

From: Mikelle Chong [mailto:mikelle.chong@ctberk.com]
Sent: Tuesday, May 31, 2016 3:35 PM
To: Joseph Corrick <joseph.corrick@errg.com>; Mike.Dahlquist@ctberk.com; Dina.Ali@ctberk.com; John.Goyette@ctberk.com
Cc: Brian Starling <brian.starling@errg.com>
Subject: Re: (Response Required) 2015-063 - C&T Login Summary (277284)

Hi Joseph,
Do you have the method for doxins/furans?

Thanks,

Mikelle Chong
Project Manager
Curtis & Tompkins
(510)204-2236
www.curtisandtompkins.com

On 5/31/2016 2:54 PM, Joseph Corrick wrote:

> Please see below in response to Tracy's request for clarification.
>
> ---
>
> **From:** Joseph Corrick
> **Sent:** Tuesday, May 31, 2016 2:52 PM
> **To:** 'Tracy Babjar' <tracy.babjar@ctberk.com>
> **Cc:** Brian Starling <brian.starling@errg.com>
> **Subject:** RE: (Response Required) 2015-063 - C&T Login Summary (277284)
>
> Yes, please include T22 by 6010. Please also include doxins/ furans.
>
> Thanks,
>
> Joe Corrick
> ERRG, INC./ Assistant Project Scientist
> 115 Sansome St., Ste 200

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 277284 Date Received 5/27/16 Number of coolers 0
Client ERRG Project 2015-063

Date Opened 5/27 By (print) CJN (sign) [signature]
Date Logged in 5/31 By (print) " (sign) "

1. Did cooler come with a shipping slip (airbill, etc) YES NO
Shipping info

2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples ☒ NO
How many Name Date
2B. Were custody seals intact upon arrival? YES NO N/A
3. Were custody papers dry and intact when received? YES NO
4. Were custody papers filled out properly (ink, signed, etc)? YES NO
5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO
6. Indicate the packing in cooler: (if other, describe)

☐ Bubble Wrap ☐ Foam blocks ☐ Bags ☐ None
☐ Cloth material ☒ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☐ Wet ☐ Blue/Gel ☒ None Temp(°C)

☐ Temperature blank(s) included? ☐ Thermometer# ☐ IR Gun#

☐ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? YES NO
If YES, what time were they transferred to freezer?
9. Did all bottles arrive unbroken/unopened? YES NO
10. Are there any missing / extra samples? YES NO
11. Are samples in the appropriate containers for indicated tests? YES NO
12. Are sample labels present, in good condition and complete? YES NO
13. Do the sample labels agree with custody papers? YES NO
14. Was sufficient amount of sample sent for tests requested? YES NO
15. Are the samples appropriately preserved? YES NO N/A
16. Did you check preservatives for all bottles for each sample? YES NO N/A
17. Did you document your preservative check? (pH strip lot#) YES NO N/A
18. Did you change the hold time in LIMS for unpreserved VOAs? YES NO N/A
19. Did you change the hold time in LIMS for preserved terracores? YES NO N/A
20. Are bubbles > 6mm absent in VOA samples? YES NO N/A
21. Was the client contacted concerning this sample delivery? YES NO
If YES, Who was called? Joe Carrick By T. Bobic Date: 6/2/16

COMMENTS
called Joe to let him know SDG 166 for E290 received samples intact for E290 but the temp was out of specs. It was 9.9 °C per Joe please go ahead with the analysis
CM

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	05/27/16
Units:	mg/Kg	Received:	05/27/16
Basis:	as received	Prepared:	06/02/16
Batch#:	235687	Analyzed:	06/03/16

Field ID: LC-WC-052716-01 Lab ID: 277284-001
Type: SAMPLE Diln Fac: 1.000

Analyte	Result	RL
Diesel C10-C24	82 Y	1.0
Motor Oil C24-C36	290	5.0

Surrogate	%REC	Limits
o-Terphenyl	105	59-140

Field ID: LC-WC-052716-02 Lab ID: 277284-002
Type: SAMPLE Diln Fac: 1.000

Analyte	Result	RL
Diesel C10-C24	8.8 Y	1.0
Motor Oil C24-C36	83	5.0

Surrogate	%REC	Limits
o-Terphenyl	107	59-140

Field ID: LC-WC-052716-03 Lab ID: 277284-003
Type: SAMPLE Diln Fac: 10.00

Analyte	Result	RL
Diesel C10-C24	40 Y	10
Motor Oil C24-C36	310	50

Surrogate	%REC	Limits
o-Terphenyl	DO	59-140

Field ID: LC-WC-052716-04 Lab ID: 277284-004
Type: SAMPLE Diln Fac: 10.00

Analyte	Result	RL
Diesel C10-C24	140 Y	10
Motor Oil C24-C36	440	50

Surrogate	%REC	Limits
o-Terphenyl	DO	59-140

Y= Sample exhibits chromatographic pattern which does not resemble standard
DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	05/27/16
Units:	mg/Kg	Received:	05/27/16
Basis:	as received	Prepared:	06/02/16
Batch#:	235687	Analyzed:	06/03/16

Field ID: LC-WC-052716-05 Lab ID: 277284-005
Type: SAMPLE Diln Fac: 5.000

Analyte	Result	RL
Diesel C10-C24	440 Y	5.0
Motor Oil C24-C36	1,000	25

Surrogate	%REC	Limits
o-Terphenyl	105	59-140

Field ID: LC-WC-052716-06 Lab ID: 277284-006
Type: SAMPLE Diln Fac: 10.00

Analyte	Result	RL
Diesel C10-C24	1,300 Y	10
Motor Oil C24-C36	3,000	50

Surrogate	%REC	Limits
o-Terphenyl	DO	59-140

Type: BLANK Diln Fac: 1.000
Lab ID: QC837930

Analyte	Result	RL
Diesel C10-C24	ND	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	137	59-140

Y= Sample exhibits chromatographic pattern which does not resemble standard
DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

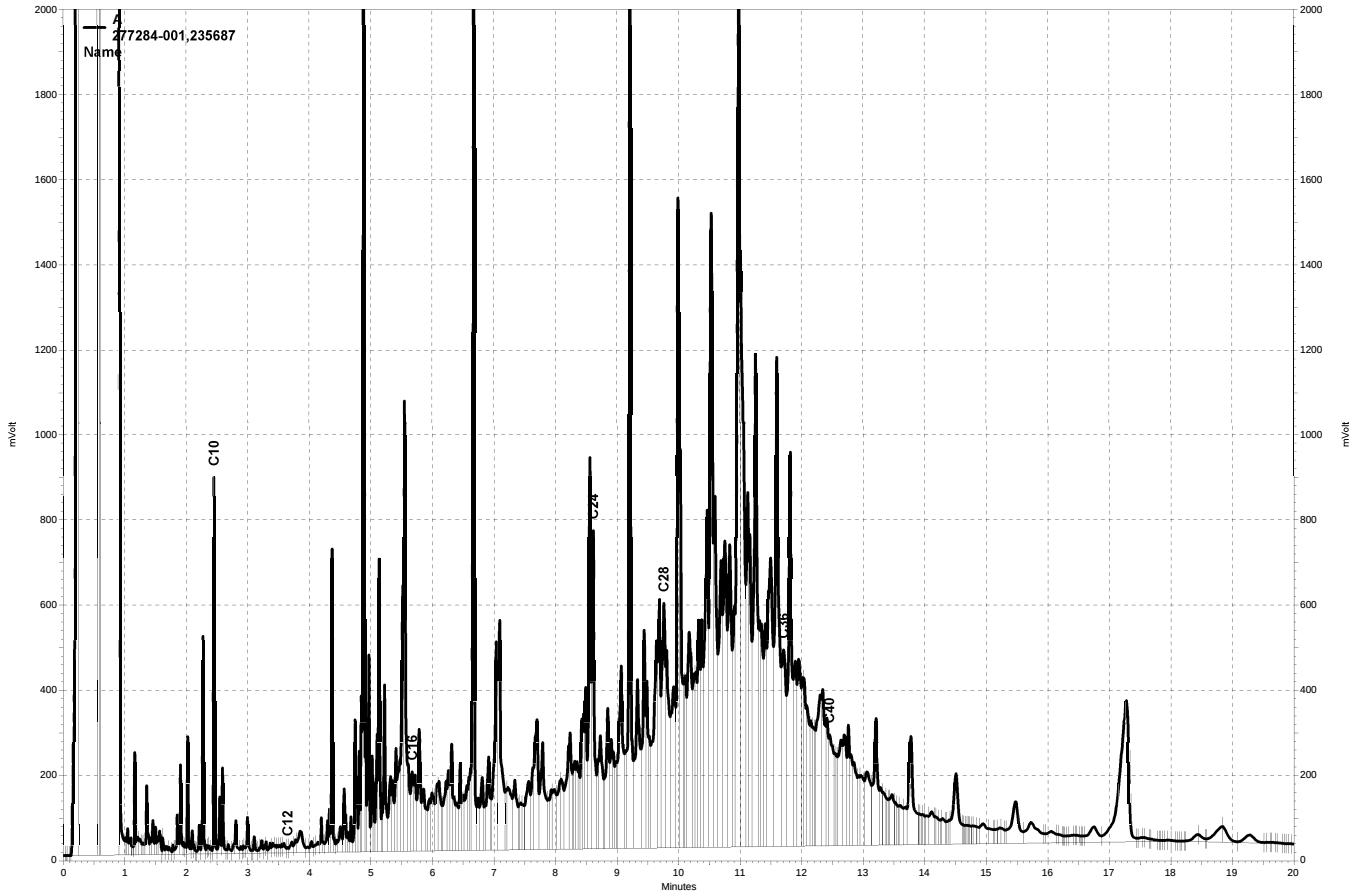
Batch QC Report

Total Extractable Hydrocarbons

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC837931	Batch#:	235687
Matrix:	Soil	Prepared:	06/02/16
Units:	mg/Kg	Analyzed:	06/03/16

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.86	62.62	126	58-137

Surrogate	%REC	Limits
o-Terphenyl	129	59-140



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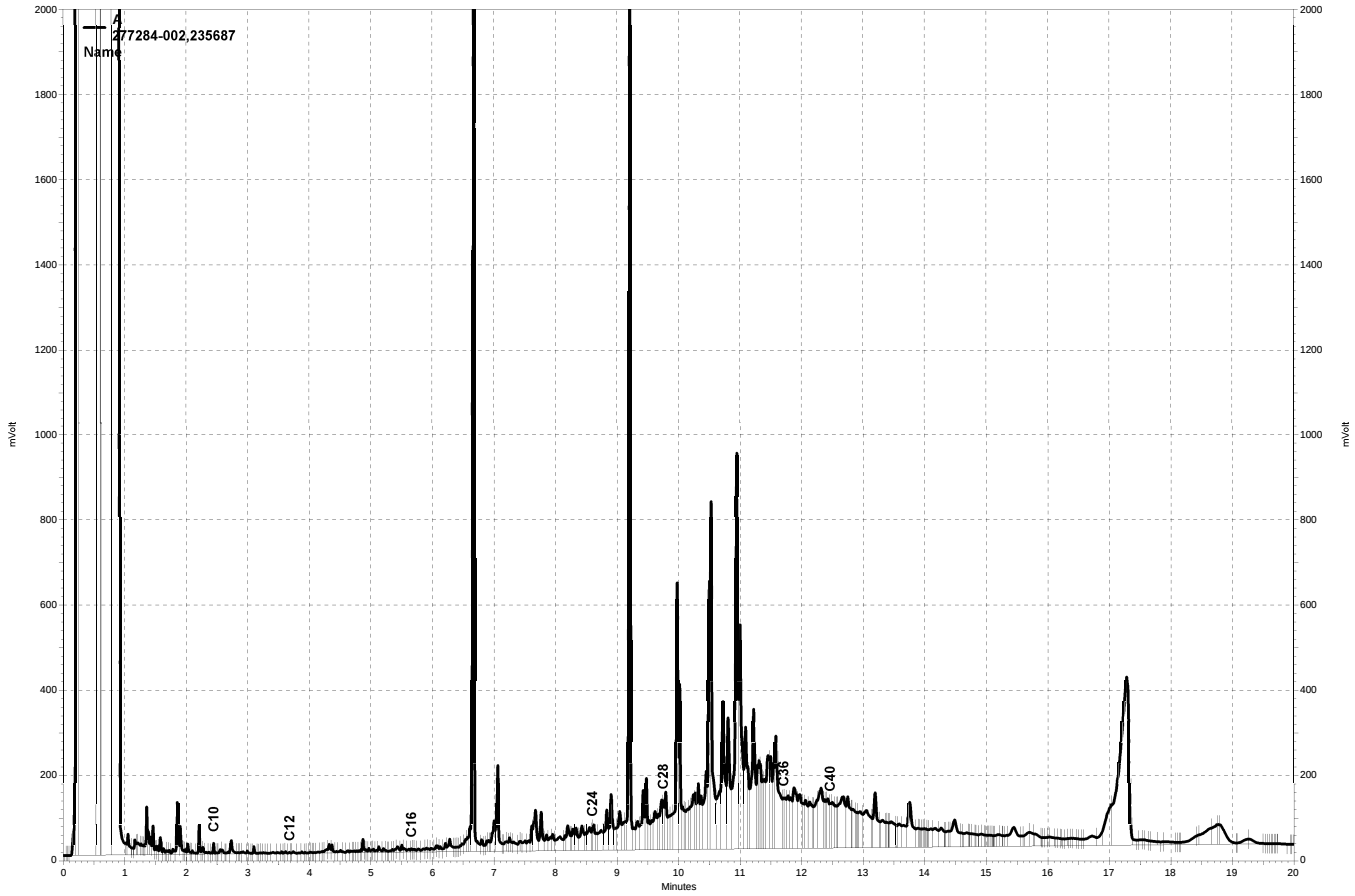

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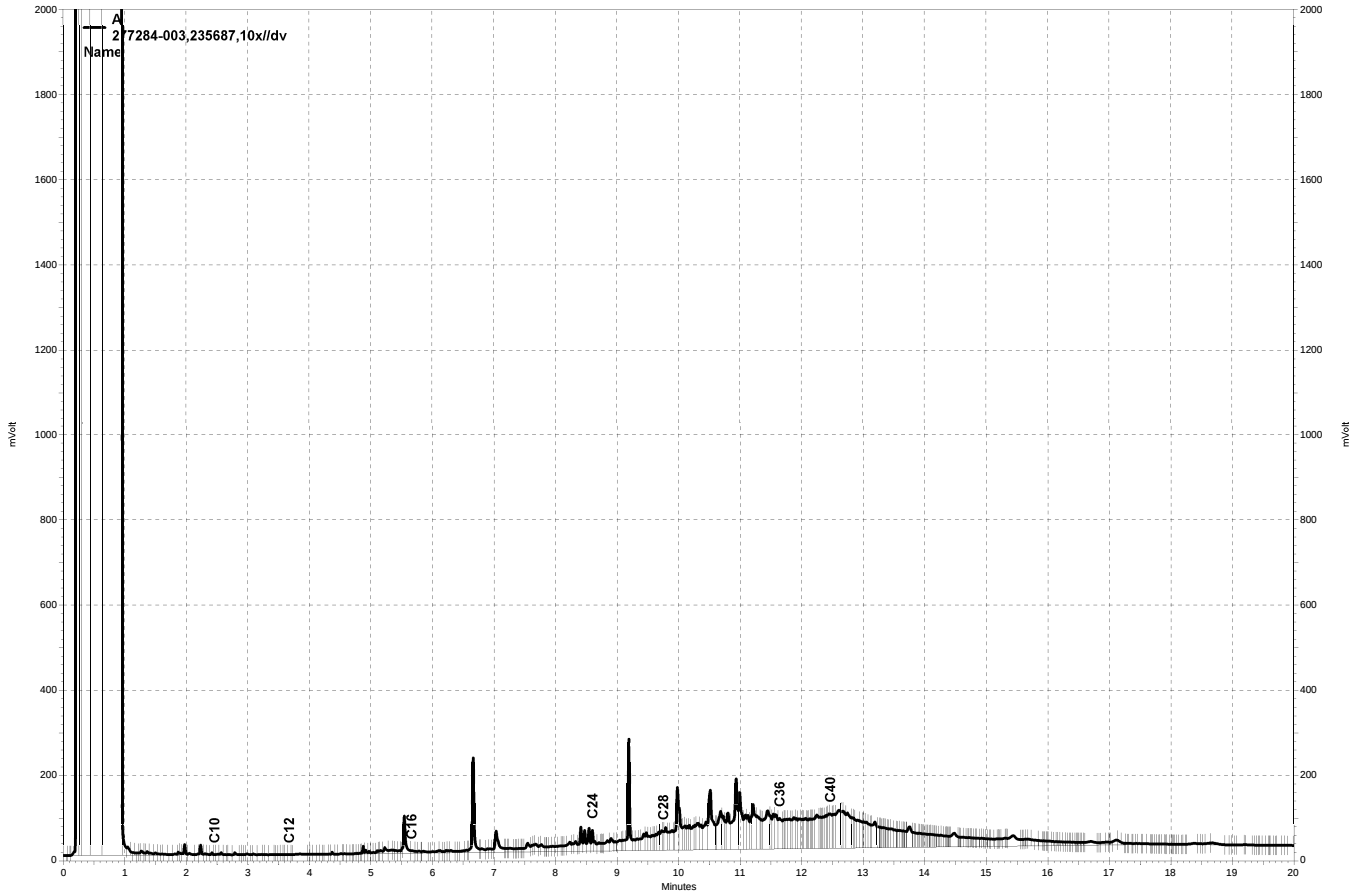

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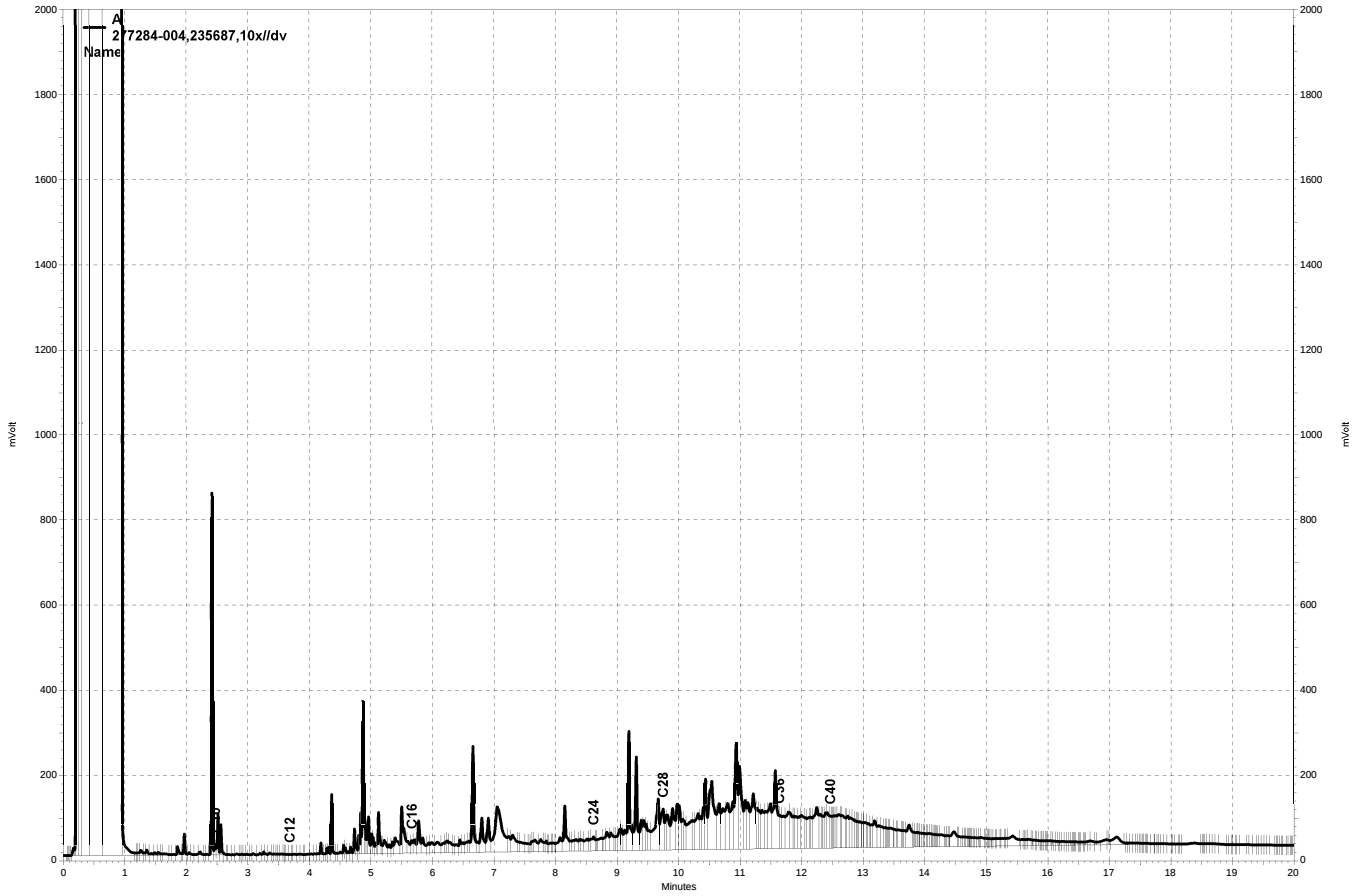

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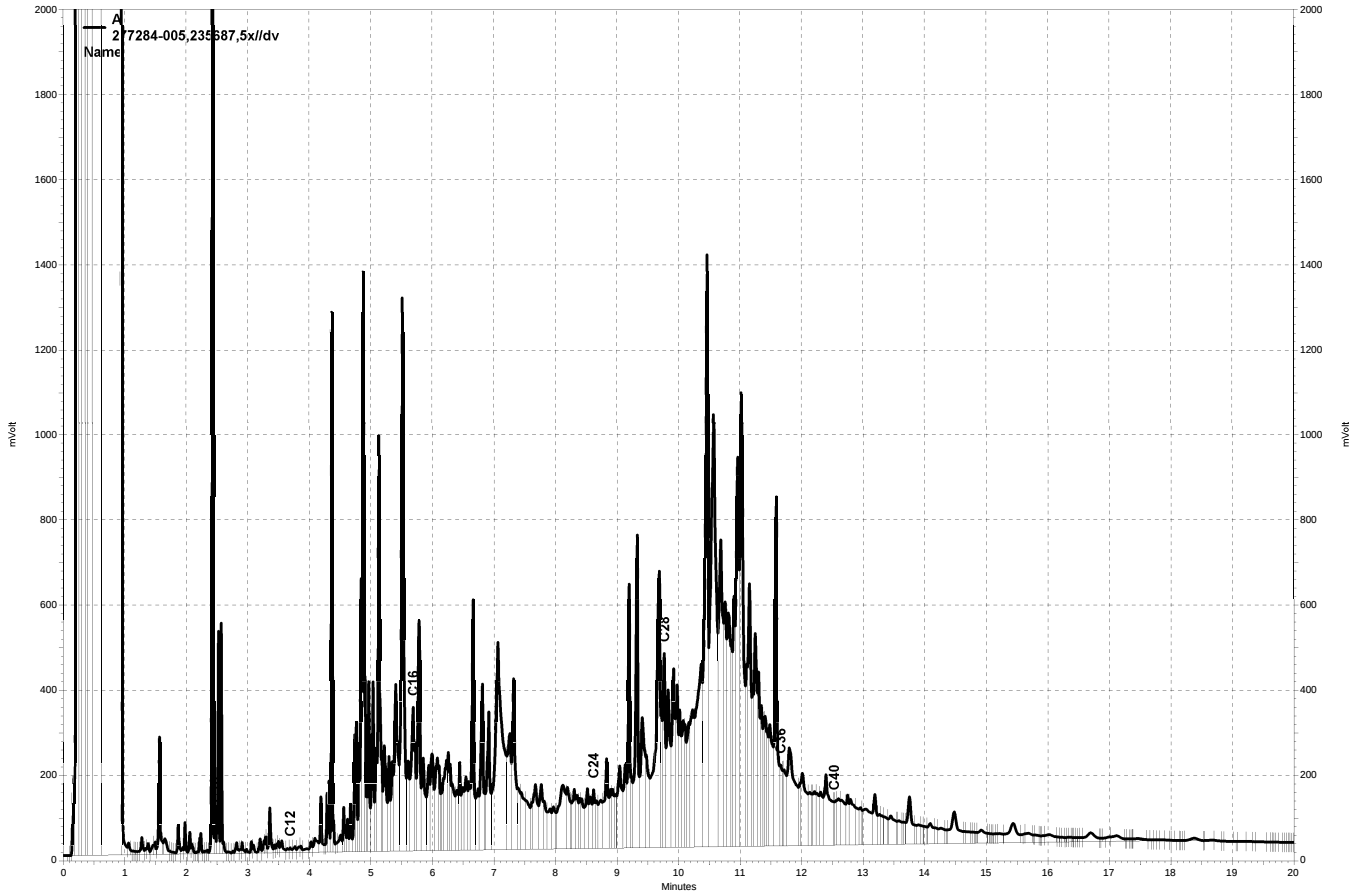

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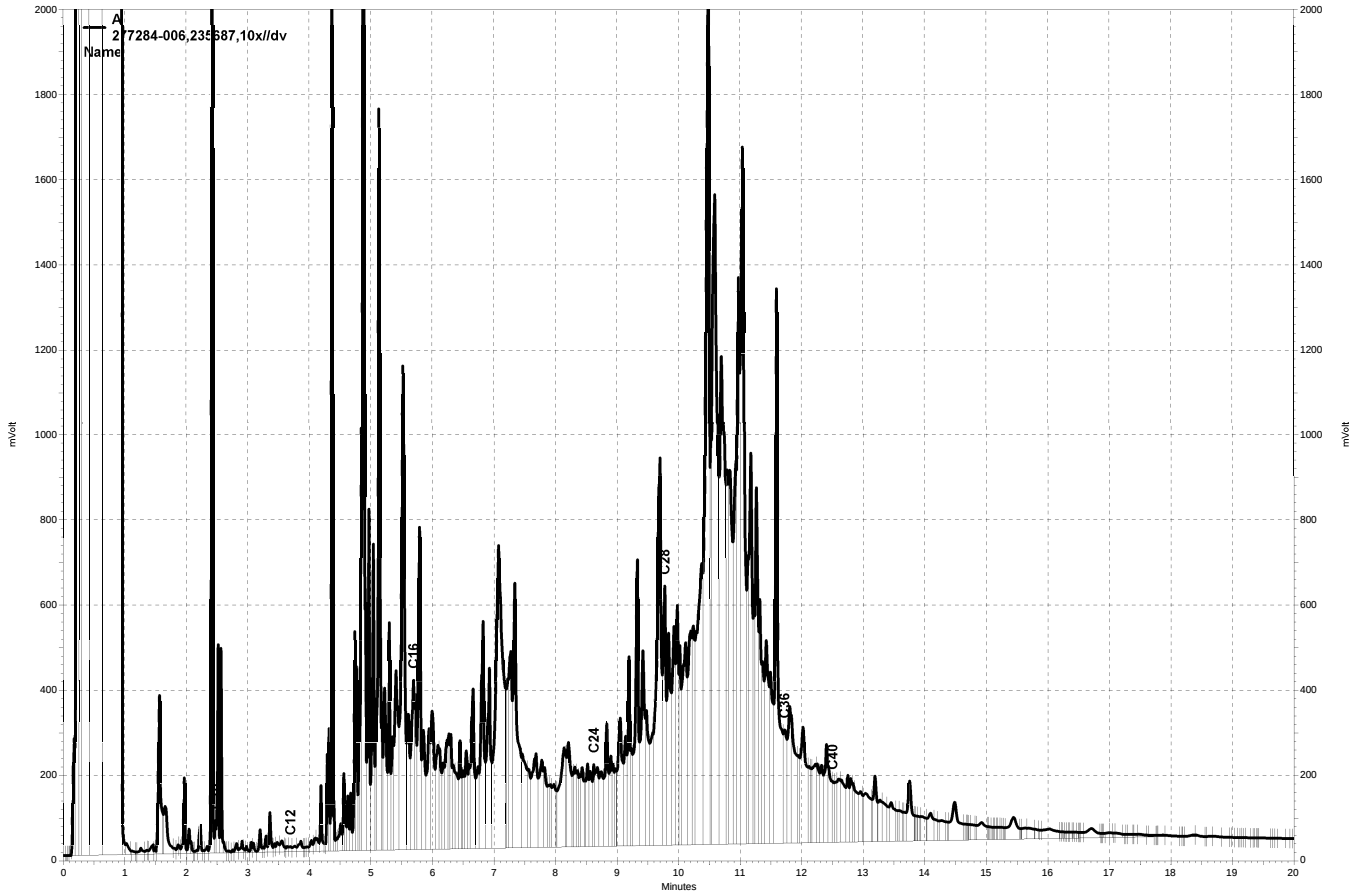

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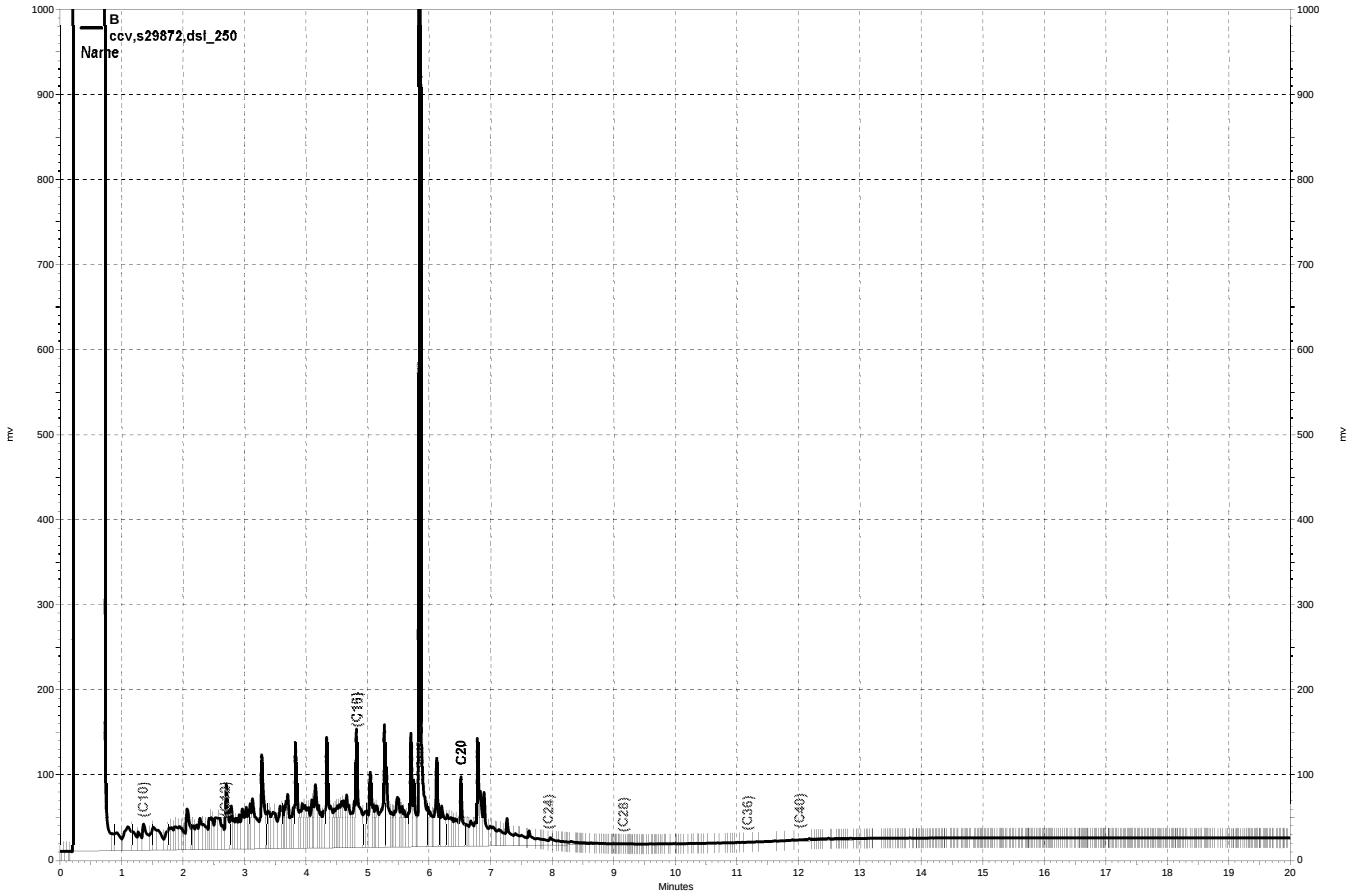

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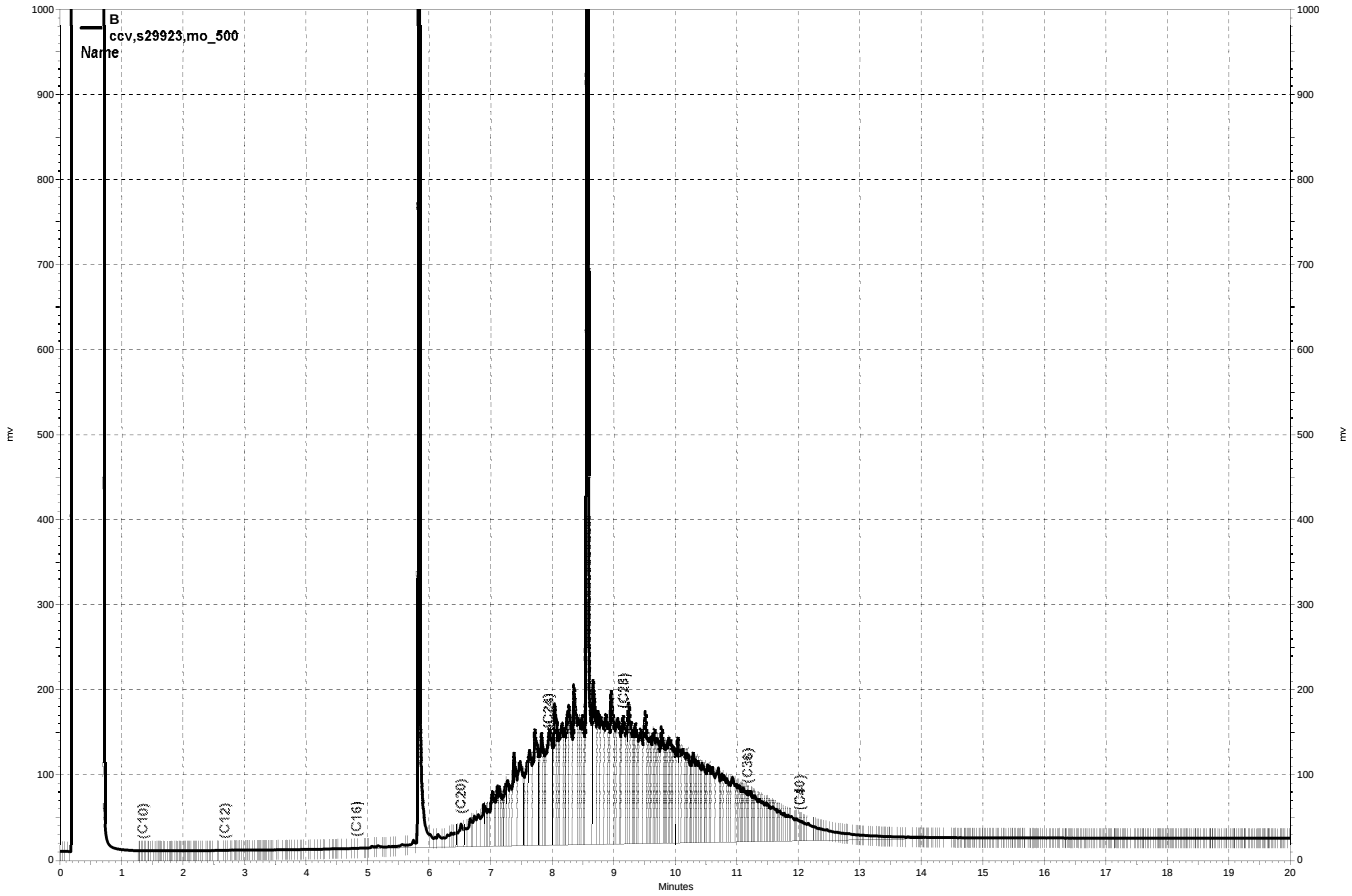

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 5030B
Project#:	2015-063	Analysis:	EPA 8260B
Field ID:	LC-WC-052716-01	Diln Fac:	0.9921
Lab ID:	277284-001	Batch#:	235704
Matrix:	Soil	Sampled:	05/27/16
Units:	ug/Kg	Received:	05/27/16
Basis:	as received	Analyzed:	06/02/16

Analyte	Result	RL
Freon 12	ND	9.9
Chloromethane	ND	9.9
Vinyl Chloride	ND	9.9
Bromomethane	ND	9.9
Chloroethane	ND	9.9
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	9.9
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	9.9
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	9.9
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 5030B
Project#:	2015-063	Analysis:	EPA 8260B
Field ID:	LC-WC-052716-01	Diln Fac:	0.9921
Lab ID:	277284-001	Batch#:	235704
Matrix:	Soil	Sampled:	05/27/16
Units:	ug/Kg	Received:	05/27/16
Basis:	as received	Analyzed:	06/02/16

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	104	78-134
1,2-Dichloroethane-d4	105	80-138
Toluene-d8	96	80-120
Bromofluorobenzene	110	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 5030B
Project#:	2015-063	Analysis:	EPA 8260B
Field ID:	LC-WC-052716-02	Diln Fac:	0.9804
Lab ID:	277284-002	Batch#:	235704
Matrix:	Soil	Sampled:	05/27/16
Units:	ug/Kg	Received:	05/27/16
Basis:	as received	Analyzed:	06/02/16

Analyte	Result	RL
Freon 12	ND	9.8
Chloromethane	ND	9.8
Vinyl Chloride	ND	9.8
Bromomethane	ND	9.8
Chloroethane	ND	9.8
Trichlorofluoromethane	ND	4.9
Acetone	ND	20
Freon 113	ND	4.9
1,1-Dichloroethene	ND	4.9
Methylene Chloride	ND	20
Carbon Disulfide	ND	4.9
MTBE	ND	4.9
trans-1,2-Dichloroethene	ND	4.9
Vinyl Acetate	ND	49
1,1-Dichloroethane	ND	4.9
2-Butanone	ND	9.8
cis-1,2-Dichloroethene	ND	4.9
2,2-Dichloropropane	ND	4.9
Chloroform	ND	4.9
Bromochloromethane	ND	4.9
1,1,1-Trichloroethane	ND	4.9
1,1-Dichloropropene	ND	4.9
Carbon Tetrachloride	ND	4.9
1,2-Dichloroethane	ND	4.9
Benzene	ND	4.9
Trichloroethene	ND	4.9
1,2-Dichloropropane	ND	4.9
Bromodichloromethane	ND	4.9
Dibromomethane	ND	4.9
4-Methyl-2-Pentanone	ND	9.8
cis-1,3-Dichloropropene	ND	4.9
Toluene	ND	4.9
trans-1,3-Dichloropropene	ND	4.9
1,1,2-Trichloroethane	ND	4.9
2-Hexanone	ND	9.8
1,3-Dichloropropane	ND	4.9
Tetrachloroethene	ND	4.9

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 5030B
Project#:	2015-063	Analysis:	EPA 8260B
Field ID:	LC-WC-052716-02	Diln Fac:	0.9804
Lab ID:	277284-002	Batch#:	235704
Matrix:	Soil	Sampled:	05/27/16
Units:	ug/Kg	Received:	05/27/16
Basis:	as received	Analyzed:	06/02/16

Analyte	Result	RL
Dibromochloromethane	ND	4.9
1,2-Dibromoethane	ND	4.9
Chlorobenzene	ND	4.9
1,1,1,2-Tetrachloroethane	ND	4.9
Ethylbenzene	ND	4.9
m,p-Xylenes	ND	4.9
o-Xylene	ND	4.9
Styrene	ND	4.9
Bromoform	ND	4.9
Isopropylbenzene	ND	4.9
1,1,2,2-Tetrachloroethane	ND	4.9
1,2,3-Trichloropropane	ND	4.9
Propylbenzene	ND	4.9
Bromobenzene	ND	4.9
1,3,5-Trimethylbenzene	ND	4.9
2-Chlorotoluene	ND	4.9
4-Chlorotoluene	ND	4.9
tert-Butylbenzene	ND	4.9
1,2,4-Trimethylbenzene	ND	4.9
sec-Butylbenzene	ND	4.9
para-Isopropyl Toluene	ND	4.9
1,3-Dichlorobenzene	ND	4.9
1,4-Dichlorobenzene	ND	4.9
n-Butylbenzene	ND	4.9
1,2-Dichlorobenzene	ND	4.9
1,2-Dibromo-3-Chloropropane	ND	4.9
1,2,4-Trichlorobenzene	ND	4.9
Hexachlorobutadiene	ND	4.9
Naphthalene	ND	4.9
1,2,3-Trichlorobenzene	ND	4.9

Surrogate	%REC	Limits
Dibromofluoromethane	103	78-134
1,2-Dichloroethane-d4	104	80-138
Toluene-d8	97	80-120
Bromofluorobenzene	114	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 5030B
Project#:	2015-063	Analysis:	EPA 8260B
Field ID:	LC-WC-052716-03	Diln Fac:	0.9940
Lab ID:	277284-003	Batch#:	235704
Matrix:	Soil	Sampled:	05/27/16
Units:	ug/Kg	Received:	05/27/16
Basis:	as received	Analyzed:	06/02/16

Analyte	Result	RL
Freon 12	ND	9.9
Chloromethane	ND	9.9
Vinyl Chloride	ND	9.9
Bromomethane	ND	9.9
Chloroethane	ND	9.9
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	9.9
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	9.9
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	9.9
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 5030B
Project#:	2015-063	Analysis:	EPA 8260B
Field ID:	LC-WC-052716-03	Diln Fac:	0.9940
Lab ID:	277284-003	Batch#:	235704
Matrix:	Soil	Sampled:	05/27/16
Units:	ug/Kg	Received:	05/27/16
Basis:	as received	Analyzed:	06/02/16

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	109	78-134
1,2-Dichloroethane-d4	107	80-138
Toluene-d8	101	80-120
Bromofluorobenzene	117	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 5030B
Project#:	2015-063	Analysis:	EPA 8260B
Field ID:	LC-WC-052716-04	Diln Fac:	0.9804
Lab ID:	277284-004	Batch#:	235742
Matrix:	Soil	Sampled:	05/27/16
Units:	ug/Kg	Received:	05/27/16
Basis:	as received	Analyzed:	06/03/16

Analyte	Result	RL
Freon 12	ND	9.8
Chloromethane	ND	9.8
Vinyl Chloride	ND	9.8
Bromomethane	ND	9.8
Chloroethane	ND	9.8
Trichlorofluoromethane	ND	4.9
Acetone	ND	20
Freon 113	ND	4.9
1,1-Dichloroethene	ND	4.9
Methylene Chloride	ND	20
Carbon Disulfide	ND	4.9
MTBE	ND	4.9
trans-1,2-Dichloroethene	ND	4.9
Vinyl Acetate	ND	49
1,1-Dichloroethane	ND	4.9
2-Butanone	ND	9.8
cis-1,2-Dichloroethene	ND	4.9
2,2-Dichloropropane	ND	4.9
Chloroform	ND	4.9
Bromochloromethane	ND	4.9
1,1,1-Trichloroethane	ND	4.9
1,1-Dichloropropene	ND	4.9
Carbon Tetrachloride	ND	4.9
1,2-Dichloroethane	ND	4.9
Benzene	ND	4.9
Trichloroethene	ND	4.9
1,2-Dichloropropane	ND	4.9
Bromodichloromethane	ND	4.9
Dibromomethane	ND	4.9
4-Methyl-2-Pentanone	ND	9.8
cis-1,3-Dichloropropene	ND	4.9
Toluene	ND	4.9
trans-1,3-Dichloropropene	ND	4.9
1,1,2-Trichloroethane	ND	4.9
2-Hexanone	ND	9.8
1,3-Dichloropropane	ND	4.9
Tetrachloroethene	ND	4.9

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 5030B
Project#:	2015-063	Analysis:	EPA 8260B
Field ID:	LC-WC-052716-04	Diln Fac:	0.9804
Lab ID:	277284-004	Batch#:	235742
Matrix:	Soil	Sampled:	05/27/16
Units:	ug/Kg	Received:	05/27/16
Basis:	as received	Analyzed:	06/03/16

Analyte	Result	RL
Dibromochloromethane	ND	4.9
1,2-Dibromoethane	ND	4.9
Chlorobenzene	ND	4.9
1,1,1,2-Tetrachloroethane	ND	4.9
Ethylbenzene	ND	4.9
m,p-Xylenes	ND	4.9
o-Xylene	ND	4.9
Styrene	ND	4.9
Bromoform	ND	4.9
Isopropylbenzene	ND	4.9
1,1,2,2-Tetrachloroethane	ND	4.9
1,2,3-Trichloropropane	ND	4.9
Propylbenzene	ND	4.9
Bromobenzene	ND	4.9
1,3,5-Trimethylbenzene	ND	4.9
2-Chlorotoluene	ND	4.9
4-Chlorotoluene	ND	4.9
tert-Butylbenzene	ND	4.9
1,2,4-Trimethylbenzene	ND	4.9
sec-Butylbenzene	ND	4.9
para-Isopropyl Toluene	ND	4.9
1,3-Dichlorobenzene	ND	4.9
1,4-Dichlorobenzene	ND	4.9
n-Butylbenzene	ND	4.9
1,2-Dichlorobenzene	ND	4.9
1,2-Dibromo-3-Chloropropane	ND	4.9
1,2,4-Trichlorobenzene	ND	4.9
Hexachlorobutadiene	ND	4.9
Naphthalene	ND	4.9
1,2,3-Trichlorobenzene	ND	4.9

Surrogate	%REC	Limits
Dibromofluoromethane	109	78-134
1,2-Dichloroethane-d4	131	80-138
Toluene-d8	101	80-120
Bromofluorobenzene	97	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 5030B
Project#:	2015-063	Analysis:	EPA 8260B
Field ID:	LC-WC-052716-05	Diln Fac:	0.9597
Lab ID:	277284-005	Batch#:	235742
Matrix:	Soil	Sampled:	05/27/16
Units:	ug/Kg	Received:	05/27/16
Basis:	as received	Analyzed:	06/03/16

Analyte	Result	RL
Freon 12	ND	9.6
Chloromethane	ND	9.6
Vinyl Chloride	ND	9.6
Bromomethane	ND	9.6
Chloroethane	ND	9.6
Trichlorofluoromethane	ND	4.8
Acetone	ND	19
Freon 113	ND	4.8
1,1-Dichloroethene	ND	4.8
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.8
MTBE	ND	4.8
trans-1,2-Dichloroethene	ND	4.8
Vinyl Acetate	ND	48
1,1-Dichloroethane	ND	4.8
2-Butanone	ND	9.6
cis-1,2-Dichloroethene	ND	4.8
2,2-Dichloropropane	ND	4.8
Chloroform	ND	4.8
Bromochloromethane	ND	4.8
1,1,1-Trichloroethane	ND	4.8
1,1-Dichloropropene	ND	4.8
Carbon Tetrachloride	ND	4.8
1,2-Dichloroethane	ND	4.8
Benzene	ND	4.8
Trichloroethene	ND	4.8
1,2-Dichloropropane	ND	4.8
Bromodichloromethane	ND	4.8
Dibromomethane	ND	4.8
4-Methyl-2-Pentanone	ND	9.6
cis-1,3-Dichloropropene	ND	4.8
Toluene	ND	4.8
trans-1,3-Dichloropropene	ND	4.8
1,1,2-Trichloroethane	ND	4.8
2-Hexanone	ND	9.6
1,3-Dichloropropane	ND	4.8
Tetrachloroethene	ND	4.8

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 5030B
Project#:	2015-063	Analysis:	EPA 8260B
Field ID:	LC-WC-052716-05	Diln Fac:	0.9597
Lab ID:	277284-005	Batch#:	235742
Matrix:	Soil	Sampled:	05/27/16
Units:	ug/Kg	Received:	05/27/16
Basis:	as received	Analyzed:	06/03/16

Analyte	Result	RL
Dibromochloromethane	ND	4.8
1,2-Dibromoethane	ND	4.8
Chlorobenzene	ND	4.8
1,1,1,2-Tetrachloroethane	ND	4.8
Ethylbenzene	ND	4.8
m,p-Xylenes	ND	4.8
o-Xylene	ND	4.8
Styrene	ND	4.8
Bromoform	ND	4.8
Isopropylbenzene	ND	4.8
1,1,2,2-Tetrachloroethane	ND	4.8
1,2,3-Trichloropropane	ND	4.8
Propylbenzene	ND	4.8
Bromobenzene	ND	4.8
1,3,5-Trimethylbenzene	ND	4.8
2-Chlorotoluene	ND	4.8
4-Chlorotoluene	ND	4.8
tert-Butylbenzene	ND	4.8
1,2,4-Trimethylbenzene	ND	4.8
sec-Butylbenzene	ND	4.8
para-Isopropyl Toluene	ND	4.8
1,3-Dichlorobenzene	ND	4.8
1,4-Dichlorobenzene	ND	4.8
n-Butylbenzene	ND	4.8
1,2-Dichlorobenzene	ND	4.8
1,2-Dibromo-3-Chloropropane	ND	4.8
1,2,4-Trichlorobenzene	ND	4.8
Hexachlorobutadiene	ND	4.8
Naphthalene	ND	4.8
1,2,3-Trichlorobenzene	ND	4.8

Surrogate	%REC	Limits
Dibromofluoromethane	110	78-134
1,2-Dichloroethane-d4	131	80-138
Toluene-d8	98	80-120
Bromofluorobenzene	101	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 5030B
Project#:	2015-063	Analysis:	EPA 8260B
Field ID:	LC-WC-052716-06	Diln Fac:	0.9542
Lab ID:	277284-006	Batch#:	235742
Matrix:	Soil	Sampled:	05/27/16
Units:	ug/Kg	Received:	05/27/16
Basis:	as received	Analyzed:	06/03/16

Analyte	Result	RL
Freon 12	ND	9.5
Chloromethane	ND	9.5
Vinyl Chloride	ND	9.5
Bromomethane	ND	9.5
Chloroethane	ND	9.5
Trichlorofluoromethane	ND	4.8
Acetone	ND	19
Freon 113	ND	4.8
1,1-Dichloroethene	ND	4.8
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.8
MTBE	ND	4.8
trans-1,2-Dichloroethene	ND	4.8
Vinyl Acetate	ND	48
1,1-Dichloroethane	ND	4.8
2-Butanone	ND	9.5
cis-1,2-Dichloroethene	ND	4.8
2,2-Dichloropropane	ND	4.8
Chloroform	ND	4.8
Bromochloromethane	ND	4.8
1,1,1-Trichloroethane	ND	4.8
1,1-Dichloropropene	ND	4.8
Carbon Tetrachloride	ND	4.8
1,2-Dichloroethane	ND	4.8
Benzene	ND	4.8
Trichloroethene	ND	4.8
1,2-Dichloropropane	ND	4.8
Bromodichloromethane	ND	4.8
Dibromomethane	ND	4.8
4-Methyl-2-Pentanone	ND	9.5
cis-1,3-Dichloropropene	ND	4.8
Toluene	ND	4.8
trans-1,3-Dichloropropene	ND	4.8
1,1,2-Trichloroethane	ND	4.8
2-Hexanone	ND	9.5
1,3-Dichloropropane	ND	4.8
Tetrachloroethene	ND	4.8

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 5030B
Project#:	2015-063	Analysis:	EPA 8260B
Field ID:	LC-WC-052716-06	Diln Fac:	0.9542
Lab ID:	277284-006	Batch#:	235742
Matrix:	Soil	Sampled:	05/27/16
Units:	ug/Kg	Received:	05/27/16
Basis:	as received	Analyzed:	06/03/16

Analyte	Result	RL
Dibromochloromethane	ND	4.8
1,2-Dibromoethane	ND	4.8
Chlorobenzene	ND	4.8
1,1,1,2-Tetrachloroethane	ND	4.8
Ethylbenzene	ND	4.8
m,p-Xylenes	ND	4.8
o-Xylene	ND	4.8
Styrene	ND	4.8
Bromoform	ND	4.8
Isopropylbenzene	ND	4.8
1,1,2,2-Tetrachloroethane	ND	4.8
1,2,3-Trichloropropane	ND	4.8
Propylbenzene	ND	4.8
Bromobenzene	ND	4.8
1,3,5-Trimethylbenzene	ND	4.8
2-Chlorotoluene	ND	4.8
4-Chlorotoluene	ND	4.8
tert-Butylbenzene	ND	4.8
1,2,4-Trimethylbenzene	ND	4.8
sec-Butylbenzene	ND	4.8
para-Isopropyl Toluene	ND	4.8
1,3-Dichlorobenzene	ND	4.8
1,4-Dichlorobenzene	ND	4.8
n-Butylbenzene	ND	4.8
1,2-Dichlorobenzene	ND	4.8
1,2-Dibromo-3-Chloropropane	ND	4.8
1,2,4-Trichlorobenzene	ND	4.8
Hexachlorobutadiene	ND	4.8
Naphthalene	ND	4.8
1,2,3-Trichlorobenzene	ND	4.8

Surrogate	%REC	Limits
Dibromofluoromethane	108	78-134
1,2-Dichloroethane-d4	133	80-138
Toluene-d8	102	80-120
Bromofluorobenzene	105	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 5030B
Project#:	2015-063	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC837962	Batch#:	235704
Matrix:	Soil	Analyzed:	06/02/16
Units:	ug/Kg		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	23.93	96	70-134
Benzene	25.00	25.13	101	80-123
Trichloroethene	25.00	25.03	100	80-128
Toluene	25.00	23.85	95	80-120
Chlorobenzene	25.00	24.07	96	80-123

Surrogate	%REC	Limits
Dibromofluoromethane	105	78-134
1,2-Dichloroethane-d4	103	80-138
Toluene-d8	99	80-120
Bromofluorobenzene	109	78-123

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 5030B
Project#:	2015-063	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC837963	Batch#:	235704
Matrix:	Soil	Analyzed:	06/02/16
Units:	ug/Kg		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 5030B
Project#:	2015-063	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC837963	Batch#:	235704
Matrix:	Soil	Analyzed:	06/02/16
Units:	ug/Kg		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	108	78-134
1,2-Dichloroethane-d4	109	80-138
Toluene-d8	99	80-120
Bromofluorobenzene	114	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 5030B
Project#:	2015-063	Analysis:	EPA 8260B
Field ID:	LC-WC-052716-02	Batch#:	235704
MSS Lab ID:	277284-002	Sampled:	05/27/16
Matrix:	Soil	Received:	05/27/16
Units:	ug/Kg	Analyzed:	06/03/16
Basis:	as received		

Type: MS Diln Fac: 0.9862
Lab ID: QC838012

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.4522	49.31	33.45	68	56-133
Benzene	<0.5032	49.31	32.98	67	57-120
Trichloroethene	<0.5008	49.31	33.72	68	49-145
Toluene	<0.4141	49.31	35.22	71	51-120
Chlorobenzene	<0.7122	49.31	33.50	68	47-120

Surrogate	%REC	Limits
Dibromofluoromethane	103	78-134
1,2-Dichloroethane-d4	119	80-138
Toluene-d8	107	80-120
Bromofluorobenzene	109	78-123

Type: MSD Diln Fac: 0.9542
Lab ID: QC838013

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	47.71	29.60	62	56-133	9	46
Benzene	47.71	31.76	67	57-120	0	44
Trichloroethene	47.71	31.40	66	49-145	4	46
Toluene	47.71	31.88	67	51-120	7	47
Chlorobenzene	47.71	29.81	62	47-120	8	50

Surrogate	%REC	Limits
Dibromofluoromethane	106	78-134
1,2-Dichloroethane-d4	119	80-138
Toluene-d8	107	80-120
Bromofluorobenzene	112	78-123

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 5030B
Project#:	2015-063	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC838118	Batch#:	235742
Matrix:	Soil	Analyzed:	06/03/16
Units:	ug/Kg		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	22.19	89	70-134
Benzene	25.00	27.87	111	80-123
Trichloroethene	25.00	22.59	90	80-128
Toluene	25.00	23.43	94	80-120
Chlorobenzene	25.00	22.59	90	80-123

Surrogate	%REC	Limits
Dibromofluoromethane	103	78-134
1,2-Dichloroethane-d4	123	80-138
Toluene-d8	101	80-120
Bromofluorobenzene	87	78-123

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 5030B
Project#:	2015-063	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC838119	Batch#:	235742
Matrix:	Soil	Analyzed:	06/03/16
Units:	ug/Kg		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 5030B
Project#:	2015-063	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC838119	Batch#:	235742
Matrix:	Soil	Analyzed:	06/03/16
Units:	ug/Kg		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	106	78-134
1,2-Dichloroethane-d4	123	80-138
Toluene-d8	100	80-120
Bromofluorobenzene	97	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 5030B
Project#:	2015-063	Analysis:	EPA 8260B
Field ID:	LC-WC-052716-04	Batch#:	235742
MSS Lab ID:	277284-004	Sampled:	05/27/16
Matrix:	Soil	Received:	05/27/16
Units:	ug/Kg	Analyzed:	06/03/16
Basis:	as received		

Type: MS Diln Fac: 0.9940
Lab ID: QC838185

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.9212	49.70	47.58	96	56-133
Benzene	<0.8846	49.70	61.89	125 *	57-120
Trichloroethene	<0.8188	49.70	49.41	99	49-145
Toluene	<0.6974	49.70	48.32	97	51-120
Chlorobenzene	<0.6726	49.70	41.82	84	47-120

Surrogate	%REC	Limits
Dibromofluoromethane	105	78-134
1,2-Dichloroethane-d4	135	80-138
Toluene-d8	100	80-120
Bromofluorobenzene	92	78-123

Type: MSD Diln Fac: 0.9843
Lab ID: QC838186

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	49.21	47.75	97	56-133	1	46
Benzene	49.21	59.74	121 *	57-120	3	44
Trichloroethene	49.21	48.33	98	49-145	1	46
Toluene	49.21	47.09	96	51-120	2	47
Chlorobenzene	49.21	41.73	85	47-120	1	50

Surrogate	%REC	Limits
Dibromofluoromethane	104	78-134
1,2-Dichloroethane-d4	131	80-138
Toluene-d8	100	80-120
Bromofluorobenzene	90	78-123

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8270C
Field ID:	LC-WC-052716-01	Batch#:	235660
Lab ID:	277284-001	Sampled:	05/27/16
Matrix:	Soil	Received:	05/27/16
Units:	ug/Kg	Prepared:	06/01/16
Basis:	as received	Analyzed:	06/15/16
Diln Fac:	10.00		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	3,300
Phenol	ND	3,300
bis(2-Chloroethyl)ether	ND	3,300
2-Chlorophenol	ND	3,300
1,3-Dichlorobenzene	ND	3,300
1,4-Dichlorobenzene	ND	3,300
Benzyl alcohol	ND	3,300
1,2-Dichlorobenzene	ND	3,300
2-Methylphenol	ND	3,300
bis(2-Chloroisopropyl) ether	ND	3,300
4-Methylphenol	ND	3,300
N-Nitroso-di-n-propylamine	ND	3,300
Hexachloroethane	ND	3,300
Nitrobenzene	ND	3,300
Isophorone	ND	3,300
2-Nitrophenol	ND	6,700
2,4-Dimethylphenol	ND	3,300
Benzoic acid	ND	17,000
bis(2-Chloroethoxy)methane	ND	3,300
2,4-Dichlorophenol	ND	3,300
1,2,4-Trichlorobenzene	ND	3,300
Naphthalene	ND	670
4-Chloroaniline	ND	3,300
Hexachlorobutadiene	ND	3,300
4-Chloro-3-methylphenol	ND	3,300
2-Methylnaphthalene	ND	670
Hexachlorocyclopentadiene	ND	6,700
2,4,6-Trichlorophenol	ND	3,300
2,4,5-Trichlorophenol	ND	3,300
2-Chloronaphthalene	ND	3,300
2-Nitroaniline	ND	6,700
Dimethylphthalate	ND	3,300
Acenaphthylene	ND	670
2,6-Dinitrotoluene	ND	3,300
3-Nitroaniline	ND	6,700
Acenaphthene	ND	670
2,4-Dinitrophenol	ND	6,700
4-Nitrophenol	ND	6,700
Dibenzofuran	ND	3,300
2,4-Dinitrotoluene	ND	3,300
Diethylphthalate	ND	3,300
Fluorene	ND	670
4-Chlorophenyl-phenylether	ND	3,300
4-Nitroaniline	ND	6,700
4,6-Dinitro-2-methylphenol	ND	6,700
N-Nitrosodiphenylamine	ND	3,300
Azobenzene	ND	3,300
4-Bromophenyl-phenylether	ND	3,300
Hexachlorobenzene	ND	3,300
Pentachlorophenol	ND	6,700
Phenanthrene	ND	670
Anthracene	ND	670

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8270C
Field ID:	LC-WC-052716-01	Batch#:	235660
Lab ID:	277284-001	Sampled:	05/27/16
Matrix:	Soil	Received:	05/27/16
Units:	ug/Kg	Prepared:	06/01/16
Basis:	as received	Analyzed:	06/15/16
Diln Fac:	10.00		

Analyte	Result	RL
Di-n-butylphthalate	ND	3,300
Fluoranthene	ND	670
Pyrene	ND	670
Butylbenzylphthalate	ND	3,300
3,3'-Dichlorobenzidine	ND	6,700
Benzo(a)anthracene	ND	670
Chrysene	ND	670
bis(2-Ethylhexyl)phthalate	ND	3,300
Di-n-octylphthalate	ND	3,300
Benzo(b)fluoranthene	ND	670
Benzo(k)fluoranthene	ND	670
Benzo(a)pyrene	ND	670
Indeno(1,2,3-cd)pyrene	ND	670
Dibenz(a,h)anthracene	ND	670
Benzo(g,h,i)perylene	ND	670

Surrogate	%REC	Limits
2-Fluorophenol	DO	25-120
Phenol-d5	DO	36-120
2,4,6-Tribromophenol	DO	27-120
Nitrobenzene-d5	DO	44-120
2-Fluorobiphenyl	DO	47-120
Terphenyl-d14	DO	49-120

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8270C
Field ID:	LC-WC-052716-02	Batch#:	235660
Lab ID:	277284-002	Sampled:	05/27/16
Matrix:	Soil	Received:	05/27/16
Units:	ug/Kg	Prepared:	06/01/16
Basis:	as received	Analyzed:	06/15/16
Diln Fac:	2.000		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	670
Phenol	ND	670
bis(2-Chloroethyl)ether	ND	670
2-Chlorophenol	ND	670
1,3-Dichlorobenzene	ND	670
1,4-Dichlorobenzene	ND	670
Benzyl alcohol	ND	670
1,2-Dichlorobenzene	ND	670
2-Methylphenol	ND	670
bis(2-Chloroisopropyl) ether	ND	670
4-Methylphenol	ND	670
N-Nitroso-di-n-propylamine	ND	670
Hexachloroethane	ND	670
Nitrobenzene	ND	670
Isophorone	ND	670
2-Nitrophenol	ND	1,300
2,4-Dimethylphenol	ND	670
Benzoic acid	ND	3,400
bis(2-Chloroethoxy)methane	ND	670
2,4-Dichlorophenol	ND	670
1,2,4-Trichlorobenzene	ND	670
Naphthalene	ND	130
4-Chloroaniline	ND	670
Hexachlorobutadiene	ND	670
4-Chloro-3-methylphenol	ND	670
2-Methylnaphthalene	ND	130
Hexachlorocyclopentadiene	ND	1,300
2,4,6-Trichlorophenol	ND	670
2,4,5-Trichlorophenol	ND	670
2-Chloronaphthalene	ND	670
2-Nitroaniline	ND	1,300
Dimethylphthalate	ND	670
Acenaphthylene	ND	130
2,6-Dinitrotoluene	ND	670
3-Nitroaniline	ND	1,300
Acenaphthene	ND	130
2,4-Dinitrophenol	ND	1,300
4-Nitrophenol	ND	1,300
Dibenzofuran	ND	670
2,4-Dinitrotoluene	ND	670
Diethylphthalate	ND	670
Fluorene	ND	130
4-Chlorophenyl-phenylether	ND	670
4-Nitroaniline	ND	1,300
4,6-Dinitro-2-methylphenol	ND	1,300
N-Nitrosodiphenylamine	ND	670
Azobenzene	ND	670
4-Bromophenyl-phenylether	ND	670
Hexachlorobenzene	ND	670
Pentachlorophenol	ND	1,300
Phenanthrene	ND	130
Anthracene	ND	130

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8270C
Field ID:	LC-WC-052716-02	Batch#:	235660
Lab ID:	277284-002	Sampled:	05/27/16
Matrix:	Soil	Received:	05/27/16
Units:	ug/Kg	Prepared:	06/01/16
Basis:	as received	Analyzed:	06/15/16
Diln Fac:	2.000		

Analyte	Result	RL
Di-n-butylphthalate	ND	670
Fluoranthene	ND	130
Pyrene	ND	130
Butylbenzylphthalate	ND	670
3,3'-Dichlorobenzidine	ND	1,300
Benzo(a)anthracene	ND	130
Chrysene	ND	130
bis(2-Ethylhexyl)phthalate	ND	670
Di-n-octylphthalate	ND	670
Benzo(b)fluoranthene	ND	130
Benzo(k)fluoranthene	ND	130
Benzo(a)pyrene	ND	130
Indeno(1,2,3-cd)pyrene	ND	130
Dibenz(a,h)anthracene	ND	130
Benzo(g,h,i)perylene	ND	130

Surrogate	%REC	Limits
2-Fluorophenol	217 *	25-120
Phenol-d5	215 *	36-120
2,4,6-Tribromophenol	49	27-120
Nitrobenzene-d5	68	44-120
2-Fluorobiphenyl	65	47-120
Terphenyl-d14	64	49-120

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8270C
Field ID:	LC-WC-052716-03	Batch#:	235660
Lab ID:	277284-003	Sampled:	05/27/16
Matrix:	Soil	Received:	05/27/16
Units:	ug/Kg	Prepared:	06/01/16
Basis:	as received	Analyzed:	06/15/16
Diln Fac:	20.00		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	6,700
Phenol	ND	6,700
bis(2-Chloroethyl)ether	ND	6,700
2-Chlorophenol	ND	6,700
1,3-Dichlorobenzene	ND	6,700
1,4-Dichlorobenzene	ND	6,700
Benzyl alcohol	ND	6,700
1,2-Dichlorobenzene	ND	6,700
2-Methylphenol	ND	6,700
bis(2-Chloroisopropyl) ether	ND	6,700
4-Methylphenol	ND	6,700
N-Nitroso-di-n-propylamine	ND	6,700
Hexachloroethane	ND	6,700
Nitrobenzene	ND	6,700
Isophorone	ND	6,700
2-Nitrophenol	ND	13,000
2,4-Dimethylphenol	ND	6,700
Benzoic acid	ND	33,000
bis(2-Chloroethoxy)methane	ND	6,700
2,4-Dichlorophenol	ND	6,700
1,2,4-Trichlorobenzene	ND	6,700
Naphthalene	ND	1,300
4-Chloroaniline	ND	6,700
Hexachlorobutadiene	ND	6,700
4-Chloro-3-methylphenol	ND	6,700
2-Methylnaphthalene	ND	1,300
Hexachlorocyclopentadiene	ND	13,000
2,4,6-Trichlorophenol	ND	6,700
2,4,5-Trichlorophenol	ND	6,700
2-Chloronaphthalene	ND	6,700
2-Nitroaniline	ND	13,000
Dimethylphthalate	ND	6,700
Acenaphthylene	ND	1,300
2,6-Dinitrotoluene	ND	6,700
3-Nitroaniline	ND	13,000
Acenaphthene	ND	1,300
2,4-Dinitrophenol	ND	13,000
4-Nitrophenol	ND	13,000
Dibenzofuran	ND	6,700
2,4-Dinitrotoluene	ND	6,700
Diethylphthalate	ND	6,700
Fluorene	ND	1,300
4-Chlorophenyl-phenylether	ND	6,700
4-Nitroaniline	ND	13,000
4,6-Dinitro-2-methylphenol	ND	13,000
N-Nitrosodiphenylamine	ND	6,700
Azobenzene	ND	6,700
4-Bromophenyl-phenylether	ND	6,700
Hexachlorobenzene	ND	6,700
Pentachlorophenol	ND	13,000
Phenanthrene	ND	1,300
Anthracene	ND	1,300

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8270C
Field ID:	LC-WC-052716-03	Batch#:	235660
Lab ID:	277284-003	Sampled:	05/27/16
Matrix:	Soil	Received:	05/27/16
Units:	ug/Kg	Prepared:	06/01/16
Basis:	as received	Analyzed:	06/15/16
Diln Fac:	20.00		

Analyte	Result	RL
Di-n-butylphthalate	ND	6,700
Fluoranthene	ND	1,300
Pyrene	ND	1,300
Butylbenzylphthalate	ND	6,700
3,3'-Dichlorobenzidine	ND	13,000
Benzo(a)anthracene	ND	1,300
Chrysene	ND	1,300
bis(2-Ethylhexyl)phthalate	ND	6,700
Di-n-octylphthalate	ND	6,700
Benzo(b)fluoranthene	ND	1,300
Benzo(k)fluoranthene	ND	1,300
Benzo(a)pyrene	ND	1,300
Indeno(1,2,3-cd)pyrene	ND	1,300
Dibenz(a,h)anthracene	ND	1,300
Benzo(g,h,i)perylene	ND	1,300

Surrogate	%REC	Limits
2-Fluorophenol	DO	25-120
Phenol-d5	DO	36-120
2,4,6-Tribromophenol	DO	27-120
Nitrobenzene-d5	DO	44-120
2-Fluorobiphenyl	DO	47-120
Terphenyl-d14	DO	49-120

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8270C
Field ID:	LC-WC-052716-04	Batch#:	235660
Lab ID:	277284-004	Sampled:	05/27/16
Matrix:	Soil	Received:	05/27/16
Units:	ug/Kg	Prepared:	06/01/16
Basis:	as received	Analyzed:	06/15/16
Diln Fac:	20.00		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	6,800
Phenol	ND	6,800
bis(2-Chloroethyl)ether	ND	6,800
2-Chlorophenol	ND	6,800
1,3-Dichlorobenzene	ND	6,800
1,4-Dichlorobenzene	ND	6,800
Benzyl alcohol	ND	6,800
1,2-Dichlorobenzene	ND	6,800
2-Methylphenol	ND	6,800
bis(2-Chloroisopropyl) ether	ND	6,800
4-Methylphenol	ND	6,800
N-Nitroso-di-n-propylamine	ND	6,800
Hexachloroethane	ND	6,800
Nitrobenzene	ND	6,800
Isophorone	ND	6,800
2-Nitrophenol	ND	14,000
2,4-Dimethylphenol	ND	6,800
Benzoic acid	ND	34,000
bis(2-Chloroethoxy)methane	ND	6,800
2,4-Dichlorophenol	ND	6,800
1,2,4-Trichlorobenzene	ND	6,800
Naphthalene	ND	1,400
4-Chloroaniline	ND	6,800
Hexachlorobutadiene	ND	6,800
4-Chloro-3-methylphenol	ND	6,800
2-Methylnaphthalene	ND	1,400
Hexachlorocyclopentadiene	ND	14,000
2,4,6-Trichlorophenol	ND	6,800
2,4,5-Trichlorophenol	ND	6,800
2-Chloronaphthalene	ND	6,800
2-Nitroaniline	ND	14,000
Dimethylphthalate	ND	6,800
Acenaphthylene	ND	1,400
2,6-Dinitrotoluene	ND	6,800
3-Nitroaniline	ND	14,000
Acenaphthene	ND	1,400
2,4-Dinitrophenol	ND	14,000
4-Nitrophenol	ND	14,000
Dibenzofuran	ND	6,800
2,4-Dinitrotoluene	ND	6,800
Diethylphthalate	ND	6,800
Fluorene	ND	1,400
4-Chlorophenyl-phenylether	ND	6,800
4-Nitroaniline	ND	14,000
4,6-Dinitro-2-methylphenol	ND	14,000
N-Nitrosodiphenylamine	ND	6,800
Azobenzene	ND	6,800
4-Bromophenyl-phenylether	ND	6,800
Hexachlorobenzene	ND	6,800
Pentachlorophenol	ND	14,000
Phenanthrene	ND	1,400
Anthracene	ND	1,400

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8270C
Field ID:	LC-WC-052716-04	Batch#:	235660
Lab ID:	277284-004	Sampled:	05/27/16
Matrix:	Soil	Received:	05/27/16
Units:	ug/Kg	Prepared:	06/01/16
Basis:	as received	Analyzed:	06/15/16
Diln Fac:	20.00		

Analyte	Result	RL
Di-n-butylphthalate	ND	6,800
Fluoranthene	ND	1,400
Pyrene	ND	1,400
Butylbenzylphthalate	ND	6,800
3,3'-Dichlorobenzidine	ND	14,000
Benzo(a)anthracene	ND	1,400
Chrysene	ND	1,400
bis(2-Ethylhexyl)phthalate	ND	6,800
Di-n-octylphthalate	ND	6,800
Benzo(b)fluoranthene	ND	1,400
Benzo(k)fluoranthene	ND	1,400
Benzo(a)pyrene	ND	1,400
Indeno(1,2,3-cd)pyrene	ND	1,400
Dibenz(a,h)anthracene	ND	1,400
Benzo(g,h,i)perylene	ND	1,400

Surrogate	%REC	Limits
2-Fluorophenol	DO	25-120
Phenol-d5	DO	36-120
2,4,6-Tribromophenol	DO	27-120
Nitrobenzene-d5	DO	44-120
2-Fluorobiphenyl	DO	47-120
Terphenyl-d14	DO	49-120

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8270C
Field ID:	LC-WC-052716-05	Batch#:	235660
Lab ID:	277284-005	Sampled:	05/27/16
Matrix:	Soil	Received:	05/27/16
Units:	ug/Kg	Prepared:	06/01/16
Basis:	as received	Analyzed:	06/15/16
Diln Fac:	10.00		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	3,400
Phenol	ND	3,400
bis(2-Chloroethyl)ether	ND	3,400
2-Chlorophenol	ND	3,400
1,3-Dichlorobenzene	ND	3,400
1,4-Dichlorobenzene	ND	3,400
Benzyl alcohol	ND	3,400
1,2-Dichlorobenzene	ND	3,400
2-Methylphenol	ND	3,400
bis(2-Chloroisopropyl) ether	ND	3,400
4-Methylphenol	ND	3,400
N-Nitroso-di-n-propylamine	ND	3,400
Hexachloroethane	ND	3,400
Nitrobenzene	ND	3,400
Isophorone	ND	3,400
2-Nitrophenol	ND	6,700
2,4-Dimethylphenol	ND	3,400
Benzoic acid	ND	17,000
bis(2-Chloroethoxy)methane	ND	3,400
2,4-Dichlorophenol	ND	3,400
1,2,4-Trichlorobenzene	ND	3,400
Naphthalene	ND	670
4-Chloroaniline	ND	3,400
Hexachlorobutadiene	ND	3,400
4-Chloro-3-methylphenol	ND	3,400
2-Methylnaphthalene	ND	670
Hexachlorocyclopentadiene	ND	6,700
2,4,6-Trichlorophenol	ND	3,400
2,4,5-Trichlorophenol	ND	3,400
2-Chloronaphthalene	ND	3,400
2-Nitroaniline	ND	6,700
Dimethylphthalate	ND	3,400
Acenaphthylene	ND	670
2,6-Dinitrotoluene	ND	3,400
3-Nitroaniline	ND	6,700
Acenaphthene	ND	670
2,4-Dinitrophenol	ND	6,700
4-Nitrophenol	ND	6,700
Dibenzofuran	ND	3,400
2,4-Dinitrotoluene	ND	3,400
Diethylphthalate	ND	3,400
Fluorene	ND	670
4-Chlorophenyl-phenylether	ND	3,400
4-Nitroaniline	ND	6,700
4,6-Dinitro-2-methylphenol	ND	6,700
N-Nitrosodiphenylamine	ND	3,400
Azobenzene	ND	3,400
4-Bromophenyl-phenylether	ND	3,400
Hexachlorobenzene	ND	3,400
Pentachlorophenol	ND	6,700
Phenanthrene	ND	670
Anthracene	ND	670

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8270C
Field ID:	LC-WC-052716-05	Batch#:	235660
Lab ID:	277284-005	Sampled:	05/27/16
Matrix:	Soil	Received:	05/27/16
Units:	ug/Kg	Prepared:	06/01/16
Basis:	as received	Analyzed:	06/15/16
Diln Fac:	10.00		

Analyte	Result	RL
Di-n-butylphthalate	ND	3,400
Fluoranthene	ND	670
Pyrene	ND	670
Butylbenzylphthalate	ND	3,400
3,3'-Dichlorobenzidine	ND	6,700
Benzo(a)anthracene	ND	670
Chrysene	ND	670
bis(2-Ethylhexyl)phthalate	ND	3,400
Di-n-octylphthalate	ND	3,400
Benzo(b)fluoranthene	ND	670
Benzo(k)fluoranthene	ND	670
Benzo(a)pyrene	ND	670
Indeno(1,2,3-cd)pyrene	ND	670
Dibenz(a,h)anthracene	ND	670
Benzo(g,h,i)perylene	ND	670

Surrogate	%REC	Limits
2-Fluorophenol	DO	25-120
Phenol-d5	DO	36-120
2,4,6-Tribromophenol	DO	27-120
Nitrobenzene-d5	DO	44-120
2-Fluorobiphenyl	DO	47-120
Terphenyl-d14	DO	49-120

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8270C
Field ID:	LC-WC-052716-06	Batch#:	235660
Lab ID:	277284-006	Sampled:	05/27/16
Matrix:	Soil	Received:	05/27/16
Units:	ug/Kg	Prepared:	06/01/16
Basis:	as received	Analyzed:	06/15/16
Diln Fac:	20.00		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	6,700
Phenol	ND	6,700
bis(2-Chloroethyl)ether	ND	6,700
2-Chlorophenol	ND	6,700
1,3-Dichlorobenzene	ND	6,700
1,4-Dichlorobenzene	ND	6,700
Benzyl alcohol	ND	6,700
1,2-Dichlorobenzene	ND	6,700
2-Methylphenol	ND	6,700
bis(2-Chloroisopropyl) ether	ND	6,700
4-Methylphenol	ND	6,700
N-Nitroso-di-n-propylamine	ND	6,700
Hexachloroethane	ND	6,700
Nitrobenzene	ND	6,700
Isophorone	ND	6,700
2-Nitrophenol	ND	13,000
2,4-Dimethylphenol	ND	6,700
Benzoic acid	ND	33,000
bis(2-Chloroethoxy)methane	ND	6,700
2,4-Dichlorophenol	ND	6,700
1,2,4-Trichlorobenzene	ND	6,700
Naphthalene	ND	1,300
4-Chloroaniline	ND	6,700
Hexachlorobutadiene	ND	6,700
4-Chloro-3-methylphenol	ND	6,700
2-Methylnaphthalene	ND	1,300
Hexachlorocyclopentadiene	ND	13,000
2,4,6-Trichlorophenol	ND	6,700
2,4,5-Trichlorophenol	ND	6,700
2-Chloronaphthalene	ND	6,700
2-Nitroaniline	ND	13,000
Dimethylphthalate	ND	6,700
Acenaphthylene	ND	1,300
2,6-Dinitrotoluene	ND	6,700
3-Nitroaniline	ND	13,000
Acenaphthene	ND	1,300
2,4-Dinitrophenol	ND	13,000
4-Nitrophenol	ND	13,000
Dibenzofuran	ND	6,700
2,4-Dinitrotoluene	ND	6,700
Diethylphthalate	ND	6,700
Fluorene	ND	1,300
4-Chlorophenyl-phenylether	ND	6,700
4-Nitroaniline	ND	13,000
4,6-Dinitro-2-methylphenol	ND	13,000
N-Nitrosodiphenylamine	ND	6,700
Azobenzene	ND	6,700
4-Bromophenyl-phenylether	ND	6,700
Hexachlorobenzene	ND	6,700
Pentachlorophenol	ND	13,000
Phenanthrene	ND	1,300
Anthracene	ND	1,300

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8270C
Field ID:	LC-WC-052716-06	Batch#:	235660
Lab ID:	277284-006	Sampled:	05/27/16
Matrix:	Soil	Received:	05/27/16
Units:	ug/Kg	Prepared:	06/01/16
Basis:	as received	Analyzed:	06/15/16
Diln Fac:	20.00		

Analyte	Result	RL
Di-n-butylphthalate	ND	6,700
Fluoranthene	ND	1,300
Pyrene	ND	1,300
Butylbenzylphthalate	ND	6,700
3,3'-Dichlorobenzidine	ND	13,000
Benzo(a)anthracene	ND	1,300
Chrysene	ND	1,300
bis(2-Ethylhexyl)phthalate	ND	6,700
Di-n-octylphthalate	ND	6,700
Benzo(b)fluoranthene	ND	1,300
Benzo(k)fluoranthene	ND	1,300
Benzo(a)pyrene	ND	1,300
Indeno(1,2,3-cd)pyrene	ND	1,300
Dibenz(a,h)anthracene	ND	1,300
Benzo(g,h,i)perylene	ND	1,300

Surrogate	%REC	Limits
2-Fluorophenol	DO	25-120
Phenol-d5	DO	36-120
2,4,6-Tribromophenol	DO	27-120
Nitrobenzene-d5	DO	44-120
2-Fluorobiphenyl	DO	47-120
Terphenyl-d14	DO	49-120

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC837837	Batch#:	235660
Matrix:	Soil	Prepared:	06/01/16
Units:	ug/Kg	Analyzed:	06/02/16

Analyte	Result	RL
N-Nitrosodimethylamine	ND	340
Phenol	ND	340
bis(2-Chloroethyl)ether	ND	340
2-Chlorophenol	ND	340
1,3-Dichlorobenzene	ND	340
1,4-Dichlorobenzene	ND	340
Benzyl alcohol	ND	340
1,2-Dichlorobenzene	ND	340
2-Methylphenol	ND	340
bis(2-Chloroisopropyl) ether	ND	340
4-Methylphenol	ND	340
N-Nitroso-di-n-propylamine	ND	340
Hexachloroethane	ND	340
Nitrobenzene	ND	340
Isophorone	ND	340
2-Nitrophenol	ND	670
2,4-Dimethylphenol	ND	340
Benzoic acid	ND	1,700
bis(2-Chloroethoxy)methane	ND	340
2,4-Dichlorophenol	ND	340
1,2,4-Trichlorobenzene	ND	340
Naphthalene	ND	67
4-Chloroaniline	ND	340
Hexachlorobutadiene	ND	340
4-Chloro-3-methylphenol	ND	340
2-Methylnaphthalene	ND	67
Hexachlorocyclopentadiene	ND	670
2,4,6-Trichlorophenol	ND	340
2,4,5-Trichlorophenol	ND	340
2-Chloronaphthalene	ND	340
2-Nitroaniline	ND	670
Dimethylphthalate	ND	340
Acenaphthylene	ND	67
2,6-Dinitrotoluene	ND	340
3-Nitroaniline	ND	670
Acenaphthene	ND	67
2,4-Dinitrophenol	ND	670
4-Nitrophenol	ND	670
Dibenzofuran	ND	340
2,4-Dinitrotoluene	ND	340
Diethylphthalate	ND	340
Fluorene	ND	67
4-Chlorophenyl-phenylether	ND	340
4-Nitroaniline	ND	670
4,6-Dinitro-2-methylphenol	ND	670
N-Nitrosodiphenylamine	ND	340
Azobenzene	ND	340
4-Bromophenyl-phenylether	ND	340
Hexachlorobenzene	ND	340
Pentachlorophenol	ND	670
Phenanthrene	ND	67
Anthracene	ND	67
Di-n-butylphthalate	ND	340
Fluoranthene	ND	67

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC837837	Batch#:	235660
Matrix:	Soil	Prepared:	06/01/16
Units:	ug/Kg	Analyzed:	06/02/16

Analyte	Result	RL
Pyrene	ND	67
Butylbenzylphthalate	ND	340
3,3'-Dichlorobenzidine	ND	670
Benzo(a)anthracene	ND	67
Chrysene	ND	67
bis(2-Ethylhexyl)phthalate	ND	340
Di-n-octylphthalate	ND	340
Benzo(b)fluoranthene	ND	67
Benzo(k)fluoranthene	ND	67
Benzo(a)pyrene	ND	67
Indeno(1,2,3-cd)pyrene	ND	67
Dibenz(a,h)anthracene	ND	67
Benzo(g,h,i)perylene	ND	67

Surrogate	%REC	Limits
2-Fluorophenol	74	25-120
Phenol-d5	76	36-120
2,4,6-Tribromophenol	51	27-120
Nitrobenzene-d5	65	44-120
2-Fluorobiphenyl	63	47-120
Terphenyl-d14	72	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8270C
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC837838	Batch#:	235660
Matrix:	Soil	Prepared:	06/01/16
Units:	ug/Kg	Analyzed:	06/02/16

Analyte	Spiked	Result	%REC	Limits
Phenol	2,670	2,199	82	42-120
2-Chlorophenol	2,670	2,100	79	45-120
1,4-Dichlorobenzene	2,670	2,123	79	48-120
N-Nitroso-di-n-propylamine	2,670	2,222	83	27-123
1,2,4-Trichlorobenzene	2,670	2,023	76	50-120
4-Chloro-3-methylphenol	2,670	2,404	90	59-120
Acenaphthene	1,001	715.7	71	53-120
4-Nitrophenol	2,670	1,602	60	47-120
2,4-Dinitrotoluene	2,670	1,888	71	55-120
Pentachlorophenol	2,670	1,544	58	32-120
Pyrene	1,001	923.9	92	52-120

Surrogate	%REC	Limits
2-Fluorophenol	79	25-120
Phenol-d5	83	36-120
2,4,6-Tribromophenol	75	27-120
Nitrobenzene-d5	67	44-120
2-Fluorobiphenyl	60	47-120
Terphenyl-d14	74	49-120

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8081A
Field ID:	LC-WC-052716-01	Batch#:	235725
Lab ID:	277284-001	Sampled:	05/27/16
Matrix:	Soil	Received:	05/27/16
Units:	ug/Kg	Prepared:	06/03/16
Basis:	as received	Analyzed:	06/06/16
Diln Fac:	5.000		

Analyte	Result	RL
alpha-BHC	ND	8.6
beta-BHC	ND	8.6
gamma-BHC	ND	8.6
delta-BHC	ND	8.6
Heptachlor	ND	8.6
Aldrin	ND	8.6
Heptachlor epoxide	ND	8.6
Endosulfan I	ND	8.6
Dieldrin	ND	8.6
4,4'-DDE	ND	17
Endrin	ND	17
Endosulfan II	ND	17
Endosulfan sulfate	ND	17
4,4'-DDD	ND	17
Endrin aldehyde	ND	17
4,4'-DDT	ND	17
alpha-Chlordane	ND	8.6
gamma-Chlordane	ND	8.6
Methoxychlor	ND	86
Toxaphene	ND	300

Surrogate	%REC	Limits
TCMX	124	44-125
Decachlorobiphenyl	81	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8081A
Field ID:	LC-WC-052716-02	Batch#:	235725
Lab ID:	277284-002	Sampled:	05/27/16
Matrix:	Soil	Received:	05/27/16
Units:	ug/Kg	Prepared:	06/03/16
Basis:	as received	Analyzed:	06/06/16
Diln Fac:	10.00		

Analyte	Result	RL
alpha-BHC	ND	17
beta-BHC	ND	17
gamma-BHC	ND	17
delta-BHC	ND	17
Heptachlor	ND	17
Aldrin	ND	17
Heptachlor epoxide	ND	17
Endosulfan I	ND	17
Dieldrin	ND	17
4,4'-DDE	ND	33
Endrin	ND	33
Endosulfan II	ND	33
Endosulfan sulfate	ND	33
4,4'-DDD	ND	33
Endrin aldehyde	ND	33
4,4'-DDT	ND	33
alpha-Chlordane	ND	17
gamma-Chlordane	ND	17
Methoxychlor	ND	170
Toxaphene	ND	600

Surrogate	%REC	Limits
TCMX	DO	44-125
Decachlorobiphenyl	DO	39-121

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8081A
Field ID:	LC-WC-052716-03	Batch#:	235725
Lab ID:	277284-003	Sampled:	05/27/16
Matrix:	Soil	Received:	05/27/16
Units:	ug/Kg	Prepared:	06/03/16
Basis:	as received	Analyzed:	06/06/16
Diln Fac:	10.00		

Analyte	Result	RL
alpha-BHC	ND	17
beta-BHC	ND	17
gamma-BHC	ND	17
delta-BHC	ND	17
Heptachlor	ND	17
Aldrin	ND	17
Heptachlor epoxide	ND	17
Endosulfan I	ND	17
Dieldrin	ND	17
4,4'-DDE	ND	33
Endrin	ND	33
Endosulfan II	ND	33
Endosulfan sulfate	ND	33
4,4'-DDD	ND	33
Endrin aldehyde	ND	33
4,4'-DDT	ND	33
alpha-Chlordane	ND	17
gamma-Chlordane	ND	17
Methoxychlor	ND	170
Toxaphene	ND	610

Surrogate	%REC	Limits
TCMX	DO	44-125
Decachlorobiphenyl	DO	39-121

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8081A
Field ID:	LC-WC-052716-04	Batch#:	235725
Lab ID:	277284-004	Sampled:	05/27/16
Matrix:	Soil	Received:	05/27/16
Units:	ug/Kg	Prepared:	06/03/16
Basis:	as received	Analyzed:	06/06/16
Diln Fac:	10.00		

Analyte	Result	RL
alpha-BHC	ND	17
beta-BHC	ND	17
gamma-BHC	ND	17
delta-BHC	ND	17
Heptachlor	ND	17
Aldrin	ND	17
Heptachlor epoxide	ND	17
Endosulfan I	ND	17
Dieldrin	ND	17
4,4'-DDE	ND	33
Endrin	ND	33
Endosulfan II	ND	33
Endosulfan sulfate	ND	33
4,4'-DDD	ND	33
Endrin aldehyde	ND	33
4,4'-DDT	ND	33
alpha-Chlordane	ND	17
gamma-Chlordane	ND	17
Methoxychlor	ND	170
Toxaphene	ND	600

Surrogate	%REC	Limits
TCMX	DO	44-125
Decachlorobiphenyl	DO	39-121

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8081A
Field ID:	LC-WC-052716-05	Batch#:	235725
Lab ID:	277284-005	Sampled:	05/27/16
Matrix:	Soil	Received:	05/27/16
Units:	ug/Kg	Prepared:	06/03/16
Basis:	as received	Analyzed:	06/06/16
Diln Fac:	5.000		

Analyte	Result	RL
alpha-BHC	ND	8.5
beta-BHC	ND	8.5
gamma-BHC	ND	8.5
delta-BHC	ND	8.5
Heptachlor	ND	8.5
Aldrin	ND	8.5
Heptachlor epoxide	ND	8.5
Endosulfan I	30 C	8.5
Dieldrin	ND	8.5
4,4'-DDE	ND	17
Endrin	ND	17
Endosulfan II	ND	17
Endosulfan sulfate	ND	17
4,4'-DDD	ND	17
Endrin aldehyde	ND	17
4,4'-DDT	ND	17
alpha-Chlordane	ND	8.5
gamma-Chlordane	ND	8.5
Methoxychlor	ND	85
Toxaphene	ND	300

Surrogate	%REC	Limits
TCMX	97	44-125
Decachlorobiphenyl	58	39-121

C= Presence confirmed, but RPD between columns exceeds 40%
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8081A
Field ID:	LC-WC-052716-06	Batch#:	235725
Lab ID:	277284-006	Sampled:	05/27/16
Matrix:	Soil	Received:	05/27/16
Units:	ug/Kg	Prepared:	06/03/16
Basis:	as received	Analyzed:	06/06/16
Diln Fac:	5.000		

Analyte	Result	RL
alpha-BHC	ND	8.6
beta-BHC	ND	8.6
gamma-BHC	ND	8.6
delta-BHC	ND	8.6
Heptachlor	ND	8.6
Aldrin	ND	8.6
Heptachlor epoxide	ND	8.6
Endosulfan I	ND	8.6
Dieldrin	ND	8.6
4,4'-DDE	ND	17
Endrin	ND	17
Endosulfan II	ND	17
Endosulfan sulfate	ND	17
4,4'-DDD	ND	17
Endrin aldehyde	ND	17
4,4'-DDT	ND	17
alpha-Chlordane	ND	8.6
gamma-Chlordane	ND	8.6
Methoxychlor	ND	86
Toxaphene	ND	300

Surrogate	%REC	Limits
TCMX	73	44-125
Decachlorobiphenyl	104	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8081A
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC838055	Batch#:	235725
Matrix:	Soil	Prepared:	06/03/16
Units:	ug/Kg	Analyzed:	06/06/16

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	1.7
4,4'-DDE	ND	3.4
Endrin	ND	3.4
Endosulfan II	ND	3.4
Endosulfan sulfate	ND	3.4
4,4'-DDD	ND	3.4
Endrin aldehyde	ND	3.4
4,4'-DDT	ND	3.4
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND	17
Toxaphene	ND	61

Surrogate	%REC	Limits
TCMX	70	44-125
Decachlorobiphenyl	84	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3550B
Project#:	2015-063	Analysis:	EPA 8081A
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC838056	Batch#:	235725
Matrix:	Soil	Prepared:	06/03/16
Units:	ug/Kg	Analyzed:	06/06/16

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	13.45	10.96	82	44-121
Heptachlor	13.45	11.43	85	45-129
Aldrin	13.45	11.84	88	45-120
Dieldrin	13.45	12.13	90	49-131
Endrin	13.45	12.10	90	43-135
4,4'-DDT	13.45	12.76	95	37-141

Surrogate	%REC	Limits
TCMX	84	44-125
Decachlorobiphenyl	94	39-121

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #: 277284		Project#:	2015-063
Client: Engineering Remediation Resource Grp		Location:	Lendrum Court
Field ID:	LC-WC-052716-01	Basis:	as received
Lab ID:	277284-001	Diln Fac:	1.000
Matrix:	Soil	Sampled:	05/27/16
Units:	mg/Kg	Received:	05/27/16

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	3.1	2.0	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Arsenic	4.4	0.25	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Barium	84	0.25	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Beryllium	0.30	0.10	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Chromium	130	0.25	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Cobalt	11	0.25	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Copper	85	0.26	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Lead	170	0.25	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Mercury	0.072	0.016	235690	06/02/16	06/02/16	METHOD	EPA 7471A
Molybdenum	ND	0.25	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Nickel	130	0.25	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Selenium	ND	2.0	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Silver	ND	0.25	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Thallium	ND	0.50	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Vanadium	47	0.25	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Zinc	76	1.0	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #: 277284		Project#:	2015-063
Client: Engineering Remediation Resource Grp		Location:	Lendrum Court
Field ID:	LC-WC-052716-02	Basis:	as received
Lab ID:	277284-002	Diln Fac:	1.000
Matrix:	Soil	Sampled:	05/27/16
Units:	mg/Kg	Received:	05/27/16

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	4.3	1.9	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Arsenic	4.4	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Barium	110	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Beryllium	0.39	0.094	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Cadmium	ND	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Chromium	190	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Cobalt	15	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Copper	26	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Lead	240	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Mercury	0.10	0.016	235690	06/02/16	06/02/16	METHOD	EPA 7471A
Molybdenum	ND	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Nickel	190	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Selenium	ND	1.9	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Silver	ND	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Thallium	ND	0.47	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Vanadium	51	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Zinc	75	0.94	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #: 277284		Project#:	2015-063
Client: Engineering Remediation Resource Grp		Location:	Lendrum Court
Field ID:	LC-WC-052716-03	Basis:	as received
Lab ID:	277284-003	Diln Fac:	1.000
Matrix:	Soil	Sampled:	05/27/16
Units:	mg/Kg	Received:	05/27/16

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	3.3	1.9	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Arsenic	4.0	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Barium	110	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Beryllium	0.35	0.096	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Cadmium	ND	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Chromium	110	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Cobalt	13	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Copper	26	0.25	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Lead	91	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Mercury	0.13	0.016	235690	06/02/16	06/02/16	METHOD	EPA 7471A
Molybdenum	ND	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Nickel	140	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Selenium	ND	1.9	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Silver	ND	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Thallium	ND	0.48	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Vanadium	48	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Zinc	100	0.96	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #: 277284		Project#:	2015-063
Client: Engineering Remediation Resource Grp		Location:	Lendrum Court
Field ID:	LC-WC-052716-04	Basis:	as received
Lab ID:	277284-004	Diln Fac:	1.000
Matrix:	Soil	Sampled:	05/27/16
Units:	mg/Kg	Received:	05/27/16

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	4.5	2.0	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Arsenic	5.5	0.26	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Barium	120	0.26	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Beryllium	0.39	0.10	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Cadmium	ND	0.26	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Chromium	110	0.26	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Cobalt	20	0.26	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Copper	20	0.27	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Lead	63	0.26	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Mercury	0.15	0.017	235690	06/02/16	06/02/16	METHOD	EPA 7471A
Molybdenum	ND	0.26	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Nickel	140	0.26	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Selenium	ND	2.0	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Silver	ND	0.26	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Thallium	ND	0.52	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Vanadium	52	0.26	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Zinc	81	1.0	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	277284	Project#:	2015-063
Client:	Engineering Remediation Resource Grp	Location:	Lendrum Court
Field ID:	LC-WC-052716-05	Basis:	as received
Lab ID:	277284-005	Sampled:	05/27/16
Matrix:	Soil	Received:	05/27/16
Units:	mg/Kg		

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	8.8	1.8	1.000	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Arsenic	6.4	0.23	1.000	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Barium	80	0.23	1.000	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Beryllium	0.22	0.092	1.000	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Cadmium	ND	0.23	1.000	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Chromium	220	0.23	1.000	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Cobalt	31	0.23	1.000	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Copper	16	0.24	1.000	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Lead	2,800	5.7	25.00	235744	06/03/16	06/06/16	EPA 3050B	EPA 6010B
Mercury	0.43	0.016	1.000	235690	06/02/16	06/02/16	METHOD	EPA 7471A
Molybdenum	ND	0.23	1.000	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Nickel	380	0.23	1.000	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Selenium	ND	1.8	1.000	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Silver	ND	0.23	1.000	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Thallium	ND	0.46	1.000	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Vanadium	37	0.23	1.000	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Zinc	72	0.92	1.000	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #: 277284		Project#:	2015-063
Client: Engineering Remediation Resource Grp		Location:	Lendrum Court
Field ID:	LC-WC-052716-06	Basis:	as received
Lab ID:	277284-006	Diln Fac:	1.000
Matrix:	Soil	Sampled:	05/27/16
Units:	mg/Kg	Received:	05/27/16

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	1.9	235744	06/03/16	06/06/16	EPA 3050B	EPA 6010B
Arsenic	3.1	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Barium	67	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Beryllium	0.23	0.096	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Cadmium	ND	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Chromium	190	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Cobalt	23	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Copper	11	0.25	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Lead	91	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Mercury	0.15	0.017	235690	06/02/16	06/02/16	METHOD	EPA 7471A
Molybdenum	ND	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Nickel	190	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Selenium	ND	1.9	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Silver	ND	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Thallium	ND	0.48	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Vanadium	38	0.24	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B
Zinc	38	0.96	235744	06/03/16	06/03/16	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	METHOD
Project#:	2015-063	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	235690
Lab ID:	QC837938	Prepared:	06/02/16
Matrix:	Soil	Analyzed:	06/02/16
Units:	mg/Kg		

Result	RL
ND	0.017

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	METHOD
Project#:	2015-063	Analysis:	EPA 7471A
Analyte:	Mercury	Batch#:	235690
Matrix:	Soil	Prepared:	06/02/16
Units:	mg/Kg	Analyzed:	06/02/16
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC837939	0.1953	0.1981	101	80-120		
BSD	QC837940	0.2083	0.2135	102	80-120	1	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	METHOD
Project#:	2015-063	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	LC-WC-052716-01	Batch#:	235690
MSS Lab ID:	277284-001	Sampled:	05/27/16
Matrix:	Soil	Received:	05/27/16
Units:	mg/Kg	Prepared:	06/02/16
Basis:	as received	Analyzed:	06/02/16

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC837941	0.07162	0.1984	0.2563	93	69-142		
MSD	QC837942		0.1984	0.2609	95	69-142	2	36

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3050B
Project#:	2015-063	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC838122	Batch#:	235744
Matrix:	Soil	Prepared:	06/03/16
Units:	mg/Kg	Analyzed:	06/03/16

Analyte	Result	RL
Antimony	ND	2.0
Arsenic	ND	0.26
Barium	ND	0.26
Beryllium	ND	0.10
Cadmium	ND	0.26
Chromium	ND	0.26
Cobalt	ND	0.26
Copper	ND	0.26
Lead	ND	0.26
Molybdenum	ND	0.26
Nickel	ND	0.26
Selenium	ND	2.0
Silver	ND	0.26
Thallium	ND	0.51
Vanadium	ND	0.26
Zinc	ND	1.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3050B
Project#:	2015-063	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	235744
Units:	mg/Kg	Prepared:	06/03/16
Diln Fac:	1.000	Analyzed:	06/03/16

Type: BS Lab ID: QC838123

Analyte	Spiked	Result	%REC	Limits
Antimony	47.62	43.71	92	80-120
Arsenic	47.62	45.16	95	80-120
Barium	47.62	47.98	101	80-120
Beryllium	23.81	23.45	99	80-120
Cadmium	47.62	45.65	96	80-120
Chromium	47.62	48.09	101	80-120
Cobalt	47.62	45.58	96	80-120
Copper	47.62	46.37	97	80-120
Lead	47.62	44.20	93	80-120
Molybdenum	47.62	44.72	94	80-120
Nickel	47.62	45.82	96	80-120
Selenium	47.62	43.46	91	80-120
Silver	4.762	4.371	92	80-120
Thallium	47.62	44.67	94	80-120
Vanadium	47.62	47.64	100	80-120
Zinc	47.62	45.30	95	80-120

Type: BSD Lab ID: QC838124

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	54.95	49.97	91	80-120	1	20
Arsenic	54.95	51.12	93	80-120	2	20
Barium	54.95	55.13	100	80-120	0	20
Beryllium	27.47	26.89	98	80-120	1	20
Cadmium	54.95	52.29	95	80-120	1	20
Chromium	54.95	54.80	100	80-120	1	20
Cobalt	54.95	52.29	95	80-120	1	20
Copper	54.95	53.09	97	80-120	1	20
Lead	54.95	50.59	92	80-120	1	20
Molybdenum	54.95	51.09	93	80-120	1	20
Nickel	54.95	52.11	95	80-120	1	20
Selenium	54.95	49.51	90	80-120	1	20
Silver	5.495	5.008	91	80-120	1	20
Thallium	54.95	51.26	93	80-120	1	20
Vanadium	54.95	54.25	99	80-120	1	20
Zinc	54.95	51.92	94	80-120	1	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	277284	Location:	Lendrum Court
Client:	Engineering Remediation Resource Grp	Prep:	EPA 3050B
Project#:	2015-063	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	235744
MSS Lab ID:	277187-001	Sampled:	04/20/16
Matrix:	Soil	Received:	04/21/16
Units:	mg/Kg	Prepared:	06/03/16
Basis:	as received	Analyzed:	06/03/16
Diln Fac:	1.000		

Type: MS Lab ID: QC838125

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	3.387	49.50	16.12	26	15-120
Arsenic	6.556	49.50	51.74	91	69-120
Barium	114.6	49.50	158.7	89	35-154
Beryllium	0.5933	24.75	23.89	94	75-120
Cadmium	0.7392	49.50	44.63	89	71-120
Chromium	47.84	49.50	94.63	95	57-133
Cobalt	12.12	49.50	53.65	84	56-125
Copper	24.99	49.50	72.58	96	54-144
Lead	7.406	49.50	49.80	86	53-125
Molybdenum	1.032	49.50	41.83	82	66-120
Nickel	64.37	49.50	105.9	84	44-141
Selenium	0.4780	49.50	43.91	88	61-120
Silver	<0.07052	4.950	2.744	55 *	69-120
Thallium	<0.1538	49.50	40.20	81	59-120
Vanadium	51.21	49.50	99.40	97	52-144
Zinc	66.97	49.50	110.8	88	45-145

Type: MSD Lab ID: QC838126

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	52.08	16.59	25	15-120	2	41
Arsenic	52.08	56.82	97	69-120	5	35
Barium	52.08	166.1	99	35-154	3	36
Beryllium	26.04	25.96	97	75-120	3	20
Cadmium	52.08	48.83	92	71-120	4	25
Chromium	52.08	99.36	99	57-133	2	33
Cobalt	52.08	57.95	88	56-125	4	36
Copper	52.08	77.14	100	54-144	3	38
Lead	52.08	53.95	89	53-125	4	42
Molybdenum	52.08	45.63	86	66-120	4	20
Nickel	52.08	110.7	89	44-141	2	39
Selenium	52.08	48.31	92	61-120	5	33
Silver	5.208	3.115	60 *	69-120	8	22
Thallium	52.08	43.75	84	59-120	3	27
Vanadium	52.08	106.1	105	52-144	4	29
Zinc	52.08	116.0	94	45-145	2	39

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Laboratory Job Number 277284

Subcontracted Products

Cape Fear Analytical

CFA | Cape Fear Analytical LLC
an affiliate of The GEL Group INC

3306 Kitty Hawk Road, Suite 120 Wilmington, NC 28405
P 910.795.0421

www.capefearanalytical.com

June 15, 2016

Ms. Tracy Babjar
Curtis & Tompkins, LTD
2323 Fifth Street
Berkeley, California 94710

Re: Subcontract DXN / PCB's
Work Order: 9270
SDG: 277284

Dear Ms. Babjar:

Cape Fear Analytical LLC (CFA) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on June 02, 2016. This original data report has been prepared and reviewed in accordance with CFA's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at 910-795-0421.

Sincerely,

Cynde Larkins

Cynde Larkins
Project Manager

Enclosures

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900
(510) 486-0532

Project Number: 277284
Site: Lendrum Court

Subcontract Laboratory:
Cape Fear Analytical
3306 Kitty Hawk Road, Suite 120
Wilmington, NC 28405
(910) 795-0421
ATTN: Cynde Larkins

Results due: Report Level: II

Please send report to: Tracy Babjar (tracy.babjar@ctberk.com)
*** Please report using Sample ID rather than C&T Lab #.

Sample ID	Sampled	Matrix	Analysis	C&T Lab #	Comments
LC-WC-052716-01	05/27 09:20	Soil	8290	277284-001	
LC-WC-052716-02	05/27 09:50	Soil	8290	277284-002	
LC-WC-052716-03	05/27 10:10	Soil	8290	277284-003	
LC-WC-052716-04	05/27 10:35	Soil	8290	277284-004	
LC-WC-052716-05	05/27 11:00	Soil	8290	277284-005	
LC-WC-052716-06	05/27 11:30	Soil	8290	277284-006	

CFA WO #9270

Notes:	Relinquished By:	Received By:
	Charles Bell	
	Date/Time: 6/1/16 @ 15:30	Date/Time: 02 JUN 2016 10:20
	Date/Time:	Date/Time:

Signature on this form constitutes a firm Purchase Order for the services requested above.

9,9 2

SAMPLE RECEIPT CHECKLIST

Cape Fear Analytical

Client: CURL	Work Order: 9270
Shipping Company: Fed Ex	Date/Time Received: 02 JUN 2016 10:20

Suspected Hazard Information	Yes	NA	No
Shipped as DOT Hazardous?			✓
Samples identified as Foreign Soil?			✓

DOE Site Sample Packages	Yes	NA	No*
Screened <0.5 mR/hr?		✓	
Samples < 2x background?		✓	

* Notify RSO of any responses in this column immediately.

Air Sample Receipt Specifics	Yes	NA	No
Air sample in shipment?			✓

Air Witness: _____

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other(describe)
2	Chain of Custody documents included with shipment?	✓			
3	Samples requiring cold preservation within 0-6°C?			✓	Preservation Method: ice bags blue ice dry ice none other (describe) 9.6 +0.3=9.9°C
4	Aqueous samples found to have visible solids?		✓		Sample IDs, containers affected:
5	Samples requiring chemical preservation at proper pH?		✓		Sample IDs, containers affected and pH observed: If preservative added, Lot#:
6	Samples requiring preservation have no residual chlorine?		✓		Sample IDs, containers affected: If preservative added, Lot#:
7	Samples received within holding time?	✓			Sample IDs, tests affected:
8	Sample IDs on COC match IDs on containers?	✓			Sample IDs, containers affected:
9	Date & time of COC match date & time on containers?			✓	Sample IDs, containers affected: NO collection date or time on container
10	Number of containers received match number indicated on COC?	✓			List type and number of containers / Sample IDs, containers affected: 1-2oz clear jar each, 6 total
11	COC form is properly signed in relinquished/received sections?	✓			

Comments:

Client gave CFA permission to proceed with extraction of out-of-temp. sample. CA 02JUN16

Checklist performed by: Initials: MJD Date: 02 JUN 2016

CF-UD-F-7

Subject: Re: 277284
From: Tracy Babjar <tracy.babjar@ctberk.com>
Date: 6/2/2016 11:32 AM
To: Cynde Larkins <cynde.larkins@cfanalytical.com>
CC: Melissa O'Dorisio <mel00770@cfanalytical.com>

Hi Cynde,

I spoke with my client and they asked that you please proceed with analysis.

Thanks and have a great day!

WO#9270

Tracy

Tracy Babjar
Project Manager
Curtis & Tompkins, Ltd.
510 204-2226
www.curtisandtompkins.com

On 6/2/2016 8:04 AM, Cynde Larkins wrote:

> Tracy,
>
> CFA received your soil samples today in good condition but out of recommended temperature at 9.9°C. Please let us know if we can proceed with extraction and analysis of these out-of-temp samples.
>
> Thank you,
>
> --
> Cynde Larkins
> Project Manager
> Cape Fear Analytical, LLC
> 3306 Kitty Hawk Road Suite 120
> Wilmington, NC 28405
> (910) 795-0421
>
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High Resolution Dioxins and Furans Analysis

Case Narrative

HDOX Case Narrative
Curtis & Tompkins, LTD (CURL)
SDG 277284
Work Order 9270

Method/Analysis Information

Product:	**Dioxins/Furans by SW846 Method 8290A in Solids**
Analytical Method:	SW846 8290A
Extraction Method:	SW846 3540C
Analytical Batch Number:	32021
Clean Up Batch Number:	32020
Extraction Batch Number:	32019

Sample Analysis

The following samples were analyzed using the analytical protocol as established in Method 8290A:

Sample ID	Client ID
9270001	LC-WC-052716-01
9270002	LC-WC-052716-02
9270003	LC-WC-052716-03
9270004	LC-WC-052716-04
9270005	LC-WC-052716-05
9270006	LC-WC-052716-06
12016156	Method Blank (MB)
12016157	Laboratory Control Sample (LCS)
12016158	Laboratory Control Sample Duplicate (LCSD)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by Cape Fear Analytical LLC (CFA) as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with CF-OA-E-002 REV# 14.

Raw data reports are processed and reviewed by the analyst using the TargetLynx software package.

Calibration Information

Initial Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (CCV) met the acceptance criteria.

Quality Control (QC) Information

Certification Statement
The test results presented in this document are certified to meet all requirements of the 2009 TNI Standard.

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery
The LCSD spike recoveries met the acceptance limits.

LCS/LCSD Relative Percent Difference (RPD) Statement
The RPD(s) between the LCS and LCSD met the acceptance limits.

QC Sample Designation
A matrix spike and matrix spike duplicate analysis was not required for this SDG.

Technical Information

Holding Time Specifications
CFA assigns holding times based on the associated methodology, which assigns the date and time from sample collection. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Nonconformance (NCR) Documentation
A NCR was not required for this SDG.

Manual Integrations
Certain standards and QC samples required manual integrations to correctly position the baseline as set in the calibration standard injections. Where manual integrations were performed, copies of all manual integration peak profiles are included in the raw data section of this fraction. Manual integrations were required for data files in this SDG.

Sample preparation
No difficulties were encountered during sample preparation.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Sample Data Summary

Cape Fear Analytical, LLC
3306 Kitty Hawk Road Suite 120, Wilmington, NC 28405 - (910) 795-0421 - www.capefearanalytical.com

Certificate of Analysis Report
for

CURL001 Curtis & Tompkins, LTD

Client SDG: 277284 CFA Work Order: 9270

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria
** Analyte is a surrogate compound
E Value is estimated - Concentration of the target analyte exceeds the instrument calibration range
J Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

Review/Validation

Cape Fear Analytical requires all analytical data to be verified by a qualified data reviewer.

The following data validator verified the information presented in this case narrative:

Signature: **Name: Heather Patterson**

Date: 15 JUN 2016 **Title: Group Leader**

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Project:**	**CURL00312**
Lab Sample ID:	**9270001**	**Date Collected:**	**05/27/2016 09:20**	**Matrix:**	**SOIL**
Client Sample:	**8290 Soil**	**Date Received:**	**06/02/2016 10:20**	**%Moisture:**	**9.3**
Client ID:	**LC-WC-052716-01**			**Prep Basis:**	**Dry Weight**
Batch ID:	**32021**	**Method:**	**SW846 8290A**		
Run Date:	**06/09/2016 17:47**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b09jun16b-3**			**Dilution:**	**1**
Prep Batch:	**32019**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-JUN-16**	**Prep Aliquot:**	**12.01 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	J	0.806		pg/g	0.0562	0.918
40321-76-4	1,2,3,7,8-PeCDD		7.72		pg/g	0.0555	4.59
39227-28-6	1,2,3,4,7,8-HxCDD		6.66		pg/g	0.138	4.59
57653-85-7	1,2,3,6,7,8-HxCDD		14.6		pg/g	0.134	4.59
19408-74-3	1,2,3,7,8,9-HxCDD		16.4		pg/g	0.141	4.59
35822-46-9	1,2,3,4,6,7,8-HpCDD		168		pg/g	0.347	4.59
3268-87-9	1,2,3,4,6,7,8,9-OCDD		1190		pg/g	0.523	9.18
51207-31-9	2,3,7,8-TCDF	J	0.701		pg/g	0.0914	0.918
57117-41-6	1,2,3,7,8-PeCDF	J	0.645		pg/g	0.0465	4.59
57117-31-4	2,3,4,7,8-PeCDF	J	1.21		pg/g	0.0448	4.59
70648-26-9	1,2,3,4,7,8-HxCDF	J	2.06		pg/g	0.0681	4.59
57117-44-9	1,2,3,6,7,8-HxCDF	J	2.07		pg/g	0.0633	4.59
60851-34-5	2,3,4,6,7,8-HxCDF	J	2.22		pg/g	0.0657	4.59
72918-21-9	1,2,3,7,8,9-HxCDF	J	0.380		pg/g	0.0791	4.59
67562-39-4	1,2,3,4,6,7,8-HpCDF		24.7		pg/g	0.0872	4.59
55673-89-7	1,2,3,4,7,8,9-HpCDF	J	1.02		pg/g	0.111	4.59
39001-02-0	1,2,3,4,6,7,8,9-OCDF		45.6		pg/g	0.180	9.18
41903-57-5	Total TCDDs		5.14		pg/g	0.0562	0.918
36088-22-9	Total PeCDDs		22.4		pg/g	0.0555	4.59
34465-46-8	Total HxCDDs		91.5		pg/g	0.134	4.59
37871-00-4	Total HpCDDs		308		pg/g	0.347	4.59
30402-14-3	Total TCDFs		12.9		pg/g	0.0914	0.918
30402-15-4	Total PeCDFs		26.2		pg/g	0.0233	4.59
55684-94-1	Total HxCDFs		36.7		pg/g	0.0633	4.59
38998-75-3	Total HpCDFs		54.1		pg/g	0.0872	4.59
3333-30-0	TEQ WHO2005 ND=0		15.7	15.7	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		15.7	15.7	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		162	184	pg/g	88.2	(40%-135%)
13C-1,2,3,7,8-PeCDD		123	184	pg/g	67.0	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		140	184	pg/g	76.5	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		127	184	pg/g	69.3	(40%-135%)
13C-OCDD		253	367	pg/g	68.8	(40%-135%)
13C-2,3,7,8-TCDF		141	184	pg/g	76.9	(40%-135%)
13C-1,2,3,7,8-PeCDF		121	184	pg/g	65.9	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		126	184	pg/g	68.7	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		113	184	pg/g	61.5	(40%-135%)

Comments:

J Value is estimated

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Project:**	**CURL00312**
Lab Sample ID:	**9270002**	**Date Collected:**	**05/27/2016 09:50**	**Matrix:**	**SOIL**
Client Sample:	**8290 Soil**	**Date Received:**	**06/02/2016 10:20**	**%Moisture:**	**7.7**
Client ID:	**LC-WC-052716-02**			**Prep Basis:**	**Dry Weight**
Batch ID:	**32021**	**Method:**	**SW846 8290A**		
Run Date:	**06/10/2016 11:14**	**Analyst:**	**JTF**	**Instrument:**	**HRP750**
Data File:	**A10JUN16A-5**			**Dilution:**	**1**
Prep Batch:	**32019**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-JUN-16**	**Prep Aliquot:**	**11.19 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
51207-31-9	2,3,7,8-TCDF	J	0.886		pg/g	0.110	0.968

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Project:**	**CURL00312**
Lab Sample ID:	**9270002**	**Date Collected:**	**05/27/2016 09:50**	**Matrix:**	**SOIL**
Client Sample:	**8290 Soil**	**Date Received:**	**06/02/2016 10:20**	**%Moisture:**	**7.7**
Client ID:	**LC-WC-052716-02**			**Prep Basis:**	**Dry Weight**
Batch ID:	**32021**	**Method:**	**SW846 8290A**		
Run Date:	**06/09/2016 18:35**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b09jun16b-4**			**Dilution:**	**1**
Prep Batch:	**32019**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-JUN-16**	**Prep Aliquot:**	**11.19 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	J	0.172		pg/g	0.0588	0.968
40321-76-4	1,2,3,7,8-PeCDD	J	0.904		pg/g	0.065	4.84
39227-28-6	1,2,3,4,7,8-HxCDD	J	1.42		pg/g	0.0815	4.84
57653-85-7	1,2,3,6,7,8-HxCDD	J	3.42		pg/g	0.0794	4.84
19408-74-3	1,2,3,7,8,9-HxCDD	J	3.39		pg/g	0.0836	4.84
35822-46-9	1,2,3,4,6,7,8-HpCDD		91.9		pg/g	0.254	4.84
3268-87-9	1,2,3,4,6,7,8,9-OCDD		718		pg/g	0.368	9.68
51207-31-9	2,3,7,8-TCDF		1.03		pg/g	0.0933	0.968
57117-41-6	1,2,3,7,8-PeCDF	J	0.561		pg/g	0.0604	4.84
57117-31-4	2,3,4,7,8-PeCDF	J	1.10		pg/g	0.0583	4.84
70648-26-9	1,2,3,4,7,8-HxCDF	J	1.04		pg/g	0.162	4.84
57117-44-9	1,2,3,6,7,8-HxCDF	J	0.972		pg/g	0.150	4.84
60851-34-5	2,3,4,6,7,8-HxCDF	J	1.29		pg/g	0.156	4.84
72918-21-9	1,2,3,7,8,9-HxCDF	U	.188		pg/g	0.188	4.84
67562-39-4	1,2,3,4,6,7,8-HpCDF		18.6		pg/g	0.0962	4.84
55673-89-7	1,2,3,4,7,8,9-HpCDF	J	0.737		pg/g	0.123	4.84
39001-02-0	1,2,3,4,6,7,8,9-OCDF		61.5		pg/g	0.207	9.68
41903-57-5	Total TCDDs		5.67	5.99	pg/g	0.0588	0.968
36088-22-9	Total PeCDDs		7.29		pg/g	0.065	4.84
34465-46-8	Total HxCDDs		23.5		pg/g	0.0794	4.84
37871-00-4	Total HpCDDs		151		pg/g	0.254	4.84
30402-14-3	Total TCDFs		19.6		pg/g	0.0933	0.968
30402-15-4	Total PeCDFs		18.7		pg/g	0.025	4.84
55684-94-1	Total HxCDFs		19.7		pg/g	0.150	4.84
38998-75-3	Total HpCDFs		50.9		pg/g	0.0962	4.84
3333-30-0	TEQ WHO2005 ND=0		4.03	4.03	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		4.04	4.04	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		181	194	pg/g	93.7	(40%-135%)
13C-1,2,3,7,8-PeCDD		143	194	pg/g	73.8	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		159	194	pg/g	82.1	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		142	194	pg/g	73.6	(40%-135%)
13C-OCDD		279	387	pg/g	72.1	(40%-135%)
13C-2,3,7,8-TCDF		158	194	pg/g	81.5	(40%-135%)
13C-1,2,3,7,8-PeCDF		139	194	pg/g	71.9	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		145	194	pg/g	74.8	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		128	194	pg/g	66.1	(40%-135%)

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Project:**	**CURL00312**
Lab Sample ID:	**9270003**	**Date Collected:**	**05/27/2016 10:10**	**Matrix:**	**SOIL**
Client Sample:	**8290 Soil**	**Date Received:**	**06/02/2016 10:20**	**%Moisture:**	**9.1**
Client ID:	**LC-WC-052716-03**			**Prep Basis:**	**Dry Weight**
Batch ID:	**32021**	**Method:**	**SW846 8290A**		
Run Date:	**06/09/2016 19:22**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b09jun16b-5**			**Dilution:**	**1**
Prep Batch:	**32019**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-JUN-16**	**Prep Aliquot:**	**11.1 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	J	0.722		pg/g	0.0618	0.991
40321-76-4	1,2,3,7,8-PeCDD		5.86		pg/g	0.0616	4.96
39227-28-6	1,2,3,4,7,8-HxCDD		12.6		pg/g	0.220	4.96
57653-85-7	1,2,3,6,7,8-HxCDD		32.3		pg/g	0.214	4.96
19408-74-3	1,2,3,7,8,9-HxCDD		28.1		pg/g	0.226	4.96
35822-46-9	1,2,3,4,6,7,8-HpCDD		997		pg/g	0.783	4.96
3268-87-9	1,2,3,4,6,7,8,9-OCDD	E	8610		pg/g	0.434	9.91
51207-31-9	2,3,7,8-TCDF	J	0.640		pg/g	0.158	0.991
57117-41-6	1,2,3,7,8-PeCDF	J	0.541		pg/g	0.0759	4.96
57117-31-4	2,3,4,7,8-PeCDF	J	1.28		pg/g	0.0731	4.96
70648-26-9	1,2,3,4,7,8-HxCDF	J	4.81		pg/g	0.154	4.96
57117-44-9	1,2,3,6,7,8-HxCDF	J	4.25		pg/g	0.143	4.96
60851-34-5	2,3,4,6,7,8-HxCDF		5.34		pg/g	0.148	4.96
72918-21-9	1,2,3,7,8,9-HxCDF	J	0.767		pg/g	0.178	4.96
67562-39-4	1,2,3,4,6,7,8-HpCDF		194		pg/g	0.250	4.96
55673-89-7	1,2,3,4,7,8,9-HpCDF		8.21		pg/g	0.317	4.96
39001-02-0	1,2,3,4,6,7,8,9-OCDF		766		pg/g	0.236	9.91
41903-57-5	Total TCDDs		8.81		pg/g	0.0618	0.991
36088-22-9	Total PeCDDs		19.6		pg/g	0.0616	4.96
34465-46-8	Total HxCDDs		183		pg/g	0.214	4.96
37871-00-4	Total HpCDDs		1630		pg/g	0.783	4.96
30402-14-3	Total TCDFs		11.7	12.0	pg/g	0.158	0.991
30402-15-4	Total PeCDFs		27.2		pg/g	0.0293	4.96
55684-94-1	Total HxCDFs		136	137	pg/g	0.143	4.96
38998-75-3	Total HpCDFs		638		pg/g	0.250	4.96
3333-30-0	TEQ WHO2005 ND=0		30.7	30.7	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		30.7	30.7	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		174	198	pg/g	87.9	(40%-135%)
13C-1,2,3,7,8-PeCDD		151	198	pg/g	76.1	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		152	198	pg/g	76.5	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		146	198	pg/g	73.7	(40%-135%)
13C-OCDD		334	396	pg/g	84.2	(40%-135%)
13C-2,3,7,8-TCDF		151	198	pg/g	76.2	(40%-135%)
13C-1,2,3,7,8-PeCDF		133	198	pg/g	67.3	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		138	198	pg/g	69.6	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		119	198	pg/g	60.2	(40%-135%)

Comments:

E Value is estimated - Concentration of the target analyte exceeds the instrument calibration range

J Value is estimated

K Estimated Maximum Possible Concentration

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Project:**	**CURL00312**
Lab Sample ID:	**9270004**	**Date Collected:**	**05/27/2016 10:35**	**Matrix:**	**SOIL**
Client Sample:	**8290 Soil**	**Date Received:**	**06/02/2016 10:20**	**%Moisture:**	**11**
Client ID:	**LC-WC-052716-04**			**Prep Basis:**	**Dry Weight**
Batch ID:	**32021**	**Method:**	**SW846 8290A**		
Run Date:	**06/09/2016 20:09**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b09jun16b-6**			**Dilution:**	**1**
Prep Batch:	**32019**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-JUN-16**	**Prep Aliquot:**	**12.06 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	J	0.158		pg/g	0.0524	0.932
40321-76-4	1,2,3,7,8-PeCDD	J	0.710		pg/g	0.0539	4.66
39227-28-6	1,2,3,4,7,8-HxCDD	J	1.18		pg/g	0.0958	4.66
57653-85-7	1,2,3,6,7,8-HxCDD		5.48		pg/g	0.0932	4.66
19408-74-3	1,2,3,7,8,9-HxCDD	J	2.98		pg/g	0.0982	4.66
35822-46-9	1,2,3,4,6,7,8-HpCDD		193		pg/g	0.371	4.66
3268-87-9	1,2,3,4,6,7,8,9-OCDD		1700		pg/g	0.399	9.32
51207-31-9	2,3,7,8-TCDF	J	0.531		pg/g	0.111	0.932
57117-41-6	1,2,3,7,8-PeCDF	J	0.306		pg/g	0.0544	4.66
57117-31-4	2,3,4,7,8-PeCDF	J	0.660		pg/g	0.0525	4.66
70648-26-9	1,2,3,4,7,8-HxCDF	J	0.831		pg/g	0.0794	4.66
57117-44-9	1,2,3,6,7,8-HxCDF	J	0.628		pg/g	0.0738	4.66
60851-34-5	2,3,4,6,7,8-HxCDF	J	0.850		pg/g	0.0766	4.66
72918-21-9	1,2,3,7,8,9-HxCDF	J	0.194		pg/g	0.092	4.66
67562-39-4	1,2,3,4,6,7,8-HpCDF		28.4		pg/g	0.156	4.66
55673-89-7	1,2,3,4,7,8,9-HpCDF	J	1.45		pg/g	0.199	4.66
39001-02-0	1,2,3,4,6,7,8,9-OCDF		179		pg/g	0.248	9.32
41903-57-5	Total TCDDs		1.76	1.84	pg/g	0.0524	0.932
36088-22-9	Total PeCDDs	J	4.45		pg/g	0.0539	4.66
34465-46-8	Total HxCDDs		26.2		pg/g	0.0932	4.66
37871-00-4	Total HpCDDs		307		pg/g	0.371	4.66
30402-14-3	Total TCDFs		9.08	9.21	pg/g	0.111	0.932
30402-15-4	Total PeCDFs		10.5		pg/g	0.0272	4.66
55684-94-1	Total HxCDFs		23.8	24.2	pg/g	0.0738	4.66
38998-75-3	Total HpCDFs		130		pg/g	0.156	4.66
3333-30-0	TEQ WHO2005 ND=0		5.13	5.13	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		5.13	5.13	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		173	186	pg/g	92.8	(40%-135%)
13C-1,2,3,7,8-PeCDD		148	186	pg/g	79.3	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		153	186	pg/g	82.2	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		137	186	pg/g	73.7	(40%-135%)
13C-OCDD		276	373	pg/g	74.0	(40%-135%)
13C-2,3,7,8-TCDF		147	186	pg/g	78.8	(40%-135%)
13C-1,2,3,7,8-PeCDF		137	186	pg/g	73.6	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		133	186	pg/g	71.5	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		115	186	pg/g	61.9	(40%-135%)

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Project:**	**CURL00312**
Lab Sample ID:	**9270005**	**Date Collected:**	**05/27/2016 11:00**	**Matrix:**	**SOIL**
Client Sample:	**8290 Soil**	**Date Received:**	**06/02/2016 10:20**	**%Moisture:**	**38.9**
Client ID:	**LC-WC-052716-05**			**Prep Basis:**	**Dry Weight**
Batch ID:	**32021**	**Method:**	**SW846 8290A**		
Run Date:	**06/10/2016 11:32**	**Analyst:**	**JTF**	**Instrument:**	**HRP750**
Data File:	**A10JUN16A-6**			**Dilution:**	**1**
Prep Batch:	**32019**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-JUN-16**	**Prep Aliquot:**	**17.17 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
51207-31-9	2,3,7,8-TCDF		2.17		pg/g	0.122	0.953

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits

Comments:

J **Value is estimated**

K **Estimated Maximum Possible Concentration**

U **Analyte was analyzed for, but not detected above the specified detection limit.**

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Project:**	**CURL00312**
Lab Sample ID:	**9270005**	**Date Collected:**	**05/27/2016 11:00**	**Matrix:**	**SOIL**
Client Sample:	**8290 Soil**	**Date Received:**	**06/02/2016 10:20**	**%Moisture:**	**38.9**
Client ID:	**LC-WC-052716-05**			**Prep Basis:**	**Dry Weight**
Batch ID:	**32021**	**Method:**	**SW846 8290A**		
Run Date:	**06/09/2016 20:57**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b09jun16b-7**			**Dilution:**	**1**
Prep Batch:	**32019**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-JUN-16**	**Prep Aliquot:**	**17.17 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD		1.67		pg/g	0.0467	0.953
40321-76-4	1,2,3,7,8-PeCDD	J	1.21		pg/g	0.0486	4.76
39227-28-6	1,2,3,4,7,8-HxCDD	J	0.671		pg/g	0.0614	4.76
57653-85-7	1,2,3,6,7,8-HxCDD	J	1.58		pg/g	0.0598	4.76
19408-74-3	1,2,3,7,8,9-HxCDD	J	1.37		pg/g	0.0629	4.76
35822-46-9	1,2,3,4,6,7,8-HpCDD		22.4		pg/g	0.119	4.76
3268-87-9	1,2,3,4,6,7,8,9-OCDD		153		pg/g	0.244	9.53
51207-31-9	2,3,7,8-TCDF		2.56		pg/g	0.149	0.953
57117-41-6	1,2,3,7,8-PeCDF	J	1.40		pg/g	0.0589	4.76
57117-31-4	2,3,4,7,8-PeCDF	J	3.70		pg/g	0.0568	4.76
70648-26-9	1,2,3,4,7,8-HxCDF	J	1.53		pg/g	0.0667	4.76
57117-44-9	1,2,3,6,7,8-HxCDF	J	1.78		pg/g	0.0621	4.76
60851-34-5	2,3,4,6,7,8-HxCDF	J	2.67		pg/g	0.0644	4.76
72918-21-9	1,2,3,7,8,9-HxCDF	J	0.610		pg/g	0.0774	4.76
67562-39-4	1,2,3,4,6,7,8-HpCDF		7.97		pg/g	0.0612	4.76
55673-89-7	1,2,3,4,7,8,9-HpCDF	J	0.452		pg/g	0.0779	4.76
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	9.17		pg/g	0.120	9.53
41903-57-5	Total TCDDs		15.5	15.7	pg/g	0.0467	0.953
36088-22-9	Total PeCDDs		11.4		pg/g	0.0486	4.76
34465-46-8	Total HxCDDs		18.7		pg/g	0.0598	4.76
37871-00-4	Total HpCDDs		42.1		pg/g	0.119	4.76
30402-14-3	Total TCDFs		50.2		pg/g	0.149	0.953
30402-15-4	Total PeCDFs		56.0		pg/g	0.0221	4.76
55684-94-1	Total HxCDFs		30.6		pg/g	0.0621	4.76
38998-75-3	Total HpCDFs		14.2		pg/g	0.0612	4.76
3333-30-0	TEQ WHO2005 ND=0		5.66	5.66	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		5.66	5.66	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		174	191	pg/g	91.3	(40%-135%)
13C-1,2,3,7,8-PeCDD		150	191	pg/g	78.8	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		148	191	pg/g	77.7	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		129	191	pg/g	67.9	(40%-135%)
13C-OCDD		241	381	pg/g	63.3	(40%-135%)
13C-2,3,7,8-TCDF		145	191	pg/g	76.2	(40%-135%)
13C-1,2,3,7,8-PeCDF		138	191	pg/g	72.4	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		132	191	pg/g	69.3	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		116	191	pg/g	60.8	(40%-135%)

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Project:**	**CURL00312**
Lab Sample ID:	**9270006**	**Date Collected:**	**05/27/2016 11:30**	**Matrix:**	**SOIL**
Client Sample:	**8290 Soil**	**Date Received:**	**06/02/2016 10:20**	**%Moisture:**	**25.3**
Client ID:	**LC-WC-052716-06**			**Prep Basis:**	**Dry Weight**
Batch ID:	**32021**	**Method:**	**SW846 8290A**		
Run Date:	**06/10/2016 11:50**	**Analyst:**	**JTF**	**Instrument:**	**HRP750**
Data File:	**A10JUN16A-7**			**Dilution:**	**1**
Prep Batch:	**32019**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-JUN-16**	**Prep Aliquot:**	**14.26 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
51207-31-9	2,3,7,8-TCDF		1.80		pg/g	0.0914	0.938

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Project:**	**CURL00312**
Lab Sample ID:	**9270006**	**Date Collected:**	**05/27/2016 11:30**	**Matrix:**	**SOIL**
Client Sample:	**8290 Soil**	**Date Received:**	**06/02/2016 10:20**	**%Moisture:**	**25.3**
Client ID:	**LC-WC-052716-06**			**Prep Basis:**	**Dry Weight**
Batch ID:	**32021**	**Method:**	**SW846 8290A**		
Run Date:	**06/09/2016 21:44**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b09jun16b-8**			**Dilution:**	**1**
Prep Batch:	**32019**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-JUN-16**	**Prep Aliquot:**	**14.26 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD		6.11		pg/g	0.0723	0.938
40321-76-4	1,2,3,7,8-PeCDD	J	1.85		pg/g	0.0529	4.69
39227-28-6	1,2,3,4,7,8-HxCDD	J	0.531		pg/g	0.0693	4.69
57653-85-7	1,2,3,6,7,8-HxCDD	J	1.19		pg/g	0.0674	4.69
19408-74-3	1,2,3,7,8,9-HxCDD	J	1.20		pg/g	0.0709	4.69
35822-46-9	1,2,3,4,6,7,8-HpCDD		15.5		pg/g	0.147	4.69
3268-87-9	1,2,3,4,6,7,8,9-OCDD		102		pg/g	0.229	9.38
51207-31-9	2,3,7,8-TCDF		1.94		pg/g	0.128	0.938
57117-41-6	1,2,3,7,8-PeCDF	J	1.01		pg/g	0.0672	4.69
57117-31-4	2,3,4,7,8-PeCDF	J	2.48		pg/g	0.0648	4.69
70648-26-9	1,2,3,4,7,8-HxCDF	J	0.843		pg/g	0.0569	4.69
57117-44-9	1,2,3,6,7,8-HxCDF	J	0.952		pg/g	0.0529	4.69
60851-34-5	2,3,4,6,7,8-HxCDF	J	1.51		pg/g	0.0548	4.69
72918-21-9	1,2,3,7,8,9-HxCDF	J	0.614		pg/g	0.0659	4.69
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	3.86		pg/g	0.0557	4.69
55673-89-7	1,2,3,4,7,8,9-HpCDF	J	0.199		pg/g	0.0709	4.69
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	6.13		pg/g	0.143	9.38
41903-57-5	Total TCDDs		25.2		pg/g	0.0723	0.938
36088-22-9	Total PeCDDs		10.3		pg/g	0.0529	4.69
34465-46-8	Total HxCDDs		14.6		pg/g	0.0674	4.69
37871-00-4	Total HpCDDs		29.9		pg/g	0.147	4.69
30402-14-3	Total TCDFs		41.1		pg/g	0.128	0.938
30402-15-4	Total PeCDFs		45.5		pg/g	0.0342	4.69
55684-94-1	Total HxCDFs		19.7	20.0	pg/g	0.0529	4.69
38998-75-3	Total HpCDFs		8.14		pg/g	0.0557	4.69
3333-30-0	TEQ WHO2005 ND=0		9.83	9.83	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		9.83	9.83	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		162	188	pg/g	86.3	(40%-135%)
13C-1,2,3,7,8-PeCDD		137	188	pg/g	73.0	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		139	188	pg/g	74.2	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		122	188	pg/g	64.9	(40%-135%)
13C-OCDD		220	375	pg/g	58.5	(40%-135%)
13C-2,3,7,8-TCDF		135	188	pg/g	72.1	(40%-135%)
13C-1,2,3,7,8-PeCDF		126	188	pg/g	67.4	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		127	188	pg/g	67.7	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		108	188	pg/g	57.5	(40%-135%)

Comments:

J Value is estimated

K Estimated Maximum Possible Concentration

U Analyte was analyzed for, but not detected above the specified detection limit.

Quality Control Summary

Hi-Res Dioxins/Furans
Surrogate Recovery Report

SDG Number: 277284

Matrix Type: SOLID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
12016157	LCS for batch 32019	13C-2,3,7,8-TCDD		92.7	(40%-135%)
		13C-1,2,3,7,8-PeCDD		99.0	(40%-135%)
		13C-1,2,3,6,7,8-HxCDD		82.4	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		78.0	(40%-135%)
		13C-OCDD		69.0	(40%-135%)
		13C-2,3,7,8-TCDF		97.6	(40%-135%)
		13C-1,2,3,7,8-PeCDF		102	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		90.1	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		82.3	(40%-135%)
12016158	LCSD for batch 32019	13C-2,3,7,8-TCDD		87.1	(40%-135%)
		13C-1,2,3,7,8-PeCDD		82.5	(40%-135%)
		13C-1,2,3,6,7,8-HxCDD		74.5	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		66.6	(40%-135%)
		13C-OCDD		60.8	(40%-135%)
		13C-2,3,7,8-TCDF		88.6	(40%-135%)
		13C-1,2,3,7,8-PeCDF		95.1	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		79.3	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		72.9	(40%-135%)
12016156	MB for batch 32019	13C-2,3,7,8-TCDD		94.8	(40%-135%)
		13C-1,2,3,7,8-PeCDD		93.4	(40%-135%)
		13C-1,2,3,6,7,8-HxCDD		81.4	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		74.7	(40%-135%)
		13C-OCDD		65.3	(40%-135%)
		13C-2,3,7,8-TCDF		95.7	(40%-135%)
		13C-1,2,3,7,8-PeCDF		96.6	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		89.3	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		77.8	(40%-135%)
9270001	LC-WC-052716-01	13C-2,3,7,8-TCDD		88.2	(40%-135%)
		13C-1,2,3,7,8-PeCDD		67.0	(40%-135%)
		13C-1,2,3,6,7,8-HxCDD		76.5	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		69.3	(40%-135%)
		13C-OCDD		68.8	(40%-135%)
		13C-2,3,7,8-TCDF		76.9	(40%-135%)
		13C-1,2,3,7,8-PeCDF		65.9	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		68.7	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		61.5	(40%-135%)
9270002	LC-WC-052716-02	13C-2,3,7,8-TCDD		93.7	(40%-135%)
		13C-1,2,3,7,8-PeCDD		73.8	(40%-135%)
		13C-1,2,3,6,7,8-HxCDD		82.1	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		73.6	(40%-135%)
		13C-OCDD		72.1	(40%-135%)
		13C-2,3,7,8-TCDF		81.5	(40%-135%)
		13C-1,2,3,7,8-PeCDF		71.9	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		74.8	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		66.1	(40%-135%)
9270003	LC-WC-052716-03	13C-2,3,7,8-TCDD		87.9	(40%-135%)
		13C-1,2,3,7,8-PeCDD		76.1	(40%-135%)

Hi-Res Dioxins/Furans
Surrogate Recovery Report

SDG Number: 277284

Matrix Type: SOLID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
9270003	LC-WC-052716-03	13C-1,2,3,6,7,8-HxCDD		76.5	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		73.7	(40%-135%)
		13C-OCDD		84.2	(40%-135%)
		13C-2,3,7,8-TCDF		76.2	(40%-135%)
		13C-1,2,3,7,8-PeCDF		67.3	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		69.6	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		60.2	(40%-135%)
9270004	LC-WC-052716-04	13C-2,3,7,8-TCDD		92.8	(40%-135%)
		13C-1,2,3,7,8-PeCDD		79.3	(40%-135%)
		13C-1,2,3,6,7,8-HxCDD		82.2	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		73.7	(40%-135%)
		13C-OCDD		74.0	(40%-135%)
		13C-2,3,7,8-TCDF		78.8	(40%-135%)
		13C-1,2,3,7,8-PeCDF		73.6	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		71.5	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		61.9	(40%-135%)
9270005	LC-WC-052716-05	13C-2,3,7,8-TCDD		91.3	(40%-135%)
		13C-1,2,3,7,8-PeCDD		78.8	(40%-135%)
		13C-1,2,3,6,7,8-HxCDD		77.7	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		67.9	(40%-135%)
		13C-OCDD		63.3	(40%-135%)
		13C-2,3,7,8-TCDF		76.2	(40%-135%)
		13C-1,2,3,7,8-PeCDF		72.4	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		69.3	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		60.8	(40%-135%)
9270006	LC-WC-052716-06	13C-2,3,7,8-TCDD		86.3	(40%-135%)
		13C-1,2,3,7,8-PeCDD		73.0	(40%-135%)
		13C-1,2,3,6,7,8-HxCDD		74.2	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDD		64.9	(40%-135%)
		13C-OCDD		58.5	(40%-135%)
		13C-2,3,7,8-TCDF		72.1	(40%-135%)
		13C-1,2,3,7,8-PeCDF		67.4	(40%-135%)
		13C-1,2,3,6,7,8-HxCDF		67.7	(40%-135%)
		13C-1,2,3,4,6,7,8-HpCDF		57.5	(40%-135%)

* Recovery outside Acceptance Limits
# Column to be used to flag recovery values
D Sample Diluted

Hi-Res Dioxins/Furans

Quality Control Summary
Spike Recovery Report

SDG Number: 277284 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 32019 **Matrix:** SOIL

Lab Sample ID: 12016157

Instrument: HRP763 **Analysis Date:** 06/08/2016 00:11 **Dilution:** 1

Analyst: JTF **Prep Batch ID:** 32019

Batch ID: 32021

CAS No.		Parmname	Amount Added pg/g	Spike Conc. pg/g	Recovery %	Acceptance Limits
1746-01-6	LCS	2,3,7,8-TCDD	20.0	20.1	101	70-130
40321-76-4	LCS	1,2,3,7,8-PeCDD	100	110	110	70-130
39227-28-6	LCS	1,2,3,4,7,8-HxCDD	100	109	109	70-130
57653-85-7	LCS	1,2,3,6,7,8-HxCDD	100	121	121	70-130
19408-74-3	LCS	1,2,3,7,8,9-HxCDD	100	122	122	70-130
35822-46-9	LCS	1,2,3,4,6,7,8-HpCDD	100	108	108	70-130
3268-87-9	LCS	1,2,3,4,6,7,8,9-OCDD	200	227	114	70-130
51207-31-9	LCS	2,3,7,8-TCDF	20.0	21.5	108	70-130
57117-41-6	LCS	1,2,3,7,8-PeCDF	100	108	108	70-130
57117-31-4	LCS	2,3,4,7,8-PeCDF	100	112	112	70-130
70648-26-9	LCS	1,2,3,4,7,8-HxCDF	100	109	109	70-130
57117-44-9	LCS	1,2,3,6,7,8-HxCDF	100	120	120	70-130
60851-34-5	LCS	2,3,4,6,7,8-HxCDF	100	113	113	70-130
72918-21-9	LCS	1,2,3,7,8,9-HxCDF	100	111	111	70-130
67562-39-4	LCS	1,2,3,4,6,7,8-HpCDF	100	114	114	70-130
55673-89-7	LCS	1,2,3,4,7,8,9-HpCDF	100	106	106	70-130
39001-02-0	LCS	1,2,3,4,6,7,8,9-OCDF	200	237	118	70-130

Hi-Res Dioxins/Furans

Quality Control Summary
Spike Recovery Report

SDG Number: 277284 **Sample Type:** Laboratory Control Sample Duplicate

Client ID: LCSD for batch 32019 **Matrix:** SOIL

Lab Sample ID: 12016158

Instrument: HRP763 **Analysis Date:** 06/08/2016 00:58 **Dilution:** 1

Analyst: JTF **Prep Batch ID:** 32019

Batch ID: 32021

CAS No.		Parmname	Amount Added pg/g	Spike Conc. pg/g	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
1746-01-6	LCSD	2,3,7,8-TCDD	20.0	19.1	95.6	70-130	5.09	0-20
40321-76-4	LCSD	1,2,3,7,8-PeCDD	100	107	107	70-130	2.81	0-20
39227-28-6	LCSD	1,2,3,4,7,8-HxCDD	100	99.9	99.9	70-130	8.94	0-20
57653-85-7	LCSD	1,2,3,6,7,8-HxCDD	100	121	121	70-130	0.0578	0-20
19408-74-3	LCSD	1,2,3,7,8,9-HxCDD	100	117	117	70-130	4.04	0-20
35822-46-9	LCSD	1,2,3,4,6,7,8-HpCDD	100	103	103	70-130	4.47	0-20
3268-87-9	LCSD	1,2,3,4,6,7,8,9-OCDD	200	217	109	70-130	4.45	0-20
51207-31-9	LCSD	2,3,7,8-TCDF	20.0	20.8	104	70-130	3.73	0-20
57117-41-6	LCSD	1,2,3,7,8-PeCDF	100	104	104	70-130	3.40	0-20
57117-31-4	LCSD	2,3,4,7,8-PeCDF	100	97.7	97.7	70-130	13.8	0-20
70648-26-9	LCSD	1,2,3,4,7,8-HxCDF	100	99.3	99.3	70-130	9.10	0-20
57117-44-9	LCSD	1,2,3,6,7,8-HxCDF	100	113	113	70-130	6.18	0-20
60851-34-5	LCSD	2,3,4,6,7,8-HxCDF	100	111	111	70-130	2.03	0-20
72918-21-9	LCSD	1,2,3,7,8,9-HxCDF	100	107	107	70-130	3.69	0-20
67562-39-4	LCSD	1,2,3,4,6,7,8-HpCDF	100	109	109	70-130	3.91	0-20
55673-89-7	LCSD	1,2,3,4,7,8,9-HpCDF	100	99.7	99.7	70-130	6.04	0-20
39001-02-0	LCSD	1,2,3,4,6,7,8,9-OCDF	200	223	112	70-130	5.87	0-20

Method Blank Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Matrix:**	**SOIL**
Client ID:	**MB for batch 32019**	**Instrument ID:**	**HRP763**	**Data File:**	**b07jun16a_3-3**
Lab Sample ID:	**12016156**	**Prep Date:**	**06-JUN-16**	**Analyzed:**	**06/08/16 01:45**
Column:					

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 32019	12016157	b07jun16a_3-1	06/08/16	0011
02	LCSD for batch 32019	12016158	b07jun16a_3-2	06/08/16	0058
03	LC-WC-052716-01	9270001	b09jun16b-3	06/09/16	1747
04	LC-WC-052716-02	9270002	b09jun16b-4	06/09/16	1835
05	LC-WC-052716-03	9270003	b09jun16b-5	06/09/16	1922
06	LC-WC-052716-04	9270004	b09jun16b-6	06/09/16	2009
07	LC-WC-052716-05	9270005	b09jun16b-7	06/09/16	2057
08	LC-WC-052716-06	9270006	b09jun16b-8	06/09/16	2144
09	LC-WC-052716-02	9270002	A10JUN16A-5	06/10/16	1114
10	LC-WC-052716-05	9270005	A10JUN16A-6	06/10/16	1132
11	LC-WC-052716-06	9270006	A10JUN16A-7	06/10/16	1150

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Project:**	**CURL00312**
Lab Sample ID:	**12016156**			**Matrix:**	**SOIL**
Client Sample:	**QC for batch 32019**				
Client ID:	**MB for batch 32019**			**Prep Basis:**	**As Received**
Batch ID:	**32021**	**Method:**	**SW846 8290A**		
Run Date:	**06/08/2016 01:45**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b07jun16a_3-3**			**Dilution:**	**1**
Prep Batch:	**32019**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-JUN-16**	**Prep Aliquot:**	**10 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	.186		pg/g	0.186	1.00
40321-76-4	1,2,3,7,8-PeCDD	U	.172		pg/g	0.172	5.00
39227-28-6	1,2,3,4,7,8-HxCDD	U	.206		pg/g	0.206	5.00
57653-85-7	1,2,3,6,7,8-HxCDD	U	.2		pg/g	0.200	5.00
19408-74-3	1,2,3,7,8,9-HxCDD	U	.21		pg/g	0.210	5.00
35822-46-9	1,2,3,4,6,7,8-HpCDD	U	.314		pg/g	0.314	5.00
3268-87-9	1,2,3,4,6,7,8,9-OCDD	J	0.880		pg/g	0.568	10.0
51207-31-9	2,3,7,8-TCDF	U	.185		pg/g	0.185	1.00
57117-41-6	1,2,3,7,8-PeCDF	J	0.170		pg/g	0.117	5.00
57117-31-4	2,3,4,7,8-PeCDF	U	.113		pg/g	0.113	5.00
70648-26-9	1,2,3,4,7,8-HxCDF	U	.135		pg/g	0.135	5.00
57117-44-9	1,2,3,6,7,8-HxCDF	U	.126		pg/g	0.126	5.00
60851-34-5	2,3,4,6,7,8-HxCDF	U	.131		pg/g	0.131	5.00
72918-21-9	1,2,3,7,8,9-HxCDF	U	.157		pg/g	0.157	5.00
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	0.200		pg/g	0.132	5.00
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	.168		pg/g	0.168	5.00
39001-02-0	1,2,3,4,6,7,8,9-OCDF	U	.62		pg/g	0.620	10.0
41903-57-5	Total TCDDs	U	.186		pg/g	0.186	1.00
36088-22-9	Total PeCDDs	U	.172		pg/g	0.172	5.00
34465-46-8	Total HxCDDs	U	.2		pg/g	0.200	5.00
37871-00-4	Total HpCDDs	U	.314		pg/g	0.314	5.00
30402-14-3	Total TCDFs	U	.185		pg/g	0.185	1.00
30402-15-4	Total PeCDFs	J	0.170		pg/g	0.113	5.00
55684-94-1	Total HxCDFs	U	.126		pg/g	0.126	5.00
38998-75-3	Total HpCDFs	J	0.200		pg/g	0.132	5.00
3333-30-0	TEQ WHO2005 ND=0		0.00736	0.00736	pg/g		
3333-30-1	TEQ WHO2005 ND=0.5		0.273	0.273	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		190	200	pg/g	94.8	(40%-135%)
13C-1,2,3,7,8-PeCDD		187	200	pg/g	93.4	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		163	200	pg/g	81.4	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		149	200	pg/g	74.7	(40%-135%)
13C-OCDD		261	400	pg/g	65.3	(40%-135%)
13C-2,3,7,8-TCDF		191	200	pg/g	95.7	(40%-135%)
13C-1,2,3,7,8-PeCDF		193	200	pg/g	96.6	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		179	200	pg/g	89.3	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		156	200	pg/g	77.8	(40%-135%)

Comments:

J Value is estimated

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Project:**	**CURL00312**
Lab Sample ID:	**12016157**			**Matrix:**	**SOIL**
Client Sample:	**QC for batch 32019**				
Client ID:	**LCS for batch 32019**			**Prep Basis:**	**As Received**
Batch ID:	**32021**	**Method:**	**SW846 8290A**		
Run Date:	**06/08/2016 00:11**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b07jun16a_3-1**			**Dilution:**	**1**
Prep Batch:	**32019**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-JUN-16**	**Prep Aliquot:**	**10 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD		20.1		pg/g	0.280	1.00
40321-76-4	1,2,3,7,8-PeCDD		110		pg/g	0.340	5.00
39227-28-6	1,2,3,4,7,8-HxCDD		109		pg/g	0.640	5.00
57653-85-7	1,2,3,6,7,8-HxCDD		121		pg/g	0.624	5.00
19408-74-3	1,2,3,7,8,9-HxCDD		122		pg/g	0.658	5.00
35822-46-9	1,2,3,4,6,7,8-HpCDD		108		pg/g	0.978	5.00
3268-87-9	1,2,3,4,6,7,8,9-OCDD		227		pg/g	1.76	10.0
51207-31-9	2,3,7,8-TCDF		21.5		pg/g	0.298	1.00
57117-41-6	1,2,3,7,8-PeCDF		108		pg/g	0.382	5.00
57117-31-4	2,3,4,7,8-PeCDF		112		pg/g	0.368	5.00
70648-26-9	1,2,3,4,7,8-HxCDF		109		pg/g	0.516	5.00
57117-44-9	1,2,3,6,7,8-HxCDF		120		pg/g	0.480	5.00
60851-34-5	2,3,4,6,7,8-HxCDF		113		pg/g	0.498	5.00
72918-21-9	1,2,3,7,8,9-HxCDF		111		pg/g	0.600	5.00
67562-39-4	1,2,3,4,6,7,8-HpCDF		114		pg/g	0.580	5.00
55673-89-7	1,2,3,4,7,8,9-HpCDF		106		pg/g	0.738	5.00
39001-02-0	1,2,3,4,6,7,8,9-OCDF		237		pg/g	1.50	10.0

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		185	200	pg/g	92.7	(40%-135%)
13C-1,2,3,7,8-PeCDD		198	200	pg/g	99.0	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		165	200	pg/g	82.4	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		156	200	pg/g	78.0	(40%-135%)
13C-OCDD		276	400	pg/g	69.0	(40%-135%)
13C-2,3,7,8-TCDF		195	200	pg/g	97.6	(40%-135%)
13C-1,2,3,7,8-PeCDF		204	200	pg/g	102	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		180	200	pg/g	90.1	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		165	200	pg/g	82.3	(40%-135%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

SDG Number:	**277284**	**Client:**	**CURL001**	**Project:**	**CURL00312**
Lab Sample ID:	**12016158**			**Matrix:**	**SOIL**
Client Sample:	**QC for batch 32019**				
Client ID:	**LCSD for batch 32019**			**Prep Basis:**	**As Received**
Batch ID:	**32021**	**Method:**	**SW846 8290A**		
Run Date:	**06/08/2016 00:58**	**Analyst:**	**JTF**	**Instrument:**	**HRP763**
Data File:	**b07jun16a_3-2**			**Dilution:**	**1**
Prep Batch:	**32019**	**Prep Method:**	**SW846 3540C**		
Prep Date:	**06-JUN-16**	**Prep Aliquot:**	**10 g**		

CAS No.	Parmname	Qual	Result	EMPC	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD		19.1		pg/g	0.230	1.00
40321-76-4	1,2,3,7,8-PeCDD		107		pg/g	0.258	5.00
39227-28-6	1,2,3,4,7,8-HxCDD		99.9		pg/g	0.534	5.00
57653-85-7	1,2,3,6,7,8-HxCDD		121		pg/g	0.520	5.00
19408-74-3	1,2,3,7,8,9-HxCDD		117		pg/g	0.546	5.00
35822-46-9	1,2,3,4,6,7,8-HpCDD		103		pg/g	0.830	5.00
3268-87-9	1,2,3,4,6,7,8,9-OCDD		217		pg/g	1.71	10.0
51207-31-9	2,3,7,8-TCDF		20.8		pg/g	0.288	1.00
57117-41-6	1,2,3,7,8-PeCDF		104		pg/g	0.388	5.00
57117-31-4	2,3,4,7,8-PeCDF		97.7		pg/g	0.374	5.00
70648-26-9	1,2,3,4,7,8-HxCDF		99.3		pg/g	0.488	5.00
57117-44-9	1,2,3,6,7,8-HxCDF		113		pg/g	0.454	5.00
60851-34-5	2,3,4,6,7,8-HxCDF		111		pg/g	0.472	5.00
72918-21-9	1,2,3,7,8,9-HxCDF		107		pg/g	0.566	5.00
67562-39-4	1,2,3,4,6,7,8-HpCDF		109		pg/g	0.518	5.00
55673-89-7	1,2,3,4,7,8,9-HpCDF		99.7		pg/g	0.660	5.00
39001-02-0	1,2,3,4,6,7,8,9-OCDF		223		pg/g	0.934	10.0

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		174	200	pg/g	87.1	(40%-135%)
13C-1,2,3,7,8-PeCDD		165	200	pg/g	82.5	(40%-135%)
13C-1,2,3,6,7,8-HxCDD		149	200	pg/g	74.5	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDD		133	200	pg/g	66.6	(40%-135%)
13C-OCDD		243	400	pg/g	60.8	(40%-135%)
13C-2,3,7,8-TCDF		177	200	pg/g	88.6	(40%-135%)
13C-1,2,3,7,8-PeCDF		190	200	pg/g	95.1	(40%-135%)
13C-1,2,3,6,7,8-HxCDF		159	200	pg/g	79.3	(40%-135%)
13C-1,2,3,4,6,7,8-HpCDF		146	200	pg/g	72.9	(40%-135%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

Laboratory Job Number 277284

Subcontracted Products

Cal Science

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WORK ORDER NUMBER: 16-06-0007

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Curtis & Tompkins, Ltd.

Client Project Name: 277284

Attention: Tracy Babjar
2323 Fifth Street
Berkeley, CA 94710-2407

Vikas Patel

Approved for release on 06/14/2016 by:
Vikas Patel
Project Manager

ResultLink

Email your PM

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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Work Order Number: 16-06-0007

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Work Order Narrative

Work Order: 16-06-0007 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 06/01/16. They were assigned to Work Order 16-06-0007.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

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Detections Summary

Client:	Curtis & Tompkins, Ltd.	Work Order:	16-06-0007
	2323 Fifth Street	Project Name:	277284
	Berkeley, CA 94710-2407	Received:	06/01/16
Attn:	Tracy Babjar		Page 1 of 1

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
LC-WC-052716-01 (16-06-0007-1)						
Dalapon	260		250	ug/kg	EPA 8151A	EPA 8151A
LC-WC-052716-06 (16-06-0007-6)						
2,4,5-TP (Silvex)	26		10	ug/kg	EPA 8151A	EPA 8151A

Subcontracted analyses, if any, are not included in this summary.

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* MDL is shown

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Analytical Report

Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Project: 277284

Date Received: 06/01/16
Work Order: 16-06-0007
Preparation: EPA 8151A
Method: EPA 8151A
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LC-WC-052716-01	**16-06-0007-1-A**	**05/27/16 09:20**	**Solid**	**GC 40**	**06/06/16**	**06/10/16 12:04**	**160606L14**

Parameter	Result	RL	DF	Qualifiers
Dalapon	260	250	1.00	
Dicamba	ND	10	1.00	
MCPP	ND	10000	1.00	
MCPA	ND	10000	1.00	
Dichlorprop	ND	100	1.00	
2,4-D	ND	100	1.00	
2,4,5-TP (Silvex)	ND	10	1.00	
2,4,5-T	ND	10	1.00	
2,4-DB	ND	100	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	70	30-130	

LC-WC-052716-02	16-06-0007-2-A	05/27/16 09:50	Solid	GC 40	06/06/16	06/10/16 12:27	160606L14

Parameter	Result	RL	DF	Qualifiers
Dalapon	ND	250	1.00	
Dicamba	ND	10	1.00	
MCPP	ND	10000	1.00	
MCPA	ND	10000	1.00	
Dichlorprop	ND	100	1.00	
2,4-D	ND	100	1.00	
2,4,5-TP (Silvex)	ND	10	1.00	
2,4,5-T	ND	10	1.00	
2,4-DB	ND	100	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	82	30-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Project: 277284

Date Received: 06/01/16
Work Order: 16-06-0007
Preparation: EPA 8151A
Method: EPA 8151A
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LC-WC-052716-03	**16-06-0007-3-A**	**05/27/16 10:10**	**Solid**	**GC 40**	**06/06/16**	**06/10/16 12:50**	**160606L14**

Parameter	Result	RL	DF	Qualifiers
Dalapon	ND	250	1.00	
Dicamba	ND	10	1.00	
MCPP	ND	10000	1.00	
MCPA	ND	10000	1.00	
Dichlorprop	ND	100	1.00	
2,4-D	ND	100	1.00	
2,4,5-TP (Silvex)	ND	10	1.00	
2,4,5-T	ND	10	1.00	
2,4-DB	ND	100	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	77	30-130	

LC-WC-052716-04	16-06-0007-4-A	05/27/16 10:35	Solid	GC 40	06/06/16	06/10/16 13:13	160606L14

Parameter	Result	RL	DF	Qualifiers
Dalapon	ND	250	1.00	
Dicamba	ND	10	1.00	
MCPP	ND	10000	1.00	
MCPA	ND	10000	1.00	
Dichlorprop	ND	100	1.00	
2,4-D	ND	100	1.00	
2,4,5-TP (Silvex)	ND	10	1.00	
2,4,5-T	ND	10	1.00	
2,4-DB	ND	100	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	76	30-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Project: 277284

Date Received: 06/01/16
Work Order: 16-06-0007
Preparation: EPA 8151A
Method: EPA 8151A
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LC-WC-052716-05	**16-06-0007-5-A**	**05/27/16 11:00**	**Solid**	**GC 40**	**06/06/16**	**06/10/16 13:37**	**160606L14**

Parameter	Result	RL	DF	Qualifiers
Dalapon	ND	250	1.00	
Dicamba	ND	10	1.00	
MCPP	ND	10000	1.00	
MCPA	ND	10000	1.00	
Dichlorprop	ND	100	1.00	
2,4-D	ND	100	1.00	
2,4,5-TP (Silvex)	ND	10	1.00	
2,4,5-T	ND	10	1.00	
2,4-DB	ND	100	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	64	30-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LC-WC-052716-06	**16-06-0007-6-A**	**05/27/16 11:30**	**Solid**	**GC 40**	**06/06/16**	**06/10/16 14:00**	**160606L14**

Parameter	Result	RL	DF	Qualifiers
Dalapon	ND	250	1.00	
Dicamba	ND	10	1.00	
MCPP	ND	10000	1.00	
MCPA	ND	10000	1.00	
Dichlorprop	ND	100	1.00	
2,4-D	ND	100	1.00	
2,4,5-TP (Silvex)	26	10	1.00	
2,4,5-T	ND	10	1.00	
2,4-DB	ND	100	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	95	30-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Project: 277284

Date Received: 06/01/16
Work Order: 16-06-0007
Preparation: EPA 8151A
Method: EPA 8151A
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**095-01-033-1370**	**N/A**	**Solid**	**GC 40**	**06/06/16**	**06/08/16 01:40**	**160606L14**

Parameter	Result	RL	DF	Qualifiers
Dalapon	ND	250	1.00	
Dicamba	ND	10	1.00	
MCPP	ND	10000	1.00	
MCPA	ND	10000	1.00	
Dichlorprop	ND	100	1.00	
2,4-D	ND	100	1.00	
2,4,5-TP (Silvex)	ND	10	1.00	
2,4,5-T	ND	10	1.00	
2,4-DB	ND	100	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	98	30-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

Curtis & Tompkins, Ltd.		Date Received:	06/01/16
2323 Fifth Street		Work Order:	16-06-0007
Berkeley, CA 94710-2407		Preparation:	EPA 8151A
		Method:	EPA 8151A
Project: 277284			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-06-0334-7	**Sample**	**Solid**	**GC 40**	**06/06/16**	**06/08/16 05:10**	**160606S14**
16-06-0334-7	**Matrix Spike**	**Solid**	**GC 40**	**06/06/16**	**06/08/16 02:04**	**160606S14**
16-06-0334-7	**Matrix Spike Duplicate**	**Solid**	**GC 40**	**06/06/16**	**06/08/16 02:27**	**160606S14**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
2,4-D	ND	400.0	376.0	94	403.0	101	30-130	7	0-30	
2,4,5-T	ND	40.00	37.00	92	42.00	105	30-130	13	0-30	
2,4-DB	ND	400.0	369.0	92	390.0	98	30-130	6	0-30	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Curtis & Tompkins, Ltd.		Date Received:	06/01/16
2323 Fifth Street		Work Order:	16-06-0007
Berkeley, CA 94710-2407		Preparation:	EPA 8151A
		Method:	EPA 8151A
Project: 277284			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
095-01-033-1370	**LCS**	**Solid**	**GC 40**	**06/06/16**	**06/08/16 01:17**	**160606L14**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
2,4-D	400.0	467.0	117	30-130	
2,4,5-T	40.00	51.00	128	30-130	
2,4-DB	400.0	423.0	106	30-130	

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 16-06-0007 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8151A	EPA 8151A	669	GC 40	1

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Glossary of Terms and Qualifiers

Work Order: 16-06-0007 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900
(510) 486-0532

16-06-0007

Project Number: 277284
Site: Lendrum Court

Subcontract Laboratory:
Cal Science
7440 Lincoln Way
Garden Grove, CA 92841-1432
(714) 895-5494
ATTN: Vik Patel

Results due: Report Level: II

Please send report to: Tracy Babjar (tracy.babjar@ctberk.com)
*** Please report using Sample ID rather than C&T Lab #.

	Sample ID	Sampled	Matrix	Analysis	C&T Lab #	Comments
1	LC-WC-052716-01	05/27 09:20	Soil	8151	277284-001	
2	LC-WC-052716-02	05/27 09:50	Soil	8151	277284-002	
3	LC-WC-052716-03	05/27 10:10	Soil	8151	277284-003	
4	LC-WC-052716-04	05/27 10:35	Soil	8151	277284-004	
5	LC-WC-052716-05	05/27 11:00	Soil	8151	277284-005	
6	LC-WC-052716-06	05/27 11:30	Soil	8151	277284-006	

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Notes:	Relinquished By:	Received By:
	Date/Time: 5/31/16 15:35	Date/Time:
	Date/Time:	Date/Time: 6/1/16 1000

Signature on this form constitutes a firm Purchase Order for the services requested above.

Page 1 of 1

0007

ORIGIN ID:JEMA (510) 486-0900
SAMPLE CONTROL
CURTIS & TOMPKINS
2323 5TH STREET

BERKELEY, CA 94710
UNITED STATES US

SHIP DATE: 31MAY16
ACTWGT: 12.00 LB
CAD: 7603800/INET3730

BILL THIRD PARTY

TO VIK PATEL
CAL SCIENCE ENVIRONMENTAL LAB
7440 LINCOLN WAY

GARDEN GROVE CA 92841
(714) 895-5494
INV:
PO:
REF: 277284, 277285, 277286, 277287
DEPT:

540J/30BD/727F

FedEx Express

J1610160205011ur

WED - 01 JUN 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7764 1191 9130

92 APVA

92841
CA-US SNA

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WORK ORDER NUMBER: 16-06- 0007

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: CET

DATE: 06 / 01 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 3.4 °C (w/ CF): 3.4 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: IS

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: IS

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: SM6

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☐	☐	☑
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna_2 ☐ 100PJ ☐ 100PJna_2 ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 125PB

☐ 125PBznna ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 250PB ☐ 250PBn ☐ 500AGB ☐ 500AGJ ☐ 500AGJs

☐ 500PB ☐ 1AGB ☐ 1AGBna_2 ☐ 1AGBs ☐ 1PB ☐ 1PBna ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☑ 2 ozCGJ

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na_2** = $Na_2S_2O_3$, **p** = H_3PO_4, Labeled/Checked by: SM6

s = H_2SO_4, **u** = ultra-pure, **znna** = $Zn(CH_3CO_2)_2$ + NaOH Reviewed by: JR

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Laboratory Job Number 277284

Subcontracted Products

Forensic Analytical

Forensic Analytical LABORATORIES

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Curtis & Tompkins Ltd
Tracy Babjar
2323 Fifth St.

Berkeley, CA 94710

Client ID: 1137
Report Number: B222227
Date Received: 06/01/16
Date Analyzed: 06/06/16
Date Printed: 06/06/16
First Reported: 06/06/16

Job ID/Site: 277284 - Lendrum Court

Date(s) Collected: 05/27/2016

FALI Job ID: 1137
Total Samples Submitted: 6
Total Samples Analyzed: 6

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
LC-WC-052716-01	11771002						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
LC-WC-052716-02	11771003						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
LC-WC-052716-03	11771004						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
LC-WC-052716-04	11771005						
Layer: Brown Soil		Chrysotile	**Trace**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (Trace)**					
LC-WC-052716-05	11771006						
Layer: Dark Brown Soil		Chrysotile	**Trace**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (Trace)**					
LC-WC-052716-06	11771007						
Layer: Dark Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					

Tad Thrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

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3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

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Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 278857
ANALYTICAL REPORT

Engineering/Remediation Resource Grp	Project : 20150063
4585 Pacheco Blvd.	Location : Lendrum G
Martinez, CA 94553	Level : II

Sample ID	Lab ID
COMPOSITE 01,02,03,04	278857-001
COMPOSITE 05,06,07,08	278857-002
COMPOSITE 09,10,11,12	278857-003
COMPOSITE 13,14,15,16	278857-004
COMPOSITE 17,18,19,20	278857-005

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Tracy Babjar Date: 07/28/2016

Tracy Babjar
Project Manager
tracy.babjar@ctberk.com
(510) 204-2226

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**278857**
Client:	**Engineering/Remediation Resource Grp**
Project:	**20150063**
Location:	**Lendrum G**
Request Date:	**07/21/16**
Samples Received:	**07/08/16**

This data package contains sample and QC results for five soil samples, requested for the above referenced project on 07/21/16. The samples were received intact.

Metals (EPA 6010B) TCLP Leachate:
No analytical problems were encountered.

Metals (EPA 6010B) WET Leachate:
No analytical problems were encountered.

CT# 278857

Subject: RE: 20150063 - C&T Reports (278418)
From: Joseph Corrick <joseph.corrick@errg.com>
Date: 7/20/2016 5:54 PM
To: Tracy Babjar <tracy.babjar@ctberk.com>
CC: Christine Wang <christine.wang@errg.com>

Tracy,

We will need the following metals to have STLC and/or TCLP analysis.

1- Composite 1,2,3,4 -021
STLC/ TCLP lead
STLC Chromium

2- Composite 5,6,7,8 -022
STLC/ TCLP lead
STLC Chromium

3- Composite 9,10,11,12 -023
STLC/ TCLP lead
STLC Chromium

4- Composite 13,14,15,16 -024
STLC/ TCLP lead
STLC Antimony
STLC Copper
STLC/ TCLP Lead
STLC/ TCLP Arsenic
STLC/ TCLP Chromium
STLC Nickel
STLC Zinc

5- Composite 17,18,19,20 -025
STLC/ TCLP Chromium
STLC/ TCLP Lead
STLC Nickel

In addition I need to know if there is a way for us to lower the RL for the SVOCs. We need to get that below 2.6mg/kg. ***If we cannot do that with a re-run please let me know.*** If that is the case we will need a TCLP for all those as well.

Thanks!

Joe Corrick
ERRG, INC./ Assistant Project Scientist
115 Sansome St., Ste 200
San Francisco, CA
Cell: (415) 933-0264
Office (415) 848-7423

CHAIN OF CUSTODY

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2323 Fifth Street
Berkeley, CA 94710

Phone (510) 486-0900
Fax (510) 486-0532

C&T LOGIN # 278418

Chain of Custody #

Project No: 70150063
Project Name: LEMOLUM G
Project P. O. No:
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☒ RUSH 5-day ☐ Standard

Sampler: J. Gorrick
Report To: J. Gorrick
Company: ERRG
Telephone: 415-933-0264
Email:

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	8260 VOC; 8270 SVOC; TPH d/mo 8015; Asbestos by PLM; Pest. 8081; Herb 8151; CAM 17 6010
1	LC-WC-0101-070716	7/7/16	1003		X			1					X	X
2	LC-WC-0102-070716		1005		X			1					X	X
3	LC-WC-0103-070716		1007		X			1					X	X
4	LC-WC-0104-070716		1010		X			1					X	X
5	LC-WC-0201-070716		1014		X			1					X	X
6	LC-WC-0202-070716		1015		X			1					X	X
7	LC-WC-0203-070716		1016		X			1					X	X
8	LC-WC-0204-070716		1019		X			1					X	X
9	LC-WC-0301-070716		1025		X			1					X	X
10	LC-WC-0302-070716		1026		X			1					X	X
11	LC-WC-0303-070716		1027		X			1					X	X
12	LC-WC-0304-070716		1031		X			1					X	X
13	LC-WC-0401-070716		1050		X			1					X	X

Notes:
- COMPOSITE SAMPLES - 0102, 0103, 0104
~~COMPOSITE~~ SAMPLES 0201, 0202, 0203, 0204
COMPOSITE 0301, 0302, 0303, 0304
COMPOSITE 0401, 0402, 0403, 0404
COMPOSITE 0501, 0502, 0503, 0504

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
DATE: 7/7 TIME: 1600
DATE: 7/8 TIME: 1120
DATE: 7/8 TIME: 1317

RECEIVED BY:
DATE: 7/7 TIME: 12:01
DATE: 7/8 TIME: 1120
DATE: 7/8/16 TIME: 1717

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Berkeley, CA 94710

Phone (510) 486-0900
Fax (510) 486-0532

C&T LOGIN # 278418

Chain of Custody # _____

Project No: 20150063
Project Name: LENNAR GT
Project P. O. No:
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☒ RUSH 5-day ☐ Standard

Sampler: J. CORRICK
Report To: J. CORRICK
Company: EBRG
Telephone: 415 933-0764
Email:

	Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST
			Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	8260 6270 SILICA TPH d/mo 8015 8260 BTEX PCBT 8015 PLM 8081 8165 HERB CAM 17 6010
24	14	LC-WC-0402-070714	7/7/16	1057	X				1					X	X X X X X X X X
	15	LC-WC-0403-070714		1054	X				1					X	X X X X X X X X
	16	LC-WC-0404-070716		1055	X				1					X	X X X X X X X X
25	17	LC-WC-0501-070716		1036	X				1					X	X X X X X X X X
	18	LC-WC-0502-070716		1038	X				1					X	X X X X X X X X
	19	LC-WC-0503-070716		1040	X				1					X	X X X X X X X X
	20	LC-WC-0504-070716	″	1045	X				1					X	X X X X X X X X

Notes: COMPOSITE 0101, 0102, 0103, 0104
COMPOSITE 0201, 0202, 0203, 0204
COMPOSITE 0301, 0302, 0303, 0304
COMPOSITE 0401, 0402, 0403, 0404
COMPOSITE 0501, 0502, 0503, 0504

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
DATE: 7/7 TIME: 1200
DATE: 7/8 TIME: 1120
DATE: 7/8 TIME: 1717

RECEIVED BY:
DATE: 7/7 TIME: 12:01
DATE: 7/8 TIME: 1120
DATE: 7/8/16 TIME: 1717

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 278418 Date Received 7/8/16 Number of coolers 0
Client ERG Project Loudrum G

Date Opened 7/8 By (print) DTN (sign) dnguyen
Date Logged in ↓ By (print) ↓ (sign) ↓
Date Labelled ↓ By (print) ↓ (sign) ↓

1. Did cooler come with a shipping slip (airbill, etc) _____ YES (NO)
   Shipping info _____
2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples ☒ NO
   How many _____ Name _____ Date _____
2B. Were custody seals intact upon arrival? _____ YES NO N/A
3. Were custody papers dry and intact when received? _____ YES NO
4. Were custody papers filled out properly (ink, signed, etc)? _____ YES NO
5. Is the project identifiable from custody papers? (If so fill out top of form) _____ YES NO
6. Indicate the packing in cooler: (if other, describe) _____

☐ Bubble Wrap ☐ Foam blocks ☐ Bags ☐ None
☐ Cloth material ☒ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☐ Wet ☐ Blue/Gel ☒ None Temp(°C) _____

☐ Temperature blank(s) included? ☐ Thermometer# _____ ☐ IR Gun# _____

☐ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? _____ YES (NO)
   If YES, what time were they transferred to freezer? _____
9. Did all bottles arrive unbroken/unopened? _____ YES NO
10. Are there any missing / extra samples? _____ YES (NO)
11. Are samples in the appropriate containers for indicated tests? _____ YES NO
12. Are sample labels present, in good condition and complete? _____ YES NO
13. Do the sample labels agree with custody papers? _____ YES NO
14. Was sufficient amount of sample sent for tests requested? _____ YES NO
15. Are the samples appropriately preserved? _____ YES NO N/A
16. Did you check preservatives for all bottles for each sample? _____ YES NO N/A
17. Did you document your preservative check? (pH strip lot# _____) YES NO N/A
18. Did you change the hold time in LIMS for unpreserved VOAs? _____ YES NO N/A
19. Did you change the hold time in LIMS for preserved terracores? _____ YES NO N/A
20. Are bubbles > 6mm absent in VOA samples? _____ YES NO N/A
21. Was the client contacted concerning this sample delivery? _____ YES (NO)
   If YES, Who was called? _____ By _____ Date: _____

COMMENTS _____

Curtis & Tompkins, Ltd.

Detections Summary for 278857

Results for any subcontracted analyses are not included in this summary.

Client : Engineering/Remediation Resource Grp
Project : 20150063
Location : Lendrum G

Client Sample ID : COMPOSITE 01,02,03,04 Laboratory Sample ID : 278857-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	0.077		0.050	mg/L	TCLP	10.00	EPA 6010B	EPA 3010A
Chromium	0.28		0.25	mg/L	STLC	10.00	EPA 6010B	WET
Lead	6.2		0.25	mg/L	STLC	10.00	EPA 6010B	WET

Client Sample ID : COMPOSITE 05,06,07,08 Laboratory Sample ID : 278857-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	0.12		0.050	mg/L	TCLP	10.00	EPA 6010B	EPA 3010A
Chromium	0.34		0.25	mg/L	STLC	10.00	EPA 6010B	WET
Lead	11		0.25	mg/L	STLC	10.00	EPA 6010B	WET

Client Sample ID : COMPOSITE 09,10,11,12 Laboratory Sample ID : 278857-003

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	0.59		0.050	mg/L	TCLP	10.00	EPA 6010B	EPA 3010A
Lead	38		0.25	mg/L	STLC	10.00	EPA 6010B	WET

Client Sample ID : COMPOSITE 13,14,15,16 Laboratory Sample ID : 278857-004

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	0.79		0.050	mg/L	TCLP	10.00	EPA 6010B	EPA 3010A
Antimony	1.0		0.50	mg/L	STLC	10.00	EPA 6010B	WET
Chromium	0.38		0.25	mg/L	STLC	10.00	EPA 6010B	WET
Copper	1.4		0.25	mg/L	STLC	10.00	EPA 6010B	WET
Lead	23		0.25	mg/L	STLC	10.00	EPA 6010B	WET
Nickel	3.1		0.25	mg/L	STLC	10.00	EPA 6010B	WET
Zinc	8.6		1.0	mg/L	STLC	10.00	EPA 6010B	WET

Client Sample ID : COMPOSITE 17,18,19,20 Laboratory Sample ID : 278857-005

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	0.33		0.050	mg/L	TCLP	10.00	EPA 6010B	EPA 3010A
Chromium	0.36		0.25	mg/L	STLC	10.00	EPA 6010B	WET
Lead	9.7		0.25	mg/L	STLC	10.00	EPA 6010B	WET
Nickel	3.3		0.25	mg/L	STLC	10.00	EPA 6010B	WET

Curtis & Tompkins, Ltd.

Arsenic

Lab #:	278857	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3010A
Project#:	20150063	Analysis:	EPA 6010B
Analyte:	Arsenic	Batch#:	237455
Field ID:	COMPOSITE 13,14,15,16	Sampled:	07/07/16
Matrix:	TCLP Leachate	Received:	07/08/16
Units:	mg/L	Prepared:	07/28/16
Diln Fac:	10.00	Analyzed:	07/28/16

Type	Lab ID	Result	RL
SAMPLE	278857-004	ND	0.050
BLANK	QC844901	ND	0.050

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Chromium

Lab #:	278857	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3010A
Project#:	20150063	Analysis:	EPA 6010B
Analyte:	Chromium	Sampled:	07/07/16
Matrix:	TCLP Leachate	Received:	07/08/16
Units:	mg/L	Prepared:	07/28/16
Diln Fac:	10.00	Analyzed:	07/28/16
Batch#:	237455		

Field ID	Type	Lab ID	Result	RL
COMPOSITE 13,14,15,16	SAMPLE	278857-004	ND	0.050
COMPOSITE 17,18,19,20	SAMPLE	278857-005	ND	0.050
	BLANK	QC844901	ND	0.050

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Lead

Lab #:	278857	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3010A
Project#:	20150063	Analysis:	EPA 6010B
Analyte:	Lead	Sampled:	07/07/16
Matrix:	TCLP Leachate	Received:	07/08/16
Units:	mg/L	Prepared:	07/28/16
Diln Fac:	10.00	Analyzed:	07/28/16
Batch#:	237455		

Field ID	Type	Lab ID	Result	RL
COMPOSITE 01,02,03,04	SAMPLE	278857-001	0.077	0.050
COMPOSITE 05,06,07,08	SAMPLE	278857-002	0.12	0.050
COMPOSITE 09,10,11,12	SAMPLE	278857-003	0.59	0.050
COMPOSITE 13,14,15,16	SAMPLE	278857-004	0.79	0.050
COMPOSITE 17,18,19,20	SAMPLE	278857-005	0.33	0.050
	BLANK	QC844901	ND	0.050

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Arsenic

Lab #:	278857	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3010A
Project#:	20150063	Analysis:	EPA 6010B
Analyte:	Arsenic	Batch#:	237455
Field ID:	COMPOSITE 01,02,03,04	Sampled:	07/07/16
MSS Lab ID:	278857-001	Received:	07/08/16
Matrix:	TCLP Leachate	Prepared:	07/28/16
Units:	mg/L	Analyzed:	07/28/16
Diln Fac:	10.00		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC844902		0.1000	0.09566	96	80-120		
MS	QC844903	<0.01538	0.1000	0.1008	101	80-127		
MSD	QC844904		0.1000	0.1107	111	80-127	9	25

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Chromium

Lab #:	278857	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3010A
Project#:	20150063	Analysis:	EPA 6010B
Analyte:	Chromium	Batch#:	237455
Field ID:	COMPOSITE 01,02,03,04	Sampled:	07/07/16
MSS Lab ID:	278857-001	Received:	07/08/16
Matrix:	TCLP Leachate	Prepared:	07/28/16
Units:	mg/L	Analyzed:	07/28/16
Diln Fac:	10.00		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC844902		0.1000	0.1089	109	80-120		
MS	QC844903	0.03850	0.1000	0.1338	95	80-120		
MSD	QC844904		0.1000	0.1386	100	80-120	4	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Lead

Lab #:	278857	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3010A
Project#:	20150063	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	237455
Field ID:	COMPOSITE 01,02,03,04	Sampled:	07/07/16
MSS Lab ID:	278857-001	Received:	07/08/16
Matrix:	TCLP Leachate	Prepared:	07/28/16
Units:	mg/L	Analyzed:	07/28/16
Diln Fac:	10.00		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC844902		0.1000	0.1078	108	80-120		
MS	QC844903	0.07676	0.1000	0.1635	87	67-120		
MSD	QC844904		0.1000	0.1759	99	67-120	7	23

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Metals Analytical Report

Lab #:	278857	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	WET
Project#:	20150063	Analysis:	EPA 6010B
Matrix:	WET Leachate	Sampled:	07/07/16
Units:	mg/L	Received:	07/08/16
Diln Fac:	10.00	Prepared:	07/28/16
Batch#:	237457	Analyzed:	07/28/16

Field ID: COMPOSITE 01,02,03,04 Lab ID: 278857-001
Type: SAMPLE

Analyte	Result	RL
Chromium	0.28	0.25
Lead	6.2	0.25

Field ID: COMPOSITE 05,06,07,08 Lab ID: 278857-002
Type: SAMPLE

Analyte	Result	RL
Chromium	0.34	0.25
Lead	11	0.25

Field ID: COMPOSITE 09,10,11,12 Lab ID: 278857-003
Type: SAMPLE

Analyte	Result	RL
Chromium	ND	0.25
Lead	38	0.25

b= See narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Metals Analytical Report

Lab #:	278857	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	WET
Project#:	20150063	Analysis:	EPA 6010B
Matrix:	WET Leachate	Sampled:	07/07/16
Units:	mg/L	Received:	07/08/16
Diln Fac:	10.00	Prepared:	07/28/16
Batch#:	237457	Analyzed:	07/28/16

Field ID: COMPOSITE 13,14,15,16 Lab ID: 278857-004
Type: SAMPLE

Analyte	Result	RL
Antimony	1.0	0.50
Arsenic	ND	0.25
Chromium	0.38	0.25
Copper	1.4	0.25
Lead	23	0.25
Nickel	3.1	0.25
Zinc	8.6	1.0

Field ID: COMPOSITE 17,18,19,20 Lab ID: 278857-005
Type: SAMPLE

Analyte	Result	RL
Chromium	0.36	0.25
Lead	9.7	0.25
Nickel	3.3	0.25

Type: BLANK Lab ID: QC844911

Analyte	Result	RL
Antimony	ND b	0.50
Arsenic	ND	0.25
Chromium	ND	0.25
Copper	ND	0.25
Lead	ND	0.25
Nickel	ND	0.25
Zinc	ND	1.0

b= See narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Metals Analytical Report

Lab #:	278857	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	WET
Project#:	20150063	Analysis:	EPA 6010B
Matrix:	WET Leachate	Batch#:	237457
Units:	mg/L	Prepared:	07/28/16
Diln Fac:	1.000	Analyzed:	07/28/16

Type: BS Lab ID: QC844912

Analyte	Spiked	Result	%REC	Limits
Antimony	0.1000	0.1020 b	102	79-120
Arsenic	0.1000	0.1020	102	80-120
Chromium	0.1000	0.1027	103	80-120
Copper	0.1000	0.1020	102	80-120
Lead	0.1000	0.1030	103	80-120
Nickel	0.1000	0.1008	101	80-120
Zinc	0.1000	0.1026	103	80-120

Type: BSD Lab ID: QC844913

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	0.1000	0.09923 b	99	79-120	3	20
Arsenic	0.1000	0.09886	99	80-120	3	20
Chromium	0.1000	0.09913	99	80-120	4	20
Copper	0.1000	0.09820	98	80-120	4	20
Lead	0.1000	0.1003	100	80-120	3	20
Nickel	0.1000	0.09852	99	80-120	2	20
Zinc	0.1000	0.1002	100	80-120	2	20

b= See narrative
RPD= Relative Percent Difference

Forensic Analytical LABORATORIES

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Curtis & Tompkins Ltd
Tracy Babjar
2323 Fifth St.

Berkeley, CA 94710

Client ID: 1137
Report Number: B224394
Date Received: 07/11/16
Date Analyzed: 07/14/16
Date Printed: 07/15/16
First Reported: 07/15/16

Job ID/Site: 278418 - Lendrum G

Date(s) Collected: 07/07/2016

FALI Job ID: 1137
Total Samples Submitted: 5
Total Samples Analyzed: 5

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
Composite 01,02,03,04	11783309						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
Composite 05,06,07,08	11783310						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
Composite 09,10,11,12	11783311						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
Composite 13,14,15,16	11783312						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
Composite17,18,19,20	11783313						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					

Tad Thrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

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3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 278418
ANALYTICAL REPORT

Engineering/Remediation Resource Grp
4585 Pacheco Blvd.
Martinez, CA 94553

Project : 20150063
Location : Lendrum G
Level : II

Sample ID	Lab ID	Sample ID	Lab ID
LC-WC-0101-070716	278418-001	LC-WC-0402-070716	278418-014
LC-WC-0102-070716	278418-002	LC-WC-0403-070716	278418-015
LC-WC-0103-070716	278418-003	LC-WC-0404-070716	278418-016
LC-WC-0104-070716	278418-004	LC-WC-0501-070716	278418-017
LC-WC-0201-070716	278418-005	LC-WC-0502-070716	278418-018
LC-WC-0202-070716	278418-006	LC-WC-0503-070716	278418-019
LC-WC-0203-070716	278418-007	LC-WC-0504-070716	278418-020
LC-WC-0204-070716	278418-008	COMPOSITE 01,02,03,04	278418-021
LC-WC-0301-070716	278418-009	COMPOSITE 05,06,07,08	278418-022
LC-WC-0302-070716	278418-010	COMPOSITE 09,10,11,12	278418-023
LC-WC-0303-070716	278418-011	COMPOSITE 13,14,15,16	278418-024
LC-WC-0304-070716	278418-012	COMPOSITE 17,18,19,20	278418-025
LC-WC-0401-070716	278418-013		

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Tracy Babjar Date: 07/26/2016

Tracy Babjar
Project Manager
tracy.babjar@ctberk.com
(510) 204-2226

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**278418**
Client:	**Engineering/Remediation Resource Grp**
Project:	**20150063**
Location:	**Lendrum G**
Request Date:	**07/08/16**
Samples Received:	**07/08/16**

This data package contains sample and QC results for five four-point soil composites, requested for the above referenced project on 07/08/16. The samples were received cold and intact.

TPH-Extractables by GC (EPA 8015B):
No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
High surrogate recoveries were observed for 1,2-dichloroethane-d4 in many samples. No other analytical problems were encountered.

Semivolatile Organics by GC/MS (EPA 8270C):
A number of samples were diluted due to the dark and viscous nature of the sample extracts. No other analytical problems were encountered.

Pesticides (EPA 8081A):
All samples underwent sulfur cleanup using the copper option in EPA Method 3660B. All samples underwent florisil cleanup using EPA Method 3620C. A number of samples were diluted due to the color of the sample extracts. No other analytical problems were encountered.

Metals (EPA 6010B and EPA 7471A):
Low recoveries were observed for barium, chromium, and nickel in the MS/MSD for batch 236948; the parent sample was not a project sample, and the BS/BSD were within limits. High recoveries were observed for barium and copper; the BS/BSD were within limits. High RPD was observed for barium; the RPD was acceptable in the BS/BSD. High recovery was observed for mercury in the MS for batch 237105; the parent sample was not a project sample, the BS/BSD were within limits, and the associated RPD was within limits. No other analytical problems were encountered.

Asbestos PLM (EPA 600/R-93-116):
Forensic Analytical in Hayward, CA performed the analysis (not NELAP certified). Please see the Forensic Analytical case narrative.

Chlorophenoxy Herbicides (EPA 8151):
Cal Science in Garden Grove, CA performed the analysis (NELAP certified). Please see the Cal Science case narrative.

CT# 27841B

Subject: Lendrum herbicides
From: Joseph Corrick <joseph.corrick@errg.com>
Date: 7/13/2016 11:50 AM
To: "tracy.babjar@ctberk.com" <tracy.babjar@ctberk.com>

Tracy, per our conversation we would like the herbicides to go on a 10-day turnaround time. If that is not possible, please let me know.

Sent from my Verizon Wireless 4G LTE DROID

CHAIN OF CUSTODY

Curtis & Tompkins Laboratories
ENVIRONMENTAL ANALYTICAL TESTING LABORATORY
In Business Since 1878

2323 Fifth Street
Berkeley, CA 94710

Phone (510) 486-0900
Fax (510) 486-0532

Chain of Custody #

C&T LOGIN # 278418

Project No: 70150063
Project Name: LEMDRUM G
Project P. O. No:
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☒ RUSH 5-day ☐ Standard

Sampler: J. Corrick
Report To: J. Corrick
Company: ERRG
Telephone: 415-933-0264
Email:

ANALYTICAL REQUEST

VOC 8260
SVOC 8270
TPH d/mo 8015
Asbestos by PLM
Pest. 8081
Hg 8065
Cam 17 6010

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE				
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None
1	LC-WC-0101-070716	7/7/16	1003		X			1					X
2	LC-WC-0102-070716		1005		X			1					X
3	LC-WC-0103-070716		1007		X			1					X
4	LC-WC-0104-070716		1010		X			1					X
5	LC-WC-0201-070716		1014		X			1					X
6	LC-WC-0202-070716		1015		X			1					X
7	LC-WC-0203-070716		1016		X			1					X
8	LC-WC-0204-070716		1019		X			1					X
9	LC-WC-0301-070716		1025		X			1					X
10	LC-WC-0302-070716		1026		X			1					X
11	LC-WC-0303-070716		1027		X			1					X
12	LC-WC-0304-070716		1031		X			1					X
13	LC-WC-0401-070716	—	1050		X			1					X

21
22
23

Notes:
- Composite Samples -0101
~~Composite~~ 0102, 0103, 0104
Samples 0201, 0102, 0203, 0204
Composite 0301, 0302, 0303, 0304
Composite 0401, 0402, 0403, 0404
Composite 0501, 0502, 0503, 0504

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
DATE: 7/7 TIME: 1600
DATE: 7/8 TIME: 1120
DATE: 7/8 TIME: 1717

RECEIVED BY:
DATE: 7/7 TIME: 12:01
DATE: 7/8 TIME: 1120
DATE: 7/8/16 TIME: 1717

CHAIN OF CUSTODY

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ENVIRONMENTAL ANALYTICAL TESTING LABORATORY
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2323 Fifth Street
Berkeley, CA 94710

Phone (510) 486-0900
Fax (510) 486-0532

Chain of Custody # _____

C&T LOGIT # 278418

Project No: 20150063
Project Name: LONDRY CT
Project P. O. No:
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☒ RUSH 5-day ☐ Standard

Sampler: J. Cerrick
Report To: J. Cerrick
Company: EBRG
Telephone: 415 933-0264
Email:

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	
24	14 LC-WC-0402-070716	7/7/16	1051		X			1					X	
	15 LC-WC-0403-070716		1054		X			1					X	
	16 LC-WC-0404-070716		1055		X			1					X	
25	17 LC-WC-0501-070716		1036		X			1					X	
	18 LC-WC-0502-070716		1038		X			1					X	
	19 LC-WC-0503-070716		1040		X			1					X	
	20 LC-WC-0504-070716		1045		X			1					X	

8260 VOC
8270 SVOC
TPH d/mo SGIS
Arsenic By PLM
Pest 8081
Herb 8151
Cam 17 6010

Notes: Composite 0101, 0102, 0103, 0104
Composite 0201, 0202, 0203, 0204
Composite 0301, 0302, 0303, 0304
Composite 0401, 0402, 0403, 0404
Composite 0501, 0502, 0503, 0504

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
DATE: 7/7 TIME: 1200
DATE: 7/8 TIME: 1120
DATE: 7/8 TIME: 1717

RECEIVED BY:
DATE: 7/7 TIME: 12:01
DATE: 7/8 TIME: 1120
DATE: 7/8/16 TIME: 1717

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 278418 Date Received 7/8/16 Number of coolers 0
Client ERG Project Loudrum G

Date Opened 7/8 By (print) DTN (sign) dnguyen
Date Logged in ↓ By (print) ↓ (sign) ↓
Date Labelled ↓ By (print) ↓ (sign) ↓

1. Did cooler come with a shipping slip (airbill, etc) ____ YES (NO)
   Shipping info ____
2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples ☒ NO
   How many ____ Name ____ Date ____
2B. Were custody seals intact upon arrival? ____ YES NO N/A
3. Were custody papers dry and intact when received? ____ YES NO
4. Were custody papers filled out properly (ink, signed, etc)? ____ YES NO
5. Is the project identifiable from custody papers? (If so fill out top of form) ____ YES NO
6. Indicate the packing in cooler: (if other, describe) ____

☐ Bubble Wrap ☐ Foam blocks ☐ Bags ☐ None
☐ Cloth material ☒ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☐ Wet ☐ Blue/Gel ☒ None Temp(°C) ____

☐ Temperature blank(s) included? ☐ Thermometer# ____ ☐ IR Gun# ____

☐ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? ____ YES (NO)
   If YES, what time were they transferred to freezer? ____
9. Did all bottles arrive unbroken/unopened? ____ YES NO
10. Are there any missing / extra samples? ____ YES (NO)
11. Are samples in the appropriate containers for indicated tests? ____ YES NO
12. Are sample labels present, in good condition and complete? ____ YES NO
13. Do the sample labels agree with custody papers? ____ YES NO
14. Was sufficient amount of sample sent for tests requested? ____ YES NO
15. Are the samples appropriately preserved? ____ YES NO N/A
16. Did you check preservatives for all bottles for each sample? ____ YES NO N/A
17. Did you document your preservative check? (pH strip lot# ____) YES NO N/A
18. Did you change the hold time in LIMS for unpreserved VOAs? ____ YES NO N/A
19. Did you change the hold time in LIMS for preserved terracores? ____ YES NO N/A
20. Are bubbles > 6mm absent in VOA samples? ____ YES NO N/A
21. Was the client contacted concerning this sample delivery? ____ YES (NO)
   If YES, Who was called? ____ By ____ Date: ____

COMMENTS ____

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	07/07/16
Units:	mg/Kg	Received:	07/08/16
Basis:	as received	Prepared:	07/13/16
Diln Fac:	1.000	Analyzed:	07/14/16
Batch#:	236928		

Field ID: COMPOSITE 01,02,03,04 Lab ID: 278418-021
Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	35 Y	1.0
Motor Oil C24-C36	130	5.0

Surrogate	%REC	Limits
o-Terphenyl	120	59-140

Field ID: COMPOSITE 05,06,07,08 Lab ID: 278418-022
Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	16 Y	1.0
Motor Oil C24-C36	82	5.0

Surrogate	%REC	Limits
o-Terphenyl	118	59-140

Field ID: COMPOSITE 09,10,11,12 Lab ID: 278418-023
Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	12 Y	1.0
Motor Oil C24-C36	73	5.0

Surrogate	%REC	Limits
o-Terphenyl	137	59-140

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	07/07/16
Units:	mg/Kg	Received:	07/08/16
Basis:	as received	Prepared:	07/13/16
Diln Fac:	1.000	Analyzed:	07/14/16
Batch#:	236928		

Field ID: COMPOSITE 13,14,15,16 Lab ID: 278418-024
Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	11 Y	1.0
Motor Oil C24-C36	75	5.0

Surrogate	%REC	Limits
o-Terphenyl	130	59-140

Field ID: COMPOSITE 17,18,19,20 Lab ID: 278418-025
Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	12 Y	1.0
Motor Oil C24-C36	87	5.0

Surrogate	%REC	Limits
o-Terphenyl	121	59-140

Type: BLANK Lab ID: QC842893

Analyte	Result	RL
Diesel C10-C24	ND	0.99
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	135	59-140

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC842894	Batch#:	236928
Matrix:	Soil	Prepared:	07/13/16
Units:	mg/Kg	Analyzed:	07/14/16

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.50	47.47	96	58-137

Surrogate	%REC	Limits
o-Terphenyl	103	59-140

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	236928
MSS Lab ID:	278424-029	Sampled:	07/08/16
Matrix:	Soil	Received:	07/08/16
Units:	mg/Kg	Prepared:	07/13/16
Basis:	as received	Analyzed:	07/14/16
Diln Fac:	3.000		

Type: MS Lab ID: QC842895

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	13.13	49.84	61.73	98	46-154

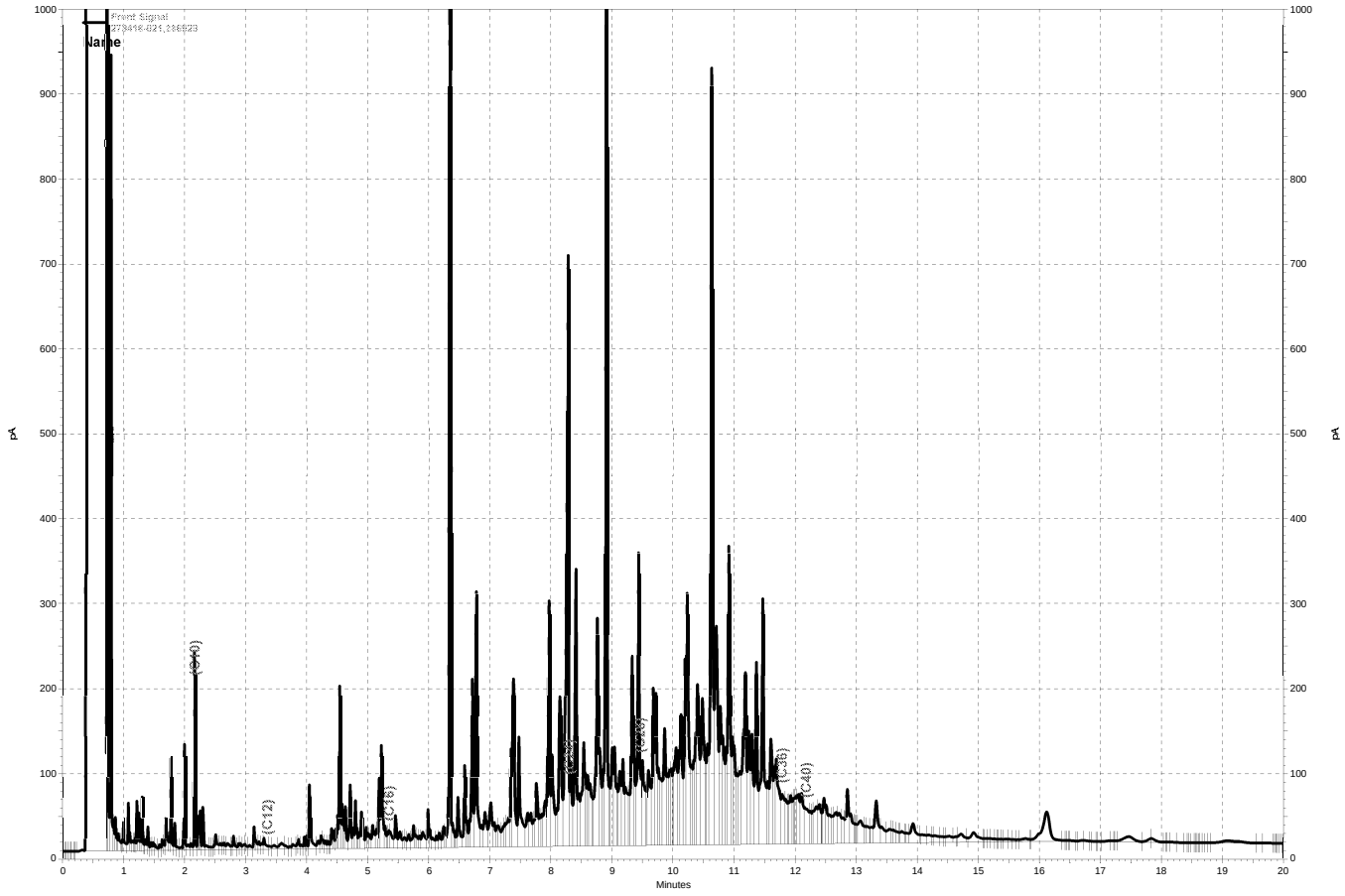
Surrogate	%REC	Limits
o-Terphenyl	101	59-140

Type: MSD Lab ID: QC842896

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	50.13	70.77	115	46-154	13	50

Surrogate	%REC	Limits
o-Terphenyl	116	59-140

RPD= Relative Percent Difference



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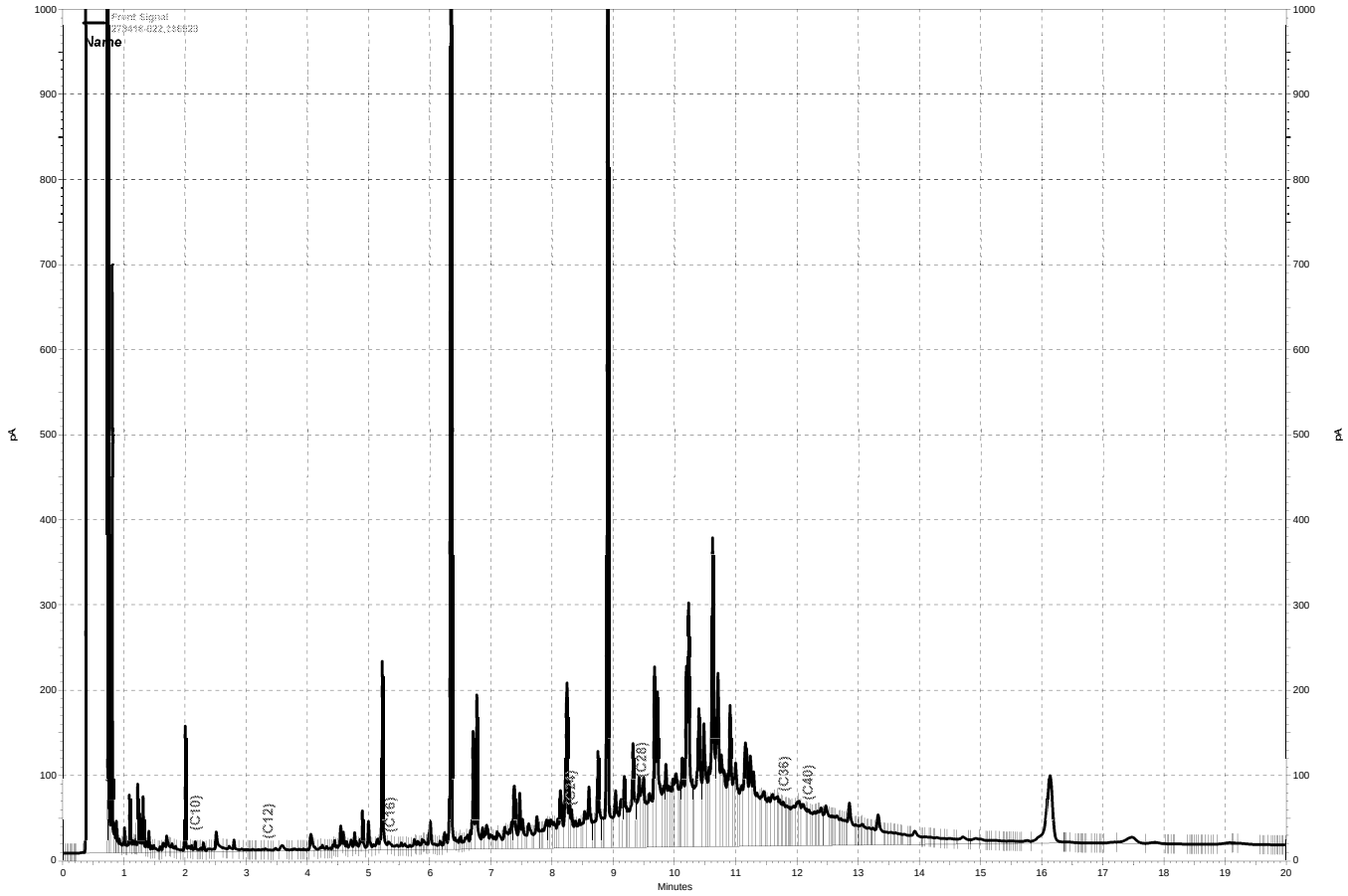

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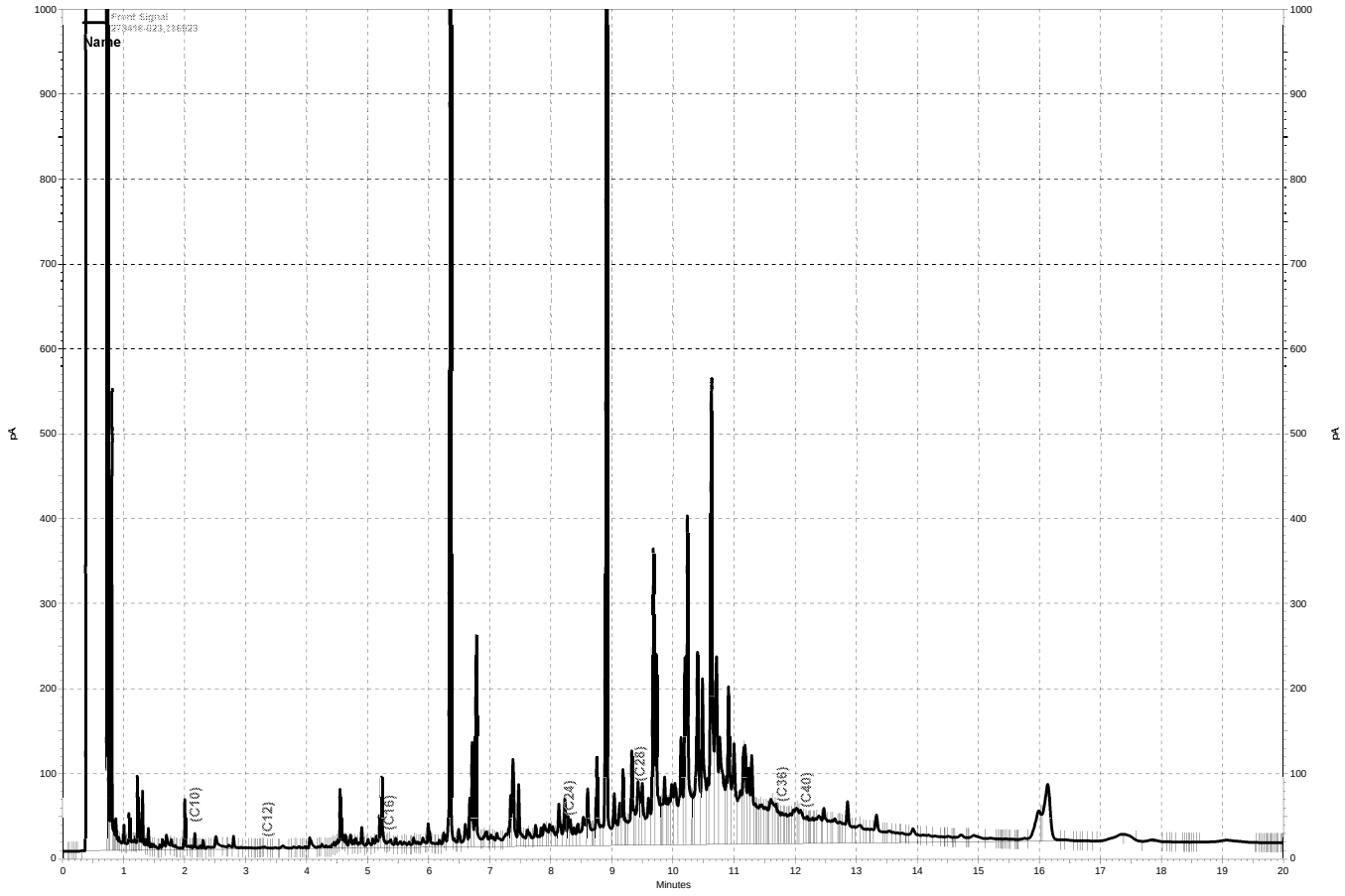

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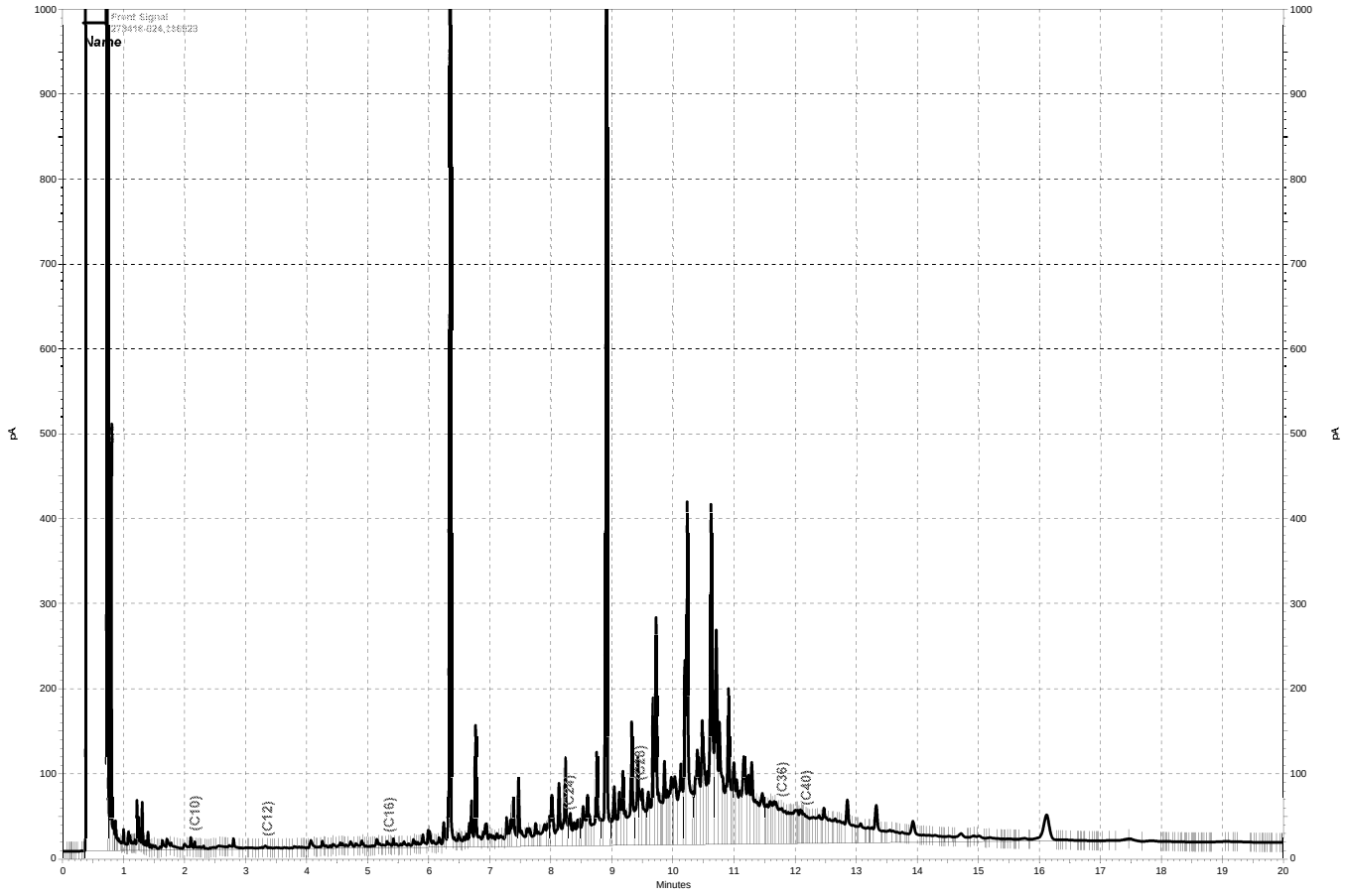

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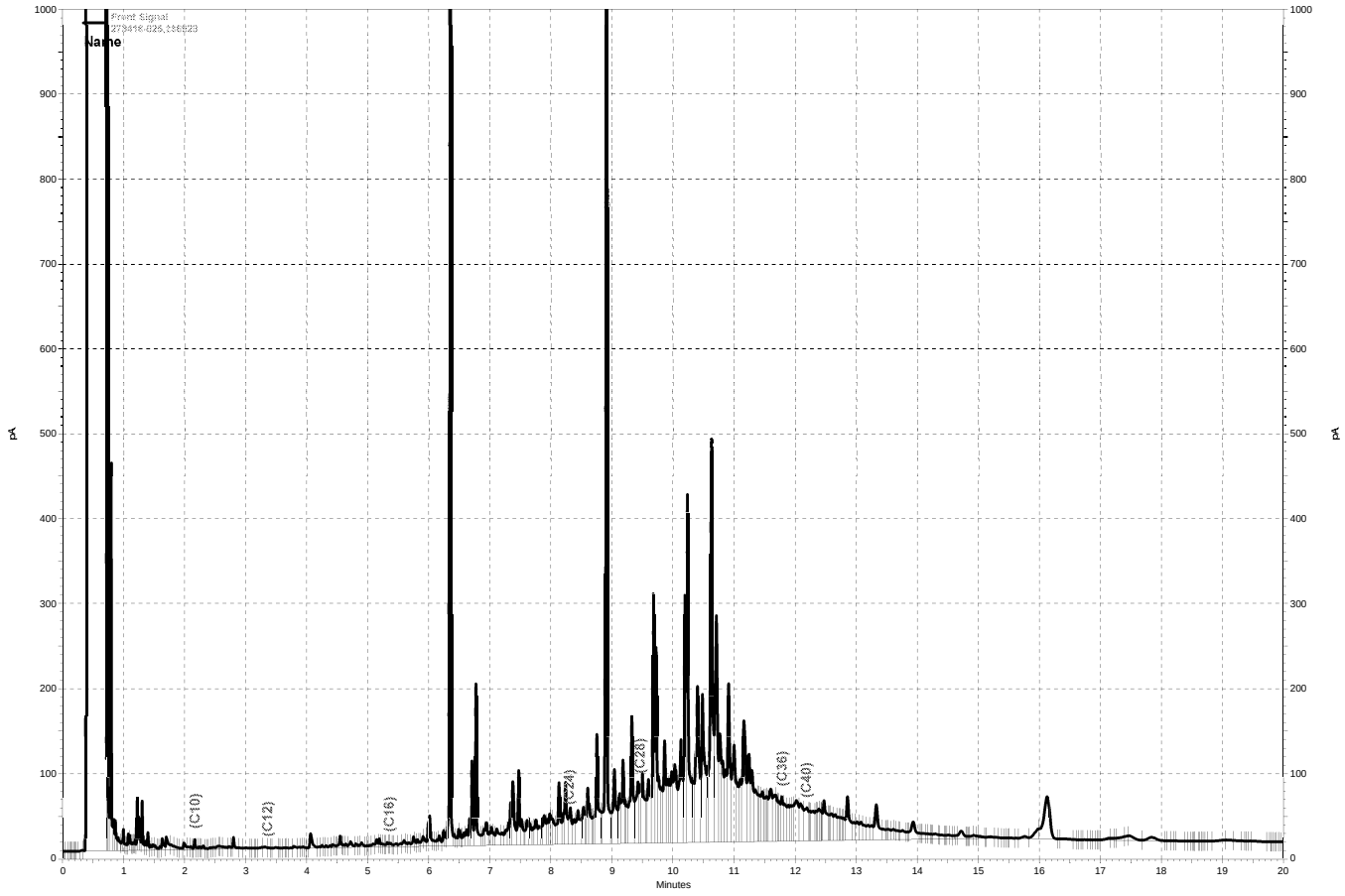

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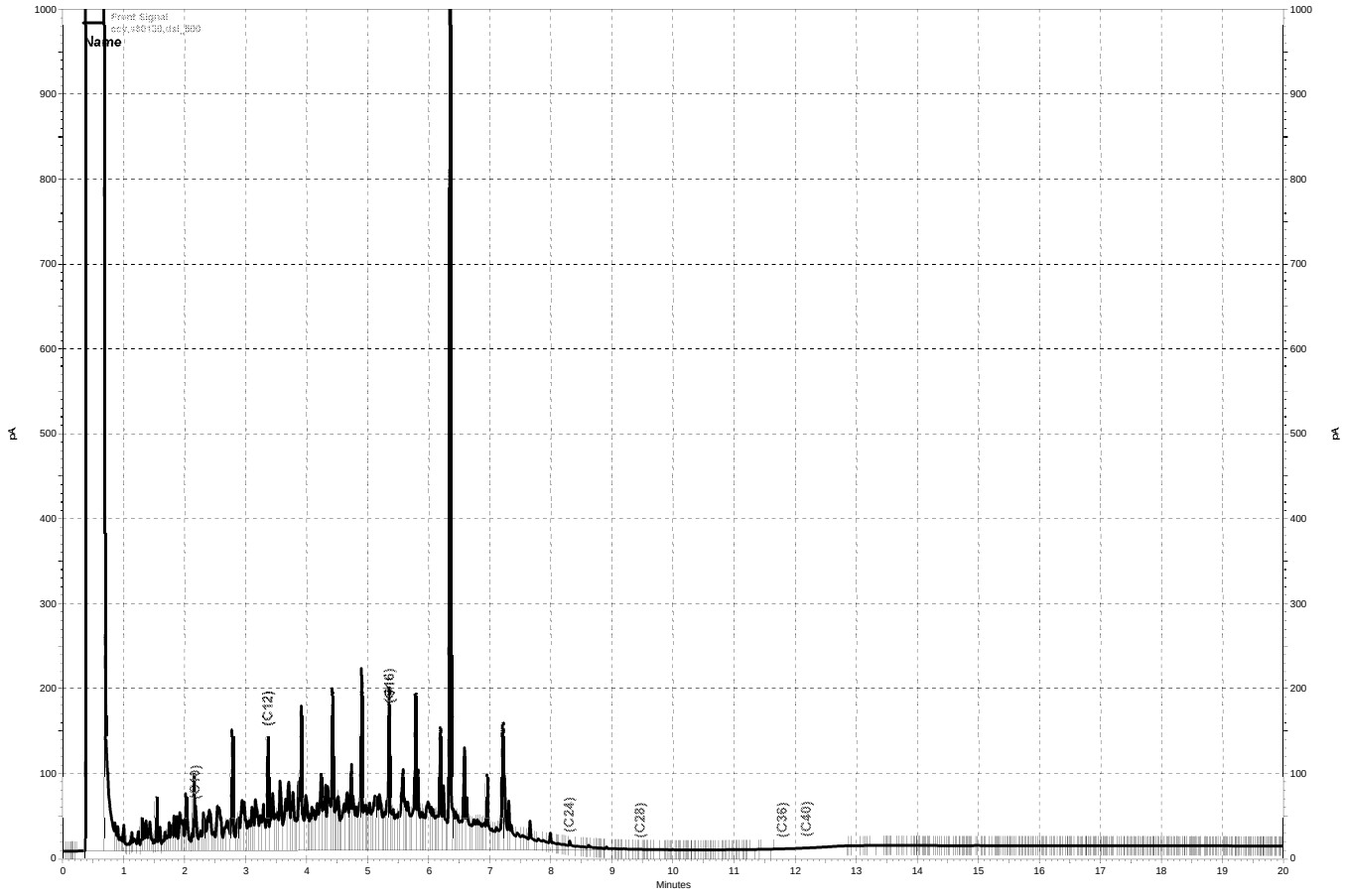

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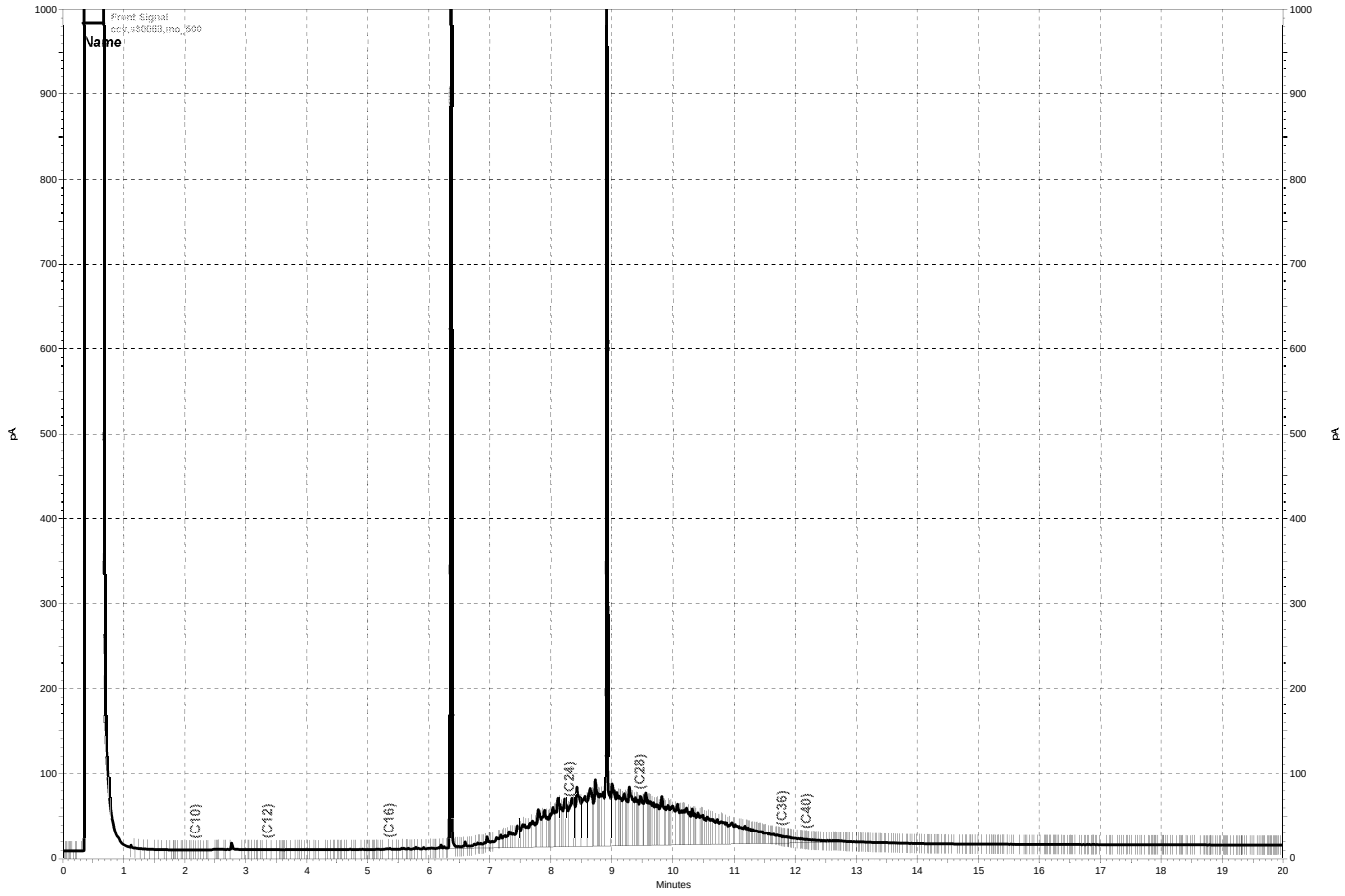

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 5030B
Project#:	20150063	Analysis:	EPA 8260B
Field ID:	COMPOSITE 01,02,03,04	Dil'n Fac:	0.9470
Lab ID:	278418-021	Batch#:	236904
Matrix:	Soil	Sampled:	07/07/16
Units:	ug/Kg	Received:	07/08/16
Basis:	as received	Analyzed:	07/12/16

Analyte	Result	RL
Freon 12	ND	9.5
Chloromethane	ND	9.5
Vinyl Chloride	ND	9.5
Bromomethane	ND	9.5
Chloroethane	ND	9.5
Trichlorofluoromethane	ND	4.7
Acetone	ND	19
Freon 113	ND	4.7
1,1-Dichloroethene	ND	4.7
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.7
MTBE	ND	4.7
trans-1,2-Dichloroethene	ND	4.7
Vinyl Acetate	ND	47
1,1-Dichloroethane	ND	4.7
2-Butanone	ND	9.5
cis-1,2-Dichloroethene	ND	4.7
2,2-Dichloropropane	ND	4.7
Chloroform	ND	4.7
Bromochloromethane	ND	4.7
1,1,1-Trichloroethane	ND	4.7
1,1-Dichloropropene	ND	4.7
Carbon Tetrachloride	ND	4.7
1,2-Dichloroethane	ND	4.7
Benzene	ND	4.7
Trichloroethene	ND	4.7
1,2-Dichloropropane	ND	4.7
Bromodichloromethane	ND	4.7
Dibromomethane	ND	4.7
4-Methyl-2-Pentanone	ND	9.5
cis-1,3-Dichloropropene	ND	4.7
Toluene	ND	4.7
trans-1,3-Dichloropropene	ND	4.7
1,1,2-Trichloroethane	ND	4.7
2-Hexanone	ND	9.5
1,3-Dichloropropane	ND	4.7
Tetrachloroethene	ND	4.7
Dibromochloromethane	ND	4.7
1,2-Dibromoethane	ND	4.7
Chlorobenzene	ND	4.7
1,1,1,2-Tetrachloroethane	ND	4.7
Ethylbenzene	ND	4.7
m,p-Xylenes	ND	4.7
o-Xylene	ND	4.7
Styrene	ND	4.7
Bromoform	ND	4.7
Isopropylbenzene	ND	4.7
1,1,2,2-Tetrachloroethane	ND	4.7
1,2,3-Trichloropropane	ND	4.7
Propylbenzene	ND	4.7
Bromobenzene	ND	4.7
1,3,5-Trimethylbenzene	ND	4.7
2-Chlorotoluene	ND	4.7

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 5030B
Project#:	20150063	Analysis:	EPA 8260B
Field ID:	COMPOSITE 01,02,03,04	Dil'n Fac:	0.9470
Lab ID:	278418-021	Batch#:	236904
Matrix:	Soil	Sampled:	07/07/16
Units:	ug/Kg	Received:	07/08/16
Basis:	as received	Analyzed:	07/12/16

Analyte	Result	RL
4-Chlorotoluene	ND	4.7
tert-Butylbenzene	ND	4.7
1,2,4-Trimethylbenzene	ND	4.7
sec-Butylbenzene	ND	4.7
para-Isopropyl Toluene	ND	4.7
1,3-Dichlorobenzene	ND	4.7
1,4-Dichlorobenzene	ND	4.7
n-Butylbenzene	ND	4.7
1,2-Dichlorobenzene	ND	4.7
1,2-Dibromo-3-Chloropropane	ND	4.7
1,2,4-Trichlorobenzene	ND	4.7
Hexachlorobutadiene	ND	4.7
Naphthalene	ND	4.7
1,2,3-Trichlorobenzene	ND	4.7

Surrogate	%REC	Limits
Dibromofluoromethane	117	78-134
1,2-Dichloroethane-d4	148 *	80-138
Toluene-d8	104	80-120
Bromofluorobenzene	115	78-123

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 5030B
Project#:	20150063	Analysis:	EPA 8260B
Field ID:	COMPOSITE 05,06,07,08	Dil'n Fac:	0.9747
Lab ID:	278418-022	Batch#:	236904
Matrix:	Soil	Sampled:	07/07/16
Units:	ug/Kg	Received:	07/08/16
Basis:	as received	Analyzed:	07/12/16

Analyte	Result	RL
Freon 12	ND	9.7
Chloromethane	ND	9.7
Vinyl Chloride	ND	9.7
Bromomethane	ND	9.7
Chloroethane	ND	9.7
Trichlorofluoromethane	ND	4.9
Acetone	ND	19
Freon 113	ND	4.9
1,1-Dichloroethene	ND	4.9
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.9
MTBE	ND	4.9
trans-1,2-Dichloroethene	ND	4.9
Vinyl Acetate	ND	49
1,1-Dichloroethane	ND	4.9
2-Butanone	ND	9.7
cis-1,2-Dichloroethene	ND	4.9
2,2-Dichloropropane	ND	4.9
Chloroform	ND	4.9
Bromochloromethane	ND	4.9
1,1,1-Trichloroethane	ND	4.9
1,1-Dichloropropene	ND	4.9
Carbon Tetrachloride	ND	4.9
1,2-Dichloroethane	ND	4.9
Benzene	ND	4.9
Trichloroethene	ND	4.9
1,2-Dichloropropane	ND	4.9
Bromodichloromethane	ND	4.9
Dibromomethane	ND	4.9
4-Methyl-2-Pentanone	ND	9.7
cis-1,3-Dichloropropene	ND	4.9
Toluene	ND	4.9
trans-1,3-Dichloropropene	ND	4.9
1,1,2-Trichloroethane	ND	4.9
2-Hexanone	ND	9.7
1,3-Dichloropropane	ND	4.9
Tetrachloroethene	ND	4.9
Dibromochloromethane	ND	4.9
1,2-Dibromoethane	ND	4.9
Chlorobenzene	ND	4.9
1,1,1,2-Tetrachloroethane	ND	4.9
Ethylbenzene	ND	4.9
m,p-Xylenes	ND	4.9
o-Xylene	ND	4.9
Styrene	ND	4.9
Bromoform	ND	4.9
Isopropylbenzene	ND	4.9
1,1,2,2-Tetrachloroethane	ND	4.9
1,2,3-Trichloropropane	ND	4.9
Propylbenzene	ND	4.9
Bromobenzene	ND	4.9
1,3,5-Trimethylbenzene	ND	4.9
2-Chlorotoluene	ND	4.9

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 5030B
Project#:	20150063	Analysis:	EPA 8260B
Field ID:	COMPOSITE 05,06,07,08	Dil'n Fac:	0.9747
Lab ID:	278418-022	Batch#:	236904
Matrix:	Soil	Sampled:	07/07/16
Units:	ug/Kg	Received:	07/08/16
Basis:	as received	Analyzed:	07/12/16

Analyte	Result	RL
4-Chlorotoluene	ND	4.9
tert-Butylbenzene	ND	4.9
1,2,4-Trimethylbenzene	ND	4.9
sec-Butylbenzene	ND	4.9
para-Isopropyl Toluene	ND	4.9
1,3-Dichlorobenzene	ND	4.9
1,4-Dichlorobenzene	ND	4.9
n-Butylbenzene	ND	4.9
1,2-Dichlorobenzene	ND	4.9
1,2-Dibromo-3-Chloropropane	ND	4.9
1,2,4-Trichlorobenzene	ND	4.9
Hexachlorobutadiene	ND	4.9
Naphthalene	ND	4.9
1,2,3-Trichlorobenzene	ND	4.9

Surrogate	%REC	Limits
Dibromofluoromethane	117	78-134
1,2-Dichloroethane-d4	146 *	80-138
Toluene-d8	105	80-120
Bromofluorobenzene	113	78-123

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 5030B
Project#:	20150063	Analysis:	EPA 8260B
Field ID:	COMPOSITE 09,10,11,12	Dil'n Fac:	0.9881
Lab ID:	278418-023	Batch#:	236904
Matrix:	Soil	Sampled:	07/07/16
Units:	ug/Kg	Received:	07/08/16
Basis:	as received	Analyzed:	07/12/16

Analyte	Result	RL
Freon 12	ND	9.9
Chloromethane	ND	9.9
Vinyl Chloride	ND	9.9
Bromomethane	ND	9.9
Chloroethane	ND	9.9
Trichlorofluoromethane	ND	4.9
Acetone	ND	20
Freon 113	ND	4.9
1,1-Dichloroethene	ND	4.9
Methylene Chloride	ND	20
Carbon Disulfide	ND	4.9
MTBE	ND	4.9
trans-1,2-Dichloroethene	ND	4.9
Vinyl Acetate	ND	49
1,1-Dichloroethane	ND	4.9
2-Butanone	ND	9.9
cis-1,2-Dichloroethene	ND	4.9
2,2-Dichloropropane	ND	4.9
Chloroform	ND	4.9
Bromochloromethane	ND	4.9
1,1,1-Trichloroethane	ND	4.9
1,1-Dichloropropene	ND	4.9
Carbon Tetrachloride	ND	4.9
1,2-Dichloroethane	ND	4.9
Benzene	ND	4.9
Trichloroethene	ND	4.9
1,2-Dichloropropane	ND	4.9
Bromodichloromethane	ND	4.9
Dibromomethane	ND	4.9
4-Methyl-2-Pentanone	ND	9.9
cis-1,3-Dichloropropene	ND	4.9
Toluene	ND	4.9
trans-1,3-Dichloropropene	ND	4.9
1,1,2-Trichloroethane	ND	4.9
2-Hexanone	ND	9.9
1,3-Dichloropropane	ND	4.9
Tetrachloroethene	ND	4.9
Dibromochloromethane	ND	4.9
1,2-Dibromoethane	ND	4.9
Chlorobenzene	ND	4.9
1,1,1,2-Tetrachloroethane	ND	4.9
Ethylbenzene	ND	4.9
m,p-Xylenes	ND	4.9
o-Xylene	ND	4.9
Styrene	ND	4.9
Bromoform	ND	4.9
Isopropylbenzene	ND	4.9
1,1,2,2-Tetrachloroethane	ND	4.9
1,2,3-Trichloropropane	ND	4.9
Propylbenzene	ND	4.9
Bromobenzene	ND	4.9
1,3,5-Trimethylbenzene	ND	4.9
2-Chlorotoluene	ND	4.9

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 5030B
Project#:	20150063	Analysis:	EPA 8260B
Field ID:	COMPOSITE 09,10,11,12	Dil'n Fac:	0.9881
Lab ID:	278418-023	Batch#:	236904
Matrix:	Soil	Sampled:	07/07/16
Units:	ug/Kg	Received:	07/08/16
Basis:	as received	Analyzed:	07/12/16

Analyte	Result	RL
4-Chlorotoluene	ND	4.9
tert-Butylbenzene	ND	4.9
1,2,4-Trimethylbenzene	ND	4.9
sec-Butylbenzene	ND	4.9
para-Isopropyl Toluene	ND	4.9
1,3-Dichlorobenzene	ND	4.9
1,4-Dichlorobenzene	ND	4.9
n-Butylbenzene	ND	4.9
1,2-Dichlorobenzene	ND	4.9
1,2-Dibromo-3-Chloropropane	ND	4.9
1,2,4-Trichlorobenzene	ND	4.9
Hexachlorobutadiene	ND	4.9
Naphthalene	ND	4.9
1,2,3-Trichlorobenzene	ND	4.9

Surrogate	%REC	Limits
Dibromofluoromethane	116	78-134
1,2-Dichloroethane-d4	148 *	80-138
Toluene-d8	106	80-120
Bromofluorobenzene	116	78-123

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 5030B
Project#:	20150063	Analysis:	EPA 8260B
Field ID:	COMPOSITE 13,14,15,16	Dil'n Fac:	1.000
Lab ID:	278418-024	Batch#:	236904
Matrix:	Soil	Sampled:	07/07/16
Units:	ug/Kg	Received:	07/08/16
Basis:	as received	Analyzed:	07/12/16

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 5030B
Project#:	20150063	Analysis:	EPA 8260B
Field ID:	COMPOSITE 13,14,15,16	Dil'n Fac:	1.000
Lab ID:	278418-024	Batch#:	236904
Matrix:	Soil	Sampled:	07/07/16
Units:	ug/Kg	Received:	07/08/16
Basis:	as received	Analyzed:	07/12/16

Analyte	Result	RL
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	118	78-134
1,2-Dichloroethane-d4	151 *	80-138
Toluene-d8	107	80-120
Bromofluorobenzene	117	78-123

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 5030B
Project#:	20150063	Analysis:	EPA 8260B
Field ID:	COMPOSITE 17,18,19,20	Dil'n Fac:	0.9728
Lab ID:	278418-025	Batch#:	236904
Matrix:	Soil	Sampled:	07/07/16
Units:	ug/Kg	Received:	07/08/16
Basis:	as received	Analyzed:	07/12/16

Analyte	Result	RL
Freon 12	ND	9.7
Chloromethane	ND	9.7
Vinyl Chloride	ND	9.7
Bromomethane	ND	9.7
Chloroethane	ND	9.7
Trichlorofluoromethane	ND	4.9
Acetone	ND	19
Freon 113	ND	4.9
1,1-Dichloroethene	ND	4.9
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.9
MTBE	ND	4.9
trans-1,2-Dichloroethene	ND	4.9
Vinyl Acetate	ND	49
1,1-Dichloroethane	ND	4.9
2-Butanone	ND	9.7
cis-1,2-Dichloroethene	ND	4.9
2,2-Dichloropropane	ND	4.9
Chloroform	ND	4.9
Bromochloromethane	ND	4.9
1,1,1-Trichloroethane	ND	4.9
1,1-Dichloropropene	ND	4.9
Carbon Tetrachloride	ND	4.9
1,2-Dichloroethane	ND	4.9
Benzene	ND	4.9
Trichloroethene	ND	4.9
1,2-Dichloropropane	ND	4.9
Bromodichloromethane	ND	4.9
Dibromomethane	ND	4.9
4-Methyl-2-Pentanone	ND	9.7
cis-1,3-Dichloropropene	ND	4.9
Toluene	ND	4.9
trans-1,3-Dichloropropene	ND	4.9
1,1,2-Trichloroethane	ND	4.9
2-Hexanone	ND	9.7
1,3-Dichloropropane	ND	4.9
Tetrachloroethene	ND	4.9
Dibromochloromethane	ND	4.9
1,2-Dibromoethane	ND	4.9
Chlorobenzene	ND	4.9
1,1,1,2-Tetrachloroethane	ND	4.9
Ethylbenzene	ND	4.9
m,p-Xylenes	ND	4.9
o-Xylene	ND	4.9
Styrene	ND	4.9
Bromoform	ND	4.9
Isopropylbenzene	ND	4.9
1,1,2,2-Tetrachloroethane	ND	4.9
1,2,3-Trichloropropane	ND	4.9
Propylbenzene	ND	4.9
Bromobenzene	ND	4.9
1,3,5-Trimethylbenzene	ND	4.9
2-Chlorotoluene	ND	4.9

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 5030B
Project#:	20150063	Analysis:	EPA 8260B
Field ID:	COMPOSITE 17,18,19,20	Dil'n Fac:	0.9728
Lab ID:	278418-025	Batch#:	236904
Matrix:	Soil	Sampled:	07/07/16
Units:	ug/Kg	Received:	07/08/16
Basis:	as received	Analyzed:	07/12/16

Analyte	Result	RL
4-Chlorotoluene	ND	4.9
tert-Butylbenzene	ND	4.9
1,2,4-Trimethylbenzene	ND	4.9
sec-Butylbenzene	ND	4.9
para-Isopropyl Toluene	ND	4.9
1,3-Dichlorobenzene	ND	4.9
1,4-Dichlorobenzene	ND	4.9
n-Butylbenzene	ND	4.9
1,2-Dichlorobenzene	ND	4.9
1,2-Dibromo-3-Chloropropane	ND	4.9
1,2,4-Trichlorobenzene	ND	4.9
Hexachlorobutadiene	ND	4.9
Naphthalene	ND	4.9
1,2,3-Trichlorobenzene	ND	4.9

Surrogate	%REC	Limits
Dibromofluoromethane	117	78-134
1,2-Dichloroethane-d4	148 *	80-138
Toluene-d8	105	80-120
Bromofluorobenzene	116	78-123

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 5030B
Project#:	20150063	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC842715	Batch#:	236904
Matrix:	Soil	Analyzed:	07/12/16
Units:	ug/Kg		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	25.44	102	70-134
Benzene	25.00	25.99	104	80-123
Trichloroethene	25.00	23.29	93	80-128
Toluene	25.00	24.35	97	80-120
Chlorobenzene	25.00	25.07	100	80-123

Surrogate	%REC	Limits
Dibromofluoromethane	108	78-134
1,2-Dichloroethane-d4	129	80-138
Toluene-d8	108	80-120
Bromofluorobenzene	105	78-123

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 5030B
Project#:	20150063	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC842716	Batch#:	236904
Matrix:	Soil	Analyzed:	07/12/16
Units:	ug/Kg		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 5030B
Project#:	20150063	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC842716	Batch#:	236904
Matrix:	Soil	Analyzed:	07/12/16
Units:	ug/Kg		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	108	78-134
1,2-Dichloroethane-d4	131	80-138
Toluene-d8	107	80-120
Bromofluorobenzene	115	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 5030B
Project#:	20150063	Analysis:	EPA 8260B
Field ID:	COMPOSITE 01,02,03,04	Batch#:	236904
MSS Lab ID:	278418-021	Sampled:	07/07/16
Matrix:	Soil	Received:	07/08/16
Units:	ug/Kg	Analyzed:	07/13/16
Basis:	as received		

Type: MS Diln Fac: 0.9597
Lab ID: QC842769

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.8898	47.98	45.33	94	56-133
Benzene	<0.8544	47.98	49.60	103	57-120
Trichloroethene	<0.7909	47.98	44.29	92	49-145
Toluene	<0.6736	47.98	45.35	95	51-120
Chlorobenzene	<0.6497	47.98	42.60	89	47-120

Surrogate	%REC	Limits
Dibromofluoromethane	113	78-134
1,2-Dichloroethane-d4	144 *	80-138
Toluene-d8	103	80-120
Bromofluorobenzene	103	78-123

Type: MSD Diln Fac: 0.9823
Lab ID: QC842770

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	49.12	49.78	101	56-133	7	46
Benzene	49.12	47.26	96	57-120	7	44
Trichloroethene	49.12	44.70	91	49-145	1	46
Toluene	49.12	44.26	90	51-120	5	47
Chlorobenzene	49.12	42.01	86	47-120	4	50

Surrogate	%REC	Limits
Dibromofluoromethane	111	78-134
1,2-Dichloroethane-d4	132	80-138
Toluene-d8	104	80-120
Bromofluorobenzene	103	78-123

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8270C
Field ID:	COMPOSITE 01,02,03,04	Batch#:	236908
Lab ID:	278418-021	Sampled:	07/07/16
Matrix:	Soil	Received:	07/08/16
Units:	ug/Kg	Prepared:	07/12/16
Basis:	as received	Analyzed:	07/13/16
Diln Fac:	3.000		

Analyte	Result	RL	MDL
N-Nitrosodimethylamine	ND	1,000	99
Phenol	ND	1,000	52
bis(2-Chloroethyl)ether	ND	1,000	38
2-Chlorophenol	ND	1,000	49
1,3-Dichlorobenzene	ND	1,000	36
1,4-Dichlorobenzene	ND	1,000	30
Benzyl alcohol	ND	1,000	46
1,2-Dichlorobenzene	ND	1,000	28
2-Methylphenol	ND	1,000	46
bis(2-Chloroisopropyl) ether	ND	1,000	55
4-Methylphenol	ND	1,000	52
N-Nitroso-di-n-propylamine	ND	1,000	99
Hexachloroethane	ND	1,000	36
Nitrobenzene	ND	1,000	36
Isophorone	ND	1,000	32
2-Nitrophenol	ND	2,000	30
2,4-Dimethylphenol	ND	1,000	41
Benzoic acid	ND	5,000	1,500
bis(2-Chloroethoxy)methane	ND	1,000	34
2,4-Dichlorophenol	ND	1,000	38
1,2,4-Trichlorobenzene	ND	1,000	29
Naphthalene	ND	200	26
4-Chloroaniline	ND	1,000	49
Hexachlorobutadiene	ND	1,000	180
4-Chloro-3-methylphenol	ND	1,000	44
2-Methylnaphthalene	ND	200	29
Hexachlorocyclopentadiene	ND	2,000	180
2,4,6-Trichlorophenol	ND	1,000	42
2,4,5-Trichlorophenol	ND	1,000	26
2-Chloronaphthalene	ND	1,000	170
2-Nitroaniline	ND	2,000	99
Dimethylphthalate	ND	1,000	28
Acenaphthylene	ND	200	25
2,6-Dinitrotoluene	ND	1,000	26
3-Nitroaniline	ND	2,000	99
Acenaphthene	ND	200	36
2,4-Dinitrophenol	ND	2,000	480
4-Nitrophenol	ND	2,000	210
Dibenzofuran	ND	1,000	26
2,4-Dinitrotoluene	ND	1,000	29
Diethylphthalate	ND	1,000	25
Fluorene	ND	200	27
4-Chlorophenyl-phenylether	ND	1,000	29
4-Nitroaniline	ND	2,000	99
4,6-Dinitro-2-methylphenol	ND	2,000	130
N-Nitrosodiphenylamine	ND	1,000	170
Azobenzene	ND	1,000	36
4-Bromophenyl-phenylether	ND	1,000	180
Hexachlorobenzene	ND	1,000	36
Pentachlorophenol	ND	2,000	440
Phenanthrene	ND	200	29

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8270C
Field ID:	COMPOSITE 01,02,03,04	Batch#:	236908
Lab ID:	278418-021	Sampled:	07/07/16
Matrix:	Soil	Received:	07/08/16
Units:	ug/Kg	Prepared:	07/12/16
Basis:	as received	Analyzed:	07/13/16
Diln Fac:	3.000		

Analyte	Result	RL	MDL
Anthracene	ND	200	36
Di-n-butylphthalate	ND	1,000	36
Fluoranthene	ND	200	26
Pyrene	ND	200	28
Butylbenzylphthalate	ND	1,000	36
3,3'-Dichlorobenzidine	ND	2,000	130
Benzo(a)anthracene	ND	200	26
Chrysene	ND	200	36
bis(2-Ethylhexyl)phthalate	110 J	1,000	26
Di-n-octylphthalate	ND	1,000	25
Benzo(b)fluoranthene	ND	200	36
Benzo(k)fluoranthene	ND	200	26
Benzo(a)pyrene	ND	200	26
Indeno(1,2,3-cd)pyrene	ND	200	36
Dibenz(a,h)anthracene	ND	200	36
Benzo(g,h,i)perylene	ND	200	26

Surrogate	%REC	Limits
2-Fluorophenol	64	25-120
Phenol-d5	64	36-120
2,4,6-Tribromophenol	70	27-120
Nitrobenzene-d5	66	44-120
2-Fluorobiphenyl	66	47-120
Terphenyl-d14	80	49-120

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8270C
Field ID:	COMPOSITE 05,06,07,08	Batch#:	236908
Lab ID:	278418-022	Sampled:	07/07/16
Matrix:	Soil	Received:	07/08/16
Units:	ug/Kg	Prepared:	07/12/16
Basis:	as received	Analyzed:	07/14/16
Diln Fac:	2.000		

Analyte	Result	RL	MDL
N-Nitrosodimethylamine	ND	670	84
Phenol	ND	670	30
bis(2-Chloroethyl)ether	ND	670	44
2-Chlorophenol	ND	670	28
1,3-Dichlorobenzene	ND	670	84
1,4-Dichlorobenzene	ND	670	84
Benzyl alcohol	ND	670	33
1,2-Dichlorobenzene	ND	670	44
2-Methylphenol	ND	670	29
bis(2-Chloroisopropyl) ether	ND	670	32
4-Methylphenol	ND	670	32
N-Nitroso-di-n-propylamine	ND	670	30
Hexachloroethane	ND	670	84
Nitrobenzene	ND	670	44
Isophorone	ND	670	20
2-Nitrophenol	ND	1,300	78
2,4-Dimethylphenol	ND	670	37
Benzoic acid	ND	3,300	760
bis(2-Chloroethoxy)methane	ND	670	21
2,4-Dichlorophenol	ND	670	19
1,2,4-Trichlorobenzene	ND	670	44
Naphthalene	31 J	130	26
4-Chloroaniline	ND	670	25
Hexachlorobutadiene	ND	670	44
4-Chloro-3-methylphenol	ND	670	17
2-Methylnaphthalene	ND	130	20
Hexachlorocyclopentadiene	ND	1,300	150
2,4,6-Trichlorophenol	ND	670	22
2,4,5-Trichlorophenol	ND	670	18
2-Chloronaphthalene	ND	670	17
2-Nitroaniline	ND	1,300	68
Dimethylphthalate	ND	670	17
Acenaphthylene	ND	130	17
2,6-Dinitrotoluene	ND	670	67
3-Nitroaniline	ND	1,300	84
Acenaphthene	ND	130	17
2,4-Dinitrophenol	ND	1,300	300
4-Nitrophenol	ND	1,300	150
Dibenzofuran	ND	670	17
2,4-Dinitrotoluene	ND	670	17
Diethylphthalate	ND	670	17
Fluorene	ND	130	17
4-Chlorophenyl-phenylether	ND	670	17
4-Nitroaniline	ND	1,300	84
4,6-Dinitro-2-methylphenol	ND	1,300	84
N-Nitrosodiphenylamine	ND	670	17
Azobenzene	ND	670	17
4-Bromophenyl-phenylether	ND	670	17
Hexachlorobenzene	ND	670	17
Pentachlorophenol	ND	1,300	210
Phenanthrene	79 J	130	17

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8270C
Field ID:	COMPOSITE 05,06,07,08	Batch#:	236908
Lab ID:	278418-022	Sampled:	07/07/16
Matrix:	Soil	Received:	07/08/16
Units:	ug/Kg	Prepared:	07/12/16
Basis:	as received	Analyzed:	07/14/16
Diln Fac:	2.000		

Analyte	Result	RL	MDL
Anthracene	ND	130	18
Di-n-butylphthalate	ND	670	19
Fluoranthene	55 J	130	19
Pyrene	66 J	130	17
Butylbenzylphthalate	ND	670	19
3,3'-Dichlorobenzidine	ND	1,300	160
Benzo(a)anthracene	40 J	130	17
Chrysene	50 J	130	17
bis(2-Ethylhexyl)phthalate	130 J	670	17
Di-n-octylphthalate	ND	670	68
Benzo(b)fluoranthene	50 J	130	17
Benzo(k)fluoranthene	17 J	130	17
Benzo(a)pyrene	38 J	130	17
Indeno(1,2,3-cd)pyrene	22 J	130	17
Dibenz(a,h)anthracene	ND	130	17
Benzo(g,h,i)perylene	36 J	130	17

Surrogate	%REC	Limits
2-Fluorophenol	70	25-120
Phenol-d5	74	36-120
2,4,6-Tribromophenol	73	27-120
Nitrobenzene-d5	60	44-120
2-Fluorobiphenyl	62	47-120
Terphenyl-d14	58	49-120

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8270C
Field ID:	COMPOSITE 09,10,11,12	Batch#:	236908
Lab ID:	278418-023	Sampled:	07/07/16
Matrix:	Soil	Received:	07/08/16
Units:	ug/Kg	Prepared:	07/12/16
Basis:	as received	Analyzed:	07/13/16
Diln Fac:	3.000		

Analyte	Result	RL	MDL
N-Nitrosodimethylamine	ND	1,000	140
Phenol	ND	1,000	30
bis(2-Chloroethyl)ether	ND	1,000	180
2-Chlorophenol	ND	1,000	30
1,3-Dichlorobenzene	ND	1,000	170
1,4-Dichlorobenzene	ND	1,000	30
Benzyl alcohol	ND	1,000	33
1,2-Dichlorobenzene	ND	1,000	30
2-Methylphenol	ND	1,000	41
bis(2-Chloroisopropyl) ether	ND	1,000	30
4-Methylphenol	ND	1,000	30
N-Nitroso-di-n-propylamine	ND	1,000	30
Hexachloroethane	ND	1,000	30
Nitrobenzene	ND	1,000	33
Isophorone	ND	1,000	30
2-Nitrophenol	ND	2,000	30
2,4-Dimethylphenol	ND	1,000	42
Benzoic acid	ND	5,000	1,300
bis(2-Chloroethoxy)methane	ND	1,000	30
2,4-Dichlorophenol	ND	1,000	30
1,2,4-Trichlorobenzene	ND	1,000	30
Naphthalene	ND	200	30
4-Chloroaniline	ND	1,000	28
Hexachlorobutadiene	ND	1,000	27
4-Chloro-3-methylphenol	ND	1,000	25
2-Methylnaphthalene	ND	200	30
Hexachlorocyclopentadiene	ND	2,000	41
2,4,6-Trichlorophenol	ND	1,000	38
2,4,5-Trichlorophenol	ND	1,000	25
2-Chloronaphthalene	ND	1,000	27
2-Nitroaniline	ND	2,000	32
Dimethylphthalate	ND	1,000	30
Acenaphthylene	ND	200	27
2,6-Dinitrotoluene	ND	1,000	27
3-Nitroaniline	ND	2,000	30
Acenaphthene	ND	200	30
2,4-Dinitrophenol	ND	2,000	190
4-Nitrophenol	ND	2,000	210
Dibenzofuran	ND	1,000	31
2,4-Dinitrotoluene	ND	1,000	29
Diethylphthalate	ND	1,000	34
Fluorene	ND	200	30
4-Chlorophenyl-phenylether	ND	1,000	29
4-Nitroaniline	ND	2,000	30
4,6-Dinitro-2-methylphenol	ND	2,000	230
N-Nitrosodiphenylamine	ND	1,000	32
Azobenzene	ND	1,000	26
4-Bromophenyl-phenylether	ND	1,000	32
Hexachlorobenzene	ND	1,000	32
Pentachlorophenol	ND	2,000	380
Phenanthrene	ND	200	32

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8270C
Field ID:	COMPOSITE 09,10,11,12	Batch#:	236908
Lab ID:	278418-023	Sampled:	07/07/16
Matrix:	Soil	Received:	07/08/16
Units:	ug/Kg	Prepared:	07/12/16
Basis:	as received	Analyzed:	07/13/16
Diln Fac:	3.000		

Analyte	Result	RL	MDL
Anthracene	ND	200	34
Di-n-butylphthalate	ND	1,000	36
Fluoranthene	ND	200	31
Pyrene	ND	200	33
Butylbenzylphthalate	ND	1,000	30
3,3'-Dichlorobenzidine	ND	2,000	30
Benzo(a)anthracene	ND	200	31
Chrysene	ND	200	34
bis(2-Ethylhexyl)phthalate	41 J	1,000	39
Di-n-octylphthalate	ND	1,000	30
Benzo(b)fluoranthene	ND	200	27
Benzo(k)fluoranthene	ND	200	29
Benzo(a)pyrene	ND	200	26
Indeno(1,2,3-cd)pyrene	ND	200	27
Dibenz(a,h)anthracene	ND	200	28
Benzo(g,h,i)perylene	ND	200	30

Surrogate	%REC	Limits
2-Fluorophenol	58	25-120
Phenol-d5	56	36-120
2,4,6-Tribromophenol	57	27-120
Nitrobenzene-d5	45	44-120
2-Fluorobiphenyl	55	47-120
Terphenyl-d14	55	49-120

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8270C
Field ID:	COMPOSITE 13,14,15,16	Dil'n Fac:	3.000
Lab ID:	278418-024	Batch#:	236908
Matrix:	Soil	Sampled:	07/07/16
Units:	ug/Kg	Received:	07/08/16
Basis:	as received	Prepared:	07/12/16

Analyte	Result	RL	MDL	Analyzed
N-Nitrosodimethylamine	ND	1,000	140	07/14/16
Phenol	ND	1,000	30	07/14/16
bis(2-Chloroethyl)ether	ND	1,000	180	07/14/16
2-Chlorophenol	ND	1,000	30	07/14/16
1,3-Dichlorobenzene	ND	1,000	170	07/14/16
1,4-Dichlorobenzene	ND	1,000	30	07/14/16
Benzyl alcohol	ND	1,000	33	07/14/16
1,2-Dichlorobenzene	ND	1,000	30	07/14/16
2-Methylphenol	ND	1,000	41	07/14/16
bis(2-Chloroisopropyl) ether	ND	1,000	30	07/14/16
4-Methylphenol	ND	1,000	30	07/14/16
N-Nitroso-di-n-propylamine	ND	1,000	30	07/14/16
Hexachloroethane	ND	1,000	30	07/14/16
Nitrobenzene	ND	1,000	36	07/13/16
Isophorone	ND	1,000	33	07/13/16
2-Nitrophenol	ND	2,000	30	07/13/16
2,4-Dimethylphenol	ND	1,000	41	07/13/16
Benzoic acid	ND	5,000	1,500	07/13/16
bis(2-Chloroethoxy)methane	ND	1,000	34	07/13/16
2,4-Dichlorophenol	ND	1,000	38	07/13/16
1,2,4-Trichlorobenzene	ND	1,000	29	07/13/16
Naphthalene	ND	200	26	07/13/16
4-Chloroaniline	ND	1,000	49	07/13/16
Hexachlorobutadiene	ND	1,000	180	07/13/16
4-Chloro-3-methylphenol	ND	1,000	44	07/13/16
2-Methylnaphthalene	ND	200	30	07/13/16
Hexachlorocyclopentadiene	ND	2,000	180	07/13/16
2,4,6-Trichlorophenol	ND	1,000	42	07/13/16
2,4,5-Trichlorophenol	ND	1,000	26	07/13/16
2-Chloronaphthalene	ND	1,000	170	07/13/16
2-Nitroaniline	ND	2,000	99	07/13/16
Dimethylphthalate	ND	1,000	28	07/13/16
Acenaphthylene	ND	200	26	07/13/16
2,6-Dinitrotoluene	ND	1,000	26	07/13/16
3-Nitroaniline	ND	2,000	99	07/13/16
Acenaphthene	ND	200	36	07/13/16
2,4-Dinitrophenol	ND	2,000	480	07/13/16
4-Nitrophenol	ND	2,000	210	07/13/16
Dibenzofuran	ND	1,000	26	07/13/16
2,4-Dinitrotoluene	ND	1,000	29	07/13/16
Diethylphthalate	ND	1,000	25	07/13/16
Fluorene	ND	200	27	07/13/16
4-Chlorophenyl-phenylether	ND	1,000	29	07/13/16
4-Nitroaniline	ND	2,000	99	07/13/16
4,6-Dinitro-2-methylphenol	ND	2,000	130	07/13/16
N-Nitrosodiphenylamine	ND	1,000	170	07/13/16
Azobenzene	ND	1,000	36	07/13/16
4-Bromophenyl-phenylether	ND	1,000	180	07/13/16
Hexachlorobenzene	ND	1,000	36	07/13/16
Pentachlorophenol	ND	2,000	440	07/13/16
Phenanthrene	ND	200	29	07/13/16
Anthracene	ND	200	36	07/13/16

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8270C
Field ID:	COMPOSITE 13,14,15,16	Dil'n Fac:	3.000
Lab ID:	278418-024	Batch#:	236908
Matrix:	Soil	Sampled:	07/07/16
Units:	ug/Kg	Received:	07/08/16
Basis:	as received	Prepared:	07/12/16

Analyte	Result	RL	MDL	Analyzed
Di-n-butylphthalate	ND	1,000	36	07/13/16
Fluoranthene	ND	200	26	07/13/16
Pyrene	ND	200	28	07/13/16
Butylbenzylphthalate	ND	1,000	36	07/13/16
3,3'-Dichlorobenzidine	ND	2,000	130	07/13/16
Benzo(a)anthracene	ND	200	26	07/13/16
Chrysene	ND	200	36	07/13/16
bis(2-Ethylhexyl)phthalate	64 J	1,000	26	07/13/16
Di-n-octylphthalate	ND	1,000	25	07/13/16
Benzo(b)fluoranthene	ND	200	36	07/13/16
Benzo(k)fluoranthene	ND	200	26	07/13/16
Benzo(a)pyrene	ND	200	26	07/13/16
Indeno(1,2,3-cd)pyrene	ND	200	36	07/13/16
Dibenz(a,h)anthracene	ND	200	36	07/13/16
Benzo(g,h,i)perylene	ND	200	26	07/13/16

Surrogate	%REC	Limits	Analyzed
2-Fluorophenol	55	25-120	07/14/16
Phenol-d5	53	36-120	07/14/16
2,4,6-Tribromophenol	47	27-120	07/13/16
Nitrobenzene-d5	55	44-120	07/13/16
2-Fluorobiphenyl	51	47-120	07/13/16
Terphenyl-d14	58	49-120	07/13/16

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8270C
Field ID:	COMPOSITE 17,18,19,20	Batch#:	236908
Lab ID:	278418-025	Sampled:	07/07/16
Matrix:	Soil	Received:	07/08/16
Units:	ug/Kg	Prepared:	07/12/16
Basis:	as received	Analyzed:	07/13/16
Diln Fac:	3.000		

Analyte	Result	RL	MDL
N-Nitrosodimethylamine	ND	1,000	99
Phenol	ND	1,000	52
bis(2-Chloroethyl)ether	ND	1,000	37
2-Chlorophenol	ND	1,000	49
1,3-Dichlorobenzene	ND	1,000	36
1,4-Dichlorobenzene	ND	1,000	30
Benzyl alcohol	ND	1,000	46
1,2-Dichlorobenzene	ND	1,000	28
2-Methylphenol	ND	1,000	46
bis(2-Chloroisopropyl) ether	ND	1,000	55
4-Methylphenol	ND	1,000	52
N-Nitroso-di-n-propylamine	ND	1,000	99
Hexachloroethane	ND	1,000	36
Nitrobenzene	ND	1,000	36
Isophorone	ND	1,000	32
2-Nitrophenol	ND	2,000	30
2,4-Dimethylphenol	ND	1,000	41
Benzoic acid	ND	5,000	1,500
bis(2-Chloroethoxy)methane	ND	1,000	34
2,4-Dichlorophenol	ND	1,000	38
1,2,4-Trichlorobenzene	ND	1,000	29
Naphthalene	ND	200	26
4-Chloroaniline	ND	1,000	49
Hexachlorobutadiene	ND	1,000	180
4-Chloro-3-methylphenol	ND	1,000	44
2-Methylnaphthalene	ND	200	29
Hexachlorocyclopentadiene	ND	2,000	180
2,4,6-Trichlorophenol	ND	1,000	42
2,4,5-Trichlorophenol	ND	1,000	26
2-Chloronaphthalene	ND	1,000	170
2-Nitroaniline	ND	2,000	99
Dimethylphthalate	ND	1,000	28
Acenaphthylene	ND	200	25
2,6-Dinitrotoluene	ND	1,000	26
3-Nitroaniline	ND	2,000	99
Acenaphthene	ND	200	36
2,4-Dinitrophenol	ND	2,000	480
4-Nitrophenol	ND	2,000	210
Dibenzofuran	ND	1,000	26
2,4-Dinitrotoluene	ND	1,000	29
Diethylphthalate	ND	1,000	25
Fluorene	ND	200	27
4-Chlorophenyl-phenylether	ND	1,000	29
4-Nitroaniline	ND	2,000	99
4,6-Dinitro-2-methylphenol	ND	2,000	130
N-Nitrosodiphenylamine	ND	1,000	170
Azobenzene	ND	1,000	36
4-Bromophenyl-phenylether	ND	1,000	180
Hexachlorobenzene	ND	1,000	36
Pentachlorophenol	ND	2,000	440
Phenanthrene	ND	200	29

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8270C
Field ID:	COMPOSITE 17,18,19,20	Batch#:	236908
Lab ID:	278418-025	Sampled:	07/07/16
Matrix:	Soil	Received:	07/08/16
Units:	ug/Kg	Prepared:	07/12/16
Basis:	as received	Analyzed:	07/13/16
Diln Fac:	3.000		

Analyte	Result	RL	MDL
Anthracene	ND	200	36
Di-n-butylphthalate	ND	1,000	36
Fluoranthene	ND	200	26
Pyrene	ND	200	28
Butylbenzylphthalate	ND	1,000	36
3,3'-Dichlorobenzidine	ND	2,000	130
Benzo(a)anthracene	ND	200	26
Chrysene	ND	200	36
bis(2-Ethylhexyl)phthalate	70 J	1,000	26
Di-n-octylphthalate	ND	1,000	25
Benzo(b)fluoranthene	ND	200	36
Benzo(k)fluoranthene	ND	200	26
Benzo(a)pyrene	ND	200	26
Indeno(1,2,3-cd)pyrene	ND	200	36
Dibenz(a,h)anthracene	ND	200	36
Benzo(g,h,i)perylene	ND	200	26

Surrogate	%REC	Limits
2-Fluorophenol	66	25-120
Phenol-d5	42	36-120
2,4,6-Tribromophenol	53	27-120
Nitrobenzene-d5	63	44-120
2-Fluorobiphenyl	56	47-120
Terphenyl-d14	63	49-120

J= Estimated value
ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC842725	Batch#:	236908
Matrix:	Soil	Prepared:	07/12/16
Units:	ug/Kg	Analyzed:	07/14/16

Analyte	Result	RL	MDL
N-Nitrosodimethylamine	ND	330	42
Phenol	ND	330	15
bis(2-Chloroethyl)ether	ND	330	22
2-Chlorophenol	ND	330	14
1,3-Dichlorobenzene	ND	330	42
1,4-Dichlorobenzene	ND	330	42
Benzyl alcohol	ND	330	16
1,2-Dichlorobenzene	ND	330	22
2-Methylphenol	ND	330	14
bis(2-Chloroisopropyl) ether	ND	330	16
4-Methylphenol	ND	330	16
N-Nitroso-di-n-propylamine	ND	330	15
Hexachloroethane	ND	330	42
Nitrobenzene	ND	330	22
Isophorone	ND	330	10
2-Nitrophenol	ND	670	39
2,4-Dimethylphenol	ND	330	19
Benzoic acid	ND	1,700	380
bis(2-Chloroethoxy)methane	ND	330	10
2,4-Dichlorophenol	ND	330	9.3
1,2,4-Trichlorobenzene	ND	330	22
Naphthalene	ND	67	13
4-Chloroaniline	ND	330	13
Hexachlorobutadiene	ND	330	22
4-Chloro-3-methylphenol	ND	330	8.7
2-Methylnaphthalene	ND	67	10
Hexachlorocyclopentadiene	ND	670	76
2,4,6-Trichlorophenol	ND	330	11
2,4,5-Trichlorophenol	ND	330	9.2
2-Chloronaphthalene	ND	330	8.4
2-Nitroaniline	ND	670	34
Dimethylphthalate	ND	330	8.4
Acenaphthylene	ND	67	8.4
2,6-Dinitrotoluene	ND	330	34
3-Nitroaniline	ND	670	42
Acenaphthene	ND	67	8.4
2,4-Dinitrophenol	ND	670	150
4-Nitrophenol	ND	670	75
Dibenzofuran	ND	330	8.4
2,4-Dinitrotoluene	ND	330	8.3
Diethylphthalate	ND	330	8.4
Fluorene	ND	67	8.4
4-Chlorophenyl-phenylether	ND	330	8.5
4-Nitroaniline	ND	670	42
4,6-Dinitro-2-methylphenol	ND	670	42
N-Nitrosodiphenylamine	ND	330	8.4
Azobenzene	ND	330	8.4
4-Bromophenyl-phenylether	ND	330	8.4
Hexachlorobenzene	ND	330	8.4
Pentachlorophenol	ND	670	100
Phenanthrene	ND	67	8.4
Anthracene	ND	67	9.0
Di-n-butylphthalate	ND	330	9.6

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC842725	Batch#:	236908
Matrix:	Soil	Prepared:	07/12/16
Units:	ug/Kg	Analyzed:	07/14/16

Analyte	Result	RL	MDL
Fluoranthene	ND	67	9.4
Pyrene	ND	67	8.4
Butylbenzylphthalate	ND	330	9.6
3,3'-Dichlorobenzidine	ND	670	79
Benzo(a)anthracene	ND	67	8.4
Chrysene	ND	67	8.4
bis(2-Ethylhexyl)phthalate	ND	330	8.6
Di-n-octylphthalate	ND	330	34
Benzo(b)fluoranthene	ND	67	8.4
Benzo(k)fluoranthene	ND	67	8.4
Benzo(a)pyrene	ND	67	8.4
Indeno(1,2,3-cd)pyrene	ND	67	8.4
Dibenz(a,h)anthracene	ND	67	8.4
Benzo(g,h,i)perylene	ND	67	8.4

Surrogate	%REC	Limits
2-Fluorophenol	78	25-120
Phenol-d5	78	36-120
2,4,6-Tribromophenol	66	27-120
Nitrobenzene-d5	65	44-120
2-Fluorobiphenyl	63	47-120
Terphenyl-d14	62	49-120

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8270C
Type:	LCS	Diln Fac:	2.000
Lab ID:	QC842726	Batch#:	236908
Matrix:	Soil	Prepared:	07/12/16
Units:	ug/Kg	Analyzed:	07/14/16

Analyte	Spiked	Result	%REC	Limits
Phenol	2,668	2,488	93	42-120
2-Chlorophenol	2,668	2,539	95	45-120
1,4-Dichlorobenzene	2,668	2,580	97	48-120
N-Nitroso-di-n-propylamine	2,668	2,647	99	27-123
1,2,4-Trichlorobenzene	2,668	2,497	94	50-120
4-Chloro-3-methylphenol	2,668	2,594	97	59-120
Acenaphthene	1,001	954.4	95	53-120
4-Nitrophenol	2,668	2,636	99	47-120
2,4-Dinitrotoluene	2,668	2,730	102	55-120
Pentachlorophenol	2,668	2,270	85	32-120
Pyrene	1,001	1,023	102	52-120

Surrogate	%REC	Limits
2-Fluorophenol	83	25-120
Phenol-d5	84	36-120
2,4,6-Tribromophenol	99	27-120
Nitrobenzene-d5	68	44-120
2-Fluorobiphenyl	69	47-120
Terphenyl-d14	68	49-120

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8270C
Field ID:	COMPOSITE 05,06,07,08	Batch#:	236908
MSS Lab ID:	278418-022	Sampled:	07/07/16
Matrix:	Soil	Received:	07/08/16
Units:	ug/Kg	Prepared:	07/12/16
Basis:	as received	Analyzed:	07/14/16
Diln Fac:	2.000		

Type: MS Lab ID: QC842727

Analyte	MSS Result	Spiked	Result	%REC	Limits
Phenol	<30.09	2,665	2,449	92	47-120
2-Chlorophenol	<27.95	2,665	2,447	92	44-120
1,4-Dichlorobenzene	<84.11	2,665	2,525	95	49-120
N-Nitroso-di-n-propylamine	<30.44	2,665	2,676	100	42-120
1,2,4-Trichlorobenzene	<44.06	2,665	2,361	89	54-120
4-Chloro-3-methylphenol	<17.37	2,665	2,543	95	55-120
Acenaphthene	<16.82	999.3	975.0	98	51-120
4-Nitrophenol	<150.2	2,665	2,619	98	36-120
2,4-Dinitrotoluene	<16.71	2,665	2,563	96	52-120
Pentachlorophenol	<205.7	2,665	2,156	81	14-120
Pyrene	66.38	999.3	1,039	97	46-124

Surrogate	%REC	Limits
2-Fluorophenol	81	25-120
Phenol-d5	83	36-120
2,4,6-Tribromophenol	90	27-120
Nitrobenzene-d5	69	44-120
2-Fluorobiphenyl	68	47-120
Terphenyl-d14	66	49-120

Type: MSD Lab ID: QC842728

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Phenol	2,670	2,224	83	47-120	10	39
2-Chlorophenol	2,670	2,208	83	44-120	10	38
1,4-Dichlorobenzene	2,670	2,168	81	49-120	15	45
N-Nitroso-di-n-propylamine	2,670	2,366	89	42-120	12	40
1,2,4-Trichlorobenzene	2,670	2,089	78	54-120	12	38
4-Chloro-3-methylphenol	2,670	2,346	88	55-120	8	41
Acenaphthene	1,001	870.3	87	51-120	12	47
4-Nitrophenol	2,670	2,423	91	36-120	8	41
2,4-Dinitrotoluene	2,670	2,337	88	52-120	9	40
Pentachlorophenol	2,670	2,245	84	14-120	4	53
Pyrene	1,001	923.2	86	46-124	12	50

Surrogate	%REC	Limits
2-Fluorophenol	72	25-120
Phenol-d5	76	36-120
2,4,6-Tribromophenol	85	27-120
Nitrobenzene-d5	61	44-120
2-Fluorobiphenyl	62	47-120
Terphenyl-d14	59	49-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8081A
Field ID:	COMPOSITE 01,02,03,04	Batch#:	236914
Lab ID:	278418-021	Sampled:	07/07/16
Matrix:	Soil	Received:	07/08/16
Units:	ug/Kg	Prepared:	07/12/16
Basis:	as received	Analyzed:	07/13/16
Diln Fac:	5.000		

Analyte	Result	RL
alpha-BHC	ND	8.6
beta-BHC	ND	8.6
gamma-BHC	ND	8.6
delta-BHC	ND	8.6
Heptachlor	ND	8.6
Aldrin	ND	8.6
Heptachlor epoxide	ND	8.6
Endosulfan I	ND	8.6
Dieldrin	ND	8.6
4,4'-DDE	ND	17
Endrin	ND	17
Endosulfan II	ND	17
Endosulfan sulfate	ND	17
4,4'-DDD	ND	17
Endrin aldehyde	ND	17
4,4'-DDT	ND	17
alpha-Chlordane	ND	8.6
gamma-Chlordane	ND	8.6
Methoxychlor	ND	86
Toxaphene	ND	300

Surrogate	%REC	Limits
TCMX	96	44-125
Decachlorobiphenyl	85	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8081A
Field ID:	COMPOSITE 05,06,07,08	Batch#:	236914
Lab ID:	278418-022	Sampled:	07/07/16
Matrix:	Soil	Received:	07/08/16
Units:	ug/Kg	Prepared:	07/12/16
Basis:	as received	Analyzed:	07/13/16
Diln Fac:	5.000		

Analyte	Result	RL
alpha-BHC	ND	8.4
beta-BHC	ND	8.4
gamma-BHC	ND	8.4
delta-BHC	ND	8.4
Heptachlor	ND	8.4
Aldrin	ND	8.4
Heptachlor epoxide	ND	8.4
Endosulfan I	ND	8.4
Dieldrin	ND	8.4
4,4'-DDE	ND	16
Endrin	ND	16
Endosulfan II	ND	16
Endosulfan sulfate	ND	16
4,4'-DDD	ND	16
Endrin aldehyde	ND	16
4,4'-DDT	ND	16
alpha-Chlordane	ND	8.4
gamma-Chlordane	ND	8.4
Methoxychlor	ND	84
Toxaphene	ND	300

Surrogate	%REC	Limits
TCMX	75	44-125
Decachlorobiphenyl	81	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8081A
Field ID:	COMPOSITE 09,10,11,12	Batch#:	236914
Lab ID:	278418-023	Sampled:	07/07/16
Matrix:	Soil	Received:	07/08/16
Units:	ug/Kg	Prepared:	07/12/16
Basis:	as received	Analyzed:	07/13/16
Diln Fac:	5.000		

Analyte	Result	RL
alpha-BHC	ND	8.5
beta-BHC	ND	8.5
gamma-BHC	ND	8.5
delta-BHC	ND	8.5
Heptachlor	ND	8.5
Aldrin	ND	8.5
Heptachlor epoxide	ND	8.5
Endosulfan I	ND	8.5
Dieldrin	ND	8.5
4,4'-DDE	ND	17
Endrin	ND	17
Endosulfan II	ND	17
Endosulfan sulfate	ND	17
4,4'-DDD	ND	17
Endrin aldehyde	ND	17
4,4'-DDT	ND	17
alpha-Chlordane	ND	8.5
gamma-Chlordane	ND	8.5
Methoxychlor	ND	85
Toxaphene	ND	300

Surrogate	%REC	Limits
TCMX	93	44-125
Decachlorobiphenyl	111	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8081A
Field ID:	COMPOSITE 13,14,15,16	Batch#:	236914
Lab ID:	278418-024	Sampled:	07/07/16
Matrix:	Soil	Received:	07/08/16
Units:	ug/Kg	Prepared:	07/12/16
Basis:	as received	Analyzed:	07/13/16
Diln Fac:	5.000		

Analyte	Result	RL
alpha-BHC	ND	8.5
beta-BHC	ND	8.5
gamma-BHC	ND	8.5
delta-BHC	ND	8.5
Heptachlor	ND	8.5
Aldrin	ND	8.5
Heptachlor epoxide	ND	8.5
Endosulfan I	ND	8.5
Dieldrin	ND	8.5
4,4'-DDE	ND	17
Endrin	ND	17
Endosulfan II	ND	17
Endosulfan sulfate	ND	17
4,4'-DDD	ND	17
Endrin aldehyde	ND	17
4,4'-DDT	ND	17
alpha-Chlordane	ND	8.5
gamma-Chlordane	ND	8.5
Methoxychlor	ND	85
Toxaphene	ND	300

Surrogate	%REC	Limits
TCMX	77	44-125
Decachlorobiphenyl	95	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8081A
Field ID:	COMPOSITE 17,18,19,20	Batch#:	236914
Lab ID:	278418-025	Sampled:	07/07/16
Matrix:	Soil	Received:	07/08/16
Units:	ug/Kg	Prepared:	07/12/16
Basis:	as received	Analyzed:	07/13/16
Diln Fac:	5.000		

Analyte	Result	RL
alpha-BHC	ND	8.6
beta-BHC	ND	8.6
gamma-BHC	ND	8.6
delta-BHC	ND	8.6
Heptachlor	ND	8.6
Aldrin	ND	8.6
Heptachlor epoxide	ND	8.6
Endosulfan I	ND	8.6
Dieldrin	ND	8.6
4,4'-DDE	ND	17
Endrin	ND	17
Endosulfan II	ND	17
Endosulfan sulfate	ND	17
4,4'-DDD	ND	17
Endrin aldehyde	ND	17
4,4'-DDT	ND	17
alpha-Chlordane	ND	8.6
gamma-Chlordane	ND	8.6
Methoxychlor	ND	86
Toxaphene	ND	300

Surrogate	%REC	Limits
TCMX	88	44-125
Decachlorobiphenyl	88	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8081A
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC842750	Batch#:	236914
Matrix:	Soil	Prepared:	07/12/16
Units:	ug/Kg	Analyzed:	07/13/16

Analyte	Result	RL
alpha-BHC	ND	0.85
beta-BHC	ND	0.85
gamma-BHC	ND	0.85
delta-BHC	ND	0.85
Heptachlor	ND	0.85
Aldrin	ND	0.85
Heptachlor epoxide	ND	0.85
Endosulfan I	ND	0.85
Dieldrin	ND	0.85
4,4'-DDE	ND	1.6
Endrin	ND	1.6
Endosulfan II	ND	1.6
Endosulfan sulfate	ND	1.6
4,4'-DDD	ND	1.6
Endrin aldehyde	ND	1.6
4,4'-DDT	ND	1.6
alpha-Chlordane	ND	0.85
gamma-Chlordane	ND	0.85
Methoxychlor	ND	8.5
Toxaphene	ND	30

Surrogate	%REC	Limits
TCMX	88	44-125
Decachlorobiphenyl	102	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8081A
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC842754	Batch#:	236914
Matrix:	Soil	Prepared:	07/12/16
Units:	ug/Kg	Analyzed:	07/13/16

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	13.27	11.97	90	44-121
Heptachlor	13.27	11.68	88	45-129
Aldrin	13.27	12.59	95	45-120
Dieldrin	13.27	13.54	102	49-131
Endrin	13.27	13.53	102	43-135
4,4'-DDT	13.27	12.78 #	96	37-141

Surrogate	%REC	Limits
TCMX	87	44-125
Decachlorobiphenyl	100	39-121

#= CCV drift outside limits; average CCV drift within limits per method requirements

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3550B
Project#:	20150063	Analysis:	EPA 8081A
Field ID:	COMPOSITE 05,06,07,08	Batch#:	236914
MSS Lab ID:	278418-022	Sampled:	07/07/16
Matrix:	Soil	Received:	07/08/16
Units:	ug/Kg	Prepared:	07/12/16
Basis:	as received	Analyzed:	07/14/16
Diln Fac:	5.000		

Type: MS Lab ID: QC842755

Analyte	MSS Result	Spiked	Result	%REC	Limits
gamma-BHC	<1.061	13.19	11.57	88	51-126
Heptachlor	<0.9408	13.19	11.37	86	53-135
Aldrin	<1.006	13.19	11.90	90	52-121
Dieldrin	<1.954	13.19	13.30 #	101	50-138
Endrin	<2.752	13.19	12.83 #	97	41-156
4,4'-DDT	<2.324	13.19	13.24 #	100	30-156

Surrogate	%REC	Limits
TCMX	66	44-125
Decachlorobiphenyl	100	39-121

Type: MSD Lab ID: QC842756

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
gamma-BHC	13.47	12.28	91	51-126	4	40
Heptachlor	13.47	13.54	101	53-135	15	34
Aldrin	13.47	12.75	95	52-121	5	44
Dieldrin	13.47	12.68 #	94	50-138	7	38
Endrin	13.47	11.98 #	89	41-156	9	38
4,4'-DDT	13.47	13.79 #	102	30-156	2	58

Surrogate	%REC	Limits
TCMX	91	44-125
Decachlorobiphenyl	107	39-121

#= CCV drift outside limits; average CCV drift within limits per method requirements
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	278418	Project#:	20150063
Client:	Engineering/Remediation Resource Grp	Location:	Lendrum G
Field ID:	COMPOSITE 01,02,03,04	Basis:	as received
Lab ID:	278418-021	Diln Fac:	1.000
Matrix:	Soil	Sampled:	07/07/16
Units:	mg/Kg	Received:	07/08/16

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	1.9	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Arsenic	2.9	0.23	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Barium	81	0.23	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Beryllium	0.38	0.093	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Cadmium	0.93	0.23	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Chromium	79	0.23	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Cobalt	13	0.23	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Copper	13	0.24	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Lead	100	0.23	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Mercury	ND	0.018	237105	07/18/16	07/18/16	METHOD	EPA 7471A
Molybdenum	0.80	0.23	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Nickel	63	0.23	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Selenium	ND	1.9	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Silver	0.51	0.23	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Thallium	0.95	0.47	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Vanadium	50	0.23	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Zinc	53	0.93	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	278418	Project#:	20150063
Client:	Engineering/Remediation Resource Grp	Location:	Lendrum G
Field ID:	COMPOSITE 05,06,07,08	Basis:	as received
Lab ID:	278418-022	Diln Fac:	1.000
Matrix:	Soil	Sampled:	07/07/16
Units:	mg/Kg	Received:	07/08/16

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	3.7	2.0	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Arsenic	5.4	0.27	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Barium	130	0.27	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Beryllium	0.41	0.11	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Cadmium	1.1	0.27	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Chromium	82	0.27	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Cobalt	23	0.27	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Copper	20	0.28	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Lead	410	0.27	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Mercury	0.13	0.016	237105	07/18/16	07/18/16	METHOD	EPA 7471A
Molybdenum	0.86	0.27	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Nickel	100	0.27	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Selenium	ND	2.0	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Silver	0.46	0.27	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Thallium	ND	0.54	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Vanadium	50	0.27	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Zinc	84	1.1	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	278418	Project#:	20150063
Client:	Engineering/Remediation Resource Grp	Location:	Lendrum G
Field ID:	COMPOSITE 09,10,11,12	Basis:	as received
Lab ID:	278418-023	Diln Fac:	1.000
Matrix:	Soil	Sampled:	07/07/16
Units:	mg/Kg	Received:	07/08/16

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	1.9	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Arsenic	4.4	0.23	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Barium	110	0.23	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Beryllium	0.39	0.093	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Cadmium	0.89	0.23	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Chromium	62	0.23	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Cobalt	12	0.23	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Copper	19	0.24	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Lead	250	0.23	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Mercury	0.094	0.016	237105	07/18/16	07/18/16	METHOD	EPA 7471A
Molybdenum	0.54	0.23	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Nickel	49	0.23	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Selenium	ND	1.9	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Silver	0.38	0.23	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Thallium	0.84	0.46	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Vanadium	49	0.23	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Zinc	72	0.93	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	278418	Project#:	20150063
Client:	Engineering/Remediation Resource Grp	Location:	Lendrum G
Field ID:	COMPOSITE 13,14,15,16	Basis:	as received
Lab ID:	278418-024	Sampled:	07/07/16
Matrix:	Soil	Received:	07/08/16
Units:	mg/Kg		

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	12,000	46	100.0	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Arsenic	420	0.23	1.000	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Barium	170	0.23	1.000	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Beryllium	0.34	0.093	1.000	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Cadmium	ND	0.23	1.000	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Chromium	130	0.23	1.000	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Cobalt	19	0.23	1.000	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Copper	37,000	24	100.0	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Lead	20,000	23	100.0	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Mercury	0.33	0.016	1.000	237105	07/18/16	07/18/16	METHOD	EPA 7471A
Molybdenum	ND	0.23	1.000	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Nickel	310	0.23	1.000	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Selenium	ND	1.9	1.000	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Silver	9.7	0.23	1.000	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Thallium	3.8	0.46	1.000	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Vanadium	41	0.23	1.000	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Zinc	16,000	93	100.0	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	278418	Project#:	20150063
Client:	Engineering/Remediation Resource Grp	Location:	Lendrum G
Field ID:	COMPOSITE 17,18,19,20	Basis:	as received
Lab ID:	278418-025	Diln Fac:	1.000
Matrix:	Soil	Sampled:	07/07/16
Units:	mg/Kg	Received:	07/08/16

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	2.0	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Arsenic	3.6	0.25	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Barium	110	0.25	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Beryllium	0.31	0.10	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Cadmium	1.2	0.25	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Chromium	170	0.25	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Cobalt	21	0.25	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Copper	32	0.26	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Lead	220	0.25	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Mercury	0.16	0.016	237105	07/18/16	07/18/16	METHOD	EPA 7471A
Molybdenum	0.60	0.25	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Nickel	230	0.25	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Selenium	ND	2.0	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Silver	0.47	0.25	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Thallium	ND	0.51	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Vanadium	50	0.25	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B
Zinc	100	1.0	236948	07/13/16	07/15/16	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3050B
Project#:	20150063	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC842872	Batch#:	236948
Matrix:	Soil	Prepared:	07/13/16
Units:	mg/Kg	Analyzed:	07/15/16

Analyte	Result	RL
Antimony	ND	1.9
Arsenic	ND	0.23
Barium	ND	0.23
Beryllium	ND	0.093
Cadmium	ND	0.23
Chromium	ND	0.23
Cobalt	ND	0.23
Copper	ND	0.24
Lead	ND	0.23
Molybdenum	ND	0.23
Nickel	ND	0.23
Selenium	ND	1.9
Silver	ND	0.23
Thallium	ND	0.46
Vanadium	ND	0.23
Zinc	ND	0.93

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3050B
Project#:	20150063	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	236948
Units:	mg/Kg	Prepared:	07/13/16
Diln Fac:	1.000	Analyzed:	07/15/16

Type: BS Lab ID: QC842873

Analyte	Spiked	Result	%REC	Limits
Antimony	46.73	44.98	96	80-120
Arsenic	46.73	50.38	108	80-120
Barium	46.73	48.95	105	80-120
Beryllium	23.36	24.18	104	80-120
Cadmium	46.73	48.51	104	80-120
Chromium	46.73	48.90	105	80-120
Cobalt	46.73	48.82	104	80-120
Copper	46.73	48.93	105	80-120
Lead	46.73	46.05	99	80-120
Molybdenum	46.73	46.01	98	80-120
Nickel	46.73	47.57	102	80-120
Selenium	46.73	48.64	104	80-120
Silver	4.673	4.711	101	80-120
Thallium	46.73	48.12	103	80-120
Vanadium	46.73	48.30	103	80-120
Zinc	46.73	51.43	110	80-120

Type: BSD Lab ID: QC842874

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	52.08	50.56	97	80-120	1	20
Arsenic	52.08	54.35	104	80-120	3	20
Barium	52.08	54.57	105	80-120	0	20
Beryllium	26.04	26.77	103	80-120	1	20
Cadmium	52.08	54.20	104	80-120	0	20
Chromium	52.08	54.52	105	80-120	0	20
Cobalt	52.08	54.18	104	80-120	0	20
Copper	52.08	53.89	103	80-120	1	20
Lead	52.08	51.15	98	80-120	0	20
Molybdenum	52.08	51.12	98	80-120	0	20
Nickel	52.08	52.99	102	80-120	0	20
Selenium	52.08	52.28	100	80-120	4	20
Silver	5.208	5.165	99	80-120	2	20
Thallium	52.08	53.16	102	80-120	1	20
Vanadium	52.08	53.93	104	80-120	0	20
Zinc	52.08	56.07	108	80-120	2	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	EPA 3050B
Project#:	20150063	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	236948
MSS Lab ID:	278410-001	Sampled:	07/08/16
Matrix:	Soil	Received:	07/08/16
Units:	mg/Kg	Prepared:	07/13/16
Basis:	as received	Analyzed:	07/15/16

Type: MS Lab ID: QC842875

Analyte	MSS Result	Spiked	Result	%REC	Limits	Dil'n Fac
Antimony	<0.1480	48.54	13.12	27	15-120	1.000
Arsenic	5.179	48.54	56.50	106	69-120	1.000
Barium	170.3	48.54	363.2	397 *	35-154	1.000
Beryllium	0.3572	24.27	22.37	91	75-120	1.000
Cadmium	3.030	48.54	42.33	81	71-120	1.000
Chromium	89.12	48.54	91.97	6 *	57-133	1.000
Cobalt	16.01	48.54	61.45	94	56-125	1.000
Copper	120.4	48.54	200.9	166 *	54-144	1.000
Lead	962.6	48.54	824.2	-285 NM	53-125	100.0
Molybdenum	3.919	48.54	43.54	82	66-120	1.000
Nickel	107.9	48.54	117.1	19 *	44-141	1.000
Selenium	<0.1448	48.54	41.99	86	61-120	1.000
Silver	0.9513	4.854	6.370	112	69-120	1.000
Thallium	<0.1614	48.54	36.57	75	59-120	1.000
Vanadium	35.89	48.54	77.07	85	52-144	1.000
Zinc	439.3	48.54	299.9	-287 NM	45-145	1.000

Type: MSD Lab ID: QC842876

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Dil'n Fac
Antimony	55.56	16.11	29	15-120	7	41	1.000
Arsenic	55.56	59.93	99	69-120	6	35	1.000
Barium	55.56	177.9	14 *	35-154	71 *	36	1.000
Beryllium	27.78	25.77	91	75-120	1	20	1.000
Cadmium	55.56	49.01	83	71-120	2	25	1.000
Chromium	55.56	132.2	78	57-133	31	33	1.000
Cobalt	55.56	68.54	95	56-125	1	36	1.000
Copper	55.56	226.3	191 *	54-144	8	38	1.000
Lead	55.56	819.8	-257 NM	53-125	1	42	100.0
Molybdenum	55.56	52.04	87	66-120	5	20	1.000
Nickel	55.56	151.2	78	44-141	21	39	1.000
Selenium	55.56	47.61	86	61-120	1	33	1.000
Silver	5.556	7.150	112	69-120	0	22	1.000
Thallium	55.56	42.95	77	59-120	3	27	1.000
Vanadium	55.56	85.05	88	52-144	2	29	1.000
Zinc	55.56	301.5	-248 NM	45-145	1	39	1.000

*= Value outside of QC limits; see narrative
NM= Not Meaningful: Sample concentration > 4X spike concentration
RPD= Relative Percent Difference

Batch QC Report

California Title 22 Metals

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	METHOD
Project#:	20150063	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	237105
Lab ID:	QC843531	Prepared:	07/18/16
Matrix:	Soil	Analyzed:	07/18/16
Units:	mg/Kg		

Result	RL
ND	0.017

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	METHOD
Project#:	20150063	Analysis:	EPA 7471A
Analyte:	Mercury	Batch#:	237105
Matrix:	Soil	Prepared:	07/18/16
Units:	mg/Kg	Analyzed:	07/18/16
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC843532	0.2083	0.2238	107	80-120		
BSD	QC843533	0.2119	0.2263	107	80-120	1	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	278418	Location:	Lendrum G
Client:	Engineering/Remediation Resource Grp	Prep:	METHOD
Project#:	20150063	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	237105
MSS Lab ID:	278403-001	Sampled:	07/08/16
Matrix:	Soil	Received:	07/08/16
Units:	mg/Kg	Prepared:	07/18/16
Basis:	as received	Analyzed:	07/18/16

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC843534	0.3813	0.1984	0.6981	160 *	69-142		
MSD	QC843535		0.2049	0.6214	117	69-142	13	36

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Laboratory Job Number 278418

Subcontracted Products

Cal Science

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WORK ORDER NUMBER: 16-07-0658

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Curtis & Tompkins, Ltd.

Client Project Name: 278418

Attention: Tracy Babjar
2323 Fifth Street
Berkeley, CA 94710-2407

Vikas Patel

Approved for release on 07/25/2016 by:
Vikas Patel
Project Manager

ResultLink

Email your PM

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Work Order Number: 16-07-0658

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Work Order Narrative

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 07/12/16. They were assigned to Work Order 16-07-0658.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

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Analytical Report

Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Project: 278418

Date Received: 07/12/16
Work Order: 16-07-0658
Preparation: EPA 8151A
Method: EPA 8151A
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMPOSITE 01, 02, 03, 04	**16-07-0658-1-A**	**07/07/16 10:03**	**Solid**	**GC 40**	**07/12/16**	**07/13/16 15:08**	**160712L01**

Parameter	Result	RL	DF	Qualifiers
Dalapon	ND	250	1.00	
Dicamba	ND	10	1.00	
MCPP	ND	10000	1.00	
MCPA	ND	10000	1.00	
Dichlorprop	ND	100	1.00	
2,4-D	ND	100	1.00	
2,4,5-TP (Silvex)	ND	10	1.00	
2,4,5-T	ND	10	1.00	
2,4-DB	ND	100	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	78	30-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMPOSITE 05, 06, 07, 08	**16-07-0658-2-A**	**07/07/16 10:11**	**Solid**	**GC 40**	**07/12/16**	**07/13/16 15:32**	**160712L01**

Parameter	Result	RL	DF	Qualifiers
Dalapon	ND	250	1.00	
Dicamba	ND	10	1.00	
MCPP	ND	10000	1.00	
MCPA	ND	10000	1.00	
Dichlorprop	ND	100	1.00	
2,4-D	ND	100	1.00	
2,4,5-TP (Silvex)	ND	10	1.00	
2,4,5-T	ND	10	1.00	
2,4-DB	ND	100	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	93	30-130	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Project: 278418

Date Received: 07/12/16
Work Order: 16-07-0658
Preparation: EPA 8151A
Method: EPA 8151A
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMPOSITE 09, 10, 11, 12	**16-07-0658-3-A**	**07/07/16 10:25**	**Solid**	**GC 40**	**07/12/16**	**07/13/16 15:55**	**160712L01**

Parameter	Result	RL	DF	Qualifiers
Dalapon	ND	250	1.00	
Dicamba	ND	9.9	1.00	
MCPP	ND	9900	1.00	
MCPA	ND	9900	1.00	
Dichlorprop	ND	99	1.00	
2,4-D	ND	99	1.00	
2,4,5-TP (Silvex)	ND	9.9	1.00	
2,4,5-T	ND	9.9	1.00	
2,4-DB	ND	99	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	96	30-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMPOSITE 13, 14, 15, 16	**16-07-0658-4-A**	**07/07/16 10:50**	**Solid**	**GC 40**	**07/12/16**	**07/13/16 16:18**	**160712L01**

Parameter	Result	RL	DF	Qualifiers
Dalapon	ND	250	1.00	
Dicamba	ND	10	1.00	
MCPP	ND	10000	1.00	
MCPA	ND	10000	1.00	
Dichlorprop	ND	100	1.00	
2,4-D	ND	100	1.00	
2,4,5-TP (Silvex)	ND	10	1.00	
2,4,5-T	ND	10	1.00	
2,4-DB	ND	100	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	76	30-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Project: 278418

Date Received: 07/12/16
Work Order: 16-07-0658
Preparation: EPA 8151A
Method: EPA 8151A
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMPOSITE 17, 18, 19, 20	**16-07-0658-5-A**	**07/07/16 10:36**	**Solid**	**GC 40**	**07/12/16**	**07/13/16 16:41**	**160712L01**

Parameter	Result	RL	DF	Qualifiers
Dalapon	ND	250	1.00	
Dicamba	ND	10	1.00	
MCPP	ND	10000	1.00	
MCPA	ND	10000	1.00	
Dichlorprop	ND	100	1.00	
2,4-D	ND	100	1.00	
2,4,5-TP (Silvex)	ND	10	1.00	
2,4,5-T	ND	10	1.00	
2,4-DB	ND	100	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	82	30-130	

Method Blank	095-01-033-1383	N/A	Solid	GC 40	07/12/16	07/13/16 12:50	160712L01

Parameter	Result	RL	DF	Qualifiers
Dalapon	ND	250	1.00	
Dicamba	ND	10	1.00	
MCPP	ND	10000	1.00	
MCPA	ND	10000	1.00	
Dichlorprop	ND	100	1.00	
2,4-D	ND	100	1.00	
2,4,5-TP (Silvex)	ND	10	1.00	
2,4,5-T	ND	10	1.00	
2,4-DB	ND	100	1.00	
Dinoseb	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	98	30-130	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

Curtis & Tompkins, Ltd.		Date Received:	07/12/16
2323 Fifth Street		Work Order:	16-07-0658
Berkeley, CA 94710-2407		Preparation:	EPA 8151A
		Method:	EPA 8151A
Project: 278418			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-06-2042-9	**Sample**	**Solid**	**GC 40**	**07/12/16**	**07/13/16 14:23**	**160712S01**
16-06-2042-9	**Matrix Spike**	**Solid**	**GC 40**	**07/12/16**	**07/13/16 12:03**	**160712S01**
16-06-2042-9	**Matrix Spike Duplicate**	**Solid**	**GC 40**	**07/12/16**	**07/13/16 12:27**	**160712S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
2,4-D	ND	400.0	344.0	86	373.0	93	30-130	8	0-30	
2,4,5-T	ND	40.00	38.00	95	42.00	105	30-130	10	0-30	
2,4-DB	ND	400.0	331.0	83	347.0	87	30-130	5	0-30	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Curtis & Tompkins, Ltd.		Date Received:	07/12/16
2323 Fifth Street		Work Order:	16-07-0658
Berkeley, CA 94710-2407		Preparation:	EPA 8151A
		Method:	EPA 8151A
Project: 278418			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
095-01-033-1383	**LCS**	**Solid**	**GC 40**	**07/12/16**	**07/13/16 13:13**	**160712L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
2,4-D	400.0	403.0	101	30-130	
2,4,5-T	40.00	44.00	110	30-130	
2,4-DB	400.0	360.0	90	30-130	

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 16-07-0658 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8151A	EPA 8151A	944	GC 40	1

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Glossary of Terms and Qualifiers

Work Order: 16-07-0658 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900
(510) 486-0532

RUSH!

16-07-0658

Project Number: 278418
Site: Lendrum G

Subcontract Laboratory:
Cal Science
7440 Lincoln Way
Garden Grove, CA 92841-1432
(714) 895-5494
ATTN: Vik Patel

Results due: 07/15/16 Report Level: II

Please send report to: Tracy Babjar (tracy.babjar@ctberk.com)
*** Please report using Sample ID rather than C&T Lab #.

Sample ID	Sampled	Matrix	Analysis	C&T Lab #	Comments
COMPOSITE 01,02,03,04	07/07 10:03	Soil	8151	278418-021	
COMPOSITE 05,06,07,08	07/07 10:11	Soil	8151	278418-022	
COMPOSITE 09,10,11,12	07/07 10:25	Soil	8151	278418-023	
COMPOSITE 13,14,15,16	07/07 10:50	Soil	8151	278418-024	
COMPOSITE 17,18,19,20	07/07 10:36	Soil	8151	278418-025	

1 2 3 4 5

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Notes:	Relinquished By:	Received By:
	Charles Bell	
	Date/Time: 7/11/16 @ 14:15	Date/Time:
	Date/Time:	Date/Time: 7/12/16 1000

Signature on this form constitutes a firm Purchase Order for the services requested above.

0658

ORIGIN ID:JEMA (510) 486-0900
SAMPLE CONTROL
CURTIS & TOMPKINS
2323 5TH STREET

BERKELEY, CA 94710
UNITED STATES US

SHIP DATE: 11JUL16
ACTWGT: 6.00 LB
CAD: 7603800/INET3730

BILL THIRD PARTY

TO VIK PATEL
CAL SCIENCE ENVIRONMENTAL LAB
7440 LINCOLN WAY

GARDEN GROVE CA 92841
(714) 895-5494 REF: 278418
INV:
PO: DEPT:

540J/5GBD/727F

FedEx Express

TUE - 12 JUL 3:00P
STANDARD OVERNIGHT

TRK# 0201 7767 1855 8060

92 APVA

92841
CA-US SNA

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WORK ORDER NUMBER: 16-07-0658

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: CST

DATE: 07 / 12 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC1B (CF: 0.0°C); Temperature (w/o CF): 3.4 °C (w/ CF): 3.4 °C; ☐ Blank ☑ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 15

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 15

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 836

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☐	☐	☑
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☑ 2 ozCGJ

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = $Zn(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 836

Reviewed by: 603

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Vikas Patel

From: Tracy Babjar <tracy.babjar@ctberk.com>
Sent: Wednesday, July 13, 2016 11:52 AM
To: Erick Ovalle
Cc: Vikas Patel
Subject: Re: Sample receipt confirmation / 16-07-0658 / 278418

Hi Erick and Vik,

My client now wants standard TAT on these samples please.

Sorry,

Tracy

Tracy Babjar
Project Manager
Curtis & Tompkins, Ltd.
510 204-2226
www.curtisandtompkins.com

On 7/13/2016 9:59 AM, Erick Ovalle wrote:

Sample receipt confirmation attached. **Please review and advise of any changes required.**

Please call with any questions or concerns.

Best Regards,
Erick Ovalle
Project Manager Assistant

Eurofins Calscience,Inc.
7440 Lincoln Way
Garden Grove, CA 92841-1427
USA
Phone: +1 (714) 895-5494

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Laboratory Job Number 278418

Subcontracted Products

Forensic Analytical

Forensic Analytical LABORATORIES

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Curtis & Tompkins Ltd
Tracy Babjar
2323 Fifth St.

Berkeley, CA 94710

Client ID: 1137
Report Number: B224394
Date Received: 07/11/16
Date Analyzed: 07/14/16
Date Printed: 07/15/16
First Reported: 07/15/16

Job ID/Site: 278418 - Lendrum G

Date(s) Collected: 07/07/2016

FALI Job ID: 1137
Total Samples Submitted: 5
Total Samples Analyzed: 5

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
Composite 01,02,03,04	11783309						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
Composite 05,06,07,08	11783310						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
Composite 09,10,11,12	11783311						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
Composite 13,14,15,16	11783312						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
Composite17,18,19,20	11783313						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					

Tad Thrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

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3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

EXCAVATED SOIL TRANSPORTATION AND DISPOSAL RECORDS

Greenwaste Export
Receiving Facility: Recology, San Francisco

Bin Pickup Date	Daily Shipment #	Material	Bin or Truck	Truck Company	Truck ID	License Plate	Bin Volume (CY)	Weigh Tag #	Tonnage	Price per Load/Ton	Disposal Cost	Disposal Location	Day's Load Count	Comments
6/17/2016	1	Greenwaste	Bin	Recology	n/a	n/a	40	--	n/a			Recology		
6/17/2016	2	Greenwaste	Bin	Recology	n/a	n/a	30	--	n/a			Recology		
6/17/2016	3	Greenwaste	Bin	Recology	n/a	n/a	30	--	n/a			Recology	3	
6/20/2016	1	Greenwaste	Bin	Recology	n/a	n/a	30	--	n/a			Recology		
6/20/2016	2	Greenwaste	Bin	Recology	n/a	n/a	40	--	n/a			Recology		
6/20/2016	3	Greenwaste	Bin	Recology	n/a	n/a	30	--	n/a			Recology		
6/20/2016	4	Greenwaste	Bin	Recology	n/a	n/a	15	--	n/a			Recology	4	
6/21/2016	1	Greenwaste	Bin	Recology	n/a	n/a	15	--	n/a			Recology		
6/21/2016	2	Greenwaste	Bin	Recology	n/a	n/a	10	--	n/a			Recology		
6/21/2016	3	Greenwaste	Bin	Recology	n/a	n/a	10	--	n/a			Recology		
6/21/2016	4	Greenwaste	End Dump	18 Trucking	18-239	939B196	20	1194496	10.77	$47	$506	Ox Mtn		
6/21/2016	5	Greenwaste	End Dump	18 Trucking	18-236	9F04723	20	1194497	12.09	$47	$568	Ox Mtn		
6/21/2016	6	Greenwaste	End Dump	18 Trucking	Sanchez 02	WP18986	20	1194498	9.71	$47	$456	Ox Mtn		Made switch to end dump instead of bins, to meet export production rates
6/21/2016	7	Greenwaste	End Dump	18 Trucking	18-239	939B196	20	1194627	11.93	$47	$561	Ox Mtn		
6/21/2016	8	Greenwaste	End Dump	18 Trucking	18-236	9F04723	20	1194648	12.83	$47	$603	Ox Mtn		
6/21/2016	9	Greenwaste	End Dump	18 Trucking	Sanchez 02	WP18986	20	1194663	9.97	$47	$469	Ox Mtn	9	
6/22/2016	1	Greenwaste	End Dump	18 Trucking	18-239	939B196	20	1194797	13.28	$47	$624	Ox Mtn		
6/22/2016	2	Greenwaste	End Dump	18 Trucking	N Rodriguez	9E78457	20	1194817	15.22	$47	$715	Ox Mtn		
6/22/2016	3	Greenwaste	End Dump	18 Trucking	18-239	939B196	20	1194893	13.04	$47	$613	Ox Mtn		
6/22/2016	4	Greenwaste	End Dump	18 Trucking	N Rodriguez	9E78457	20	1194921	14.64	$47	$688	Ox Mtn		
6/22/2016	5	Greenwaste	End Dump	18 Trucking	18-239	939B196	20	1194972	9.78	$47	$460	Ox Mtn	5	
8/1/2016	1	Greenwaste	Bin	Recology	n/a	n/a	20	--	n/a			Recology	1	
10/10/2016	1	Greenwaste	Bin	Recology	n/a	n/a	20	--	n/a			Recology	1	
10/17/2016	1	Greenwaste	Bin	Recology	n/a	n/a	20	--	n/a			Recology	1	
10/21/2016	1	Greenwaste	Bin	Recology	n/a	n/a	20	--	n/a			Recology	1	
							550		133.26		$6,263		25	TOTALS

ERRG

Non-hazardous Treated Wood Waste
Receiving Facility: Hay Road Landfill, Vacaville

Load Date	Arrival Date	Daily Shipment #	Manifest/Ticket #	Copy of Manifest	License #	Trucking Company	Waste Class	Profile #	Weight Tag #	Tons	Transport Price per Load	Disposal Price per Ton	Load Cost	Day's Load Count	Day's Tonnage	Comments
6/15/2016	6/15/2016	1	0182729	x	01645N1	GM 777	Non-hazardous Treated Wood	n/a	1566761	3.86	$525	$58	$748.88			
6/15/2016	6/15/2016	2	0182730	x	01645N1	GM 777	Non-hazardous Treated Wood	n/a	1566995	5.36	$525	$58	$835.88	2	9.22	
6/16/2016	6/16/2016	1	0182731	x	01645N1	GM 777	Non-hazardous Treated Wood	n/a	1567306	5.56	$525	$58	$847.48	1	5.56	
													$2,432.24	3	14.78	TOTALS

ERRG

Soil Classification: Non-hazardous
Receiving Facility: Ox Mountain in Half Moon Bay or Potrero Hills in Suisun City

Load Date	Arrival Date	Daily Shipment #	Manifest/Ticket #	Copy of Manifest	License #	Trucking Company	Waste Class	Receiving Facility	Profile #	Weight Tag #	Tons	T&D Price per Ton	Load Cost	Day's Load Count	Day's Tonnage	Comments
7/1/2016	7/1/2016	1	3141382	x	9f18322	18 Trucking	Non-hazardous	Ox Mountain	42271610897	1197018	18.24	$33.40	$609			Trans to Ox Mtn; material denied
7/1/2016	7/1/2016	2	3141381	x	9e36800	18 Trucking	Non-hazardous	Ox Mountain	42271610897	1197009	18.94	$33.40	$633			as ADC, disposed as non-haz soil
7/1/2016	7/1/2016	3	3141380	x	9d54294	18 Trucking	Non-hazardous	Ox Mountain	42271610897	1196993	19.08	$33.40	$637	3	56.26	not meeting ADC spec
7/8/2016	7/8/2016	1	003001	x	8D35161	18 Trucking - 216	Non-hazardous	Potrero Hills	PHLF-16395	01-685275	20.85	$36.40	$759			
7/8/2016	7/8/2016	2	003002	x	02642R1	Flores 11	Non-hazardous	Potrero Hills	PHLF-16395	01-685295	20.43	$36.40	$744			
7/8/2016	7/8/2016	3	003003	x	6M27924	Flores 6	Non-hazardous	Potrero Hills	PHLF-16395	01-685321	21.62	$36.40	$787			
7/8/2016	7/8/2016	4	003004	x	63449N1	18 Trucking - 218	Non-hazardous	Potrero Hills	PHLF-16395	01-685354	18.21	$36.40	$663			
7/8/2016	7/8/2016	5	003005	x	8D35161	18 Trucking - 216	Non-hazardous	Potrero Hills	PHLF-16395	01-685516	19.09	$36.40	$695			
7/8/2016	7/8/2016	6	003006	x	02642R1	Flores 11	Non-hazardous	Potrero Hills	PHLF-16395	01-685493	19.81	$36.40	$721			
7/8/2016	7/8/2016	7	003007	x	6M27924	Flores 6	Non-hazardous	Potrero Hills	PHLF-16395	01-685504	19.56	$36.40	$712	7	139.57	
7/11/2016	7/11/2016	1	003008	x	02642R1	Flores 11	Non-hazardous	Potrero Hills	PHLF-16395	01-686090	18.52	$36.40	$674			
7/11/2016	7/11/2016	2	003009	x	8D35161	18 Trucking - 216	Non-hazardous	Potrero Hills	PHLF-16395	01-686104	19.41	$36.40	$707			
7/11/2016	7/11/2016	3	003010	x	6M27924	Flores 6	Non-hazardous	Potrero Hills	PHLF-16395	01-686115	18.23	$36.40	$664			
7/11/2016	7/11/2016	4	003011	x	12496V1	Flores 7	Non-hazardous	Potrero Hills	PHLF-16395	01-686125	11.59	$36.40	$422			
7/11/2016	7/11/2016	5	003012	x	02642R1	Flores 11	Non-hazardous	Potrero Hills	PHLF-16395	01-686273	18.05	$36.40	$657			
7/11/2016	7/11/2016	6	003013	x	8D35161	18 Trucking - 216	Non-hazardous	Potrero Hills	PHLF-16395	01-686289	15.76	$36.40	$574			
7/11/2016	7/11/2016	7	003014	x	6M27924	Flores 6	Non-hazardous	Potrero Hills	PHLF-16395	01-686335	17.91	$36.40	$652			
7/11/2016	7/11/2016	8	003015	x	12496V1	Flores 7	Non-hazardous	Potrero Hills	PHLF-16395	01-686332	13.34	$36.40	$486	8	132.81	
7/12/2016	7/12/2016	1	003016	x	8D35161	18 Trucking - 216	Non-hazardous	Potrero Hills	PHLF-16395	01-686548	17	$36.40	$619			
7/12/2016	7/12/2016	2	003017	x	8H02991	Tepa 184	Non-hazardous	Potrero Hills	PHLF-16395	01-686562	16.05	$36.40	$584			
7/12/2016	7/12/2016	3	003018	x	9E21149	Rojas	Non-hazardous	Potrero Hills	PHLF-16395	01-686605	21.96	$36.40	$799			
7/12/2016	7/12/2016	4	003019	x	6U81293	Martinez	Non-hazardous	Potrero Hills	PHLF-16395	01-686586	18.11	$36.40	$659			
7/12/2016	7/12/2016	5	003020	x	8D35161	18 Trucking - 216	Non-hazardous	Potrero Hills	PHLF-16395	01-686702	17.05	$36.40	$621			
7/12/2016	7/12/2016	6	003021	x	8H02991	Tepa 184	Non-hazardous	Potrero Hills	PHLF-16395	01-686735	19.31	$36.40	$703			
7/12/2016	7/12/2016	7	003022	x	6U81293	Martinez	Non-hazardous	Potrero Hills	PHLF-16395	01-686752	21.06	$36.40	$767			
7/12/2016	7/12/2016	8	003023	x	9E21149	Rojas	Non-hazardous	Potrero Hills	PHLF-16395	01-686768	26.32	$36.40	$958	8	156.86	
11/29/2016	11/29/2016	1	003024	x	7455241	18-215	Non-hazardous	Potrero Hills	PHLF-16395	01-733195	22.77	$36.40	$829			
11/29/2016	11/29/2016	2	003025	x	98151M1	18 Trucking	Non-hazardous	Potrero Hills	PHLF-16395	01-733160	20.57	$36.40	$749			
11/29/2016	11/29/2016	3	003026	x	02642R1	Flores	Non-hazardous	Potrero Hills	PHLF-16395	01-733215	21.67	$36.40	$789			
11/29/2016	11/29/2016	4	003027	x	58433U1	J&G Trans	Non-hazardous	Potrero Hills	PHLF-16395	01-733190	21.83	$36.40	$795			
11/29/2016	11/29/2016	5	003028	x	81510H1	J&G Trans	Non-hazardous	Potrero Hills	PHLF-16395	01-733233	22.47	$36.40	$818			

Soil Classification: Non-hazardous
Receiving Facility: Ox Mountain in Half Moon Bay or Potrero Hills in Suisun City

Load Date	Arrival Date	Daily Shipment #	Manifest/Ticket #	Copy of Manifest	License #	Trucking Company	Waste Class	Receiving Facility	Profile #	Weight Tag #	Tons	T&D Price per Ton	Load Cost	Day's Load Count	Day's Tonnage	Comments
11/29/2016	11/29/2016	6	003029	x	05624J1	Rojas	Non-hazardous	Potrero Hills	PHLF-16395	01-733248	22.32	$36.40	$812			
11/29/2016	11/29/2016	7	003030	x	8M18529	RCC Trucking	Non-hazardous	Potrero Hills	PHLF-16395	01-733275	18.96	$36.40	$690			
11/29/2016	11/29/2016	8	003031	x	7455241	18-215	Non-hazardous	Potrero Hills	PHLF-16395	01-733384	22.4	$36.40	$815			
11/29/2016	11/29/2016	9	003032	x	98151M1	18 Trucking	Non-hazardous	Potrero Hills	PHLF-16395	01-733412	19.72	$36.40	$718			
11/29/2016	11/29/2016	10	003033	x	02642R1	Flores	Non-hazardous	Potrero Hills	PHLF-16395	01-733449	19.72	$36.40	$718			
11/29/2016	11/29/2016	11	003034	x	58433U1	J&G Trans	Non-hazardous	Potrero Hills	PHLF-16395	01-733444	19.35	$36.40	$704			
11/29/2016	11/29/2016	12	003035	x	81510H1	J&G Trans	Non-hazardous	Potrero Hills	PHLF-16395	01-733465	17.67	$36.40	$643			
11/29/2016	11/29/2016	13	003036	x	05624J1	Rojas	Non-hazardous	Potrero Hills	PHLF-16395	01-733477	16.57	$36.40	$603			
11/29/2016	11/29/2016	14	003037	x	8M18529	RCC Trucking	Non-hazardous	Potrero Hills	PHLF-16395	01-733481	16.86	$36.40	$614	14	282.88	
11/30/2016	11/30/2016	1	003038	x	7455241	18-215	Non-hazardous	Potrero Hills	PHLF-16395	01-733672	17.12	$36.40	$623			
11/30/2016	11/30/2016	2	003039	x	98151M1	18 Trucking	Non-hazardous	Potrero Hills	PHLF-16395	01-733683	16.65	$36.40	$606			
11/30/2016	11/30/2016	3	003040	x	8D35161	18 Trucking - 216	Non-hazardous	Potrero Hills	PHLF-16395	01-733691	17.2	$36.40	$626			
11/30/2016	11/30/2016	4	003041	x	8M18529	RCC Trucking	Non-hazardous	Potrero Hills	PHLF-16395	01-733767	16.52	$36.40	$601			
11/30/2016	11/30/2016	5	003042	x	02642R1	Flores	Non-hazardous	Potrero Hills	PHLF-16395	01-733768	17.55	$36.40	$639			
11/30/2016	11/30/2016	6	003043	x	7455241	18-215	Non-hazardous	Potrero Hills	PHLF-16395	01-733859	16.27	$36.40	$592			
11/30/2016	11/30/2016	7	003044	x	98151M1	18 Trucking	Non-hazardous	Potrero Hills	PHLF-16395	01-733917	23.09	$36.40	$840			
11/30/2016	11/30/2016	8	003045	x	8D35161	18 Trucking - 216	Non-hazardous	Potrero Hills	PHLF-16395	01-733896	18.65	$36.40	$679			
11/30/2016	11/30/2016	9	003046	x	8M18529	RCC Trucking	Non-hazardous	Potrero Hills	PHLF-16395	01-733968	22.37	$36.40	$814			
11/30/2016	11/30/2016	10	003047	x	02642R1	Flores	Non-hazardous	Potrero Hills	PHLF-16395	01-733974	19.41	$36.40	$707	10	184.83	
12/1/2016	12/1/2016	1	003048	x	7455241	18-215	Non-hazardous	Potrero Hills	PHLF-16395	01-734257	20.9	$36.40	$761			
12/1/2016	12/1/2016	2	003049	x	7U18735	Flores	Non-hazardous	Potrero Hills	PHLF-16395	01-734238	22	$36.40	$801	2	42.9	
9/26/2017	9/26/2017	1	0188022	x	WP18986	Sanchez	Non-hazardous	Potrero Hills	PHLF-16395			$36.40	$0			
9/26/2017	9/26/2017	2	0188023	x	9F04723	18 Trucking	Non-hazardous	Potrero Hills	PHLF-16395			$36.40	$0			
9/26/2017	9/26/2017	3	0188024	x	WP18986	Sanchez	Non-hazardous	Potrero Hills	PHLF-16395			$36.40	$0			
9/26/2017	9/26/2017	4	0188025	x	9F04723	18 Trucking	Non-hazardous	Potrero Hills	PHLF-16395			$36.40	$0	4	92.99	
													$22,985	56	1089.1	TOTALS

ERRG

Soil Classification: Non-RCRA
Receiving Facility: Buttonwillow

Load Date	Arrival Date	Daily Shipment #	Manifest/Ticket #	Copy of Manifest	License #	Trucking Company	Waste Class	Profile #	Weight Tag #	Tons	Day's Load Count	Day's Tonnage	Comments
7/13/2016	7/13/2016	1	014722157	x	9F04723	18 Trucking - 236	Non-RCRA	CH1226083	345182	22.09			
7/13/2016	7/13/2016	2	014722158	x	9F18322	18 Trucking	Non-RCRA	CH1226083	345173	18.80			
7/13/2016	7/13/2016	3	014722159	x	9D75577	A&I trucking - 48	Non-RCRA	CH1226083	345193	19.95	3	60.84	
7/18/2016	7/18/2016	1	014722160	x	9d77873	18 Trucking - 241	Non-RCRA	CH1226083	345571	23.39			
7/18/2016	7/18/2016	2	014722161	x	9E93196	18 Trucking- 239	Non-RCRA	CH1226083		22.7			
7/18/2016	7/18/2016	3	014722163	x	9F04723	18 Trucking - 236	Non-RCRA	CH1226083		22.77			
7/18/2016	7/18/2016	4	014722164	x	9F05657	18 Trucking - 240	Non-RCRA	CH1226083		23.56	4	92.42	
7/19/2016	7/19/2016	1	014722165	x	9E93196	18 Trucking- 239	Non-RCRA	CH1226083	345649	23.85			
7/19/2016	7/19/2016	2	014722166	x	9F05657	18 Trucking - 240	Non-RCRA	CH1226083	345648	24.34			
7/19/2016	7/19/2016	3	014722167	x	9F04723	18 Trucking - 236	Non-RCRA	CH1226083	345644	26.19			
7/19/2016	7/19/2016	4	014722168	x	WP18986	Sanchez- 02	Non-RCRA	CH1226083	345640	25.32			
7/19/2016	7/19/2016	5	014722169	x	9F18011	Singh - 198	Non-RCRA	CH1226083	345654	26.15			
7/19/2016	7/19/2016	6	014722170	x	9D50694	S&B - 104	Non-RCRA	CH1226083		21.45			
7/19/2016	7/19/2016	7	014722171	x	9F27997	Chahal - 175	Non-RCRA	CH1226083		21.34			
7/19/2016	7/19/2016	8	014722172	x	9E60822	Singh - 9	Non-RCRA	CH1226083	345664	25.56			
7/19/2016	7/19/2016	9	014722173	x	WP53706	JC Trans	Non-RCRA	CH1226083		20.46			
7/19/2016	7/19/2016	10	014722174	x	9D75577	AI - 48	Non-RCRA	CH1226083		21.49	10	236.15	
7/20/2016	7/20/2016	1	01422175	x	9D77873	18 Trucking - 241	Non-RCRA	CH1226083		22.93			
7/20/2016	7/20/2016	2	01422176	x	9E93196	18 Trucking- 239	Non-RCRA	CH1226083	345769	24.24			
7/20/2016	7/20/2016	3	01422177	x	9F05657	18 Trucking - 240	Non-RCRA	CH1226083	345768	20.26	3	67.43	
10/10/2016	10/10/2016	1	01422178	x	9e31396	18 Trucking- 239	Non-RCRA	CH1226083	349664	24.4			
10/10/2016	10/10/2016	2	01422179	x	9e77873	18 Trucking - 241	Non-RCRA	CH1226083	349656	22.41			
10/10/2016	10/10/2016	3	01422180	x	9f05657	18 Trucking - 240	Non-RCRA	CH1226083	349663	22.46			
10/10/2016	10/10/2016	4	01422181	x	Wp18986	Sanchez- 02	Non-RCRA	CH1226083	349671	30.35			
10/10/2016	10/10/2016	5	01422182	x	9F04723	18 Trucking- 236	Non-RCRA	CH1226083	349660	26.17			
10/10/2016	10/10/2016	6	01422183	x	9D75577	18 Trucking- 2048	Non-RCRA	CH1226083	349672	30.08	6	155.87	
10/11/2016	10/11/2016	1	01422184	x	9e77873	18 Trucking - 241	Non-RCRA	CH1226083	349719	23.68			
10/11/2016	10/11/2016	2	01422185	x	9e31396	18 Trucking- 239	Non-RCRA	CH1226083	349733	26.8			
10/11/2016	10/11/2016	3	01422186	x	9f05657	18 Trucking - 240	Non-RCRA	CH1226083	349732	25.05			
10/11/2016	10/11/2016	4	01422187	x	9F04723	18 Trucking- 236	Non-RCRA	CH1226083	349742	22.09			

ERRG

Soil Classification: Non-RCRA
Receiving Facility: Buttonwillow

Load Date	Arrival Date	Daily Shipment #	Manifest/Ticket #	Copy of Manifest	License #	Trucking Company	Waste Class	Profile #	Weight Tag #	Tons	Day's Load Count	Day's Tonnage	Comments
10/11/2016	10/11/2016	5	01422188	x	Wp18986	Sanchez- 02	Non-RCRA	CH1226083	349731	29.85			
10/11/2016	10/11/2016	6	01422189	x	9D75577	18 Trucking- 248	Non-RCRA	CH1226083	349737	25.24	6	152.71	
10/13/2016	10/13/2016	1	011918673	x	9e77873	18 Trucking - 241	Non-RCRA	CH1226083	349856	27.38			
10/13/2016	10/13/2016	2	011918674	x	9e31396	18 Trucking- 239	Non-RCRA	CH1226083	349870	26.59			
10/13/2016	10/13/2016	3	011918675	x	9f05657	18 Trucking - 240	Non-RCRA	CH1226083	349866	26.43			
10/13/2016	10/13/2016	4	011918676	x	Wp18986	Sanchez- 02	Non-RCRA	CH1226083	349862	29.38			
10/13/2016	10/13/2016	5	011918677	x	9D75577	18 trucking -248	Non-RCRA	CH1226083	349865	23.96	5	133.74	
10/17/2016	10/17/2016	1	011918678	x		18 Trucking - 236	Non-RCRA	CH1226083	349977	22.84			Trucks were just purchased, did not have license plate
10/17/2016	10/17/2016	2	011918679	x		18 Trucking- 239	Non-RCRA	CH1226083	349987	27.58			Trucks were just purchased, did not have license plate
10/17/2016	10/17/2016	3	011918680	x		18 Trucking - 240	Non-RCRA	CH1226083	349986	26.96			Trucks were just purchased, did not have license plate
10/17/2016	10/17/2016	4	011918681	x	9e77873	18 Trucking - 241	Non-RCRA	CH1226083	349988	27.25	4	104.63	
10/19/2016	10/19/2016	1	011918682	x		18 Trucking - 236	Non-RCRA	CH1226083	350092	23.17			Trucks were just purchased, did not have license plate
10/19/2016	10/19/2016	2	011918683	x		18 Trucking- 239	Non-RCRA	CH1226083	350114	27.21			Trucks were just purchased, did not have license plate
10/19/2016	10/19/2016	3	011918684	x		18 Trucking - 240	Non-RCRA	CH1226083	350111	28.48			Trucks were just purchased, did not have license plate
10/19/2016	10/19/2016	4	011918685	x	9D75577	AI - 48	Non-RCRA	CH1226083	350115	22.08			
10/19/2016	10/19/2016	5	011918686	x	9D77873	18 Trucking - 241	Non-RCRA	CH1226083	350116	26.54	5	127.48	
10/27/2016	10/27/2016	1	011918687	x	9D77873	18 Trucking - 241	Non-RCRA	CH1226083	350501	25.85			
10/27/2016	10/27/2016	2	011918688	x	9F58478	18 Trucking- 239	Non-RCRA	CH1226083	350522	27.94			Trucks were just purchased, did not have license plate
10/27/2016	10/27/2016	3	011918689	x		18 Trucking - 240	Non-RCRA	CH1226083	350523	28.68			Trucks were just purchased, did not have license plate
10/27/2016	10/27/2016	4	011918690	x	9D75577	AI - 48	Non-RCRA	CH1226083	350524	23.33			
10/27/2016	10/27/2016	5	011918691	x	9F04723	18 Trucking - 236	Non-RCRA	CH1226083	350525	27.55	5	133.35	
12/6/2016	12/6/2016	1	011918692	x	4kb057	18 Trucking	Non-RCRA	CH1226083	352518	31.58			
12/6/2016	12/6/2016	2	011918693	x	9F58478	18 Trucking- 239	Non-RCRA	CH1226083	352541	26.7			
12/6/2016	12/6/2016	3	011918694	x	9D77873	18 Trucking - 241	Non-RCRA	CH1226083	352538	28.99			

ERRG

Soil Classification: Non-RCRA
Receiving Facility: Buttonwillow

Load Date	Arrival Date	Daily Shipment #	Manifest/Ticket #	Copy of Manifest	License #	Trucking Company	Waste Class	Profile #	Weight Tag #	Tons	Day's Load Count	Day's Tonnage	Comments
12/6/2016	12/6/2016	4	011918695	x	9f18322	Sanchez	Non-RCRA	CH1226083	352515	23.39			
12/6/2016	12/6/2016	5	011918696	x	Wp18986	Sanchez- 02	Non-RCRA	CH1226083	352544	26.78			
12/6/2016	12/6/2016	6	011918697	x	9D75577	A & I trucking	Non-RCRA	CH1226083	352539	21.59			
12/6/2016	12/6/2016	7	011918698	x	#049	18 Trucking	Non-RCRA	CH1226083	352540	21.76	7	180.79	
12/16/2016	12/16/2016	1	011918699	x	9F58478	18 Trucking	Non-RCRA	CH1226083	352540	28.89			
12/16/2016	12/16/2016	2	011918700	x	9D77873	18 Trucking- 239	Non-RCRA	CH1226083	352540	26.71			
12/16/2016	12/16/2016	3	011918701	x	WP18986	18 Trucking - 241	Non-RCRA	CH1226083	352540	29.07			
12/16/2016	12/16/2016	4	011918702	x	9D75577	A & I trucking	Non-RCRA	CH1226083	352540	23.1			
12/16/2016	12/16/2016	5	019722484	x	9E89771	A & I trucking	Non-RCRA	CH1226083	352540	23.86	5	131.63	
12/29/2016	12/29/2016	1	14722485	x	9F58478	18 Trucking	Non-RCRA	CH1226083	353818	21.48			
12/29/2016	12/29/2016	2	14722486	x	WP18986	Sanchez	Non-RCRA	CH1226083	353817	24	2	45.48	
9/5/2017	9/5/2017	1	016671660	x	9F58480	18 Trucking- 405	Non-RCRA	CH1226083					
9/5/2017	9/5/2017	2	016671661	x	9F04723	18 Trucking - 418	Non-RCRA	CH1226083					
9/5/2017	9/5/2017	3	016671662	x	WP18986	Sanchez- 02	Non-RCRA	CH1226083					
9/5/2017	9/5/2017	4	016671663	x	9F58479	18 Trucking - 402	Non-RCRA	CH1226083					
9/5/2017	9/5/2017	5	016671664	x	9E89771	IA	Non-RCRA	CH1226083					
9/5/2017	9/5/2017	6	016671665	x	9F18011	Singh 108	Non-RCRA	CH1226083					
9/5/2017	9/5/2017	7	016671666	x	9F27997	Chahal	Non-RCRA	CH1226083					
9/5/2017	9/5/2017	8	016671667	x	9E60822	Singh 9	Non-RCRA	CH1226083					
9/5/2017	9/5/2017	9	016671668	x	9F14107	Chahal 104	Non-RCRA	CH1226083			9	216	
9/7/2017	9/7/2017	1	016671669	x	9F58480	18 Trucking- 405	Non-RCRA	CH1226083					
9/7/2017	9/7/2017	2	016671670	x	WP18986	Sanchez- 02	Non-RCRA	CH1226083					
9/7/2017	9/7/2017	3	016671671	x	9F04723	18 Trucking - 418	Non-RCRA	CH1226083			3	72	
9/8/2017	9/8/2017	1	016671672	x	WP18986	Sanchez- 02	Non-RCRA	CH1226083			1	24	
											78	1934.52	TOTALS

ERRG

Concrete and AC Export
Receiving Facility: Brisbane Recycling Co, San Francisco

Load Date	Arrival Date	Daily Shipment #	License #	Trucking Company	Material	Weight Tag #	Transport Price per Load	Disposal Price per Load	Load Cost	Day's Load Count	Comments
12/28/2016	12/28/2016	1		18 trucking	Broken Concrete/ AC	579292	$500		$292.50		
12/28/2016	12/28/2016	2		18 trucking	Broken Concrete/ AC	579329	$500		$292.50	2	
										2	TOTALS

ERRG

SUBMITTAL RECORD

Presidio Trust
CONTRACT NO. PT-2015-063
SITE REMEDIATION AT Lendrum Court

SUBMITTAL NAME	Waste Manifests and waste profiles	**SUBMITTAL CODE:**	
SPEC SECTION TITLE:	Waste Management and disposal	**SUBMITTAL NO:**	011
SUB/SUPPLIER:		**REVISION NO:**	
		DATE SUBMITTED:	1/26/17

ITEM	DESCRIPTION	REVIEW STATUS					
		NAT	NET	MCN	R&R	REJ	SUB
1	Waste Profiles	☐	☐	☐	☐	☐	☐
2	Copies of Manifests	☐	☐	☐	☐	☐	☐
3	Disposal Logs	☐	☐	☐	☐	☐	☐
4		☐	☐	☐	☐	☐	☐
5		☐	☐	☐	☐	☐	☐
6		☐	☐	☐	☐	☐	☐
7		☐	☐	☐	☐	☐	☐

LEGEND:

NAT = No Action Taken
NET = No Exceptions Taken
MCN = Make Corrections Noted
R&R = Revise and Resubmit
REJ = Rejected
SUB = Submit Specified Item

REVIEWER'S NAME: _____

REVIEWER'S SIGNATURE: _____ **DATE:** _____

This review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Corrections or comments made relative to submittals during this review do not relieve the contractor from compliance with the requirements of the drawings and specifications. Contractor is responsible for all dimensions which shall be confirmed and correlated at the job site; selecting fabrication processes and techniques of construction; coordination of the contractor's work with that of all other trades; and the satisfactory performance of the contractor's work.

REVIEW COMMENTS (include general review comments and specific revision requirements to numbered items):

Non-hazardous Treated Wood Waste
Receiving Facility: Hay Road Landfill, Vacaville

Load Date	Arrival Date	Daily Shipment #	Manifest/Ticket #	Copy of Manifest	License #	Trucking Company	Waste Class	Profile #	Weight Tag #	Tons	Transport Price per Load	Disposal Price per Ton	Load Cost	Day's Load Count	Day's Tonnage	Comments
6/15/2016	6/15/2016	1	0182729	x	01645N1	GM 777	Non-hazardous Treated Wood	n/a	1566761	3.86	$525	$58	$748.88			
6/15/2016	6/15/2016	2	0182730	x	01645N1	GM 777	Non-hazardous Treated Wood	n/a	1566995	5.36	$525	$58	$835.88	2	9.22	
6/16/2016	6/16/2016	1	0182731	x	01645N1	GM 777	Non-hazardous Treated Wood	n/a	1567306	5.56	$525	$58	$847.48	1	5.56	
													$2,432.24	3	14.78	TOTAL

ERRG

Soil Classification: Non-hazardous
Receiving Facility: Ox Mountain in Half Moon Bay or Potrero Hills in Suisun City

Load Date	Arrival Date	Daily Shipment #	Manifest/Ticket #	Copy of Manifest	License #	Trucking Company	Waste Class	Receiving Facility	Profile #	Weight Tag #	Tons	Day's Load Count	Day's Tonnage	Comments
7/1/2016	7/1/2016	1	3141382	x	9f18322	18 Trucking	Non-hazardous	Ox Mountain	42271610897	1197018	18.24			Trans to Ox Mtn; material denied as ADC, disposed as non-haz soil not meeting ADC spec
7/1/2016	7/1/2016	2	3141381	x	9e36800	18 Trucking	Non-hazardous	Ox Mountain	42271610897	1197009	18.94			
7/1/2016	7/1/2016	3	3141380	x	9d54294	18 Trucking	Non-hazardous	Ox Mountain	42271610897	1196993	19.08	3	56.26	
7/8/2016	7/8/2016	1	003001	x	8D35161	18 Trucking - 216	Non-hazardous	Potrero Hills	PHLF-16395	01-685275	20.85			
7/8/2016	7/8/2016	2	003002	x	02642R1	Flores 11	Non-hazardous	Potrero Hills	PHLF-16395	01-685295	20.43			
7/8/2016	7/8/2016	3	003003	x	6M27924	Flores 6	Non-hazardous	Potrero Hills	PHLF-16395	01-685321	21.62			
7/8/2016	7/8/2016	4	003004	x	63449N1	18 Trucking - 218	Non-hazardous	Potrero Hills	PHLF-16395	01-685354	18.21			
7/8/2016	7/8/2016	5	003005	x	8D35161	18 Trucking - 216	Non-hazardous	Potrero Hills	PHLF-16395	01-685516	19.09			
7/8/2016	7/8/2016	6	003006	x	02642R1	Flores 11	Non-hazardous	Potrero Hills	PHLF-16395	01-685493	19.81			
7/8/2016	7/8/2016	7	003007	x	6M27924	Flores 6	Non-hazardous	Potrero Hills	PHLF-16395	01-685504	19.56	7	139.57	
7/11/2016	7/11/2016	1	003008	x	02642R1	Flores 11	Non-hazardous	Potrero Hills	PHLF-16395	01-686090	18.52			
7/11/2016	7/11/2016	2	003009	x	8D35161	18 Trucking - 216	Non-hazardous	Potrero Hills	PHLF-16395	01-686104	19.41			
7/11/2016	7/11/2016	3	003010	x	6M27924	Flores 6	Non-hazardous	Potrero Hills	PHLF-16395	01-686115	18.23			
7/11/2016	7/11/2016	4	003011	x	12496V1	Flores 7	Non-hazardous	Potrero Hills	PHLF-16395	01-686125	11.59			
7/11/2016	7/11/2016	5	003012	x	02642R1	Flores 11	Non-hazardous	Potrero Hills	PHLF-16395	01-686273	18.05			
7/11/2016	7/11/2016	6	003013	x	8D35161	18 Trucking - 216	Non-hazardous	Potrero Hills	PHLF-16395	01-686289	15.76			
7/11/2016	7/11/2016	7	003014	x	6M27924	Flores 6	Non-hazardous	Potrero Hills	PHLF-16395	01-686335	17.91			
7/11/2016	7/11/2016	8	003015	x	12496V1	Flores 7	Non-hazardous	Potrero Hills	PHLF-16395	01-686332	13.34	8	132.81	
7/12/2016	7/12/2016	1	003016	x	8D35161	18 Trucking - 216	Non-hazardous	Potrero Hills	PHLF-16395	01-686548	17			
7/12/2016	7/12/2016	2	003017	x	8H02991	Tepa 184	Non-hazardous	Potrero Hills	PHLF-16395	01-686562	16.05			
7/12/2016	7/12/2016	3	003018	x	9E21149	Rojas	Non-hazardous	Potrero Hills	PHLF-16395	01-686605	21.96			
7/12/2016	7/12/2016	4	003019	x	6U81293	Martinez	Non-hazardous	Potrero Hills	PHLF-16395	01-686586	18.11			
7/12/2016	7/12/2016	5	003020	x	8D35161	18 Trucking - 216	Non-hazardous	Potrero Hills	PHLF-16395	01-686702	17.05			
7/12/2016	7/12/2016	6	003021	x	8H02991	Tepa 184	Non-hazardous	Potrero Hills	PHLF-16395	01-686735	19.31			
7/12/2016	7/12/2016	7	003022	x	6U81293	Martinez	Non-hazardous	Potrero Hills	PHLF-16395	01-686752	21.06			
7/12/2016	7/12/2016	8	003023	x	9E21149	Rojas	Non-hazardous	Potrero Hills	PHLF-16395	01-686768	26.32	8	156.86	
11/29/2016	11/29/2016	1	003024	x	7455241	18-215	Non-hazardous	Potrero Hills	PHLF-16395	01-733195	22.77			
11/29/2016	11/29/2016	2	003025	x	98151M1	18 Trucking	Non-hazardous	Potrero Hills	PHLF-16395	01-733160	20.57			
11/29/2016	11/29/2016	3	003026	x	02642R1	Flores	Non-hazardous	Potrero Hills	PHLF-16395	01-733215	21.67			
11/29/2016	11/29/2016	4	003027	x	58433U1	J&G Trans	Non-hazardous	Potrero Hills	PHLF-16395	01-733190	21.83			
11/29/2016	11/29/2016	5	003028	x	81510H1	J&G Trans	Non-hazardous	Potrero Hills	PHLF-16395	01-733233	22.47			
11/29/2016	11/29/2016	6	003029	x	05624J1	Rojas	Non-hazardous	Potrero Hills	PHLF-16395	01-733248	22.32			
11/29/2016	11/29/2016	7	003030	x	8M18529	RCC Trucking	Non-hazardous	Potrero Hills	PHLF-16395	01-733275	18.96			
11/29/2016	11/29/2016	8	003031	x	7455241	18-215	Non-hazardous	Potrero Hills	PHLF-16395	01-733384	22.4			
11/29/2016	11/29/2016	9	003032	x	98151M1	18 Trucking	Non-hazardous	Potrero Hills	PHLF-16395	01-733412	19.72			
11/29/2016	11/29/2016	10	003033	x	02642R1	Flores	Non-hazardous	Potrero Hills	PHLF-16395	01-733449	19.72			
11/29/2016	11/29/2016	11	003034	x	58433U1	J&G Trans	Non-hazardous	Potrero Hills	PHLF-16395	01-733444	19.35			
11/29/2016	11/29/2016	12	003035	x	81510H1	J&G Trans	Non-hazardous	Potrero Hills	PHLF-16395	01-733465	17.67			
11/29/2016	11/29/2016	13	003036	x	05624J1	Rojas	Non-hazardous	Potrero Hills	PHLF-16395	01-733477	16.57			
11/29/2016	11/29/2016	14	003037	x	8M18529	RCC Trucking	Non-hazardous	Potrero Hills	PHLF-16395	01-733481	16.86	14	282.88	
11/30/2016	11/30/2016	1	003038	x	7455241	18-215	Non-hazardous	Potrero Hills	PHLF-16395	01-733672	17.12			
11/30/2016	11/30/2016	2	003039	x	98151M1	18 Trucking	Non-hazardous	Potrero Hills	PHLF-16395	01-733683	16.65			
11/30/2016	11/30/2016	3	003040	x	8D35161	18 Trucking - 216	Non-hazardous	Potrero Hills	PHLF-16395	01-733691	17.2			
11/30/2016	11/30/2016	4	003041	x	8M18529	RCC Trucking	Non-hazardous	Potrero Hills	PHLF-16395	01-733767	16.52			
11/30/2016	11/30/2016	5	003042	x	02642R1	Flores	Non-hazardous	Potrero Hills	PHLF-16395	01-733768	17.55			
11/30/2016	11/30/2016	6	003043	x	7455241	18-215	Non-hazardous	Potrero Hills	PHLF-16395	01-733859	16.27			
11/30/2016	11/30/2016	7	003044	x	98151M1	18 Trucking	Non-hazardous	Potrero Hills	PHLF-16395	01-733917	23.09			
11/30/2016	11/30/2016	8	003045	x	8D35161	18 Trucking - 216	Non-hazardous	Potrero Hills	PHLF-16395	01-733896	18.65			
11/30/2016	11/30/2016	9	003046	x	8M18529	RCC Trucking	Non-hazardous	Potrero Hills	PHLF-16395	01-733968	22.37			
11/30/2016	11/30/2016	10	003047	x	02642R1	Flores	Non-hazardous	Potrero Hills	PHLF-16395	01-733974	19.41	10	184.83	
12/1/2016	12/1/2016	1	003048	x	7455241	18-215	Non-hazardous	Potrero Hills	PHLF-16395	01-734257	20.9			
12/1/2016	12/1/2016	2	003049	x	7U18735	Flores	Non-hazardous	Potrero Hills	PHLF-16395	01-734238	22	2	42.9	
												40	996.11	TOTAL

ERRG

Soil Classification: Non-RCRA
Receiving Facility: Buttonwillow

Load Date	Arrival Date	Daily Shipment #	Manifest/Ticket #	Copy of Manifest	License #	Trucking Company	Waste Class	Profile #	Weight Tag #	Tons	Day's Load Count	Day's Tonnage	Comments
7/13/2016	7/13/2016	1	014722157	x	9F04723	18 Trucking - 236	Non-RCRA	CH1226083	345182	22.09			
7/13/2016	7/13/2016	2	014722158	x	9F18322	18 Trucking	Non-RCRA	CH1226083	345173	18.80			
7/13/2016	7/13/2016	3	014722159	x	9D75577	A&I trucking - 48	Non-RCRA	CH1226083	345193	19.95	3	60.84	
7/18/2016	7/18/2016	1	014722160	x	9d77873	18 Trucking - 241	Non-RCRA	CH1226083	345571	23.39			
7/18/2016	7/18/2016	2	014722161	x	9E93196	18 Trucking- 239	Non-RCRA	CH1226083		22.7			
7/18/2016	7/18/2016	3	014722163	x	9F04723	18 Trucking - 236	Non-RCRA	CH1226083		22.77			
7/18/2016	7/18/2016	4	014722164	x	9F05657	18 Trucking - 240	Non-RCRA	CH1226083		23.56	4	92.42	
7/19/2016	7/19/2016	1	014722165	x	9E93196	18 Trucking- 239	Non-RCRA	CH1226083	345649	23.85			
7/19/2016	7/19/2016	2	014722166	x	9F05657	18 Trucking - 240	Non-RCRA	CH1226083	345648	24.34			
7/19/2016	7/19/2016	3	014722167	x	9F04723	18 Trucking - 236	Non-RCRA	CH1226083	345644	26.19			
7/19/2016	7/19/2016	4	014722168	x	WP18986	Sanchez- 02	Non-RCRA	CH1226083	345640	25.32			
7/19/2016	7/19/2016	5	014722169	x	9F18011	Singh - 198	Non-RCRA	CH1226083	345654	26.15			
7/19/2016	7/19/2016	6	014722170	x	9D50694	S&B - 104	Non-RCRA	CH1226083		21.45			
7/19/2016	7/19/2016	7	014722171	x	9F27997	Chahal - 175	Non-RCRA	CH1226083		21.34			
7/19/2016	7/19/2016	8	014722172	x	9E60822	Singh - 9	Non-RCRA	CH1226083	345664	25.56			
7/19/2016	7/19/2016	9	014722173	x	WP53706	JC Trans	Non-RCRA	CH1226083		20.46			
7/19/2016	7/19/2016	10	014722174	x	9D75577	AI - 48	Non-RCRA	CH1226083		21.49	10	236.15	
7/20/2016	7/20/2016	1	01422175	x	9D77873	18 Trucking - 241	Non-RCRA	CH1226083		22.93			
7/20/2016	7/20/2016	2	01422176	x	9E93196	18 Trucking- 239	Non-RCRA	CH1226083	345769	24.24			
7/20/2016	7/20/2016	3	01422177	x	9F05657	18 Trucking - 240	Non-RCRA	CH1226083	345768	20.26	3	67.43	
10/10/2016	10/10/2016	1	01422178	x	9e31396	18 Trucking- 239	Non-RCRA	CH1226083	349664	24.4			
10/10/2016	10/10/2016	2	01422179	x	9e77873	18 Trucking - 241	Non-RCRA	CH1226083	349656	22.41			
10/10/2016	10/10/2016	3	01422180	x	9f05657	18 Trucking - 240	Non-RCRA	CH1226083	349663	22.46			
10/10/2016	10/10/2016	4	01422181	x	Wp18986	Sanchez- 02	Non-RCRA	CH1226083	349671	30.35			
10/10/2016	10/10/2016	5	01422182	x	9F04723	18 Trucking- 236	Non-RCRA	CH1226083	349660	26.17			
10/10/2016	10/10/2016	6	01422183	x	9D75577	18 Trucking- 2048	Non-RCRA	CH1226083	349672	30.08	6	155.87	
10/11/2016	10/11/2016	1	01422184	x	9e77873	18 Trucking - 241	Non-RCRA	CH1226083	349719	23.68			
10/11/2016	10/11/2016	2	01422185	x	9e31396	18 Trucking- 239	Non-RCRA	CH1226083	349733	26.8			
10/11/2016	10/11/2016	3	01422186	x	9f05657	18 Trucking - 240	Non-RCRA	CH1226083	349732	25.05			
10/11/2016	10/11/2016	4	01422187	x	9F04723	18 Trucking- 236	Non-RCRA	CH1226083	349742	22.09			
10/11/2016	10/11/2016	5	01422188	x	Wp18986	Sanchez- 02	Non-RCRA	CH1226083	349731	29.85			
10/11/2016	10/11/2016	6	01422189	x	9D75577	18 Trucking- 248	Non-RCRA	CH1226083	349737	25.24	6	152.71	
10/13/2016	10/13/2016	1	011918673	x	9e77873	18 Trucking - 241	Non-RCRA	CH1226083	349856	27.38			
10/13/2016	10/13/2016	2	011918674	x	9e31396	18 Trucking- 239	Non-RCRA	CH1226083	349870	26.59			
10/13/2016	10/13/2016	3	011918675	x	9f05657	18 Trucking - 240	Non-RCRA	CH1226083	349866	26.43			
10/13/2016	10/13/2016	4	011918676	x	Wp18986	Sanchez- 02	Non-RCRA	CH1226083	349862	29.38			
10/13/2016	10/13/2016	5	011918677	x	9D75577	18 trucking -248	Non-RCRA	CH1226083	349865	23.96	5	133.74	

ERRG

Soil Classification: Non-RCRA
Receiving Facility: Buttonwillow

Load Date	Arrival Date	Daily Shipment #	Manifest/Ticket #	Copy of Manifest	License #	Trucking Company	Waste Class	Profile #	Weight Tag #	Tons	Day's Load Count	Day's Tonnage	Comments
10/17/2016	10/17/2016	1	011918678	x		18 Trucking - 236	Non-RCRA	CH1226083	349977	22.84			Trucks were just purchased, did not have license plate
10/17/2016	10/17/2016	2	011918679	x		18 Trucking- 239	Non-RCRA	CH1226083	349987	27.58			Trucks were just purchased, did not have license plate
10/17/2016	10/17/2016	3	011918680	x		18 Trucking - 240	Non-RCRA	CH1226083	349986	26.96			Trucks were just purchased, did not have license plate
10/17/2016	10/17/2016	4	011918681	x	9e77873	18 Trucking - 241	Non-RCRA	CH1226083	349988	27.25	4	104.63	
10/19/2016	10/19/2016	1	011918682	x		18 Trucking - 236	Non-RCRA	CH1226083	350092	23.17			Trucks were just purchased, did not have license plate
10/19/2016	10/19/2016	2	011918683	x		18 Trucking- 239	Non-RCRA	CH1226083	350114	27.21			Trucks were just purchased, did not have license plate
10/19/2016	10/19/2016	3	011918684	x		18 Trucking - 240	Non-RCRA	CH1226083	350111	28.48			Trucks were just purchased, did not have license plate
10/19/2016	10/19/2016	4	011918685	x	9D75577	AI - 48	Non-RCRA	CH1226083	350115	22.08			
10/19/2016	10/19/2016	5	011918686	x	9D77873	18 Trucking - 241	Non-RCRA	CH1226083	350116	26.54	5	127.48	
10/27/2016	10/27/2016	1	011918687	x	9D77873	18 Trucking - 241	Non-RCRA	CH1226083	350501	25.85			
10/27/2016	10/27/2016	2	011918688	x	9F58478	18 Trucking- 239	Non-RCRA	CH1226083	350522	27.94			Trucks were just purchased, did not have license plate
10/27/2016	10/27/2016	3	011918689	x		18 Trucking - 240	Non-RCRA	CH1226083	350523	28.68			Trucks were just purchased, did not have license plate
10/27/2016	10/27/2016	4	011918690	x	9D75577	AI - 48	Non-RCRA	CH1226083	350524	23.33			
10/27/2016	10/27/2016	5	011918691	x	9F04723	18 Trucking - 236	Non-RCRA	CH1226083	350525	27.55	5	133.35	
12/6/2016	12/6/2016	1	011918692	x	4kb057	18 Trucking	Non-RCRA	CH1226083	352518	31.58			
12/6/2016	12/6/2016	2	011918693	x	9F58478	18 Trucking- 239	Non-RCRA	CH1226083	352541	26.7			
12/6/2016	12/6/2016	3	011918694	x	9D77873	18 Trucking - 241	Non-RCRA	CH1226083	352538	28.99			
12/6/2016	12/6/2016	4	011918695	x	9f18322	Sanchez	Non-RCRA	CH1226083	352515	23.39			
12/6/2016	12/6/2016	5	011918696	x	Wp18986	Sanchez- 02	Non-RCRA	CH1226083	352544	26.78			
12/6/2016	12/6/2016	6	011918697	x	9D75577	A & I trucking	Non-RCRA	CH1226083	352539	21.59			
12/6/2016	12/6/2016	7	011918698	x	#049	18 Trucking	Non-RCRA	CH1226083	352540	21.76	7	180.79	
12/16/2016	12/16/2016	1	011918699	x	9F58478	18 Trucking	Non-RCRA	CH1226083	352540	28.89			
12/16/2016	12/16/2016	2	011918700	x	9D77873	18 Trucking- 239	Non-RCRA	CH1226083	352540	26.71			
12/16/2016	12/16/2016	3	011918701	x	WP18986	18 Trucking - 241	Non-RCRA	CH1226083	352540	29.07			
12/16/2016	12/16/2016	4	011918702	x	9D75577	A & I trucking	Non-RCRA	CH1226083	352540	23.1			
12/16/2016	12/16/2016	5	019722484	x	9E89771	A & I trucking	Non-RCRA	CH1226083	352540	23.86	5	131.63	
12/29/2016	12/29/2016	1	14722485	x	9F58478	18 Trucking	Non-RCRA	CH1226083	353818	21.48			
12/29/2016	12/29/2016	2	14722486	x	WP18986	Sanchez	Non-RCRA	CH1226083	353817	24	2	45.48	
											63	1577.04	TOTAL

ERRG

Concrete and AC Export
Receiving Facility: Brisbane Recycling Co, San Francisco

Load Date	Arrival Date	Daily Shipment #	License #	Trucking Company	Material	Weight Tag #	Day's Load Count	Comments
12/28/2016	12/28/2016	1		18 trucking	Broken Concrete/ AC	579292		
12/28/2016	12/28/2016	2		18 trucking	Broken Concrete/ AC	579329	2	
							2	Total Loads

ERRG

WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. CH1226083

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION # *CAR000186379* GENERATOR NAME: *Presidio Trust*

GENERATOR CODE (Assigned by Clean Harbors) *TH1875* CITY *San Francisco* STATE/PROVINCE *CA* ZIP/POSTAL CODE *94129*

ADDRESS *1471 Central Magazine* PHONE: *(415) 561-5421*

CUSTOMER CODE (Assigned by Clean Harbors) *DI0631* CUSTOMER NAME: *Dirt Shop Inc*

ADDRESS *5 Thomas Mellon Circle Suite 104* CITY *San Francisco* STATE/PROVINCE *CA* ZIP/POSTAL CODE *94134*

B. WASTE DESCRIPTION

WASTE DESCRIPTION: *Non-RCRA hazardous waste (Soil with Lead)*

PROCESS GENERATING WASTE: **Excavation for site improvements. Site history includes use as WWI training area, and housed an incinerator until 1920s.**

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER ? **No**

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE
- [x] SOLID WITHOUT FREE LIQUID POWDER
- [ ] MONOLITHIC SOLID
- [ ] LIQUID WITH NO SOLIDS
- [ ] LIQUID/SOLID MIXTURE
- [ ] % FREE LIQUID
- [ ] % SETTLED SOLID
- [ ] % TOTAL SUSPENDED SOLID
- [ ] SLUDGE
- [ ] GAS/AEROSOL

NUMBER OF PHASES/LAYERS

1 2 3

% BY VOLUME (Approx.)

TOP *0.00*
MIDDLE *0.00*
BOTTOM *0.00*

VISCOSITY (If liquid present)
- 1 - 100 (e.g. Water)
- 101 - 500 (e.g. Motor Oil)
- 501 - 10,000 (e.g. Molasses)
- > 10,000

COLOR

Brown

ODOR
- [x] NONE
- [ ] MILD
- [ ] STRONG

Describe:

BOILING POINT °F (°C)
- <= 95 (<=35)
- 95 - 100 (35-38)
- 101 - 129 (38-54)
- >= 130 (>54)

MELTING POINT °F (°C)
- < 140 (<60)
- 140-200 (60-93)
- [x] > 200 (>93)

TOTAL ORGANIC CARBON
- [x] <= 1%
- 1-9%
- >= 10%

FLASH POINT °F (°C)
- < 73 (<23)
- 73 - 100 (23-38)
- 101 -140 (38-60)
- 141 -200 (60-93)
- > 200 (>93)

pH
- <= 2
- 2.1 - 6.9
- 7 (Neutral)
- [x] 7.1 - 12.4
- >= 12.5

SPECIFIC GRAVITY
- < 0.8 (e.g. Gasoline)
- 0.8-1.0 (e.g. Ethanol)
- 1.0 (e.g. Water)
- 1.0-1.2 (e.g. Antifreeze)
- [x] > 1.2 (e.g. Methylene Chloride)

ASH
- < 0.1
- 0.1 - 1.0
- 1.1 - 5.0
- 5.1 - 20.0
- > 20
- [x] Unknown

BTU/LB (MJ/kg)
- [x] < 2,000 (<4.6)
- 2,000-5,000 (4.6-11.6)
- 5,000-10,000 (11.6-23.2)
- > 10,000 (>23.2)

Actual:

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	--	MAX	UOM
DEBRIS (VEGETATION, RUBBLE, WOOD, PLASTIC, TRASH)	5.0000000	--	15.0000000	%
LEAD	0.0001000	--	0.2800000	%
SOIL	85.0000000	--	95.0000000	%

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3')? YES [x] NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES [x] NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES [x] NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. *G39* SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. *W301*

Clean Harbors Profile No. CH1226083

E. CONSTITUENTS

Are these values based on testing or knowledge? Knowledge ☑ Testing

If constituent concentrations are based on analytical testing, analysis must be provided. Please attach document(s) using the link on the Submit tab.

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0				☑
D005	BARIUM	100.0				☑
D006	CADMIUM	1.0				☑
D007	CHROMIUM	5.0	*0.1100*	*220.0000000*	*PPM*	
D008	LEAD	5.0	*0.0000*	*2800.0000000*	*PPM*	
D009	MERCURY	0.2				☑
D010	SELENIUM	1.0				☑
D011	SILVER	5.0				☑
	VOLATILE COMPOUNDS					
D018	BENZENE	0.5				
D019	CARBON TETRACHLORIDE	0.5				
D021	CHLOROBENZENE	100.0				
D022	CHLOROFORM	6.0				
D028	1,2-DICHLOROETHANE	0.5				
D029	1,1-DICHLOROETHYLENE	0.7				
D035	METHYL ETHYL KETONE	200.0				
D039	TETRACHLOROETHYLENE	0.7				
D040	TRICHLOROETHYLENE	0.5				
D043	VINYL CHLORIDE	0.2				
	SEMI-VOLATILE COMPOUNDS					
D023	o-CRESOL	200.0				
D024	m-CRESOL	200.0				
D025	p-CRESOL	200.0				
D026	CRESOL (TOTAL)	200.0				
D027	1,4-DICHLOROBENZENE	7.5				
D030	2,4-DINITROTOLUENE	0.13				
D032	HEXACHLOROBENZENE	0.13				
D033	HEXACHLOROBUTADIENE	0.5				
D034	HEXACHLOROETHANE	3.0				
D036	NITROBENZENE	2.0				
D037	PENTACHLOROPHENOL	100.0				
D038	PYRIDINE	5.0				
D041	2,4,5-TRICHLOROPHENOL	400.0				
D042	2,4,6-TRICHLOROPHENOL	2.0				
	PESTICIDES AND HERBICIDES					
D012	ENDRIN	0.02				
D013	LINDANE	0.4				
D014	METHOXYCHLOR	10.0				
D015	TOXAPHENE	0.5				
D016	2,4-D	10.0				
D017	2,4,5-TP (SILVEX)	1.0				
D020	CHLORDANE	0.03				
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008				

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			☑
CHLORINE			☑
FLUORINE			☑
IODINE			☑
SULFUR			☑
POTASSIUM			☑
SODIUM			☑
AMMONIA			☑
CYANIDE AMENABLE			☑
CYANIDE REACTIVE			☑
CYANIDE TOTAL			☑
SULFIDE REACTIVE			☑

HOCs

☑ NONE

< 1000 PPM

>= 1000 PPM

PCBs

☑ NONE

< 50 PPM

>=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES ☑ NO

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES ☑ NO (If yes, explain)

CHOOSE ALL THAT APPLY

Clean Harbors Profile No. CH1226083

F. REGULATORY STATUS

YES ☑ NO USEPA HAZARDOUS WASTE?

☑ YES NO DO ANY STATE WASTE CODES APPLY?

611

Texas Waste Code

YES ☑ NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

YES ☑ NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?

LDR CATEGORY: Not subject to LDR
VARIANCE INFO:

YES ☑ NO IS THIS A UNIVERSAL WASTE?

YES ☑ NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?

YES NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES ☑ NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

YES ☑ NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

YES NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

YES ☑ NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?

YES ☑ NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

YES ☑ NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

YES NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?

What is the TAB quantity for your facility? _____ Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data Knowledge Testing

Describe the knowledge :

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

NON-RCRA HAZARDOUS WASTE, SOLID, (SOIL WITH LEAD)

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ONE TIME WEEKLY MONTHLY QUARTERLY YEARLY ☑ OTHER *Daily until gone*

CONTAINERIZED

0-0 CONTAINERS/SHIPMENT

STORAGE CAPACITY:

CONTAINER TYPE:

PORTABLE TOTE TANK BOX|CARTON|CASE

CUBIC YARD BOX DRUM

OTHER:

DRUM SIZE:

BULK LIQUID

GALLONS/SHIPMENT: *0 Min -0 Max* GAL.

☑ **BULK SOLID**

SHIPMENT UOM: TON ☑ YARD

TONS/YARDS/SHIPMENT: *15.00 Min - 18.00 Max*

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:

Lead in soil likely from Lead based paint used on building structures. Only sample applicable is LC-WC-052716-05.

GENERATOR'S CERTIFICATION

I certify that I am authorized to execute this document as an authorized agent. I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge.I also certify that any samples submitted are representative of the actual waste.If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE	NAME (PRINT)	TITLE	DATE
[signature]	Nina Lassen for The Presidio Trust	Env. Remed. PM	7/8/14

WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. CH1226083

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION # *CAR000186379* GENERATOR NAME: *Presidio Trust*

GENERATOR CODE (Assigned by Clean Harbors) *TH1875* CITY *San Francisco* STATE/PROVINCE *CA* ZIP/POSTAL CODE *94129*

ADDRESS *1471 Central Magazine* PHONE: *(415) 561-5421*

CUSTOMER CODE (Assigned by Clean Harbors) *DI0631* CUSTOMER NAME: *Dirt Shop Inc*

ADDRESS *1485 Bayshore Blvd MB# 141* CITY *San Francisco* STATE/PROVINCE *CA* ZIP/POSTAL CODE *94124*

B. WASTE DESCRIPTION

WASTE DESCRIPTION: ***Non-RCRA hazardous waste (Soil with Lead)***

PROCESS GENERATING WASTE: **Excavation for site improvements. Site history includes use as WWI training area. See "Attachment 1" listing sample #s.**

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER ? **No**

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE
- [x] SOLID WITHOUT FREE LIQUID
- [ ] POWDER
- [ ] MONOLITHIC SOLID
- [ ] LIQUID WITH NO SOLIDS
- [ ] LIQUID/SOLID MIXTURE
- [ ] % FREE LIQUID
- [ ] % SETTLED SOLID
- [ ] % TOTAL SUSPENDED SOLID
- [ ] SLUDGE
- [ ] GAS/AEROSOL

NUMBER OF PHASES/LAYERS

1 2 3

% BY VOLUME (Approx.)

TOP *0.00*
MIDDLE *0.00*
BOTTOM *0.00*

VISCOSITY (If liquid present)
- [ ] 1 - 100 (e.g. Water)
- [ ] 101 - 500 (e.g. Motor Oil)
- [ ] 501 - 10,000 (e.g. Molasses)
- [ ] > 10,000

COLOR

Brown

ODOR
- [x] NONE
- [ ] MILD
- [ ] STRONG

Describe:

BOILING POINT °F (°C)
- [ ] <= 95 (<=35)
- [ ] 95 - 100 (35-38)
- [ ] 101 - 129 (38-54)
- [ ] >= 130 (>54)

MELTING POINT °F (°C)
- [ ] < 140 (<60)
- [ ] 140-200 (60-93)
- [x] > 200 (>93)

TOTAL ORGANIC CARBON
- [x] <= 1%
- [ ] 1-9%
- [ ] >= 10%

FLASH POINT °F (°C)
- [ ] < 73 (<23)
- [ ] 73 - 100 (23-38)
- [ ] 101 -140 (38-60)
- [ ] 141 -200 (60-93)
- [ ] > 200 (>93)

pH
- [ ] <= 2
- [ ] 2.1 - 6.9
- [ ] 7 (Neutral)
- [x] 7.1 - 12.4
- [ ] >= 12.5

SPECIFIC GRAVITY
- [ ] < 0.8 (e.g. Gasoline)
- [ ] 0.8-1.0 (e.g. Ethanol)
- [ ] 1.0 (e.g. Water)
- [ ] 1.0-1.2 (e.g. Antifreeze)
- [x] > 1.2 (e.g. Methylene Chloride)

ASH
- [ ] < 0.1
- [ ] 0.1 - 1.0
- [ ] 1.1 - 5.0
- [ ] 5.1 - 20.0
- [ ] > 20
- [x] Unknown

BTU/LB (MJ/kg)
- [x] < 2,000 (<4.6)
- [ ] 2,000-5,000 (4.6-11.6)
- [ ] 5,000-10,000 (11.6-23.2)
- [ ] > 10,000 (>23.2)

Actual:

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	--	MAX	UOM
DEBRIS (VEGETATION AND PLASTIC)	5.0000000	--	10.0000000	%
LEAD	0.0001000	--	5.3000000	%
SOIL	90.0000000	--	95.0000000	%

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES [ ] NO [x]

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES [ ] NO [x]

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES [ ] NO [x]

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. *G39* SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. *W301*

Clean Harbors Profile No. CH1226083

E. CONSTITUENTS

Are these values based on testing or knowledge? Knowledge ☑ Testing

If constituent concentrations are based on analytical testing, analysis must be provided. Please attach document(s) using the link on the Submit tab.

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0				☑
D005	BARIUM	100.0				☑
D006	CADMIUM	1.0				☑
D007	CHROMIUM	5.0				☑
D008	LEAD	5.0	*1.5000*	*53000.0000000*	*PPM*	
D009	MERCURY	0.2				☑
D010	SELENIUM	1.0				☑
D011	SILVER	5.0				☑

	VOLATILE COMPOUNDS	
D018	BENZENE	0.5
D019	CARBON TETRACHLORIDE	0.5
D021	CHLOROBENZENE	100.0
D022	CHLOROFORM	6.0
D028	1,2-DICHLOROETHANE	0.5
D029	1,1-DICHLOROETHYLENE	0.7
D035	METHYL ETHYL KETONE	200.0
D039	TETRACHLOROETHYLENE	0.7
D040	TRICHLOROETHYLENE	0.5
D043	VINYL CHLORIDE	0.2

	SEMI-VOLATILE COMPOUNDS	
D023	o-CRESOL	200.0
D024	m-CRESOL	200.0
D025	p-CRESOL	200.0
D026	CRESOL (TOTAL)	200.0
D027	1,4-DICHLOROBENZENE	7.5
D030	2,4-DINITROTOLUENE	0.13
D032	HEXACHLOROBENZENE	0.13
D033	HEXACHLOROBUTADIENE	0.5
D034	HEXACHLOROETHANE	3.0
D036	NITROBENZENE	2.0
D037	PENTACHLOROPHENOL	100.0
D038	PYRIDINE	5.0
D041	2,4,5-TRICHLOROPHENOL	400.0
D042	2,4,6-TRICHLOROPHENOL	2.0

	PESTICIDES AND HERBICIDES	
D012	ENDRIN	0.02
D013	LINDANE	0.4
D014	METHOXYCHLOR	10.0
D015	TOXAPHENE	0.5
D016	2,4-D	10.0
D017	2,4,5-TP (SILVEX)	1.0
D020	CHLORDANE	0.03
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			☑
CHLORINE			☑
FLUORINE			☑
IODINE			☑
SULFUR			☑
POTASSIUM			☑
SODIUM			☑
AMMONIA			☑
CYANIDE AMENABLE			☑
CYANIDE REACTIVE			☑
CYANIDE TOTAL			☑
SULFIDE REACTIVE			☑

HOCs

☑ NONE

< 1000 PPM

>= 1000 PPM

PCBs

☑ NONE

< 50 PPM

>=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES ☑ NO

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES ☑ NO (If yes, explain)

CHOOSE ALL THAT APPLY

DEA REGULATED SUBSTANCES | EXPLOSIVE | FUMING | OSHA REGULATED CARCINOGENS

POLYMERIZABLE | RADIOACTIVE | REACTIVE MATERIAL | ☑ NONE OF THE ABOVE

Clean Harbors Profile No. CH1226083

F. REGULATORY STATUS

YES ☑ NO USEPA HAZARDOUS WASTE?

☑ YES NO DO ANY STATE WASTE CODES APPLY?

611

Texas Waste Code

YES ☑ NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

YES ☑ NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?

LDR CATEGORY: *Not subject to LDR*

VARIANCE INFO:

YES ☑ NO IS THIS A UNIVERSAL WASTE?

YES ☑ NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS VERY SMALL QUANTITY GENERATOR (VSQG) OR A STATE EQUIVALENT DESIGNATION?

YES NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES ☑ NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

YES ☑ NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

YES NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

YES ☑ NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?

YES ☑ NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

YES ☑ NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

YES NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?

What is the TAB quantity for your facility? Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data Knowledge Testing

Describe the knowledge :

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

NON-RCRA HAZARDOUS WASTE, SOLID, (SOIL WITH LEAD)

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ONE TIME WEEKLY MONTHLY QUARTERLY YEARLY ☑ OTHER *Daily until gone*

CONTAINERIZED

0-0 CONTAINERS/SHIPMENT

STORAGE CAPACITY:

CONTAINER TYPE:

PORTABLE TOTE TANK BOX|CARTON|CASE

CUBIC YARD BOX DRUM

OTHER:

DRUM SIZE:

BULK LIQUID

GALLONS/SHIPMENT: *0 Min -0 Max* GAL.

☑ **BULK SOLID**

SHIPMENT UOM: TON ☑ YARD

TONS/YARDS/SHIPMENT: *15.00 Min - 18.00 Max*

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:

Lead in soil likely from Lead based paint used on building structures. Lead is the only constituent of concern.

GENERATOR'S CERTIFICATION

I certify that I am authorized to execute this document as an authorized agent. I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge.I also certify that any samples submitted are representative of the actual waste.If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE	NAME (PRINT)	TITLE	DATE
Nina Larssen Jr	Nina Larssen for The Presidio Trust	Remediation PM	8/1/17

WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. CH1226083

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION # *CAR000186379* GENERATOR NAME: *Presidio Trust*

GENERATOR CODE (Assigned by Clean Harbors) *TH1875* CITY *San Francisco* STATE/PROVINCE *CA* ZIP/POSTAL CODE *94129*

ADDRESS *1471 Central Magazine* PHONE: *(415) 561-5421*

CUSTOMER CODE (Assigned by Clean Harbors) *DI0631* CUSTOMER NAME: *Dirt Shop Inc*

ADDRESS *5 Thomas Mellon Circle Suite 104* CITY *San Francisco* STATE/PROVINCE *CA* ZIP/POSTAL CODE *94134*

B. WASTE DESCRIPTION

WASTE DESCRIPTION: *Non-RCRA hazardous waste (Soil w/ Antimony/Copper/Lead/Zinc)*

PROCESS GENERATING WASTE: **Excavation for site improvements. Site history includes use as WWI training area, and housed an incinerator until 1920s.**

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER ? **No**

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE
- [x] SOLID WITHOUT FREE LIQUID
- [ ] POWDER
- [ ] MONOLITHIC SOLID
- [ ] LIQUID WITH NO SOLIDS
- [ ] LIQUID/SOLID MIXTURE

% FREE LIQUID
% SETTLED SOLID
% TOTAL SUSPENDED SOLID
- [ ] SLUDGE
- [ ] GAS/AEROSOL

NUMBER OF PHASES/LAYERS

1 2 3

% BY VOLUME (Approx.)

TOP *0.00*
MIDDLE *0.00*
BOTTOM *0.00*

VISCOSITY (If liquid present)
- 1 - 100 (e.g. Water)
- 101 - 500 (e.g. Motor Oil)
- 501 - 10,000 (e.g. Molasses)
- > 10,000

COLOR

Brown

ODOR
- [x] NONE
- [ ] MILD
- [ ] STRONG

Describe:

BOILING POINT °F (°C)
- <= 95 (<=35)
- 95 - 100 (35-38)
- 101 - 129 (38-54)
- >= 130 (>54)

MELTING POINT °F (°C)
- < 140 (<60)
- 140-200 (60-93)
- [x] > 200 (>93)

TOTAL ORGANIC CARBON
- [x] <= 1%
- [ ] 1-9%
- [ ] >= 10%

FLASH POINT °F (°C)
- < 73 (<23)
- 73 - 100 (23-38)
- 101 -140 (38-60)
- 141 -200 (60-93)
- > 200 (>93)

pH
- <= 2
- 2.1 - 6.9
- 7 (Neutral)
- [x] 7.1 - 12.4
- >= 12.5

SPECIFIC GRAVITY
- < 0.8 (e.g. Gasoline)
- 0.8-1.0 (e.g. Ethanol)
- 1.0 (e.g. Water)
- 1.0-1.2 (e.g. Antifreeze)
- [x] > 1.2 (e.g. Methylene Chloride)

ASH
- < 0.1
- 0.1 - 1.0
- 1.1 - 5.0
- 5.1 - 20.0
- > 20
- [x] Unknown

BTU/LB (MJ/kg)
- [x] < 2,000 (<4.6)
- 2,000-5,000 (4.6-11.6)
- 5,000-10,000 (11.6-23.2)
- > 10,000 (>23.2)

Actual:

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	--	MAX	UOM
ANTIMONY	0.0001000	--	1.2000000	%
ARSENIC	0.0001000	--	0.0420000	%
CHROMIUM	0.0001000	--	0.0170000	%
COPPER	0.0001000	--	3.7000000	%
DEBRIS (VEGETATION, RUBBLE, WOOD, PLASTIC, TRASH)	5.0000000	--	15.0000000	%
LEAD	0.0001000	--	2.0000000	%
SOIL	85.0000000	--	90.0000000	%
ZINC	0.0001000	--	1.6000000	%

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES [x] NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES [x] NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES [x] NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. *G39* SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. *W301*

E. CONSTITUENTS

Are these values based on testing or knowledge? Knowledge ☑ Testing

If constituent concentrations are based on analytical testing, analysis must be provided. Please attach document(s) using the link on the Submit tab.

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0	*0.0000*	*420.0000000*	*PPM*	
D005	BARIUM	100.0				☑
D006	CADMIUM	1.0				☑
D007	CHROMIUM	5.0	*0.0000*	*170.0000000*	*PPM*	
D008	LEAD	5.0	*0.7900*	*20000.0000000*	*PPM*	
D009	MERCURY	0.2				☑
D010	SELENIUM	1.0				☑
D011	SILVER	5.0				☑

	VOLATILE COMPOUNDS	
D018	BENZENE	0.5
D019	CARBON TETRACHLORIDE	0.5
D021	CHLOROBENZENE	100.0
D022	CHLOROFORM	6.0
D028	1,2-DICHLOROETHANE	0.5
D029	1,1-DICHLOROETHYLENE	0.7
D035	METHYL ETHYL KETONE	200.0
D039	TETRACHLOROETHYLENE	0.7
D040	TRICHLOROETHYLENE	0.5
D043	VINYL CHLORIDE	0.2
	SEMI-VOLATILE COMPOUNDS	
D023	o-CRESOL	200.0
D024	m-CRESOL	200.0
D025	p-CRESOL	200.0
D026	CRESOL (TOTAL)	200.0
D027	1,4-DICHLOROBENZENE	7.5
D030	2,4-DINITROTOLUENE	0.13
D032	HEXACHLOROBENZENE	0.13
D033	HEXACHLOROBUTADIENE	0.5
D034	HEXACHLOROETHANE	3.0
D036	NITROBENZENE	2.0
D037	PENTACHLOROPHENOL	100.0
D038	PYRIDINE	5.0
D041	2,4,5-TRICHLOROPHENOL	400.0
D042	2,4,6-TRICHLOROPHENOL	2.0
	PESTICIDES AND HERBICIDES	
D012	ENDRIN	0.02
D013	LINDANE	0.4
D014	METHOXYCHLOR	10.0
D015	TOXAPHENE	0.5
D016	2,4-D	10.0
D017	2,4,5-TP (SILVEX)	1.0
D020	CHLORDANE	0.03
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			☑
CHLORINE			☑
FLUORINE			☑
IODINE			☑
SULFUR			☑
POTASSIUM			☑
SODIUM			☑
AMMONIA			☑
CYANIDE AMENABLE			☑
CYANIDE REACTIVE			☑
CYANIDE TOTAL			☑
SULFIDE REACTIVE			☑

HOCs

☑ NONE
< 1000 PPM
>= 1000 PPM

PCBs

☑ NONE
< 50 PPM
>=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES ☑ NO

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES ☑ NO (If yes, explain)

CHOOSE ALL THAT APPLY

DEA REGULATED SUBSTANCES	EXPLOSIVE	FUMING	OSHA REGULATED CARCINOGENS
POLYMERIZABLE	RADIOACTIVE	REACTIVE MATERIAL	☑ NONE OF THE ABOVE

CleanHarbors

Clean Harbors Profile No. CH1226083

F. REGULATORY STATUS

YES ☑ NO USEPA HAZARDOUS WASTE?

☑ YES NO DO ANY STATE WASTE CODES APPLY?

611

Texas Waste Code

YES ☑ NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

YES ☑ NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?

LDR CATEGORY: Not subject to LDR

VARIANCE INFO:

YES ☑ NO IS THIS A UNIVERSAL WASTE?

YES ☑ NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?

YES NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES ☑ NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

YES ☑ NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

YES NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

YES ☑ NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?

YES ☑ NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

YES ☑ NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

YES NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?

What is the TAB quantity for your facility? Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data Knowledge Testing

Describe the knowledge :

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

NON-RCRA HAZARDOUS WASTE, SOLID, (SOIL WITH ANTIMONY, COPPER, LEAD, ZINC)

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ONE TIME WEEKLY MONTHLY QUARTERLY YEARLY ☑ OTHER *Daily until gone*

CONTAINERIZED

0-0 CONTAINERS/SHIPMENT

STORAGE CAPACITY:

CONTAINER TYPE:

PORTABLE TOTE TANK BOX|CARTON|CASE

CUBIC YARD BOX DRUM

OTHER:

DRUM SIZE:

BULK LIQUID

GALLONS/SHIPMENT: *0 Min -0 Max* GAL.

☑ **BULK SOLID**

SHIPMENT UOM: TON ☑ YARD

TONS/YARDS/SHIPMENT: *15.00 Min - 18.00 Max*

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:

Lead in soil likely from Lead based paint used on building structures. Source of other metals unknown.

GENERATOR'S CERTIFICATION

I certify that I am authorized to execute this document as an authorized agent. I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge.I also certify that any samples submitted are representative of the actual waste.If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE	NAME (PRINT)	TITLE	DATE
Nina Laissen	Nina Laissen	Remediation PM The Presidio Trust	8/3/16

"ATTACHMENT 1"
TO WASTE MATERIAL PROFILE # CH1226083

The following samples are the samples representative of the waste soil in Clean Harbors profile # CH1226083:

Sample 1255SB103 (1.5) in Curtis and Tompkins report Laboratory Job # 287805, and subsequent analysis of soil from this same location with sample LC-WC-061217-01 in TestAmerica report TestAmerica Job ID # 720-80075-1;

Sample 1255SB108 (0.25) in Curtis and Tompkins report Laboratory Job # 287485, and subsequent analysis of soil from this same location with samples 1255-WC-071917-01, 1255-WC-071917-02, and 1255-WC-071917-03 in Enthalpy Analytical report Laboratory Job # 290985.

Sample 1255SB106 (0.75) in Curtis and Tompkins Report Laboratory Job # 287485, and subsequent analysis of soil from this same location with sample LC-WC-061217-03 in TestAmerica report TestAmerica Job ID # 720-80075-1.

GENERATOR'S CERTIFICATION

Authorized Signature: _____

Name (Print): Nina Larssen for The Presidio Trust

Title: Remediation Project Manager

Date: 8/1/17

Potrero Hills Landfill
3675 Potrero Hills Lane
Suisun, CA 94585
Phone: 707.432.4622
Fax: 707.426.5013

WASTE CONNECTIONS INC.
Partners with the Environment

FOR OFFICE USE ONLY
APPROVAL NUMBER:
EXPIRATION DATE:
APPROVED BY:

SPECIAL WASTE PROFILE

Information utilized for completion of this form must originate from an authorized representative of the generator of the waste material. The information on this form must be **COMPLETELY FILLED OUT, TYPE WRITTEN,** and the form must be **SIGNED BY AUTHORIZED REPRESENTATIVE.**

A. GENERATOR INFORMATION

1. Generator Name: The Presidio Trust
2. Address: 103 Montgomery St.
   City: San Francisco | County: San Francisco
   State: CA | Zip: 94129
3. Site Location (if different): Lendrum Ct. @ Lincoln Blvd., Presidio, SF, CA
4. Contact Name: Nina Larssen
5. Phone Number: 415-561-5421 | 6. Fax Number: 415-561-2132
7. Email Address: nlarssen@presidiotrust.gov
8. State Facility ID # (if applicable): n/a
9. State Waste Code (if applicable): n/a

B. CUSTOMER/BILLING INFORMATION

1. Billing Name: Dirt Shop, Inc.
2. Address: 5 Thomas Mellon Cir., Ste. 104
   City: San Francisco | County: San Francisco
   State: CA | Zip: 94134
3. Contact Name: Benjamin Feick
4. Phone Number: 415-726-5445 | 5. Fax Number: 415-508-1288
6. Email Address: ben@dirtshop.com
7. Is there a service agreement on file? ☒YES ☐NO
8. Agent / Consultant: n/a
9. Letter of Authorization: ☐YES ☒NO

C. TRANSPORTER/SHIPPING INFORMATION

1. Name: Eighteen Trucking
2. Street Address: PO Box 881116
   City: San Francisco | State: CA | Zip: 94188
3. Phone Number: **415-552-1818** | 4. Fax Number: **415-552-3130**
5. Contact Name: Gustavo DeLeon
6. EPA or State Transporter ID #: n/a (non-hazardous material)
7. Designated Landfill(s): Potrero Hills Landfill
8. Packaging: ☒ Bulk Solids ☐ Bulk Liquids ☐ Drums ☐ Roll-Off ☒ Dump Truck ☐ Tank Truck ☐ Vacuum Box ☐ Bagged
9. Estimated Volume: 1,000
   ☐ Tons ☒ Cubic Yards ☐ Drums ☐ Gallons ☐ Other: ____
10. Shipping Frequency: ____ per ☐ One Time Project
    ☐ Month ☐ Quarter ☐ Year ☒ Other: daily until gone

D. WASTE STREAM INFORMATION

1. Common Name of Material or Waste Stream: Non-hazardous soil with low-level TPH-d/mo, metals, dioxins/furans
2. Detailed Description of Process or How Generated (Attach additional sheet if needed): Excavation of soil for site improvements. Previous use as World War I training area, and housed an incinerator in the 1920s.
3. Physical State at 70°F: ☒ Solid ☐ Semi-Solid ☐ Sludge ☐ Liquid ☐ Powder ☐ Other ____
4. Free Liquids: ☒ NO ☐ YES % Liquids
5. Color: Brown | 6. pH Range: n/a
7. Odor: ☒ None ☐ Mild ☐ Significant Describe:
8. Flash Point: n/a ☐ °F ☐ °C
9. Reactive: ☒ NO ☐ YES with
10. State Required Information (if applicable): n/a

E. NON-HAZARDOUS DETERMINATION

1. Attached Document(s) (check all that apply): ☐ Not Applicable ☐ MSDS ☒ Certified Analytical Report ☐ Process Knowledge
2. If Process Knowledge, provide details:
3. If analytical data is attached, is the data derived from testing a representative sample in accordance with 40 CFR 261 and/or other applicable laws?
   ☒YES ☐NO Type of Sample: ☒ Composite ☐ Grab

F. CERTIFICATION INFORMATION

1. ☒Initial ☐ Recertification, list prior approval number(s): ☐ Amendment, Details:
2. Have there been any changes to the composition of, or process generating this waste stream that would alter the characteristics of the waste stream?
   ☐YES ☒NO (Updated analysis may be required.)

G. WASTE CERTIFICATION STATEMENT:

I hereby certify that all information contained herein is true and correct, and the material described is properly identified, classified, packaged, labeled, and prepared as indicated. I certify this waste is not hazardous or dangerous as defined by the U.S. EPA, or the state or province of origin. I certify this waste does not contain any regulated radioactive materials, that all known and suspected hazards have been disclosed, and that the waste is not a regulated hazardous waste by government or local authority, and does not contain PCB's regulated by TSCA or any other regulatory authority. I certify that all samples used for this analysis are representative of the materials described herein. I understand that all wastes may undergo inspection upon arrival at the designated facility and may be refused if the delivered material does not conform to the description herein. Notification will be provided immediately if there is a change in the composition of, or process generating this waste stream, prior to offering the waste for shipment or management.

Nina Larssen, Remediation PM — AUTHORIZED REPRESENTATIVE NAME/TITLE
Nina Larssen — AUTHORIZED REPRESENTATIVE SIGNATURE
The Presidio Trust — COMPANY NAME
7/5/16 — DATE COMPLETED

REPUBLIC SERVICES **SPECIAL WASTE PROFILE**

Requested Disposal Facility: 4227 Ox Mountain LF CA

Waste Profile #
Sales Rep #:

Saveable fill-in form. Restricted printing until all required (yellow) fields are completed.

I. Generator Information

Generator Name: The Presidio Trust			
Generator Site Address: Lendrum Ct. @ Lincoln Blvd., Presidio			
City: San Francisco	County: San Francisco	State: California	Zip: 94129
State ID/Reg No: N/A	State Approval/Waste Code: N/A (if applicable)		NAICS # : N/A
Generator Mailing Address (if different): ☑ 103 Montgomery St.			
City: San Francisco	County: San Francisco	State: California	Zip: 94129
Generator Contact Name: Nina Larssen		Email: nlarssen@presidiotrust.gov	
Phone Number: (415) 561-5421	Ext:	Fax Number: (415) 561-2132	

II. Billing Information

Bill To: Dirt Shop, Inc.		Contact Name: Benjamin Feick	
Billing Address: 5 Thomas Mellon Cir., Ste. 104		Email: ben@dirtshop.com	
City: San Francisco	State: CA	Zip: 94134	Phone: (415) 726-5445

III. Waste Stream Information

Name of Waste: Non-hazardous soil contaminated w/ low-level TPH-diesel/motor oil, metals, Dioxins/Furans	
Process Generating Waste: Excavation of soil for site improvements. Site history includes previous use as a World War I training area, then later housed an incinerator until the 1920s.	
Type of Waste:	☐ INDUSTRIAL PROCESS WASTE ☑ POLLUTION CONTROL WASTE
Physical State:	☑ SOLID ☐ SEMI-SOLID ☐ POWDER ☐ LIQUID
Method of Shipment:	☑ BULK ☐ DRUM ☐ BAGGED ☐ OTHER:
Estimated Annual Volume:	1,000 Cubic Yards
Frequency:	☑ ONE TIME ☐ ONGOING
Disposal Consideration:	☑ LANDFILL ☐ SOLIDIFICATION ☐ BIOREMEDIATION

IV. Representative Sample Certification

☐ NO SAMPLE TAKEN

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent rules?	☑ YES or ☐ NO
Type of Sample: ☑ COMPOSITE SAMPLE ☐ GRAB SAMPLE	
Sample Date: 5/27/16	
Sample ID Numbers: LC-WC-052716-03 LC-WC-052716-04	

© Republic Services, April 2013

Waste Profile #

V. Physical Characteristics of Waste

Characteristic Components	% by Weight (range)
1. Soil	95 - 99%
2. Vegetation	1 - 5%
3. Debris (asphalt, concrete, plastic, trash, etc.)	1 - 2%
4.	
5.	

Color	Odor (describe)	Does Waste Contain Free Liquids?	% Solids	pH:	Flash Point
Brown	None	☐ YES or ☑ NO	100	n/a	n/a °F

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) Including Chain of Custody and Required Parameters Provided for this Profile

Does this waste or generating process contain regulated concentrations of the following Pesticides and/or Herbicides: Chlordane, Endrin, Heptachlor (and its epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33?	☐ Yes or ☑ No
Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm)[reference 40 CFR 261.23(a)(5)]?	☐ Yes or ☑ No
Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761?	☐ Yes or ☑ No
Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents?	☐ Yes or ☑ No
Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations?	☐ Yes or ☑ No
Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCCD), or any other dioxin as defined in 40 CFR 261.31?	☐ Yes or ☑ No
Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?	☐ Yes or ☑ No
Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations?	☐ Yes or ☑ No
Is this waste a reactive or heat generating waste?	☐ Yes or ☑ No
Does the waste contain sulfur or sulfur by-products?	☐ Yes or ☑ No
Is this waste generated at a Federal Superfund Clean Up Site?	☐ Yes or ☑ No
Is this waste from a TSD facility, TSD like facility or consolidator?	☐ Yes or ☑ No

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services Inc.

Nina Laessen, Remediation Program Manager — Authorized Representative Name And Title (Type or Print)

The Presidio Trust — Company Name

Nina Laessen Agent for The Presidio Trust — Authorized Representative Signature

6/24/16 — Date

© Republic Services, April 2013

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
N/A	1	415-726-5446	0182729

GENERATOR

5. Generator's Name and Mailing Address

The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)

1471 Central Magazine Rd.
San Francisco, CA 94129 USA

6. Transporter 1 Company Name — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address

Recology Hay Road Landfill
8426 Hay Rd
Vacaville, CA 95687 USA

U.S. EPA ID Number: CAD982042475

Facility's Phone: 707-678-4718

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Treated Wood Waste (non-hazardous)	1	DT	30	T	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

Wear proper PPE when handling waste

Disposal under Dirt Shop, Inc. account

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name — Signature — Month / Day / Year

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month / Day / Year: 10 / 15 / 16

Transporter 2 Printed/Typed Name — Signature — Month / Day / Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month / Day / Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month / Day / Year

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
N/A	1	415-726-5445	0182730

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA
Generator's Phone: 15-561-5421

Generator's Site Address (if different than mailing address)
1471 Central Magazine Rd.
San Francisco, CA 94129 USA

6. Transporter 1 Company Name — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Recology Hay Road Landfill
6426 Hay Rd
Vacaville, CA 95687 USA
Facility's Phone: 707-678-4718
U.S. EPA ID Number: CAD982042475

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Treated Wood Waste (non-hazardous)	1	D1	20	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Disposal under Dirt Shop, Inc. account

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name — Signature — Month 5 — Day — Year

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month — Day — Year

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
N/A	1	415-726-5445	0182731

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St
San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
1471 Central Magazine Rd
San Francisco, CA 94129 USA

6. Transporter 1 Company Name — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Recology Hay Road Landfill
6426 Hay Rd
Vacaville, CA 95687 USA
Facility's Phone: 707-678-4718

U.S. EPA ID Number: CAD982041475

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Treated Wood Waste (non-hazardous)	1	DT	20	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Disposal under Dirt Shop, Inc account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nicole Lawson for The Presidio Trust — Signature — Month — Day — Year

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Guillermo Morales — Signature — Month: 12 — Day: 16 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

REPUBLIC SERVICES

NON-HAZARDOUS SPECIAL WASTE & ASBESTOS MANIFEST

3141380

If waste is asbestos waste, complete Sections I, II, III and IV
If waste is **NOT** asbestos waste, complete Sections I, II and III

I. GENERATOR (Generator completes Ia-r)

a. Generator's US EPA ID Number	b. Manifest Document Number	c. Page 1 of
N/A		

d. Generator's Name and Location:	e. Generator's Mailing Address:
The Presidio Trust Lendrum Ct. @ Lincoln Blvd., Presidio San Francisco, CA 94129 415-561-5421 f. Phone:	The Presidio Trust 103 Montgomery St. San Francisco, CA 94129 415-561-5421 g. Phone:
If owner of the generating facility differs from the generator, provide: h. Owner's Name:	i. Owner's Phone No.:

j. Waste Profile #	k. Exp. Date	l. Waste Shipping Name and Description	m. Containers No.	m. Containers Type	n. Total Quantity	o. Unit Wt/Vol
42271610897	6/27/2017	Soil				

GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, if this waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions. I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR 268 and is no longer a hazardous waste as defined by 40 CFR 261.

p. Generator Authorized Agent Name (Print)	q. Signature	r. Date
HOWARD RUDOLF	Howard Rudolf	7/1/16

II. TRANSPORTER (Generator completes IIa-b and Transporter completes IIc-e)

a. Transporter's Name and Address: Western Pacific TK 18TK SF.ca

b. Phone: ~~###~~ 650-441-55F ca

c. Driver Name (Print)	d. Signature	e. Date
Bill Arens 0902	William Arens	7/1/16

III. DESTINATION (Generator complete IIIa-c and Destination Site completes IIId-g)

a. Disposal Facility and Site Address:	c. US EPA Number	d. Discrepancy Indication Space:
Ox Mountain Landfill 12310 San Mateo Rd Half Moon Bay, CA 94019 650-726-1819 b.		

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

e. Name of Authorized Agent (Print)	f. Signature	g. Date

IV. ASBESTOS (Generator completes IVa-f and Operator complete IVg-i)

a. Operator's Name and Address:	c. Responsible Agency Name and Address:
b. Phone:	d. Phone:

e. Special Handling Instructions and Additional Information:

f. ☐ Friable ☐ Non-Friable ☐ Both % Friable % Non-Friable

OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

g. Operator's Name and Title (Print)	h. Signature	i. Date

*Operator refers to the company which owns, leases, operates, controls, or supervises the facility being demolished or renovated, or the demolition or renovation operation or both

REPUBLIC SERVICES

NON-HAZARDOUS SPECIAL WASTE & ASBESTOS MANIFEST

3141381

If waste is asbestos waste, complete Sections I, II, III and IV
If waste is **NOT** asbestos waste, complete Sections I, II and III

I. GENERATOR (Generator completes Ia-r)

a. Generator's US EPA ID Number	b. Manifest Document Number	c. Page 1 of

d. Generator's Name and Location:	e. Generator's Mailing Address:
Lendrum Ct. @ Lincoln Blvd., Presidio San Francisco, CA 94129 415-561-5421 f. Phone:	103 Montgomery St. San Francisco, CA 94129 415-561-5421 g. Phone:
If owner of the generating facility differs from the generator, provide:	
h. Owner's Name:	i. Owner's Phone No.:

j. Waste Profile #	k. Exp. Date	l. Waste Shipping Name and Description	m. Containers No.	m. Containers Type	n. Total Quantity	o. Unit Wt/Vol
42271610897	6/27/2017	Soil				

GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, if this waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions. I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR 268 and is no longer a hazardous waste as defined by 40 CFR 261.

p. Generator Authorized Agent Name (Print)	q. Signature	r. Date
HOWARD RUDOLF	Howard Rudolf	7/1/16

II. TRANSPORTER (Generator completes IIa-b and Transporter completes IIc-e)

a. Transporter's Name and Address:

b. Phone:

c. Driver Name (Print)	d. Signature	e. Date
George Cox		7/1/16

III. DESTINATION (Generator complete IIIa-c and Destination Site completes IIId-g)

a. Disposal Facility and Site Address:	c. US EPA Number	d. Discrepancy Indication Space:
Ox Mountain Landfill 12310 San Mateo Rd Half Moon Bay, CA 94019 650-726-1819 b.		

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

e. Name of Authorized Agent (Print)	f. Signature	g. Date
		1 DL 12

IV. ASBESTOS (Generator completes IVa-f and Operator complete IVg-i)

a. Operator's Name and Address:	c. Responsible Agency Name and Address:
b. Phone:	d. Phone:

e. Special Handling Instructions and Additional Information:

f. ☐ Friable ☐ Non-Friable ☐ Both % Friable % Non-Friable

OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

g. Operator's Name and Title (Print)	h. Signature	i. Date

*Operator refers to the company which owns, leases, operates, controls, or supervises the facility being demolished or renovated, or the demolition or renovation operation or both

REPUBLIC SERVICES

NON-HAZARDOUS SPECIAL WASTE & ASBESTOS MANIFEST

3141382

If waste is asbestos waste, complete Sections I, II, III and IV
If waste is **NOT** asbestos waste, complete Sections I, II and III

I. GENERATOR (Generator completes Ia-r)

a. Generator's US EPA ID Number	b. Manifest Document Number	c. Page 1 of
N/A		1

d. Generator's Name and Location:	e. Generator's Mailing Address:
The Presidio Trust Lendrum Ct. @ Lincoln Blvd., Presidio San Francisco, CA 94129 415-561-5421 f. Phone:	The Presidio Trust 103 Montgomery St. San Francisco, CA 94129 415-561-5421 g. Phone:
If owner of the generating facility differs from the generator, provide: h. Owner's Name:	i. Owner's Phone No.:

j. Waste Profile #	k. Exp. Date	l. Waste Shipping Name and Description	m. Containers No.	m. Containers Type	n. Total Quantity	o. Unit Wt/Vol
42271610897	6/27/2017	Soil	1	DT	15	Y

GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, if this waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions. I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR 268 and is no longer a hazardous waste as defined by 40 CFR 261.

p. Generator Authorized Agent Name (Print)	q. Signature	r. Date
HOWARD RUDOLF	Howard Rudolf	7/1/16

II. TRANSPORTER (Generator completes IIa-b and Transporter completes IIc-e)

a. Transporter's Name and Address: B.M.T lic#9F15322

b. Phone: (415)506-9111

c. Driver Name (Print)	d. Signature	e. Date
Karim Mehdipour		7/1/16

III. DESTINATION (Generator complete IIIa-c and Destination Site completes IIId-g)

a. Disposal Facility and Site Address:	c. US EPA Number	d. Discrepancy Indication Space:
Ox Mountain Landfill 12310 San Mateo Rd Half Moon Bay, CA 94019 650-726-1819 b.		

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

e. Name of Authorized Agent (Print)	f. Signature	g. Date

IV. ASBESTOS (Generator completes IVa-f and Operator complete IVg-i)

a. Operator's Name and Address:	c. Responsible Agency Name and Address:
b. Phone:	d. Phone:

e. Special Handling Instructions and Additional Information:

f. ☐ Friable ☐ Non-Friable ☐ Both % Friable % Non-Friable

OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

g. Operator's Name and Title (Print)	h. Signature	i. Date

*Operator refers to the company which owns, leases, operates, controls, or supervises the facility being demolished or renovated, or the demolition or renovation operation or both

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5446	0003001

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: HOWARD RUDOLF — Signature — Month: 7 — Day: 8 — Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month: 7 — Day: 8 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003002

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
Lyndrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

6. Transporter 1 Company Name — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000069466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: HOWARD RUDOLF — Signature — Month: 1 — Day: 13 — Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month — Day — Year

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	n/a	1	415-728-5445	0003003

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: J. FLORES TRUCKING #6 — GM27724 — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: HOWARD PUDLE — Signature — Month: 7 — Day: 01 — Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: JOE SORIA — Signature — Month: 7 — Day: 01 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number n/a	2. Page 1 of 1	3. Emergency Response Phone 415-726-5445	4. Waste Tracking Number 0003004

5. Generator's Name and Mailing Address: The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address): Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: [illegible]

U.S. EPA ID Number: N/A

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address: Potrero Hills Landfill, Inc
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089486

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
GENERATOR	1. Non-hazardous soil	1	DT	16	Y	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information

Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: HOWARD RUDOLF Signature: [signature] Month: 7 Day: Year:

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible] Signature: [signature] Month: 7 Day: Year:

Transporter 2 Printed/Typed Name Signature Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name Signature Month Day Year

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	n/a	1	415-726-5445	0003005

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: X R-Trucking #216 | U.S. EPA ID Number: N/A

7. Transporter 2 Company Name | U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089490

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: David Rubin | Signature | Month: 7 | Day: 5 | Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: X Jorge Ramos | Signature | Month: 7 | Day: 5 | Year: 16

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) | U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name | Signature | Month | Day | Year

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	n/a	1	415-726-5445	0003006

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: [illegible] U.S. EPA ID Number: N/A

7. Transporter 2 Company Name: U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	10	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: HOWARD RUPKE Signature: [signature] Month: 7 Day: 12 Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible] Signature: [signature] Month: 7 Day: 13 Year: 16

Transporter 2 Printed/Typed Name: Signature: Month: Day: Year:

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number:

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Signature: Month: Day: Year:

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	n/a	1	415-726-5445	0003007

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: X.L. TIOR'S TRUCKING - HAULER — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: HOWARD RUPLE — Signature — Month: 7 — Day: 8 — Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: TYLER TOPPS — Signature — Month: 7 — Day: 8 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003008

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	18	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: EDWARD RUDOLF — Signature — Month: 7 — Day: 9 — Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month: 7 — Day: 9 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003009

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAD000629456

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	18	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Howard Ridley — Signature — Month: 7 — Day: 11 — Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month: 7 — Day: 11 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number: n/a	2. Page 1 of: 1	3. Emergency Response Phone: 415-726-5445	4. Waste Tracking Number: 0003010

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

6. Transporter 1 Company Name: J. FLORES TRUCKING #6 6H27971 — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc
3675 Potrero Hills Lane
Suisun, CA 94585 USA
Facility's Phone: 707-432-4627

U.S. EPA ID Number: CAR000089466

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste

Profile #: PHLF-18-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: HOWARD ADLER — Signature — Month: 7 Day: 11 Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: RICO F. COPON — Signature — Month: 7 Day: 11 Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-720-5445	0003011

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Howard Dodd — Signature — Month: 7 — Day: 11 — Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month: 7 — Day: 11 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in item 17a

Printed/Typed Name — Signature — Month — Day — Year

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	n/a	1	415-726-5445	000312

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

6. Transporter 1 Company Name [illegible] — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: [illegible] — Signature: [signature] — Month: 7 — Day: 11 — Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible] — Signature: — Month: 7 — Day: 11 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone #	4. Waste Tracking Number
n/a	1	415-726-5445	0003013

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: J & B Trucking # 216 — U.S. EPA ID Number: NA

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Howard Rudolf — Signature — Month: 7 Day: 11 Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: J & B — Signature — Month: 7 Day: 11 Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number: n/a	2. Page 1 of: 1	3. Emergency Response Phone: 415-726-5446	4. Waste Tracking Number: 0003014

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: X T. Flores Trucking 0457/24 — U.S. EPA ID Number: NA

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: RONALD RAY AF — Signature: [signature] — Month: 7 Day: 11 Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: X TIM G. RON — Signature: [signature] — Month: 7 Day: 11 Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	n/a	1	415-728-5445	0003015

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: Evans Pacific Trucking — U.S. EPA ID Number: NA

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
GENERATOR	1. Non-hazardous soil	1	DT	16	Y	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Arthur P. Rudolf — Signature — Month — Day — Year

INT'L
15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER
16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month — Day — Year

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY
17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003016

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

6. Transporter 1 Company Name
X [illegible]

U.S. EPA ID Number
N/A

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA
Facility's Phone: 707-432-4627

U.S. EPA ID Number
CAR000089466

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.
Profile #: PHLF-16-395 Dump under Dirt Shop, Inc account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Lassen for The Presidio Trust
Signature: Nina Lassen
Month: 7 Day: 12 Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: X JOVER
Signature:
Month: 7 Day: 12 Year: 16

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name:
Signature:
Month: Day: Year:

GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
N/a	1	415-726-5445	0003017

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

6. Transporter 1 Company Name
X Tech - TPT

U.S. EPA ID Number
N/A

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number
CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Lassen for the Presidio Trust | Signature: Nina Lassen | Month: 7 | Day: 12 | Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: X Juan Gonzalez | Signature | Month: 7 | Day: 12 | Year: 16

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) | U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name | Signature | Month | Day | Year

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003018

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name
Ryan Herco

U.S. EPA ID Number
N/A

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number
CAR000089496

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name	Signature	Month	Day	Year
Nina Larsen for The Presidio Trust		7	12	16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name	Signature	Month	Day	Year
		7	12	16

Transporter 2 Printed/Typed Name	Signature	Month	Day	Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)	Month	Day	Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name	Signature	Month	Day	Year

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003019

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name
Sweet Bros. Trucking

U.S. EPA ID Number
N/A

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number
CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Lawson for the Presidio Trust | Signature | Month | Day | Year

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Sweet Bros. Co. Inc. | Signature | Month: 7 | Day: 11 | Year: 16

Transporter 2 Printed/Typed Name | Signature | Month: 7 | Day: 11 | Year: 16

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month | Day | Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name | Signature | Month | Day | Year

169-BLC-O 6 10498 (Rev. 9/09)

GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003020

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

6. Transporter 1 Company Name
[illegible]

U.S. EPA ID Number: N/A

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	18	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Larsson for The Presidio Trust | Signature | Month | Day | Year

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible] | Signature | Month: 7 | Day: 12 | Year: 16

Transporter 2 Printed/Typed Name | Signature | Month: 7 | Day: 12 | Year: 16

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) | U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name | Signature | Month | Day | Year

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003021

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

6. Transporter 1 Company Name — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Lassen for the Presidio Trust — Signature: Nina Lassen — Month: 7 — Day: 12 — Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month: 7 — Day: 12 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month: 7 — Day: 12 — Year: 16

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003022

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

6. Transporter 1 Company Name: Tamalpais Trucking — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA
Facility's Phone: 707-432-4627
U.S. EPA ID Number: CAR000089466

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.
Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Lassen for The Presidio Trust — Signature: [signature] — Month: 7 — Day: 12 — Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible] — Signature: [signature] — Month: 7 — Day: 12 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003023

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

6. Transporter 1 Company Name
[illegible]
U.S. EPA ID Number: N/A

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA
Facility's Phone: 707-432-4627
U.S. EPA ID Number: CAR000089466

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.
Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Lassen for the Presidio Trust
Signature: [signature]
Month: 7 Day: 12 Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible]
Signature: [signature]
Month: 7 Day: 12 Year: 16

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name:
Signature:
Month: Day: Year:

GENERATOR'S/SHIPPER'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of: 1
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 014722157 JJK

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
1471 Central Magazine Rd
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: K / S Trucking. U.S. EPA ID Number: CAR000184788

7. Transporter 2 Company Name: U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
U.S. EPA ID Number: CAD980675276

Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead) Non-DOT Regulated	1	CY	10	Y	811
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.
Profile #: CH1226083 Sales Order #: 160221063 4

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Lawson for the Trust Signature: [signature] Month: 1 Day: 13 Year: 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Ricardo Millan Signature: [signature] Month: 1 Day: 13 Year: 16

Transporter 2 Printed/Typed Name: Signature: Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Signature: Month: Day: Year:

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003024

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: 18 Tonneing — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Lassen for the Presidio Trust — Signature — Month 7 Day 16 Year 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month 7 Day 16 Year 16

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month Day Year

169-BLC-O 6 10498 (Rev. 9/09)

GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003025

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste

Profile #: PHLF-16-365 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name — Signature — Month 7 Day 12 Year 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month Day Year

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month Day Year

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GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003026

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: FIORES T12/6 — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc account

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Larssen for the Presidio Trust — Signature — Month: 11 Day: 29 Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: JOVITE — Signature — Month: 11 Day: 29 Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

GENERATOR

GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003027

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: J & G TRUCK — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Lawson (for the Presidio Trust) — Signature — Month: 11 — Day: 19 — Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Sukh — Signature — Month: 11 — Day: 19 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

GENERATOR

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GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003028

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: Ramm Sink — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Larssen for The Presidio Trust — Signature — Month: 11 Day: 29 Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Ramm Sink — Signature — Month: 11 Day: 29 Year: 16

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month Day Year

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GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003029

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: KOJAI Trucking — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.
Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Larsen for The Presidio Trust — Signature — Month 11 Day 9 Year 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Hugh Lee TD — Signature — Month 11 Day 9 Year 16

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month Day Year

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GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003030

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name
X RCC Trucking #13

U.S. EPA ID Number
N/A

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number
CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-18-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Larssen for The Presidio Trust | Signature | Month: 11 | Day: 9 | Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: X RCC Trucking #13 | Signature | Month: 11 | Day: 9 | Year: 16

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name | Signature | Month | Day | Year

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003031

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

6. Transporter 1 Company Name
[illegible]
U.S. EPA ID Number: N/A

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA
U.S. EPA ID Number: CAR000089466
Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.
Profile #: PHLF-16-396 Dump under Dirt Shop, Inc. account

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Lassen for The Presidio Trust Signature: [signature] Month: 1 Day: 4 Year: 16

INT'L
15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER
16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: [illegible] Signature: [signature] Month: 1 Day: 4 Year: 16
Transporter 2 Printed/Typed Name: Signature: Month: Day: Year:

DESIGNATED FACILITY
17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator) U.S. EPA ID Number:
Facility's Phone:
17c. Signature of Alternate Facility (or Generator) Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Signature: Month: Day: Year:

GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-728-8445	0003032

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name
JG TRUCK #261

U.S. EPA ID Number: N/A

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Larssen for The Presidio Trust | Signature | Month 11 | Day 1 | Year 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: SUKH | Signature | Month | Day 4 | Year 16

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name | Signature | Month | Day | Year

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GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003033

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: B Trucks — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.
Profile #: PHLF-18-395 Dump under Dirt Shop, Inc. account

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Larsen for The Presidio Trust — Signature — Month: 11 — Day: 19 — Year: 18

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible] — Signature — Month: 11 — Day: 19 — Year: 18

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

GENERATOR

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GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003034

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

6. Transporter 1 Company Name: FIORES T.24 — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Lacsamana for The Presidio Trust — Signature — Month: 11 Day: 17 Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: JORGE I — Signature — Month: 11 Day: 17 Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

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GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003035

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name
X [illegible] J&G
U.S. EPA ID Number: N/A

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA
U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Lawson for The Presidio Trust | Signature: Nina Lawson | Month: 11 | Day: 17 | Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: X [illegible] | Signature: | Month: 11 | Day: 17 | Year: 16

Transporter 2 Printed/Typed Name: | Signature: | Month: | Day: | Year:

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Signature: Month: Day: Year:

GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003036

5. Generator's Name and Mailing Address: The Presidio Trust, 103 Montgomery St, San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address): Lendrum Ct. @ Lincoln Blvd., Presidio, San Francisco, CA 94129 USA

6. Transporter 1 Company Name: X DTS - Imprint — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Potrero Hills Landfill, Inc, 3675 Potrero Hills Lane, Suisun, CA 94585 USA — U.S. EPA ID Number: CAR000089466
Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. Non-hazardous soil	1	DT	16	Y	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Larssen for The Presidio Trust — Signature: [signature] — Month: 11 Day: 29 Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: X [illegible] — Signature: [signature] — Month: 11 Day: 29 Year: 16

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month Day Year

169-BLC-O 6 10498 (Rev. 9/09)

GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003037

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name
X RCC Trucking, LLC (TRC)

U.S. EPA ID Number: N/A

7. Transporter 2 Company Name

U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	18	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nick Larsson (for The Presidio Trust) Signature: [signature] Month: 11 Day: 14 Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: X Ricardo Castillo Signature: [signature] Month: 11 Day: 14 Year: 16

Transporter 2 Printed/Typed Name: Signature: Month: Day: Year:

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number:

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Signature: Month: Day: Year:

169-BLC-O 6 10498 (Rev. 9/09)

GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003038

GENERATOR

5. Generator's Name and Mailing Address: The Presidio Trust, 103 Montgomery St., San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address): Lendrum Ct. @ Lincoln Blvd., Presidio, San Francisco, CA 94129 USA

6. Transporter 1 Company Name — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Potrero Hills Landfill, Inc., 3675 Potrero Hills Lane, Suisun, CA 94585 USA — U.S. EPA ID Number: CAR000089466
Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste

Profile #: PHLF-16-385 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Lawson for The Presidio Trust — Signature — Month: 11 Day: 3 Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month Day Year

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month Day Year

GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003039

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4827

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name — Signature — Month 11 Day 2 Year 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month 11 Day 2 Year 16

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month Day Year

GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003040

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

6. Transporter 1 Company Name
[illegible]

U.S. EPA ID Number: N/A

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name	Signature	Month	Day	Year
Nina Lauscher for the Presidio Trust	[signature]	11	30	16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[signature]	11	30	16
Transporter 2 Printed/Typed Name	Signature	Month	Day	Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003041

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

6. Transporter 1 Company Name
[illegible] Recycling, LLC

U.S. EPA ID Number: N/A

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: [illegible] for The Presidio Trust | Signature: [signature] | Month: 11 | Day: 30 | Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible] Recycling | Signature: [signature] | Month: 11 | Day: 30 | Year: 16

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) | U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name | Signature | Month | Day | Year

GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-728-5445	0003042

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: X J. FLORES TRUCKING — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	18	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.
J. FLORES TRUCKING (CONTINUED)
Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account
5107754104.

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Lassen for The Presidio Trust — Signature — Month: 11 — Day: 30 — Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: X JORGE SOTO — Signature — Month: 11 — Day: 30 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003043

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name
X 18 trucking

U.S. EPA ID Number: N/A

7. Transporter 2 Company Name

U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Lawson for The Presidio Trust — Signature — Month: 11 Day: 30 Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: X Ricardo Hernandez — Signature — Month: 11 Day: 30 Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-6445	0003044

GENERATOR

5. Generator's Name and Mailing Address: The Presidio Trust, 103 Montgomery St., San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421
Generator's Site Address (if different than mailing address): Lendrum Ct. @ Lincoln Blvd., Presidio, San Francisco, CA 94129 USA

6. Transporter 1 Company Name: X — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Potrero Hills Landfill, Inc, 3675 Potrero Hills Lane, Suisun, CA 94585 USA
U.S. EPA ID Number: CAR000089466
Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.
Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Lassen for The Presidio Trust — Signature — Month: 11 Day: 30 Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: X — Signature — Month: 11 Day: 30 Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003045

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Lauscente, The Presidio Trust — Signature — Month: 11 Day: 30 Year: 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month: 11 Day: 30 Year: 16

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month Day Year

169-BLC-O 6 10498 (Rev. 9/09)

GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003046

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name
REC Trucking, Inc

U.S. EPA ID Number: N/A

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	18	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: PHLF-18-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Larissen for the Presidio Trust
Signature
Month Day Year

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Russ Crosthwaite
Signature
Month Day Year

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☒ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name
Signature
Month Day Year

169-BLC-O 6 10498 (Rev. 9/09)

GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number: n/a	2. Page 1 of: 1	3. Emergency Response Phone: 415-726-5445	4. Waste Tracking Number: 0003047

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

6. Transporter 1 Company Name: J. FLORES TRUCKING — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA
Facility's Phone: 707-432-4827

U.S. EPA ID Number: CAR000089466

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.
Profile #: PHLF-18-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nan Lawson (The Presidio Trust) — Signature — Month Day Year

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: JORGE SOPON — Signature — Month Day Year

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month Day Year

169-BLC-O 6 10498 (Rev. 9/09)

GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-729-5445	0003048

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4627

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	DT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste

Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Nina Lassam for the Presidio Trust — Signature — Month 1 Day 4 Year 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month Day Year

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month Day Year

169-BLC-O 6 10498 (Rev. 9/09)

GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
n/a	1	415-726-5445	0003049

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
Lendrum Ct. @ Lincoln Blvd., Presidio
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name — U.S. EPA ID Number: N/A

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Potrero Hills Landfill, Inc.
3675 Potrero Hills Lane
Suisun, CA 94585 USA

U.S. EPA ID Number: CAR000089466

Facility's Phone: 707-432-4827

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous soil	1	CT	16	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.
Profile #: PHLF-16-395 Dump under Dirt Shop, Inc. account

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name — Signature — Month 12 Day 1 Year 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month 12 Day 1 Year 16

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month Day Year

169-BLC-O 6 10498 (Rev. 9/09)

GENERATOR'S/SHIPPER'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of: 1
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 014722158 JJK

GENERATOR

5. Generator's Name and Mailing Address:
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address):
1471 Central Magazine Rd
San Francisco, CA 94129 USA

6. Transporter 1 Company Name: X IS TKS — U.S. EPA ID Number: CAD009141755

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address:
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA

U.S. EPA ID Number: CAD980675276

Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead) Non-DOT Regulated	1	DT	16	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste

Profile #: CH1226083 Sales Order #: 1602210634

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nuria Lacasa for The Presidio Trust — Signature — Month: 7 Day: 13 Year: 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Nkarim Mehdibar — Signature — Month: 7 Day: 13 Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month — Day — Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of: 1
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 014722159 JJK

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
1471 Central Magazine Rd
San Francisco, CA 94129 USA

6. Transporter 1 Company Name: NAEI TRANSPORTATION
U.S. EPA ID Number: CAD 000146795

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
Facility's Phone: 661-762-6200
U.S. EPA ID Number: CAD980675276

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead) Non-DOT Regulated	1	DT	16	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083 Sales Order #: 1602210634

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Lucero for the Presidio Trust
Signature
Month: 9 Day: 13 Year: 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: MARK AREIANO
Signature
Month: 9 Day: 13 Year: 16

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name
Signature
Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379 | 2. Page 1 of: 1 | 3. Emergency Response Phone: 510-786-1818 | 4. Manifest Tracking Number: 014722160 JJK

GENERATOR

5. Generator's Name and Mailing Address: The Presidio Trust, 103 Montgomery St., San Francisco, CA 94129 USA
Generator's Site Address (if different than mailing address): 1471 Central Magazine Rd., San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: JR Trucking | U.S. EPA ID Number: CAR000184728

7. Transporter 2 Company Name | U.S. EPA ID Number

8. Designated Facility Name and Site Address: Clean Harbors Buttonwillow LLC, 2500 West Lokern Road, Buttonwillow, CA 93206 USA | U.S. EPA ID Number: CAD980675278
Facility's Phone: 661-782-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead) Non-DOT Regulated	1	DT	16	Y	811
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.
Profile #: CH1226083 Sales Order #: 1602210634

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nuno Lopes for the Presidio Trust | Signature | Month: 7 | Day: 16 | Year: 17

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: X Alberto Vargas | Signature | Month: 7 | Day: 16 | Year: 17

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) | U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) | Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name | Signature | Month | Day | Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
CAR000186379	1	510-786-1818	014722161 JJK

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
1471 Central Magazine Rd.
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name
X TERRACON

U.S. EPA ID Number
X CAR000124760

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA

U.S. EPA ID Number
CAD980675276

Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead) Non-DOT Regulated	1	DT	16	Y	811
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083 Sales Order #: 160221063 4

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Lazzeretti for The Presidio Trust | Signature | Month: 7 | Day: 10 | Year: 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: X ROBIN FABRY | Signature | Month: 7 | Day: 10 | Year: 16

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name | Signature | Month | Day | Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number: CAR000186379	2. Page 1 of 1	3. Emergency Response Phone: 510-786-1818	4. Manifest Tracking Number: 014722163 JJK

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
1471 Central Magazine Rd
San Francisco, CA 94129 USA

6. Transporter 1 Company Name
X Roberts

U.S. EPA ID Number
CAD000184798

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA

U.S. EPA ID Number
CAD980675276

Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead) Non-DOT Regulated	1	DT	16	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.
Profile #: CH1226083 Sales Order #: 160221063 4

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Lawson for the Presidio Trust
Signature
Month 7 Day 13

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: X Roberts
Signature
Month 7 Day 13

Transporter 2 Printed/Typed Name
Signature
Month Day

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
CAR000186379	1	510-786-1818	014722164 JJK

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust.
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
1471 Central Magazine Rd.
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name
X 1ST Trucking

U.S. EPA ID Number
X CAR000184788

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA

U.S. EPA ID Number
CAD980675276

Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead) Non-DOT Regulated	1	DT	16	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste

Profile #: CH1226083 Sales Order #: 160221063 4

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Lassen for The Presidio Trust | Signature | Month 7 | Day 19 | Year 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: X James Crook | Signature | Month 7 | Day 19 | Year 16

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of: 1
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 014722165 JJK

GENERATOR

5. Generator's Name and Mailing Address: The Presidio Trust
103 Montgomery St
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address): 1471 Central Magazine Rd.
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: [illegible] TRUCKING — U.S. EPA ID Number: CAR000184786

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA

U.S. EPA ID Number: CAD980675276

Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead) Non-DOT Regulated	1	DT	18	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
TRK#739
Profile #: CH1228083 Sales Order #: 160210634 9E93196 4LT 366

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Larsen for the Presidio Trust — Signature: [signature] — Month / Day / Year

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: ROBIN FABRY — Signature: [signature] — Month / Day / Year

Transporter 2 Printed/Typed Name — Signature — Month / Day / Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month / Day / Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month / Day / Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of: 1
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 014722166 JJK

GENERATOR

5. Generator's Name and Mailing Address: The Presidio Trust, 103 Montgomery St., San Francisco, CA 94129 USA
Generator's Site Address (if different than mailing address): 1471 Central Magazine Rd, San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: 18 Trucking 240
U.S. EPA ID Number: CAD009847848

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Clean Harbors Buttonwillow LLC, 2500 West Lokern Road, Buttonwillow, CA 93206 USA
U.S. EPA ID Number: CAD980675276
Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead) Non-DOT Regulated	1	DT	16	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083 Sales Order #: 160221063 4

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Lassel for The Presidio Trust
Signature:
Month Day Year:

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Jaime Cayle
Signature:
Month Day Year:

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name:
Signature:
Month Day Year:

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
CAR000186379	1	510-786-1818	014722167 JJK

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
1471 Central Magazine Rd.
San Francisco, CA 94129 USA

6. Transporter 1 Company Name: J & J Trucking — U.S. EPA ID Number: CAD009847848

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
Facility's Phone: 661-762-6200
U.S. EPA ID Number: CAD980675276

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead) Non-DOT Regulated	1	DT	16	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.
Profile #: CH1226083 Sales Order #: 1602210634

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Lopez for the Presidio Trust — Signature — Month — Day — Year

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Brown — Signature — Month — Day — Year

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month — Day — Year

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Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
CAR000186379	1	510-786-1818	014722168 JJK

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust.
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
1471 Central Magazine Rd.
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: 18 Trucking — U.S. EPA ID Number: CAR000154788

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA

U.S. EPA ID Number: CAD980675276

Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead) Non-DOT Regulated	1	DT	16	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: CH1226083 Sales Order #: 1602210634

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Lassen for The Presidio Trust — Signature — Month — Day — Year

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Gonzalo Sanchez — Signature — Month — Day — Year

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month — Day — Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
CAR000186379	1	510-786-1818	014722169 JJK

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust.
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
1471 Central Magazine Rd.
San Francisco, CA 94129 USA

6. Transporter 1 Company Name: SINGH TRUCKING — U.S. EPA ID Number: (CAR0001736)

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA

U.S. EPA ID Number: CAD980675276

Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead) Non-DOT Regulated	1	DT	16	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.
Profile #: CH1226083 Sales Order #: 1602210634

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Larssen for the Presidio Trust — Signature — Month Day Year

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: RANJIT SINGH — Signature — Month Day Year

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number: U.S. EPA ID Number

18b. Alternate Facility (or Generator)

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
CAR000186379	1	510-786-1818	014722170 JJK

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust.
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
1471 Central Magazine Rd.
San Francisco, CA 94129 USA

6. Transporter 1 Company Name
BMS TRANSPORT

U.S. EPA ID Number
CAR000187773

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA

U.S. EPA ID Number
CAD980675276

Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead) Non-DOT Regulated	1	DT	18	Y	811
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.

Profile #: CH1226083 Sales Order #: 1602210634

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Lassen for The Presidio Trust | Signature | Month | Day | Year

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Rodney Goodall | Signature | Month | Day | Year

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) | Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name | Signature | Month | Day | Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of: 1
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 014722171 JJK

GENERATOR

5. Generator's Name and Mailing Address: The Presidio Trust, 103 Montgomery St., San Francisco, CA 94129 USA
Generator's Site Address (if different than mailing address): 1471 Central Magazine Rd., San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: CHANAL TRK
U.S. EPA ID Number: CAR000187773

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Clean Harbors Buttonwillow LLC, 2500 West Lokern Road, Buttonwillow, CA 93206 USA
U.S. EPA ID Number: CAD980675270
Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead) Non-DOT Regulated	1	DT	16	T	811
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste. #175
Profile #: CH1226083 Sales Order #: 160210634

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Lassen for the Presidio Trust
Signature:
Month Day Year:

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: BRAD T CHANAL
Signature:
Month Day Year:

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name:
Signature:
Month Day Year:

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of: 1
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 014722172 JJK

GENERATOR

5. Generator's Name and Mailing Address: The Presidio Trust, 103 Montgomery St, San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421
Generator's Site Address (if different than mailing address): 1471 Central Magazine Rd, San Francisco, CA 94129 USA

6. Transporter 1 Company Name: S SINGH TRK
U.S. EPA ID Number: CHR000190954

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Clean Harbors Buttonwillow LLC, 2500 West Lokern Road, Buttonwillow, CA 93206 USA
U.S. EPA ID Number: CAD980675276
Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead) Non-DOT Regulated	1	DT	16	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.
Profile #: CH1226083 Sales Order #: 1602210634

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Lauscher for The Presidio Trust | Signature | Month | Day | Year

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: SURJEET SINGH | Signature | Month | Day | Year

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) | Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name | Signature | Month | Day | Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
CAR000186379	1	510-786-1818	014722173 JJK

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
1471 Central Magazine Rd.
San Francisco, CA 94129 USA

6. Transporter 1 Company Name: C & W Env.

U.S. EPA ID Number: CAD 980826302

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA

U.S. EPA ID Number: CAD980675276

Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead) Non-DOT Regulated	1	DT	18	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.
Profile #: CH1226083 Sales Order #: 160221063 4

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Lawson for The Presidio Trust | Signature | Month | Day | Year

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Mark Smith | Signature | Month | Day | Year

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) | U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) | Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name | Signature | Month | Day | Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
CAR000186379	1	510-788-1818	014722174 JJK

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
1471 Central Magazine Rd.
San Francisco, CA 94129 USA

6. Transporter 1 Company Name: A&J TRANSPORTATION — U.S. EPA ID Number: CAR000448975

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
Facility's Phone: 661-762-6200
U.S. EPA ID Number: CAD980675276

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead) Non-DOT Regulated	1	DT	16	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.
Profile #: CH1226033 Sales Order #: 1602210634

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Larsen for The Presidio Trust — Signature — Month 7 — Day — Year

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: MARK ARELLANO — Signature — Month — Day — Year

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month — Day — Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
CAR000186379	1	510-786-1818	014722175 JJK

GENERATOR

5. Generator's Name and Mailing Address: The Presidio Trust, 103 Montgomery St, San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address): 1471 Central Magazine Rd, San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: X L Trucking — U.S. EPA ID Number: XCAR000184788

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Clean Harbors Buttonwillow LLC, 2500 West Lokern Road, Buttonwillow, CA 93206 USA — U.S. EPA ID Number: CAD980875276

Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead) Non-DOT Regulated	1	DT	16	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.
Profile #: CH1226083 Sales Order #: 160210634

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Lawson for The Presidio Trust — Signature — Month 7 Day — Year 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: A. Alberto Venegas — Signature — Month 7 Day — Year 16

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of: 1
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 014722176 JJK

GENERATOR

5. Generator's Name and Mailing Address: The Presidio Trust, 103 Montgomery St, San Francisco, CA 94129 USA
Generator's Site Address (if different than mailing address): 1471 Central Magazine Rd, San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: X PETER KING
U.S. EPA ID Number: X CAR000124735

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Clean Harbors Buttonwillow LLC, 2500 West Lokern Road, Buttonwillow, CA 93206 USA
U.S. EPA ID Number: CAD980675276
Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead) Non-DOT Regulated	1	DT	16	Y	811
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083 Sales Order #: 160210634 TRK # 2-37 9E9316 4LT3466

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Now Employee of The Presidio Trust | Signature | Month 7 | Day | Year 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: X ROBIN FAUBA | Signature | Month 7 | Day | Year 16

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) | Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name | Signature | Month | Day | Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
CAR000186379	1	510-786-1818	014722177 JJK

GENERATOR

5. Generator's Name and Mailing Address: The Presidio Trust, 103 Montgomery St, San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address): 1471 Central Magazine Rd, San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name — U.S. EPA ID Number

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Clean Harbors Buttonwillow LLC, 2500 West Lokern Road, Buttonwillow, CA 93206 USA — U.S. EPA ID Number: CAD980675276

Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead) Non-DOT Regulated	1	DT	15	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information

Wear proper PPE when handling waste.

Profile #: CH1226083 Sales Order #: 160221063 4

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Lorusso for The Presidio Trust — Signature — Month — Day — Year

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month 7 — Day — Year 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month — Day — Year

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of: 1
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 014722178 JJK

GENERATOR

5. Generator's Name and Mailing Address: The Presidio Trust, 103 Montgomery St., San Francisco, CA 94129 USA
Generator's Site Address (if different than mailing address): 1471 Central Magazine Rd., San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: Eighteen Trucking
U.S. EPA ID Number: CAR000184788

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Clean Harbors Buttonwillow LLC, 2500 West Lokern Road, Buttonwillow, CA 93206 USA
U.S. EPA ID Number: CAD980675275
Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead, Copper, Antimony & Zinc) Non-DOT Regulated	1	DT	16	T	811
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083 Sales Order #: ~~160328958~~ 160331089
TR=234 1E93196 4LT3106

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible] Signature: [illegible] Month: 10 Day: 10 Year: 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: X Robin Frisbee Signature: X [illegible] Month: 10 Day: 10 Year: 16

Transporter 2 Printed/Typed Name: Signature: Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Signature: Month: Day: Year:

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of: 1
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 014722179 JJK

GENERATOR

5. Generator's Name and Mailing Address: The Presidio Trust, 103 Montgomery St., San Francisco, CA 94129 USA
Generator's Site Address (if different than mailing address): 1471 Central Magazine Rd., San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: Eighteen Trucking
U.S. EPA ID Number: CAR000184788

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Clean Harbors Buttonwillow LLC, 2500 West Lokern Road, Buttonwillow, CA 93206 USA
U.S. EPA ID Number: CAD980675276
Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead) Antimony, Copper & Zinc), Non-DOT Regulated	1	DT	16	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.
Profile #: CH1226083 Sales Order #: ~~1603289586~~ 1603310891

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible] Signature: [illegible] Month: 10 Day: 10 Year: 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Alberto Vargas Signature: [illegible] Month: 10 Day: 10 Year: 16
Transporter 2 Printed/Typed Name: Signature: Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Signature: Month: Day: Year:

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of: 1
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 014722180 JJK

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
1471 Central Magazine Rd
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: Eighteen Trucking
U.S. EPA ID Number: CAR000184788

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA

U.S. EPA ID Number: CAD980675276

Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead, Antimony Copper & Zinc) Non-DOT Regulated	1	DT	18	Y	811
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083 Sales Order #: [redacted] 1603310891 ~~1603289586~~

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nick Leasure for the Presidio Trust
Signature
Month 10 Day 10 Year 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: x
Signature: x
Month 10 Day 10 Year 16

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name
Signature
Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of: 1
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 014722181 JJK

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
1471 Central Magazine Rd
San Francisco, CA 94129 USA

6. Transporter 1 Company Name: Eighteen Trucking
U.S. EPA ID Number: CAR000184788

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
U.S. EPA ID Number: CAD980675276
Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead, Antimony, Copper & Zinc) Non-DOT Regulated	1	DT	16	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083 Sales Order #: [redacted] 1603289586 1603310891

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Lapidus for the Presidio Trust
Signature
Month: 10 Day: 10 Year: 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: x Gerardo Millan
Signature
Month: 10 Day: 10 Year: 16

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name
Signature
Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
CAR000186379	1	510-786-1818	014722182 JJK

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address)
1471 Central Magazine Rd
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: Sanchez Transport Inc — U.S. EPA ID Number: CAR000175828

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA

U.S. EPA ID Number: CAD980675276

Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead, Antimony Copper & Zinc) Non-DOT Regulated	1	DT	16	Y	811
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste.
Profile #: CH1226033 Sales Order #: [redacted] 1603310891 ~~1603289586~~

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nuria Lorenzo for The Presidio Trust — Signature: [signature] — Month: 10 Day: 10 Year: 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: x Gonzalo Sanchez — Signature: x [signature] — Month: 10 Day: 10 Year: 16

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of: 1
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 014722183 JJK

GENERATOR

5. Generator's Name and Mailing Address: The Presidio Trust
103 Montgomery St
San Francisco, CA 94129 USA

Generator's Site Address (if different than mailing address): 1471 Central Magazine Rd
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: A & I Transportation
U.S. EPA ID Number: CAR000448995

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
U.S. EPA ID Number: CAD980675276

Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead, Antimony, Copper & Zinc) Non-DOT Regulated	1	DT	16	Y	811
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste

Profile #: CH1226083 Sales Order #: [redacted] 1603310891 ~~1603289586~~

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Lassiter for the Presidio Trust
Signature
Month 10 Day 10 Year 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: MARK ARELLANO
Signature
Month 10 Day 10 Year 16

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name
Signature
Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of: 1
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 014722184 JJK

GENERATOR

5. Generator's Name and Mailing Address: The Presidio Trust, 103 Montgomery St, San Francisco, CA 94129 USA
Generator's Site Address (if different than mailing address): 1471 Central Magazine Rd, San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: Eighteen Trucking
U.S. EPA ID Number: CAR000184788

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Clean Harbors Buttonwillow LLC, 2500 West Lokern Road, Buttonwillow, CA 93206 USA
U.S. EPA ID Number: CAD980675270
Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead, Antimony, Copper & Zinc) Non-DOT Regulated	1	DT	18	Y	811
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083 Sales Order #: 1603310891

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible] Signature: [illegible] Month: 10 Day: 11 Year: 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: x Alberto Vargas Signature: x Month: 10 Day: 11 Year: 16

Transporter 2 Printed/Typed Name: Signature: Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Signature: Month: Day: Year:

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379

2. Page 1 of: 1

3. Emergency Response Phone: 510-786-1818

4. Manifest Tracking Number: 014722185 JJK

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust.
103 Montgomery St.
San Francisco, CA 94129 USA

Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
1471 Central Magazine Rd.
San Francisco, CA 94129 USA

6. Transporter 1 Company Name: Eighteen Trucking

U.S. EPA ID Number: CAP000184788

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA

U.S. EPA ID Number: CAD980675276

Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead) Antimony, Copper & Zinc) Non-DOT Regulated	1	DT	16	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste 160331091 TRLP 237 4E T3116 12 T16L
Profile #: CH1226083 Sales Order #: [illegible]

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Lazarus for Thomas Moore Signature: [signature] Month: 10 Day: 11 Year: 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: X Robin Fabia Signature: X [signature] Month: 10 Day: 11 Year: 16

Transporter 2 Printed/Typed Name Signature Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name Signature Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of: 1
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 014722186 JJK

GENERATOR

5. Generator's Name and Mailing Address: The Presidio Trust, 103 Montgomery St, San Francisco, CA 94129 USA
Generator's Site Address (if different than mailing address): 1471 Central Magazine Rd, San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: Eighteen Trucking
U.S. EPA ID Number: CAR000184788

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Clean Harbors Buttonwillow LLC, 2500 West Lokern Road, Buttonwillow, CA 93206 USA
U.S. EPA ID Number: CAD980675276
Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead, Antimony, Copper & Zinc) Non-DOT Regulated	1	DT	16	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste. 160310891
Profile #: CH1226083 Sales Order #: [illegible]

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible] Signature: [illegible] Month 10 Day 11 Year 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible] Signature: [illegible] Month 10 Day 11 Year 16

Transporter 2 Printed/Typed Name: Signature: Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Signature: Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of: 1
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 014722187 JJK

GENERATOR

5. Generator's Name and Mailing Address: The Presidio Trust, 103 Montgomery St., San Francisco, CA 94129 USA
Generator's Site Address (if different than mailing address): 1471 Central Magazine Rd, San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: Eighteen Trucking
U.S. EPA ID Number: CAR000184788

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Clean Harbors Buttonwillow LLC, 2500 West Lokern Road, Buttonwillow, CA 93206 USA
U.S. EPA ID Number: CAD980675276
Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead, Antimony, Copper & Zinc) Non-DOT Regulated	1	DT	18	Y	811
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
160331089 1
Profile #: CH1226083 Sales Order #: [redacted]

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Lawson for The Presidio Trust
Signature:
Month: 10 Day: 11 Year: 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: x Gerardo Millan
Signature: x
Month: 10 Day: 11 Year: 16

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name:
Signature:
Month: Day: Year:

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of: 1
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 014722188 JJK

GENERATOR

5. Generator's Name and Mailing Address: The Presidio Trust, 103 Montgomery St., San Francisco, CA 94129 USA
Generator's Site Address (if different than mailing address): 1471 Central Magazine Rd, San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

6. Transporter 1 Company Name: Sanchez Transport, Inc
U.S. EPA ID Number: CAR000175828

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Clean Harbors Buttonwillow LLC, 2500 West Lokern Road, Buttonwillow, CA 93206 USA
U.S. EPA ID Number: CAD980675276
Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead) Antimony, Copper & Zinc), Non-DOT Regulated	1	DT	16	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear propev PPE when handling waste. 1603310891
Profile #: CH1226083 Sales Order #:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible] Signature: [illegible] Month: 10 Day: 11 Year: 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: x Gonzalo Sanchez Signature: x [signature] Month: 10 Day: 11 Year: 16

Transporter 2 Printed/Typed Name: Signature: Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Signature: Month: Day: Year:

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of: 1
3. Emergency Response Phone: 510-788-1818
4. Manifest Tracking Number: 014722189 JJK

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery St.
San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
1471 Central Magazine Rd.
San Francisco, CA 94129 USA

6. Transporter 1 Company Name: A & I Transportation
U.S. EPA ID Number: CAR000448975

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
U.S. EPA ID Number: CAD980675276
Facility's Phone: 661-762-6200

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead, Antimony, Copper & Zinc) Non-DOT Regulated	1	DT	16	Y	811
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste. 160331 0891
Profile #: CH1226083 Sales Order #: [redacted]

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Lopez for The Presidio Trust
Signature
Month: 10 Day: 11 Year: 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: MARK ARELLANO
Signature
Month: 10 Day: 11 Year: 16

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

18b. Alternate Facility (or Generator)
Manifest Reference Number:
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name
Signature
Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of 1
3. Emergency Response Phone: 510-786-1918
4. Manifest Tracking Number: 011918673 JJK

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery Street
San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
1471 Cental Magazine Road
San Francisco, CA 94129 USA

6. Transporter 1 Company Name: Eighteen - Trucking
U.S. EPA ID Number: CAR000184788

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
Facility's Phone: 661-762-6200
U.S. EPA ID Number: CAD980675276

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc). Non-DOT Regulated	1	DT	18	Y	811
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083
Sales Order #: 160331089

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ron Duncan for The Presidio Trust
Signature
Month: 10 Day: 13 Year: 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Alberto Vanegas
Signature
Month: 10 Day: 13 Year: 16

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name
Signature
Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000188379
2. Page 1 of: 1
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 011918674 JJK

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery Street
San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
1471 Cental Magazine Road
San Francisco, CA 94129 USA

6. Transporter 1 Company Name: Eighteen Trucking
U.S. EPA ID Number: CAR000184788

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
661-762-6200
Facility's Phone:
U.S. EPA ID Number: CAD980675276

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc). Non-DOT Regulated	1	DT	18	T	CH
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear Nitrile PPE when handling waste
Profile #: CH1226083
Sales Order #: 1603310891
PO TCK#239 9E93196 4LT3966

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Lawson for The Presidio Trust Nina Lawson
Signature
Month: 10 Day: 13 Year: 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: x ROBIN FABRY
Signature: x
Month: 10 Day: 13 Year: 16

Transporter 2 Printed/Typed Name
Signature
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

18b. Alternate Facility (or Generator)
Manifest Reference Number:
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name
Signature
Month: Day: Year:

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of
3. Emergency Response Phone: 510 786-1818
4. Manifest Tracking Number: 011918675 JJK

GENERATOR

5. Generator's Name and Mailing Address:
Intel Folsom (Test)
103 Montgomery Street
San Francisco, CA 94129 USA
415-561-6421

Generator's Site Address (if different than mailing address)
1471 Cental Magazine Road
San Francisco, CA 94129 USA

Generator's Phone:

6. Transporter 1 Company Name: Eighteen Trucking
U.S. EPA ID Number: CAR000184788

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
661-762-8200
U.S. EPA ID Number: CAD980675278

Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc). Non-DOT Regulated.	1	DF	18	T	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information: Non-hazardous soil bearing waste
Profile #: CH1226083
Sales Order #: 160331087

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nick Lamb
Signature
Month: 10 Day: 13 Year: 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Keyade Miller
Signature
Month: 10 Day: 13 Year: 16

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name
Signature
Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379 | 2. Page 1 of | 3. Emergency Response Phone | 4. Manifest Tracking Number: 011918676 JJK

5. Generator's Name and Mailing Address:
Nanosystems Inc
103 Montgomery Street
San Francisco, CA 94129 USA
415-561-5421

Generator's Site Address (if different than mailing address)
1471 Cental Magazine Road
San Francisco, CA 94129 USA

Generator's Phone:

6. Transporter 1 Company Name: Sanchez Transport Inc | U.S. EPA ID Number: CAR000175828

7. Transporter 2 Company Name | U.S. EPA ID Number

8. Designated Facility Name and Site Address:
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
661-762-6200

U.S. EPA ID Number: CAD980675276

Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc), Non-DOT Regulated	1	DT	18	T	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083
Sales Order #: 1603210291

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name | Signature | Month 10 | Day 13 | Year 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Gonzalo Sanchez | Signature: x Gonzalo Sanchez | Month 10 | Day 13 | Year 16

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) | U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) | Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name | Signature | Month | Day | Year

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
CAR000186379	1	510-786-1818	011918677 JJK

GENERATOR

5. Generator's Name and Mailing Address
Chevron Texaco
103 Montgomery Street
San Francisco, CA 94129 USA
415-561-5421

Generator's Site Address (if different than mailing address)
1471 Central Magazine Road
San Francisco, CA 94129 USA

Generator's Phone:

6. Transporter 1 Company Name: ASI TRANSPORTATION — U.S. EPA ID Number: CAD044848995

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Chemical Waste Management of Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
661-762-6200

U.S. EPA ID Number: CAD980675276

Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc); Non-DOT Regulated	1	DT	18	T	811
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083 Sales Order #: 160331029

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name — Signature — Month 10 Day 13 Year 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: MIKE ARRIANO — Signature — Month 10 Day 13 Year 16

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

18b. Alternate Facility (or Generator) — Manifest Reference Number: — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 011918678 JJK

GENERATOR

5. Generator's Name and Mailing Address
103 Montgomery Street
San Francisco, CA 94129 USA
415-561-5421

Generator's Site Address (if different than mailing address)
1471 Cental Magazine Road
San Francisco, CA 94129 USA

Generator's Phone:

6. Transporter 1 Company Name: Eighteen Trucking
U.S. EPA ID Number: CAR000184788

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
661-762-6200
U.S. EPA ID Number: CAD980675276

Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc). Non-DOT Regulated	1	DT	18	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226093
Sales Order #: 160231/0791

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name
Signature
Month 10 Day 17 Year 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name
Signature
Month 10 Day 17 Year 16

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name
Signature
Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of 1
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 011918679 JJK

GENERATOR

5. Generator's Name and Mailing Address
103 Montgomery Street
San Francisco, CA 94129 USA
415-561-5421
Generator's Phone:

Generator's Site Address (if different than mailing address)
1471 Cental Magazine Road
San Francisco, CA 94129 USA

6. Transporter 1 Company Name: Eighteen Trucking
U.S. EPA ID Number: CAR000184788

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
661-762-6200
Facility's Phone:
U.S. EPA ID Number: CAD980675276

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc) Non-DOT Regulated	1	DT	18	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile # CH1226083
Sales Order # 160331/0291 TRK# 239 HLT396G

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name
Signature
Month 10 Day 17 Year 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: X ROBIN FABRA
Signature
Month 10 Day 17 Year 16

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name
Signature
Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186375
2. Page 1 of: 1
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 011918680 JJK

GENERATOR

5. Generator's Name and Mailing Address
Clean Harbors Inc
103 Montgomery Street
San Francisco, CA 94129 USA
415-561-5421
Generator's Phone:

Generator's Site Address (if different than mailing address)
1471 Cental Magazine Road
San Francisco, CA 94129 USA

6. Transporter 1 Company Name: Eighteen Trucking
U.S. EPA ID Number: CAR000184788

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
661-762-6200
Facility's Phone:
U.S. EPA ID Number: CAD980676276

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc) Non-DOT Regulated	1	DT	18	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083
Sales Order #: 10891

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Lawson (for Tim Prowant)
Signature:
Month: 10 Day: 17 Year: 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: James Church
Signature:
Month: 10 Day: 17 Year: 16

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name:
Signature:
Month: Day: Year:

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000185379
2. Page 1 of
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 011918681 JJK

GENERATOR

5. Generator's Name and Mailing Address
Generator's Site Address (if different than mailing address)
103 Montgomery Street
San Francisco, CA 94129 USA
415-561-5421
1471 Cental Magazine Road
San Francisco, CA 94129 USA
Generator's Phone:

6. Transporter 1 Company Name: Eighteen Trucking
U.S. EPA ID Number: CAR000184788

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
661-762-6200
U.S. EPA ID Number: CAD980676276
Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc). Non-DOT Regulated	1	DT	18	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083
Sales Order #: [illegible]

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible]
Signature: [illegible]
Month: 10 Day: 17 Year: 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible]
Signature: [illegible]
Month: 10 Day: 17 Year: 16

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name
Signature
Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
CAR000186379	1	510-786-1818	011919682 JJK

GENERATOR

5. Generator's Name and Mailing Address
[illegible]
103 Montgomery Street
San Francisco, CA 94129 USA
415-561-5421

Generator's Site Address (if different than mailing address)
1471 Cental Magazine Road
San Francisco, CA 94129 USA

Generator's Phone:

6. Transporter 1 Company Name: /B Trucking # 241 — U.S. EPA ID Number: CAR000184788

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
661-762-6200

U.S. EPA ID Number: CAD980675276

Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc), Non-DOT Regulated	1	DT	18	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083
Sales Order #: 1603289586

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name [illegible] — Signature — Month Day Year

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Alberto Verdugo — Signature — Month Day Year

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD000186379
2. Page 1 of
3. Emergency Response Phone: 510-786-1815
4. Manifest Tracking Number: 011918683 JJK

GENERATOR

5. Generator's Name and Mailing Address
Chevron Richmond
103 Montgomery Street
San Francisco, CA 94129 USA
415-661-5421
Generator's Phone:

Generator's Site Address (if different than mailing address)
1471 Central Magazine Road
San Francisco, CA 94129 USA

6. Transporter 1 Company Name
U.S. EPA ID Number

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
661-762-6200
Facility's Phone:
U.S. EPA ID Number
CAD980675276

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc). Non-DOT Regulated.	1	DT	18	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083
Sales Order #: 1803259586

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name | Signature | Month | Day | Year

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name | Signature | Month | Day | Year

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) | Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name | Signature | Month | Day | Year

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of: 1
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 011918684 JJK

GENERATOR

5. Generator's Name and Mailing Address
Nob Hill Cafe
103 Montgomery Street
San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
1471 Cental Magazine Road
San Francisco, CA 94129 USA

6. Transporter 1 Company Name: 1 & T Trucking Inc
U.S. EPA ID Number: CAD000194188

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
Facility's Phone: 661-762-6200

U.S. EPA ID Number: CAD980675276

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc) Non-DOT Regulated	1	DT	18	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083 Sales Order #: 1603289586

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nob Hill Cafe Signature: Month 10 Day 14 Year 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: James Crook Signature: Month 10 Day 15 Year 16

Transporter 2 Printed/Typed Name: Signature: Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Signature: Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000128379
2. Page 1 of
3. Emergency Response Phone
4. Manifest Tracking Number: 011918685 JJK

GENERATOR

5. Generator's Name and Mailing Address
103 Montgomery Street
San Francisco, CA 94129 USA
415-681-6421

Generator's Site Address (if different than mailing address)
1471 Cental Magazine Road
San Francisco, CA 94129 USA

Generator's Phone:

6. Transporter 1 Company Name: [illegible] Transportation — CAD009498995
U.S. EPA ID Number

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
661-762-6200
U.S. EPA ID Number: CAD080675276

Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc) Non-DOT Regulated.	1	DT	18	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226033
Sales Order #: 1603289586

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible]
Signature
Month Day Year

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible]
Signature
Month Day Year

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name
Signature
Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of: 1
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 011918686 JJK

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery Street
San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
1471 Central Magazine Road
San Francisco, CA 94129 USA

6. Transporter 1 Company Name: Patriot Env
U.S. EPA ID Number: CAR000154768

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
Facility's Phone: 661-762-6200

U.S. EPA ID Number: CAD980675276

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc) Non-DOT Regulated	1	DT	18	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083
Sales Order #: 1603289586

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name | Signature | Month 10 | Day 12 | Year 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name | Signature | Month 10 | Day 12 | Year 16

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) | Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name | Signature | Month | Day | Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 011918687 JJK

GENERATOR

5. Generator's Name and Mailing Address:
103 Montgomery Street
San Francisco, CA 94129 USA
415-561-5421

Generator's Site Address (if different than mailing address)
1471 Cental Magazine Road
San Francisco, CA 94129 USA

Generator's Phone:

6. Transporter 1 Company Name: TB Trucking — U.S. EPA ID Number: CAR 000184788

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
661-762-6200

U.S. EPA ID Number: CAD980675276

Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc) Non-DOT Regulated	1	DT	18	Y	511
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile # CH1226083
Sales Order #: [illegible]

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible] — Signature: [signature] — Month: 10 Day: 26 Year: 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Alberto Vargas — Signature: [signature] — Month: 10 Day: 26 Year: 16

Transporter 2 Printed/Typed Name — Signature — Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month: Day: Year:

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
CAR000186379	1	510-786-1818	011918688 JJK

GENERATOR

5. Generator's Name and Mailing Address
Chevron Texaco
103 Montgomery Street
San Francisco, CA 94129 USA
415-561-5421

Generator's Site Address (if different than mailing address)
1471 Cental Magazine Road
San Francisco, CA 94129 USA

Generator's Phone:

6. Transporter 1 Company Name: Eighteen Trucking — U.S. EPA ID Number: CAR000184788

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokem Road
Buttonwillow, CA 93206 USA
661-762-6200

U.S. EPA ID Number: CAD980675276

Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc), Non-DOT Regulated	1	DT	18	Y	811
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083
Sales Order #: 1603289586 1,333031 Ticket 237 HLT3966

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nicole Lawson for Chevron Products Company — Signature — Month 10 Day 26 Year 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: x Robin FA8124 — Signature — Month 10 Day 26 Year 16

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month Day Year

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
CAD981186379		800-719-1819	011918689 JJK

GENERATOR

5. Generator's Name and Mailing Address
103 Montgomery Street
San Francisco, CA 94129 USA
415-561-5421

Generator's Site Address (if different than mailing address)
1471 Cental Magazine Road
San Francisco, CA 94129 USA

Generator's Phone:

6. Transporter 1 Company Name: Eighteen Trucking — U.S. EPA ID Number: CAR000184788

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
661-762-6200

U.S. EPA ID Number: CAD980675276

Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc). Non-DOT Regulated	1	DT	18	Y	811
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083
Sales Order #: 1685289586

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name — Signature — Month Day Year

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month Day Year

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number: U.S. EPA ID Number

18b. Alternate Facility (or Generator)

Facility's Phone: Month Day Year

18c. Signature of Alternate Facility (or Generator)

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Form Approved. OMB No. 2050-0039

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
CAR000186379	1	510-786-1818	011918690 JJK

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery Street
San Francisco, CA 94129 USA
415-561-5421

Generator's Site Address (if different than mailing address)
1471 Cental Magazine Road
San Francisco, CA 94129 USA

Generator's Phone:

6. Transporter 1 Company Name: AFI Transportation — U.S. EPA ID Number: CAR000448995

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
661-762-6200

U.S. EPA ID Number: CAD980675276

Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc). Non-DOT Regulated.	1	DT	18	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226053
Sales Order #: 1003280686

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name — Signature — Month Day Year

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Date leaving U.S.:

TRANSPORTER

Transporter signature (for exports only):

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month Day Year

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number: U.S. EPA ID Number

18b. Alternate Facility (or Generator)

Facility's Phone: Month Day Year

18c. Signature of Alternate Facility (or Generator)

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month Day Year

GENERATOR'S INITIAL COPY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of
3. Emergency Response Phone
4. Manifest Tracking Number: 011918691 JJK

GENERATOR

5. Generator's Name and Mailing Address
103 Montgomery Street
San Francisco, CA 94129 USA
415-561-5421

Generator's Site Address (if different than mailing address)
1471 Cental Magazine Road
San Francisco, CA 94129 USA

Generator's Phone:

6. Transporter 1 Company Name: Eighteen Trucking — U.S. EPA ID Number: CAR000184788

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
661-762-8200

U.S. EPA ID Number: CAD980675278

Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc). Non-DOT Regulated.	1	DT	18	Y	811
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile # CH1226083
Sales Order #: 1000288585

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name — Signature — Month 10 Day 26 Year 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month 10 Day 26 Year 16

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of: 1
3. Emergency Response Phone: 510-786-1818
4. Manifest Tracking Number: 011918699 JJK

GENERATOR

5. Generator's Name and Mailing Address:
103 Montgomery Street
San Francisco, CA 94129 USA
415-561-5421

Generator's Site Address (if different than mailing address):
1471 Cental Magazine Road
San Francisco, CA 94129 USA

Generator's Phone:

6. Transporter 1 Company Name: Eighteen Trucking
U.S. EPA ID Number: CAR000184788

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
661-762-6200
U.S. EPA ID Number: CAD980675276

Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc). Non-DOT Regulated	1	DT	18	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083
Sales Order #: 1683289686
IL 3178045
RE 937
1F58478

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible] Signature: [illegible] Month: 12 Day: 16 Year: 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible] Signature: [illegible] Month: 12 Day: 16 Year: 16

Transporter 2 Printed/Typed Name: Signature: Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Signature: Month: Day: Year:

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of: 1
3. Emergency Response Phone: 510-784-1818
4. Manifest Tracking Number: 011013700 JJK

GENERATOR

5. Generator's Name and Mailing Address
The Academy of Art
103 Montgomery Street
San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
1471 Cental Magazine Road
San Francisco, CA 94129 USA

6. Transporter 1 Company Name: Eighteen Trucking
U.S. EPA ID Number: CAR000184788

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
Facility's Phone: 661-762-6200
U.S. EPA ID Number: CAD980675276

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
	1. Non-RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc). Non-DOT Regulated.	1	DT	18	Y	611		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083 Sales Order #: 160378045

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible] Signature: [illegible] Month: 12 Day: 16 Year: 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible] Signature: [illegible] Month: 12 Day: 16 Year: 16

Transporter 2 Printed/Typed Name: Signature: Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Signature: Month: Day: Year:

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000186379
2. Page 1 of
3. Emergency Response Phone: 510-786-1810
4. Manifest Tracking Number: 011918701 JJK

GENERATOR

5. Generator's Name and Mailing Address
103 Montgomery Street
San Francisco, CA 94129 USA
415-561-5421
Generator's Phone:

Generator's Site Address (if different than mailing address)
1471 Cental Magazine Road
San Francisco, CA 94129 USA

6. Transporter 1 Company Name: Sanchez Transport Inc
U.S. EPA ID Number: CAR000175828

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokem Road
Buttonwillow, CA 93206 USA
661-762-6200
Facility's Phone:

U.S. EPA ID Number: CAD980675276

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc). Non-DOT Regulated	1	DT	18	Y	811
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083
Sales Order #: 160978045

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Richard Lee
Signature
Month: 12 Day: 16 Year: 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Gonzalo Sanchez
Signature: Gonzalo Sanchez
Month: 12 Day: 16 Year: 16

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name
Signature
Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
CAR000186379	1	510-786-1818	011918702 JJK

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery Street
San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
1471 Central Magazine Road
San Francisco, CA 94129 USA

6. Transporter 1 Company Name: A & I Transportation
U.S. EPA ID Number: CAR 000248005

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
Facility's Phone: 661-762-6200
U.S. EPA ID Number: CAD980675276

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc). Non-DOT Regulated	1	DT	18	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083
Sales Order #: 160378045

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Lemen for the Presidio Trust
Signature
Month: 12 Day: 16 Year: 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: x JOSE HARA
Signature: x
Month: 12 Day: 16 Year: 16

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name
Signature
Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
CAR000186379	1	510-786-1818	014722484 JJK

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery Street
San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
1471 Cental Magazine Road
San Francisco, CA 94129 USA

6. Transporter 1 Company Name: A & I TRANSPORTATION — U.S. EPA ID Number: CAR000248005

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
Facility's Phone: 661-762-6200

U.S. EPA ID Number: CAD980675276

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc). Non-DOT Regulated	1	DT	18	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083 Sales Order #: 1603978045

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Lassen for The Presidio Trust — Signature — Month 12 Day 16 Year 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: × MARK ARELLANO — Signature — Month 12 Day 16 Year 16

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

EIGHTEEN TRUCKING

P.O. BOX 881116
SAN FRANCISCO
CALIFORNIA 94188

2417 DUNN ROAD
HAYWARD
CALIFORNIA 94545

(877) 422-1818 Office
(415) 552-1818
(510) 259-1818 Fax

MBE/DBE CERTIFIED

SHIPPING ORDER and FREIGHT BILL

F 388833

Day: S | M | T | (W) | T | F | S

Date 12/28 20 16

TRUCK NO. 211

TRAILER TYPE

TYPE OF TRUCK
- ☐ ROLL OFF
- ☐ SUPER DUMP
- ☐ BOTTOMS
- ☐ 5 YRD DUMP
- ☐ FLAT BED
- ☐ SEMI END
- ☒ TEN WHEELER
- ☐ TRANSFER

SUB HAULER

PRIME CARRIER 18 TRUCKING

SHIPPER/CONTRACTOR ERRG PRESIDIO

POINT OF ORIGIN BATTERY COULFIELD / MIKE SITE

CITY SAN FRANCISCO

P.O. No./JOB # 20150063

CONSIGNEE ERRG

DESTINATION BRISBANE REC. Lendlum CT.

CITY BRISBANE

MANIFEST No.

NO.	MATERIALS: SCALE TAG NO	MATERIALS: YARD OR WEIGHT	MATERIALS: TYPE OF MATERIAL	LOADING: TIME ARRIVE	LOADING: TIME LEAVE	UNLOADING: TIME ARRIVE	UNLOADING: TIME LEAVE
1	579292	10-YARD	CONCRETE	9:00	10:30	11:15	11:25
2	579329	10-YARD	CONCRETE	12:15	1:30	2:20	2:35
3				3:30			
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							

START	STOP	DEDUCT TIME	NET TIME	BRIDGEFARE
9:00	3:30	0	6.5	

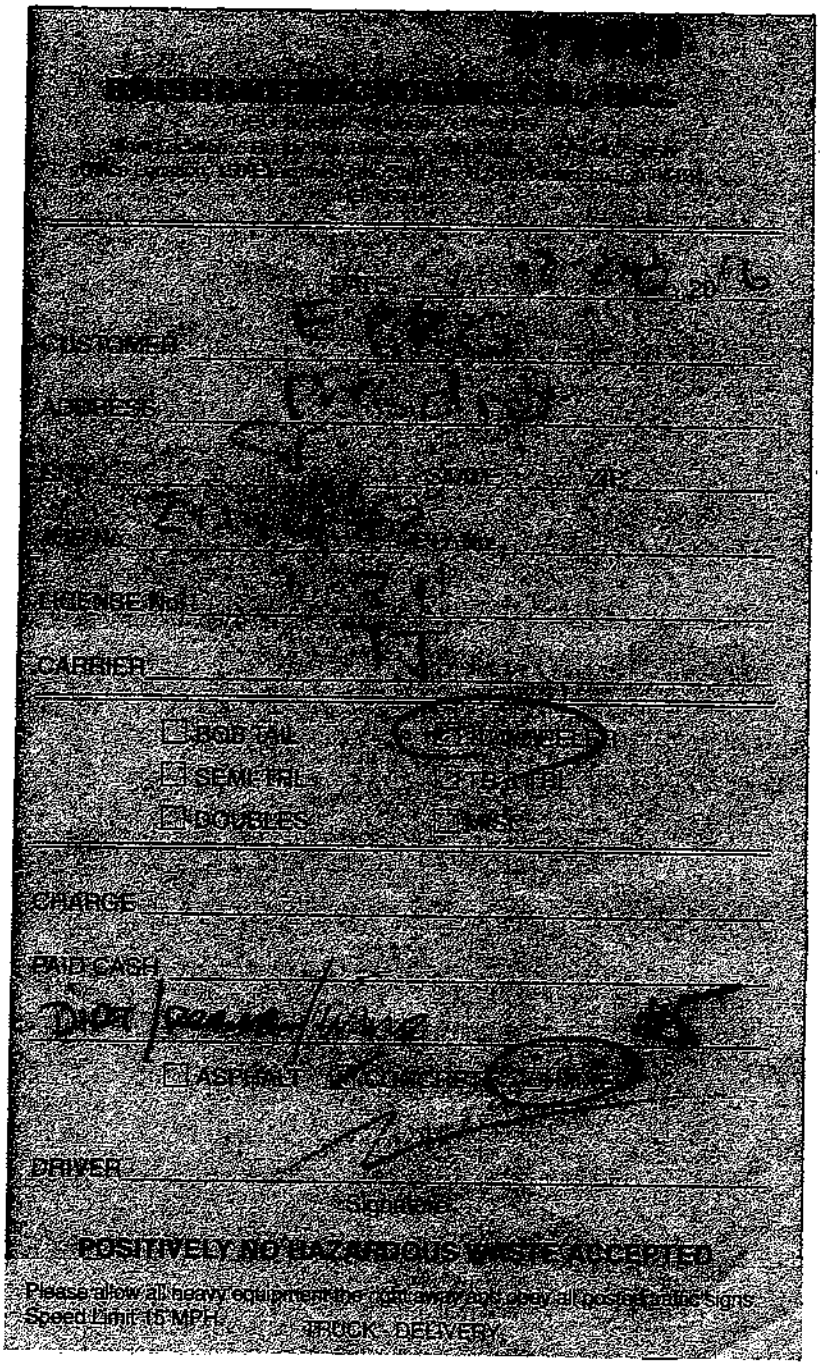
DRIVER

RECEIVED BY X

Customer responsible for (A) checking Type & quality of material before driver dumps load (B) Correct location of dumping (C) Overweight loads & court fines (D) Safe access & exit for truck (E) Firm level ground for dumping (F) Collection Charges.

DELUXE FOR BUSINESS 1-800-888-6327

Ref. No. G 054301080



DATE

CUSTOMER

ADDRESS

CITY STATE ZIP

PHONE

LICENSE No.

CARRIER

☐ BOB TAIL ☐ SINGLE

☐ SEMI TRL ☐ B TRL

☐ DOUBLES ☐ MISC

CHARGE

PAID CASH

☐ ASPHALT ☐ CONCRETE ☐ MISC

DRIVER

SIGNATURE

POSITIVELY NO HAZARDOUS WASTE ACCEPTED

Please allow all heavy equipment for dirt and yard, obey all posted traffic signs
Speed Limit 15 MPH TRUCK DELIVERY

579292

BRISBANE RECYCLING CO., INC.

P.O. Box 687, Brisbane, CA 94005
Plant Location: 5 Beatty Rd., Brisbane, CA 94005 • (415) 467-5050
Office Location: 150 Executive Park, Suite 4550, San Francisco, CA 94134
(415) 468-8822

DATE 12-22 20 06

CUSTOMER ZRRG

ADDRESS Beatty / Candlestick

CITY SF STATE ____ ZIP ____

JOB No. ____ P.O. No. ____

LICENSE No. 18 Tonic

CARRIER J's (18)

- ☐ BOB TAIL
- ☐ SEMI-TRL
- ☐ DOUBLES
- ☑ 10 WHEELER
- ☐ TR & TRL
- ☐ MISC.

CHARGE ____

PAID CASH ____

Rebar dirt

☐ ASPHALT ☐ CONCRETE ☐ MIXED #5

DRIVER ____
Signature

POSITIVELY NO HAZARDOUS WASTE ACCEPTED

Please allow all heavy equipment the right away and obey all posted traffic signs.
Speed Limit 15 MPH.

TRUCK - DELIVERY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
CAR000186379	1	510-786-1818	014722486 JJK

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery Street
San Francisco, CA 94129 USA
Generator's Phone: 415-561-5421

Generator's Site Address (if different than mailing address)
1471 Cental Magazine Road
San Francisco, CA 94129 USA

6. Transporter 1 Company Name: Sanchez Transport Inc
U.S. EPA ID Number: CAR000175828

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
Facility's Phone: 661-762-6200

U.S. EPA ID Number: CAD980675276

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc), Non-DOT Regulated	1	DT	18	Y	811
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083 Sales Order #: 1603978045

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Larssen for The Presidio Trust | Signature: Nina Larssen | Month: 12 | Day: 19 | Year: 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Gonzalo Sanchez | Signature: Gonzalo Sanchez | Month: 12 | Day: 19 | Year: 16

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) | Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name | Signature | Month | Day | Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
CAR000186379	1	510-786-1818	014722485 JJK

GENERATOR

5. Generator's Name and Mailing Address
The Presidio Trust
103 Montgomery Street
San Francisco, CA 94129 USA
415-561-5421
Generator's Phone:

Generator's Site Address (if different than mailing address)
1471 Cental Magazine Road
San Francisco, CA 94129 USA

6. Transporter 1 Company Name
[illegible]

U.S. EPA ID Number
[illegible]

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Buttonwillow LLC
2500 West Lokern Road
Buttonwillow, CA 93206 USA
Facility's Phone: 661-762-6200

U.S. EPA ID Number
CAD980675276

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Antimony, Copper, Lead & Zinc). Non-DOT Regulated.	1	DT	18	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Wear proper PPE when handling waste
Profile #: CH1226083 Sales Order #: 1603978045

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Nina Larssen (for The Presidio Trust) | Signature | Month: 12 | Day: 29 | Year: 16

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible] | Signature | Month: 12 | Day: 29 | Year: 16

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) | U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) | Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name | Signature | Month | Day | Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

SUBMITTAL RECORD

Presidio Trust
CONTRACT NO. PT-2015-063
SITE REMEDIATION AT Lendrum Court

SUBMITTAL NAME	Concrete and asphalt recycling	**SUBMITTAL CODE:**	
SPEC SECTION TITLE:	Demolition and disposal	**SUBMITTAL NO:**	010
SUB/SUPPLIER:		**REVISION NO:**	
		DATE SUBMITTED:	1/26/17

ITEM	DESCRIPTION	REVIEW STATUS					
		NAT	NET	MCN	R&R	REJ	SUB
1	Location of concrete recycler	☐	☐	☐	☐	☐	☐
2	Concrete recycling manifests	☐	☐	☐	☐	☐	☐
3	Location of asphalt recycler	☐	☐	☐	☐	☐	☐
4	Asphalt recycling manifest	☐	☐	☐	☐	☐	☐
5		☐	☐	☐	☐	☐	☐
6		☐	☐	☐	☐	☐	☐
7		☐	☐	☐	☐	☐	☐

LEGEND:

NAT = No Action Taken
NET = No Exceptions Taken
MCN = Make Corrections Noted
R&R = Revise and Resubmit
REJ = Rejected
SUB = Submit Specified Item

REVIEWER'S NAME: _____

REVIEWER'S SIGNATURE: _____ **DATE:** _____

This review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Corrections or comments made relative to submittals during this review do not relieve the contractor from compliance with the requirements of the drawings and specifications. Contractor is responsible for all dimensions which shall be confirmed and correlated at the job site; selecting fabrication processes and techniques of construction; coordination of the contractor's work with that of all other trades; and the satisfactory performance of the contractor's work.

REVIEW COMMENTS (include general review comments and specific revision requirements to numbered items):

EIGHTEEN TRUCKING

P.O. BOX 881116
SAN FRANCISCO
CALIFORNIA 94188

2417 DUNN ROAD
HAYWARD
CALIFORNIA 94545

(877) 422-1818 Office
(415) 552-1818
(510) 259-1818 Fax

MBE/DBE CERTIFIED

SHIPPING ORDER and FREIGHT BILL

F 388833

Day: S | M | T | (W) | T | F | S

Date 12/28 20 16

TRUCK NO. 211

TRAILER TYPE

TYPE OF TRUCK
- ☐ ROLL OFF
- ☐ SUPER DUMP
- ☐ BOTTOMS
- ☐ 5 YRD DUMP
- ☐ FLAT BED
- ☐ SEMI END
- ☒ TEN WHEELER
- ☐ TRANSFER

SUB HAULER

PRIME CARRIER 18 TRUCKING

SHIPPER/CONTRACTOR ERRG PRESIDIO

POINT OF ORIGIN BATTERY COULFIELD / MIKE SITE

CITY SAN FRANCISCO

P.O. No./JOB # 20150063

CONSIGNEE ERRG

DESTINATION BRISBANE REC. Lendlum CT.

CITY BRISBANE

MANIFEST No.

NO.	MATERIALS: SCALE TAG NO	MATERIALS: YARD OR WEIGHT	MATERIALS: TYPE OF MATERIAL	LOADING: TIME ARRIVE	LOADING: TIME LEAVE	UNLOADING: TIME ARRIVE	UNLOADING: TIME LEAVE
1	579292	10-YARD	CONCRETE	9:00	10:30	11:15	11:25
2	579329	10-YARD	CONCRETE	12:15	1:30	2:20	2:35
3				3:30			
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							

START	STOP	DEDUCT TIME	NET TIME	BRIDGEFARE
9:00	3:30	0	6.5	

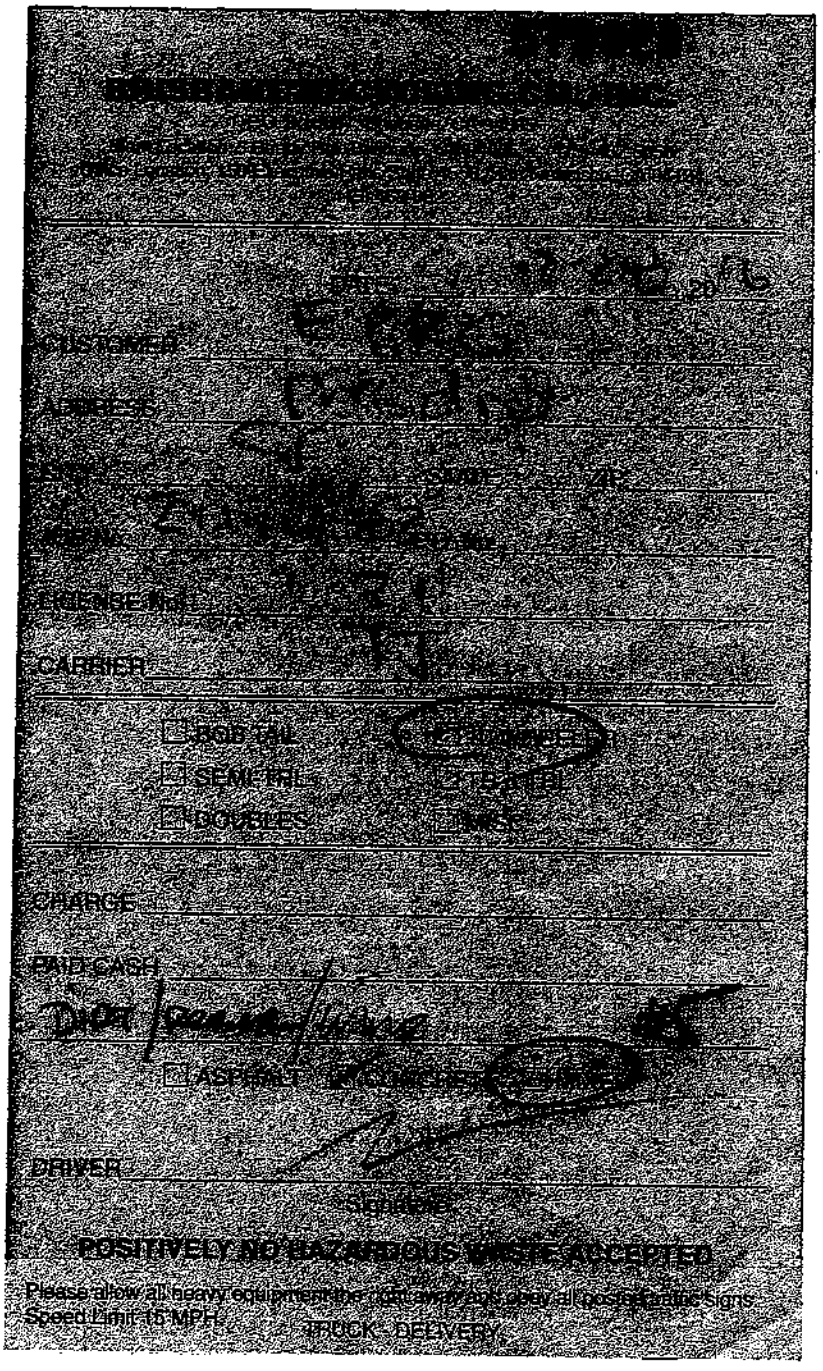
DRIVER

RECEIVED BY X

Customer responsible for (A) checking Type & quality of material before driver dumps load (B) Correct location of dumping (C) Overweight loads & court fines (D) Safe access & exit for truck (E) Firm level ground for dumping (F) Collection Charges.

DELUXE FOR BUSINESS 1-800-888-6327

Ref. No. G 054301080



DATE

CUSTOMER

ADDRESS

CITY STATE ZIP

PHONE

LICENSE No.

CARRIER

☐ BOB TAIL ☐ SINGLE

☐ SEMI TRL ☐ B TRL

☐ DOUBLES ☐ MISC

CHARGE

PAID CASH

☐ ASPHALT ☐ CONCRETE ☐ MISC

DRIVER

SIGNATURE

POSITIVELY NO HAZARDOUS WASTE ACCEPTED

Please allow all heavy equipment for dirt and yard, obey all posted traffic signs
Speed Limit 15 MPH TRUCK DELIVERY

579292

BRISBANE RECYCLING CO., INC.

P.O. Box 687, Brisbane, CA 94005
Plant Location: 5 Beatty Rd., Brisbane, CA 94005 • (415) 467-5050
Office Location: 150 Executive Park, Suite 4550, San Francisco, CA 94134
(415) 468-8822

DATE 12-28 20[illegible]

CUSTOMER ZRRG

ADDRESS Brittany / Candlestick

CITY SF STATE _____ ZIP _____

JOB No. _____ P.O. No. _____

LICENSE No. 18 Tonic

CARRIER J's (18)

- ☐ BOB TAIL
- ☒ 10 WHEELER
- ☐ SEMI-TRL
- ☐ TR & TRL
- ☐ DOUBLES
- ☐ MISC.

CHARGE _____

PAID CASH _____

rebar dirt

☐ ASPHALT ☒ CONCRETE ☐ MIXED #s

DRIVER _____
Signature

POSITIVELY NO HAZARDOUS WASTE ACCEPTED

Please allow all heavy equipment the right away and obey all posted traffic signs.
Speed Limit 15 MPH.

TRUCK - DELIVERY

APPENDIX F

SITE PHOTOGRAPHS

Lendrum Court Remedial Design and Implementation Plan
Lendrum Court, The Presidio of San Francisco, Photograph Log

Photo 1: **02/22/2016 –** View of the wood chipper staged between Buildings 1259 and 1278.

Photo 2: **02/23/2016** – Tree protection measures installed in the historic forest.

Photo 3: **02/23/2016** – Removal of a large tree in the historic forest.

Photo 4: **02/25/2016** – View of chipping and mulching operations in the historic forest using an excavator to feed the chipper.

Photo 5: **03/08/2016** – Laid down plywood in order to track heavy equipment through tree protection zone as needed.

Photo 6: **03/09/2016** – Trimming of tree #115 per direction of PTC's certified arborist.

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name & Address:	
229649	James Chidester	1 of 14	Presidio Trust	Lendrum Court, The Presidio San Francisco, California	TRC

Photo 7: **03/22/2016** – Removal of a large stump adjacent to Building 1278.

Photo 8: **03/23/2016 –** Setting up a crane to remove large pine trees adjacent to Building 1259.

Photo 9: **03/28/2016 –** Trimming tree #50 per Jason Thurm's direction.

Photo 10: **03/31/2016 –** View of wood chips spread behind Building 1278.

Photo 11: **04/06/2016 –** Fiber rolls installed on the slope in historic forest.

Photo 12: **04/06/2016 –** Erosion control blanket installed behind Building 1279.

Photo 13: **06/21/2016** – Grinding stumps in historic forest while applying water for dust control.

Photo 14: **06/22/2016** – Excavation activities in the area southeast of Building 1259.

Photo 15: **06/23/2016** – Hand digging in a tree protection zone in the historic forest.

Photo 16: **06/27/2016** – Excavation activities behind Building 1279. Taped windows and vents within 20 feet of excavation are visible.

Photo 17: **07/12/2016** – Loading a truck with soil for off-haul to Potrero Hills Landfill.

Photo 18: **07/13/2016** – Loading Class I soil from the staging area on Lincoln Blvd.

Photo 19: **07/14/2016 –** View of Class I soil staged at Building 951.

Photo 20: **07/15/2016 –** Excavation activities at the corner of Lendrum Ct. and Armistead Rd.

Photo 21: **07/19/2016 –** View of the Presidio Trust's repair of cracked and leaking water line in triangular area in front of buildings 1278 and 1279.

Photo 22: **07/21/2016 –** Crews exposed a gas line in front of building 1278 by hand digging.

Photo 23: **07/26/2016 –** Excavated key trench at bottom of slope in historic forest and air sampling location downwind of building 1278.

Photo 24: **07/27/2016 –** Dewatering of an excavated key trench at bottom of the slope in historic forest.

Photo 25: **08/02/2016 –** Gopher wire mesh being installed behind building 1278.

Photo 26: **08/03/2016 –** Backfilled and compacted import fill in front of Building 1279; perimeter dust monitor equipment is visible in the foreground.

Photo 27: **08/16/2016 –** Backfilled and compacted import fill over gopher wire mesh under Building 1278.

Photo 28: **08/17/2016 –** Final grading activities in progress behind Building 1279.

Photo 29: **08/30/2016 –** Installation of a key trench subdrain in key trench below Building 1278.

Photo 30: **08/31/2016 –** View of the backfilled and compacted key trench at bottom of slope in historic forest.

Photo 31: **09/01/2016 –** A key trench subdrain outfall at bottom of slope in historic forest.

Photo 32: **09/12/2016 –** Installation of gopher wire mesh in and around tree protection zone behind Building 1278.

Photo 33: **09/15/2016 –** Backfil and compaction of import fill over gopher wire mesh on slope in the historic forest.

Photo 34: **09/20/2016 –** Installation of a manhole riser over manhole in the historic forest.

Photo 35: **09/21/2016 –** Testing compaction of key trench behind Building 1259 with nuclear moisture density gauge.

Photo 36: **09/28/2016 –** Straightening of power pole in front of Buildings 1259 and 1278.

Photo 37: **10/12/2016 –** Pouring concrete for patios in front of Building 1259 and swale adjacent to Building 1259.

Photo 38: **10/18/2016 –** Excavated key trench at bottom of slope on west side work behind Building 1258.

Photo 39: **10/24/2016 –** Installation of erosion control BMPs on a completed area of historic forest behind Building 1259.

Photo 40: **11/10/2016 –** Installation of irrigation lines on the east side of the Site between Buildings 1278 and 1279.

Photo 41: **11/14/2016 –** Backfill and compaction of import fill on top of gopher wire mesh on a slope on the west side of the Site.

Photo 42: **11/16/2016 –** Pressure testing the main lines of the irrigation system on the east side of the Site between Buildings 1278 and 1279.

Photo 43: **12/02/2016 –** Installation of gopher wire mesh and backfill and compaction of import soil on west side of the Site.

Photo 44: **12/07/2016 –** Installation of erosion control BMPs on west side.

Photo 45: **12/07/2016 –** Installed downspouts on sides of the buildings to divert water to concrete swales.

Photo 46: **12/08/2016 –** View of erosion control BMPs installed in the clean closed area in front of Building 1258.

Photo 47: **12/29/2016 –** Repair and compaction of backfill on the west side of the Site following a slope failure.

Photo 48: **02/15/2017 –** Erosion controls and stormwater diversion prior to planting and hardscape improvements.

Photo 49: **03/06/2017 –** Saw cutting the asphalt for installation of the landscape irrigation line across the road.

Photo 50: **03/06/2017 –** Excavation area in street to tap water line for landscape irrigation system.

Photo 51: **03/08/2017 –** Tapped water line for landscape irrigation system.

Photo 52: **03/10/2017 –** Pouring concrete patios behind Buildings 1257 and 1258.

Photo 53: **03/29/2017 –** Preparation for tree planting in the historic forest.

Photo 54: **04/04/2017 –** Backfill and compaction of the trench for the irrigation line across parking spaces in front of Building 1278.

Photo 55: **04/06/2017 –** Backfill and compaction of the trench over the piping and conduit for irrigation crossing Lendrum Court.

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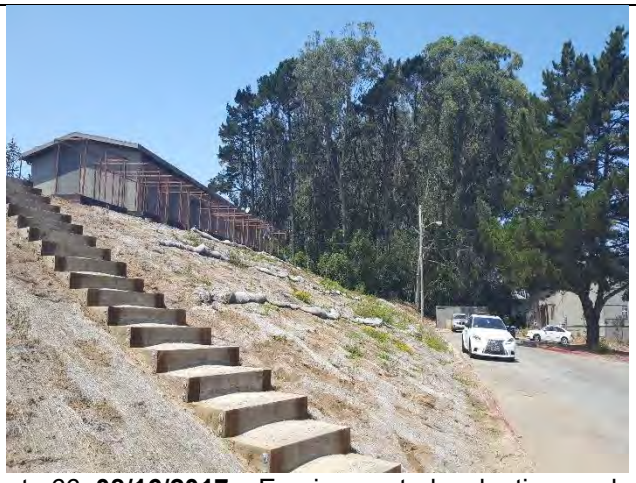

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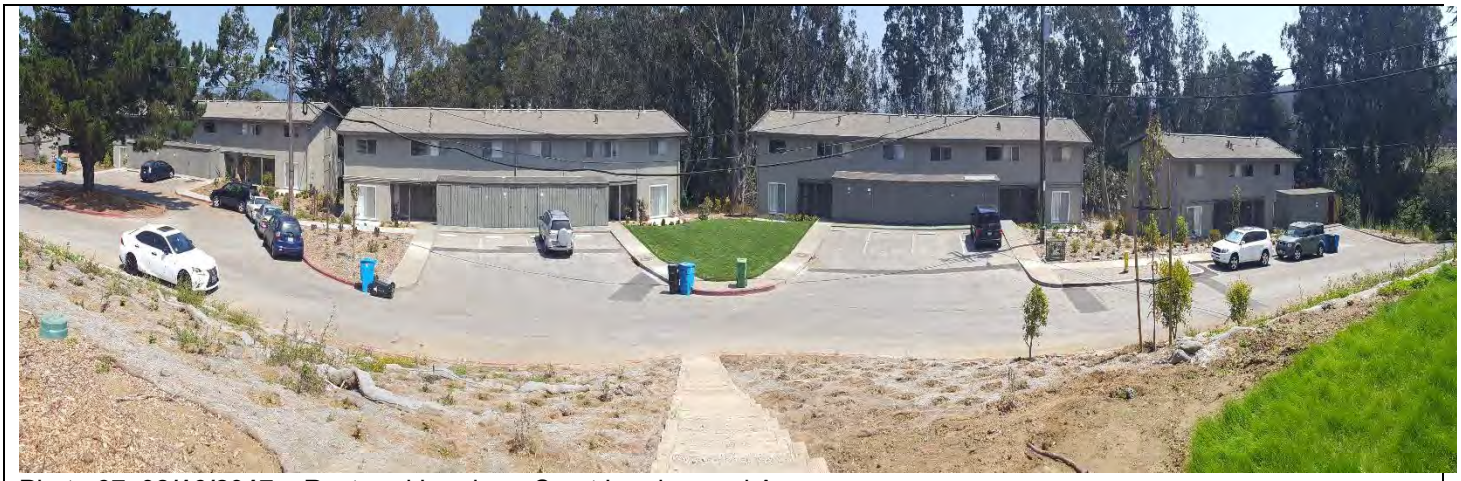

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APPENDIX G

DATA VALIDATION AND REVIEW SUMMARY, CONFIRMATION SAMPLE TRACKING, LAB REPORTS AND CHAINS OF CUSTODY

Data Validation Review

Lendrum Court

Presidio of San Francisco, California

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This report has been prepared for:

The Department of Toxic Substances Control

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A Laboratory Reports

ACRONYMS

BS	blank spike
BSD	blank spike duplicate
CSAP	Confirmation Sampling and Analysis Plan
COC	chain-of-custody
LCS	laboratory control sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PAH	polycyclic aromatic hydrocarbon
Presidio	Presidio of San Francisco, California
QA/QC	quality assurance and quality control
QAPP	Quality Assurance Project Plan
RDIP	Remedial Design and Implementation Plan
RL	reporting limit
RPD	relative percent difference
Site	Lendrum Court Site
Trust	Presidio Trust
TRC	TRC Companies

1.0 INTRODUCTION

The soil confirmation sampling during the remedial activities at the Lendrum Court Site (Site) located in the Presidio of San Francisco, California (Presidio) was conducted in accordance with in accordance with the *Presidio Quality Assurance Project Plan* (QAPP) (Tetra Tech, 2001) and *Addendum to the QAPP* (Trust, 2011). and *Confirmation Sampling and Analysis Plan, Lendrum Court, Presidio of San Francisco, California* (CSAP; TRC, 2016b). The CASP was provided as Appendix G in the May 26, 2016, *Revised Remedial Design and Implementation Plan, Lendrum Court, Presidio of San Francisco, California* (RDIP; TRC, 2016a). The QAPP and CSAP specify quality assurance and quality control (QA/QC) methods, procedures, and protocols for sampling and analysis activities, ensuring the data collected is representative of environmental conditions at the Site.

2.0 FIELD PROGRAM

Confirmation samples were collected in accordance with the Presidio Trust Standard Operating Procedures (SOPs), specifically SOP No. 001 of the Presidio QAPP. Confirmation soil samples will be collected using one of four methods; 1) advancing a handheld drive-sampler lined with a stainless-steel sample tube; 2) pushing the sample tube directly into the soil, 3) using a laboratory provided glass jar to directly scoop the soil or 4) collecting the sample from a backhoe bucket into a stainless steel tube or glass jar.

2.1 DOCUMENTATION, SAMPLE COLLECTION, HANDLING, AND CUSTODY OF CUSTODY

The field notes were reviewed following field activities to verify the accuracy and completeness of the data collection procedure. ***Table 3*** provides comprehensive information on the samples collected including laboratory analysis, relation to clean up level goals, and any deviations from the CSAP.

Sample collection, labeling and numbering system, and handling procedures were conducted in accordance with the QAPP and CSAP. Chain-of-Custodies (COCs), which accompanied all samples to the laboratory, are included as ***Appendix A***.

2.2 DECONTAMINATION PROCEDURES

When non-disposable sampling equipment was used to collect samples it was decontaminated using non-phosphate soap and rinsed with deionized water to prevent potential cross-contamination between samples and sample locations.

3.0 ANALYTICAL PROGRAM

3.1 LABORATORY METHODS

The soil confirmation samples collected were analyzed by Test America Laboratories, Inc of Pleasanton, California and Enthalpy Analytical, LLC (Enthalpy) of Berkeley, California. Both laboratories are laboratory certified by the California Department of Health Services. Chain-of-Custody documents accompanied all samples to the laboratory, and are included with the analytical reports. Laboratory quality control data are presented in the laboratory reports in ***Appendix A*** and discussed in Section 4.0.

3.2 FIELD QA/QC SAMPLES AND VALIDATION

Field and laboratory blanks were evaluated for the presence of contamination and its effect on associated samples. Field QA/QC samples listed in ***Table 1*** were prepared in accordance with the procedures outlined in CSAP.

Equipment rinsate samples were collected to document the effectiveness of equipment decontamination methods. According to the QAPP and CSAP, an equipment blank sample is to be collected following decontamination of reusable sampling equipment. Due to the nature of this sampling program many of the samples were collected by directly scooping the soil into a glass jar or stainless steel tube without the use of reusable sampling equipment, and therefore not requiring decontamination of sampling equipment, during these days equipment blank samples were not collected. Equipment blanks samples included the ID of the primary sample collected, followed by the designation “RB”, in turn, followed by the number of the primary sample collected after the equipment blank is collected.

Field duplicates provide verification of laboratory or field analysis and sample collection. Duplicate samples are collected, handled, and analyzed using the same protocols as primary samples. Duplicate samples were collected immediately after the primary sample has been collected.

4.0 VALIDATION OF LABORATORY DATA

Data quality is measured and evaluated in terms of precision, accuracy, representativeness, completeness, and comparability. ***Table 2*** summarizes the data review findings.

4.1 PRECISION

Precision is estimated by comparing analytical results from duplicate samples. Precision is determined at both the field and laboratory levels Duplicate samples were collected in the field at a rate of approximately one per 10 samples (10%), excluding quality control samples, and analyzed for the same compounds as their corresponding sample.

For each target analyte in each of the field duplicate pairs listed in ***Table 1***, the relative percent difference in concentration (RPD):

$$RPD = \frac{2|C_1 - C_2|}{C_1 + C_2} x100$$

Where C_1 and C_2 are the concentrations in the duplicate samples.

In cases where duplicate samples contain extremely high or low concentrations of the target analyte, the RPD calculation may indicate high variances that do not reflect analytical precision. Data will be qualified as estimated in cases where the results for laboratory duplicates do not meet acceptance criteria and where matrix interference or laboratory imprecision is determined to be the cause of the high variance.

4.2 ACCURACY

The accuracy of the data was evaluated based on recoveries, expressed as the percentage of the true (known) concentration, from surrogate spikes, matrix spikes (MS), blank spikes (BS), their associated duplicates (MSD, BSD), and laboratory control samples (LCS) generated by the analytical laboratories. Recoveries detected out of the range of the laboratory's QA/QC protocol may invalidate analytical results. Laboratory method blanks are analyzed before each batch of samples to ensure that no cross-contamination from the analysis of previous samples has occurred. Detection of target analytes in method blanks may also invalidate analytical results.

4.3 REPRESENTATIVENESS

Representativeness expresses the degree to which sample data accurately and precisely represent the characteristics of a population, parameter variations at the sampling point, or environmental condition that they represent. Representativeness of data was ensured by consistently apply established field and laboratory procedures. To help evaluate the representativeness of the sample field blanks and laboratory blanks were analyzed for the presence of contaminants. No contaminants were present in the field blanks and laboratory blanks.

4.4 COMPLETENESS

Completeness is the percentage of measurements required by the QAPP that are actually obtained and validated. The completeness goal listed in the QAPP is 90 percent for each analyte. The completeness goal was met for all analytes. In general, the data are valid as reported and may be used for decision-making purposes. In general, laboratory reporting limits met with the

exception of Benzo(a)pyrene in SLCPS105[0.5]. Reporting limits were elevated in this sample due to the nature of the sample matrix.

4.5 COMPARABILITY

The comparability objective determines whether analytical conditions were sufficiently uniform for each run to ensure that all of the reported data was consistent. Sample dilutions were performed on a select number of the samples due to matrix inference. Section 4.6 provides further details on sample dilutions.

4.6 LABORATORY VARIANCES

A laboratory report case narrative is provided in ***Appendix A*** for each data set (report) containing QA/QC variances. Although variances were present, all primary samples and field QA/QC samples generally met laboratory accuracy criteria. Any non-conformances identified by the laboratory are summarized below.

GENERAL SAMPLE CONDITION

- For the samples collected on June 8, 2016 container labels did not match the chain-of-Custody (COC) for several samples. The container label for the following samples did not match the information listed on the COC: 1258EX105[1.5] (720-72725-6), 1258EX201[0.0] (720-72725-7), 1258EX202[0.0] (720-72725-8), 1258EX203[0.0] (720-72725-9), 1258EX204[0.0], (720-72725-10), SLCPS101[1.0] (720-72725-26), SLCPS101[1.5] (720-72725-27), SLCPS102[1.0] (720-72725-29), SLCPS102[1.5], (720-72725-30), SLCPS103[1.0] (720-72725-32), SLCPS103[1.5] (720-72725-33), SLCPS104[1.0] (720 72725-40), SLCPS105[1.5], (720-72725-42), SLCPS106[1.5] (720-72725-44), SLCPS107[1.5] (720-72725-46) and SLCEX103[0.5] (720-72725-52).
    - Inconsistencies with sample labeling were verified and due to the minor nature of the discrepancies were quickly corrected with the laboratory.

HOLDING TIME AND SAMPLE PERSEVERATION:

The samples were received at laboratory intact and in good condition and within temperature range with the following exceptions:

- The sample 259PS408(0.0) analyzed for method 8270C SIM PAHs was prepped or analyzed beyond the specified holding time.
- The sample 1278EX105[1.5] analyzed for method 8270C SIM PAHs was prepped or analyzed beyond the specified holding time.

METHOD 8290 DIXON:

- The bracketing continuing calibration verification (CCV; CCV062216F) associated with batch 320-114992 has 13C-OCDD with percent difference value that is between the method criteria of 30% to 35% deviation from the initial calibration curve. Per method guidelines, an average relative response factor (RRF) is calculated from the bracketing CCV and is used to quantitate the Isotope Dilution Analyte (IDA) recovery in the associated samples.
- The LCS for preparation batch 320-113735 and analytical batch 320-114990 associated with the samples collected on June 3, 2016, recovered outside control limits for 1,2,3,4,7,8,9-HpCDF. This analyte was biased high in the LCS and not detected in the associated samples; therefore, the data have been reported.
- The LCS for preparation batch 320-113735 and analytical batch 320-114990 associated with samples collected on June 6, 2016, recovered outside control limits for 1,2,3,4,7,8,9-HpCDF. This analyte was biased high in the LCS and not detected in the associated samples; therefore, the data have been reported with further qualification.

METHOD 8270C SIMS:

- The following samples required a dilution due to the nature of the sample matrix: 1278PS101[0.5] (720-72689-3), 1279PS101[0.5] (720-72689-9), 1279PS102[1.0] (720-72689-10), 1279PS103[0.5] (720-72689-11), 1279PS104[0.5] (720-72689-12), 1279PS105[1.0] (720-72689-14) and 1279PS106[1.0] (720-72689-15). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information. Reporting limits (RLs) have been adjusted accordingly.
- Method 8270C SIM: The following sample was diluted due to the abundance of non-target analytes: (720-72926-A-3-E). Elevated RLs are used.
- The following samples were diluted due to the nature of the sample matrix: 1259PS107[2.5] (720-72725-20), SLCEX104[1.0] (720-72725-37), SLCEX105[1.0] (720-72725-38), SLCPS104[1.0] (720-72725-40), SLCPS105[0.5] (720-72725-41), SLCPS105[1.5] (720-72725-42), SLCPS106[0.5] (720-72725-43), SLCPS106[1.5] (720-72725-44), SLCPS107[0.5] (720-72725-45), SLCPS107[1.5] (720-72725-46), SLCPS108[0.0] (720-72725-47), SLCPS109[0.5] (720-72725-48), SLCPS110[0.5] (720-72725-49), (720-72725-A-40-C MS) and (720-72725-A-40-D MSD). Elevated reporting limits (RLs) are used.

METHOD 6010B:

- A serial dilution is when a sample run at specific dilutions to determine whether any significant chemical or physical interferences exist due to sample matrix effects. Several serial dilutions performed for the laboratory batches were performed outside control limits. Affected samples are as follows:
    - Laboratory batch 720-208331 associated with the samples collected on August 25, 2016, was performed outside control limits.

  - Laboratory batch 720-209111 associated with the samples collected on September 8, 2016.
  - Laboratory batch 720-210038 associated with the samples collected on September 15, 2016.
  - Laboratory batch 720-211047 associated with the samples collected on October 10, 2016.

- The sample 1278EX105[1.5] (720-74509-3) was diluted due to the abundance of non-target analytes. Elevated reporting limits (RLs) are used.

4.7 DATA USABILITY

The above results indicate data are valid as reported and may be used for decision-making purposes. Laboratory non-conformances noted have a minor impact on the data usability.

5.0 REFERENCES

TRC, 2016. *Final Remediation Design and Implementation Plan, Lendrum Court, Presidio of San Francisco, California*. May.

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TABLES

TABLE 1

REQUIRED AND COLLECTED FIELD QA/QC SAMPLES
LENDRUM COURT
PRESIDIO OF SAN FRANCISCO, CALIFORNIA

QA/QC SAMPLE TYPE	FIELD QA/QC GOALS	ANALYTES	SAMPLES COLLECTED	
			SAMPLE ID	SAMPLE DATE
FIELD DUPLICATES	Field duplicates will be collected at a frequency of approximately 10 percent of the total number of samples generated.	Lead	1278PS102[0.5] DUP060616-1	6/6/2016
			1259PS101[0.0] DUP060616-2	6/6/2016
			1259PS104[0.0] DUP060616-3	6/6/2016
			1259EX104[3.0] DUP060716-1	6/7/2016
			1258EX101[0.0] DUP060716-2	6/7/2016
			SLCPS109[0.5] DUP060716-3	6/7/2016
			SLCEX104[1.0] DUP060716-4	6/7/2016
			SLCPS102[0.0] DUP060716-5	6/7/2016
			SLCEX102[0.5] DUP060716-6	6/7/2016
			1255SB116[0.75] DUP-03282017-06	3/28/2017
			1255SB116[3.5] DUP-042617-01	4/26/2017
			1255SB117[0.75] DUP-03282017-05	3/28/2017
			1255SB103[1.5] DUP-03282017-02	3/28/2017
			1255SB109[0.75] DUP-03282017-01	3/28/2017
EQUIPMENT BLANKS	Equipment blanks will include the ID of the primary sample collected, followed by the designation "RB", in turn followed by the number of the primary sample collected after the equipment blank is collected.	Lead	1279PS105RB106	6/3/2016
			1259PS104RB105	6/6/2016
			1258EX201RB202	6/8/2016

TABLE 2
DATA REVIEW SUMMARY
Lendrum Court
Presidio of San Francisco, California

Lab Report	Holding Times	Sample Preservation	Method Blanks	Surrogate Recoveries	Laboratory Control Samples (LSC)	Matrix Spikes	Reporting Limits	Field QC Samples
J69894-1	Met	Met	No contaminants	NA	Within acceptance criteria	NA	NA - all detections	No dups collected
J72655-1	Met	Met	No contaminants	NA	1257EX101[0.5] missing Qual	NA	NA - all detections	No dups collected
J72655-1 Rev(1)	Met	Met	No contaminants	NA	1257EX101[0.5] missing Qual	NA	NA - all detections	No dups collected
J72655-2	Met	Met	No contaminants	Good	LCS and LCSD outside control limits. Biased high. Data reported.	NA	RLs meet criteria	No dups collected
J72655-3	Met	Met	No contaminants	NA	Within acceptance criteria	NA	NA - all detections	No dups collected
J72689-1 Rev(1)	Met	Met	No contaminants	NA	Within acceptance criteria	NA	NA - all detections	Dups collected
J72689-2	Met	Met	No contaminants	PAH - Surrogate is outside acceptance limits for 1278PS101[0.5]	PAHs - MS and/or MSD Recovery is outside acceptance limits. Sample 1279PS104[0.5]. LCS and LCSD not associated with Report	Dilution to PAHs. "the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information. Reporting limits have been adjusted accordingly."	RLs meet criteria	No dups analyzed
J72689-3	Met	Met	No contaminants	NA	Within acceptance criteria	NA	NA - all detections	No dups collected
J72689-4	Met	Met	No contaminants	Good	Within acceptance criteria	NA	RLs meet criteria	No dups collected
J72725-1 Rev(1)	Met	Met	No contaminants	NA	Within acceptance criteria	The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable	RLs meet criteria	Dups collected / Lead only
J72725-2 Rev(1)	Met	Met	No contaminants	Good	LCS or LCSD is outside acceptance limits for Dioxin	NA	RLs did not meet for BaP in SLCPS105[0.5]	No dups collected
J73079-1	Met	Met	No contaminants	NA	Within acceptance criteria	MS and/or MSD Recovery is outside acceptance limits. MS/MSD RPD exceeds control limits	RLs meet criteria	No dups collected
J73530-1	Met	Met	No contaminants	NA	Within acceptance criteria	NA	RLs meet criteria	No dups collected
J73530-2	Met	Met	No contaminants	NA	Within acceptance criteria	NA	RLs meet criteria	No dups collected
J73530-3	Met	Met	No contaminants	NA	Within acceptance criteria	NA	RLs meet criteria	No dups collected
J73552-1	Met	Met	No contaminants	NA	Within acceptance criteria	NA	RLs meet criteria	No dups collected
J73608-1	Met	Met	No contaminants	NA	Within acceptance criteria	NA	RLs meet criteria	No dups collected
J73608-2	Met	Met	No contaminants	NA	Within acceptance criteria	NA	RLs meet criteria	No dups collected
J74082-1	Met	Met	No contaminants	NA	Within acceptance criteria	NA	RLs meet criteria	No dups collected
J74083-1	Met	Met	No contaminants	NA	Within acceptance criteria	NA	RLs meet criteria	No dups collected
J74136-1 Rev(1)	Met	Met	No contaminants	NA	Within acceptance criteria	NA	RLs meet criteria	No dups collected
J74180-1 Rev(1)	Met	Met	No contaminants	NA	Within acceptance criteria	NA	RLs meet criteria	No dups collected
J74180-2	Met	Met	No contaminants	NA	Within acceptance criteria	NA	RLs meet criteria	No dups collected
J74180-3	Met	Met	No contaminants	NA	Within acceptance criteria	NA	RLs meet criteria	No dups collected
J74180-4	Sample was prepped or analyzed beyond the specified holding time	Met	No contaminants	NA	Within acceptance criteria	NA	RLs meet criteria	No dups collected
J74359-1	Met	Met	No contaminants	NA	Within acceptance criteria	MS and/or MSD Recovery is outside acceptance limits.	RLs meet criteria	No dups collected
J74509-1	Met	Met	No contaminants	NA	Within acceptance criteria	NA	RLs meet criteria	No dups collected

TABLE 2
DATA REVIEW SUMMARY
Lendrum Court
Presidio of San Francisco, California

Lab Report	Holding Times	Sample Preservation	Method Blanks	Surrogate Recoveries	Laboratory Control Samples (LSC)	Matrix Spikes	Reporting Limits	Field QC Samples
J74509-2	Sample was prepped or analyzed beyond the specified holding time	Met	No contaminants	NA	Within acceptance criteria	NA	RLs meet criteria	No dups collected
J74510-1	Met	Met	No contaminants	NA	Within acceptance criteria	NA	RLs meet criteria	No dups collected
J74510-2	Met	Met	No contaminants	NA	Within acceptance criteria	NA	RLs meet criteria	No dups collected
J74510-3	Met	Met	No contaminants	NA	Within acceptance criteria	NA	RLs meet criteria	No dups collected
J74816-1	Met	Met	No contaminants	NA	Within acceptance criteria	MS and/or MSD Recovery is outside acceptance limits.	RLs meet criteria	No dups collected
J75006-1	Met	Met	No contaminants	NA	Within acceptance criteria	MS/MSD RPD exceeds control limits	RLs meet criteria	No dups collected
J75599-1	Met	Met	No contaminants	NA	Within acceptance criteria	NA	RLs meet criteria	No dups collected

Notes

Dup = duplicate
LCS/LCSD = laboratory control spike / laboratory control spike duplicate
MS/MSD = Matrix Spike/ Matrix spike duplicate
NA = not applicable
QC = qulaity control
RL = reporting limit
RPD = relative percent difference

TABLE 3
SAMPLE TRACKING TABLE
Lendrum Court
Presidio of San Francisco, California

CSAP Proposed Sample ID	Confirmation Sample ID	Sample Depth (feet bgs)	Sample Date	Excavation Sample Location	Laboratory Analysis				Residential Cleanup Level for Sample Screening	Forest/ Recreational Cleanup Level for Sample Screening	Excavated or In Place?	Reason for Deviation from CSAP
					Lead (USEPA 6020)	As, Ba, Cu, Zn (USEPA 6020)	PAHs (USEPA 8270)	Dioxins/ Furans (USEPA 8290A)				
Excavation West of Building 1258												
1258EX101[TBD]	1258EX101[0.0]	0	6/7/2016	Sidewall	●			●	●		In Place	
	1258EX101[0.75]	0.75	8/22/2016		●				●		In Place	
1258EX102[TBD]	1258EX102[0.0]	0	6/7/2016	Sidewall	●				●		In Place	
	1258EX102[0.75]	0.75	8/22/2016		●				●		In Place	
1258EX103[TBD]	1258EX103[0.0]	0	6/7/2016	Sidewall	●				●		Excavated	
	1258EX103[0.75]	0.75	8/22/2016		●				●		Excavated	
1258EX104[TBD]	1258EX104[0.0]	0	6/7/2016	Sidewall	●				●		Excavated	
	1258EX104[0.75]	0.75	8/22/2016		●				●		In Place	
1258EX105[TBD]	1258EX105[0.5]	0.5	6/7/2016	Floor	●				●		Excavated	
	1258EX105[0.75]	0.75	8/25/2016		●				●		Excavated	
	1258EX105[1.5]	1.5	6/7/2016	Floor	●				●		In Place	
	1258EX107[0.75]	0.75	8/25/2016		●				●		In Place	
	1258EX108[0.75]	0.75	9/26/2016		●				●		In Place	
	1258EX109[0.75]	0.75	9/26/2016		●				●		Excavated	
	1258EX110[1.5]	1.5	9/26/2016		●				●		In Place	
	1258PS201[0.75]	0.75	10/10/2016		●				●		In Place	
	1258PS202[0.75]	0.75	10/10/2016		●				●		Excavated	
	1258PS203[0.75]	0.75	10/10/2016		●				●		Excavated	
	1258PS204[0.75]	0.75	11/2/2016		●				●		In Place	
	1258PS205[0.75]	0.75	11/2/2016		●				●		In Place	
Step-out Samples												
1258EX201[TBD]		TBD		Sidewall	●				●		--	Samples collected with a different name.
1258EX202[TBD]		TBD		Sidewall	●				●		--	Samples collected with a different name.
1258EX203[TBD]		TBD		Sidewall	●				●		--	Samples collected with a different name.
1258EX204[TBD]		TBD		Sidewall	●				●		--	Samples collected with a different name.
1258EX205[TBD]		TBD		Floor	●				●		--	Samples collected with a different name.
Soil Overlying Bedrock Sampling East-Southeast of Building 1258												
1279SB500[0.0]	1279SB500[0.0]	0.0	1/20/2016	--	●				●		Excavated	
1279SB501[0.0]	1279SB501[0.0]	0.0	1/20/2016	--	●				●		Excavated	
1279SB502[0.0]	1279SB502[0.0]	0.0	1/20/2016	--	●				●		Excavated	
1279SB503[0.0]	1279SB503[0.0]	0.0	1/20/2016	--	●				●		Excavated	
1279SB504[0.0]	1279SB504[0.0]	0.0	1/20/2016	--	●				●		Excavated	
	1279SB505[0.5]	0.5	7/21/2016	--	●				●		Excavated	
Excavation East-Northeast of Building 1255												
	1255SB100(1.5)	1.5	3/28/2017	--	●				●		Excavated	
	1255SB100(2.0)	2.0	3/28/2017	--	●				●		In Place	
	1255SB101(1.5)	1.5	3/28/2017	--	●				●		Excavated	
	1255SB101(2.0)	2.0	3/28/2017	--	●				●		In Place	
	1255SB102(1.5)	1.5	3/28/2017	--	●					●	In Place	
	1255SB103(1.5)	1.5	3/28/2017	--	●				●		Excavated	
	1255SB103(2.0)	2.0	3/28/2017	--	●				●		Excavated	
	1255SB104(0.75)	0.8	3/28/2017	--	●				●		In Place	
	1255SB105(0.75)	0.8	3/28/2017	--	●				●		In Place	
	1255SB106(0.75)	0.8	3/28/2017	--	●				●		In Place	
	1255SB107(0.75)	0.8	3/28/2017	--	●					●	In Place	
	1255SB108(0.75)	0.8	3/28/2017	--	●					●	In Place	
	1255SB108(0.25)	0.3	3/28/2017	--	●					●	In Place	
	1255SB108(1.5)	1.5	3/28/2017	--	●					●	In Place	
	1255SB109(0.75)	0.8	3/28/2017	--	●					●	In Place	
	1255SB116(0.75)	0.8	3/28/2017	--	●				●		Excavated	
	1255SB116(1.5)	1.5	3/28/2017	--	●				●		Excavated	
	1255SB116(2.0)	2.0	3/28/2017	--	●				●		Excavated	
	1255SB116(3.5)	3.5	4/26/2017	--	●				●		In Place	
	1255SB117(0.75)	0.8	3/28/2017	--	●				●		Excavated	
	1255SB117(1.5)	1.5	3/28/2017	--	●				●		In Place	
	1255SB118(1.5)	1.5	3/28/2017	--	●				●		In Place	
	1255SB120(1.0)	1.0	4/26/2017	--	●				●		Excavated	
	1255SB120(2.0)	2.0	4/26/2017	--	●				●		Excavated	
	1255SB121(1.0)	1.0	4/26/2017	--	●				●		In Place	
	1255SB121(2.0)	2.0	4/26/2017	--	●				●		In Place	
Excavation Northwest of Building 1257												
1257EX101[0.5]	1257EX101[0.5]	0.5	6/3/2016	--	●				●		In Place	
1257EX102[0.5]	1257EX102[0.5]	0.5	6/3/2016	--	●				●		In Place	
1257EX103[0.5]	1257EX103[0.5]	0.5	6/3/2016	--	●				●		In Place	
Perimeter Sampling Northwest of Building 1257												
1257PS101[0.0]	1257PS101[0.0]	0.0	6/3/2016	--	●				●		Excavated	
1257PS101[0.5]	1257PS101[0.5]	0.5	6/3/2016	--	●				●		In Place	
1257PS101[1.0]	1257PS101[1.0]	1.0	6/4/2016	--	●				●		--	Not analyzed shallow meets criteria
1257PS102[0.0]	1257PS102[0.0]	0.0	6/3/2016	--	●			●	●		In Place	
1257PS102[0.5]	1257PS102[0.5]	0.5	6/3/2016	--	●			●	●		--	Not analyzed shallow meets criteria
1257PS102[1.0]	1257PS102[1.0]	1.0	6/3/2016	--	●				●		--	Not analyzed shallow meets criteria
1257PS103[0.0]	1257PS103[0.0]	0.0	6/3/2016	--	●				●		Excavated	
1257PS103[0.5]	1257PS103[0.5]	0.5	6/3/2016	--	●				●		Excavated	
1257PS103[1.0]	1257PS103[1.5]	1.5	7/21/2016	--	●				●		Excavated	
1257PS104[0.0]	1257PS104[0.0]	0.0	6/3/2016	--	●					●	In Place	
1257PS104[0.5]	1257PS104[0.5]	0.5	6/3/2016	--	●					●	--	Not analyzed shallow meets criteria
1257PS104[1.0]	1257PS104[1.0]	1.0	6/3/2016	--	●					●	--	Not analyzed shallow meets criteria
1257PS105[0.0]	1257PS105[0.0]	0.0	6/3/2016	--	●				●		In Place	
1257PS105[0.5]	1257PS105[0.5]	0.5	6/3/2016	--	●				●		--	Not analyzed shallow meets criteria
1257PS105[1.0]	1257PS105[1.0]	1.0	6/3/2016	--	●				●		--	Not analyzed shallow meets criteria
1257PS106[0.0]	1257PS106[0.0]	0.0	6/3/2016	--	●				●		In Place	
1257PS106[0.5]	1257PS106[0.5]	0.5	6/3/2016	--	●				●		--	Not analyzed shallow meets criteria
1257PS106[1.0]	1257PS106[1.0]	1.0	6/3/2016	--	●				●		--	Not analyzed shallow meets criteria
1257PS107[0.0]	1257PS107[0.0]	0.0	6/3/2016	--	●				●		In Place	
1257PS107[0.5]	1257PS107[0.5]	0.5	6/3/2016	--	●				●		--	Not analyzed shallow meets criteria
1257PS107[1.0]	1257PS107[1.0]	1.0	6/3/2016	--	●				●		--	Not analyzed shallow meets criteria
	1257PS108[0.0]	0.0	7/20/2016	--	●				●		Excavated	
	1257PS108[0.5]	0.5	7/20/2016	--	●				●		Excavated	
	1257PS108[1.0]	1.0	7/20/2016	--	●				●		Excavated	
	1257PS109[0.0]	0.0	7/20/2016	--	●				●		Excavated	
	1257PS109[0.5]	0.5	7/20/2016	--	●				●		Excavated	
	1257PS110[0.0]	0.0	9/15/2016	--	●				●		Excavated	
	1257PS110[0.5]	0.5	9/15/2016	--	●				●		Excavated	
	1257PS111[0.0]	0.0	9/15/2016	--	●					●	In Place	
	1257PS111[0.5]	0.5	9/15/2016	--	●					●	In Place	
	1257PS111[1.0]	1.0	9/15/2016	--	●					●	In Place	
	1257PS112[0.0]	0.0	9/15/2016	--	●				●		Excavated	
	1257PS112[0.5]	0.5	9/15/2016	--	●				●		Excavated	
	1257PS112[1.0]	1.0	9/15/2016	--	●				●		Excavated	
	1257PS203[2.0]	2.0	9/15/2016	--	●				●		In Place	
	1257PS204[0.25]	0.3	10/10/2016	--	●				●		In Place	
	1257PS205[0.25]	0.3	10/10/2016	--	●				●		In Place	

TABLE 3
SAMPLE TRACKING TABLE
Lendrum Court
Presidio of San Francisco, California

CSAP Proposed Sample ID	Confirmation Sample ID	Sample Depth (feet bgs)	Sample Date	Excavation Sample Location	Laboratory Analysis				Residential Cleanup Level for Sample Screening	Forest/ Recreational Cleanup Level for Sample Screening	Excavated or In Place?	Reason for Deviation from CSAP
					Lead (USEPA 6020)	As, Ba, Cu, Zn (USEPA 6020)	PAHs (USEPA 8270)	Dioxins/ Furans (USEPA 8290A)				
	1257PS206[0.25]	0.3	10/10/2016	--	●				●		Excavated	
Excavation North of Building 1279												
1279EX101[TBD]	1279EX101[2.0]	2.0	6/3/2016	--	●	●	●			●	In Place	
Perimeter Sampling North of Building 1279												
1279PS101[TBD]	1279PS101[0.5]	0.5	6/6/2016	--	●	●	●			●	In Place	
1279PS101[TBD+1]	--	--	--		●	●	●			●	--	Not analyzed shallow meets criteria
1279PS102[TBD]	1279PS102[1.0]	1.0	6/6/2016	--	●	●	●			●	In Place	
1279PS102[TBD+1]	--	--	--		●	●	●			●	--	Not analyzed shallow meets criteria
1279PS103[TBD]	1279PS103[0.5]	0.5	6/6/2016	--	●	●	●	●		●	In Place	
1279PS103[TBD+1]	--	--	--		●	●	●			●	--	Not analyzed shallow meets criteria
1279PS104[TBD]	1279PS104[0.5]	0.5	6/6/2016	--	●	●	●			●	In Place	
1279PS104[TBD+1]	1279PS104[1.0]	1.0	6/6/2016	--			●			●	In Place	
1279PS105[TBD]	1279PS105[1.0]	1.0	6/6/2016	--	●	●	●			●	In Place	
1279PS105[TBD+1]	--	--	--		●	●	●			●	--	Not analyzed shallow meets criteria
1279PS106[TBD]	1279PS106[1.0]	1.0	6/6/2016	--	●	●	●			●	In Place	
1279PS106[TBD+1]	1279PS106[2.0]	2.0	6/6/2016	--			●			●	In Place	
Excavation Sampling East of Building 1259												
1259EX101[0.5]	1259EX101[0.5]	0.5	6/7/2016	--	●					●	In Place	
1259EX102[0.5]	1259EX102[0.5]	0.5	6/7/2016	--	●			●		●	In Place	
1259EX103[0.5]	1259EX103[0.5]	0.5	6/7/2016	--	●					●	In Place	
Perimeter Sampling East of Building 1259												
1259PS101[0.0]	1259PS101[0.0]	0.0	6/6/2016	--	●					●	In Place	
1259PS101[0.5]	1259PS101[0.5]	0.5	6/6/2016	--	●					●	--	Not analyzed shallow meets criteria
1259PS101[1.0]	--	--	--	--	●					●	--	Not collected shallow meets criteria
1259PS102[0.0]	1259PS102[0.0]	0.0	6/6/2016	--	●					●	Excavated	
1259PS102[0.5]	1259PS102[0.5]	0.5	6/6/2016	--	●					●	In Place	
1259PS102[1.0]	1259PS102[1.0]	1.0	6/6/2016	--	●					●	--	Not analyzed shallow meets criteria
1259PS103[0.0]	1259PS103[0.0]	0.0	6/6/2016	--	●					●	Excavated	
1259PS103[0.5]	1259PS103[0.5]	0.5	6/6/2016	--	●					●	In Place	
1259PS103[1.0]	1259PS103[1.0]	1.0	6/6/2016	--	●					●	--	Not analyzed shallow meets criteria
1259PS104[0.0]	1259PS104[0.0]	0.0	6/6/2016	--	●					●	Excavated	
1259PS104[0.5]	1259PS104[0.5]	0.5	6/6/2016	--	●					●	In Place	
1259PS104[1.0]	1259PS104[1.0]	1.0	6/6/2016	--	●					●	--	Not analyzed shallow meets criteria
	1259PS110[0.0]	0.0	6/24/2016	--	●					●	In Place	
	1259PS112[0.0]	0.0	9/15/2016	--	●					●	In Place	
Excavation Sampling South of Building 1259												
1259EX104 [TBD]	1259EX104 [3.0]	3.0	6/7/2016	--	●	●	●		●		In Place	
1259EX105[TBD]	1259EX105[2.0]	2.0	6/7/2016	--	●	●	●		●		Excavated	
1259EX106[TBD]	1259EX106[3.0]	3.0	6/7/2016	--	●	●	●	●	●		In Place	
	1259EX204 [0.0]	0.0		--	●	●	●		●		In Place	
	1259EX205[0.0]	0.0		--	●	●	●		●		In Place	
Permiter Sampling South of Building 1259												
1259PS105[TBD]	1259PS105[0.5]	0.5	6/6/2016	--	●	●	●		●		Excavated	
1259PS105[TBD+1]									●			Samples collected with a different name.
1259PS106[TBD]	1259PS106[2.0]	2.0	6/7/2016		●	●	●		●		Excavated	
1259PS106[TBD+1]									●			Samples collected with a different name.
1259PS107[TBD]	1259PS107[2.5]	2.5	6/7/2016		●	●	●		●		In Place	
1259PS107[TBD+1]									●			Samples collected with a different name.
1259PS108[TBD]	1259PS108[2.0]	2.0	6/7/2016		●	●	●		●		Excavated	
1259PS108[TBD+1]									●			Samples collected with a different name.
1259PS109[TBD]	1259PS109[1.0]	1.0	6/7/2016		●	●	●		●		Excavated	
1259PS109[TBD+1]									●			Samples collected with a different name.
	1259PS110[0.0]	0.0	6/24/2016		●				●		Excavated	
	1259PS111[0.0]	0.0			●				●			
	1259PS205[0.0]	0.0	7/26/2016		●				●		In Place	
	1259PS206[0.0]	0.0	7/26/2016		●				●		In Place	
	1259PS208[0.0]	0.0	7/26/2016		●				●		Excavated	
	1259PS208[0.5]	0.5	7/26/2016		●				●		Excavated	
	1259PS209[0.0]	0.0	7/26/2016		●				●		Excavated	
	1259PS209[0.5]	0.5	7/26/2016		●				●		Excavated	
	1259PS308[0.25]	0.25	8/22/2016		●				●		Excavated	
	1259PS309[0.25]	0.25	8/22/2016		●				●		In Place	
	1259PS408[0.0]	0.0	8/25/2016		●				●		In Place	
Excavation Sampling Northeast of Building 1278												
1278EX101[TBD]	1278EX101[0.5]	0.5	6/6/2016	--	●	●	●			●	In Place	
1278EX102[TBD]	1278EX102[0.5]	0.5	6/6/2016	--	●	●	●	●		●	In Place	
	1278EX103[1.0]	1	9/8/2016	--	●	●	●			●	Excavated	
	1278EX104[1.0]	1	9/8/2016	--	●	●	●			●	In Place	
	1278EX105[1.5]	1.5	9/15/2016	--	●	●	●			●	In Place	
Perimeter Sampling Northeast of Building 1278												
1278PS101[TBD]	1278PS101[0.5]	0.5	6/6/2016	--	●	●	●			●		
1278PS101[TBD+1]					●	●	●					Not analyzed shallow meets criteria
1278PS102[TBD]	1278PS102[0.5]	0.5	6/6/2016	--	●	●	●			●		
1278PS102[TBD+1]					●	●	●					Not analyzed shallow meets criteria
1278PS103[TBD]	1278PS103[0.5]	0.5	6/6/2016	--	●	●	●			●		
1278PS103[TBD+1]					●	●	●					Not analyzed shallow meets criteria
1278PS104[TBD]	1278PS104[0.5]	0.5	6/6/2016	--	●	●	●			●		
1278PS104[TBD+1]	1278PS104[2.5]	2.5	6/6/2016	--	●	●	●			●		Not analyzed shallow meets criteria
Excavation Sampling South of Lendrum Court (West)												
SLCEX101[TBD]	SLCEX101[0.5]	0.5	6/7/2016	--	●					●	In Place	
SLCEX102[TBD]	SLCEX102[0.5]	0.5	6/7/2016	--	●			●		●	In Place	
SLCEX104[TBD]	SLCEX103[0.5]	0.5	6/7/2016	--	●					●	In Place	
Perimeter Sampling South of Lendrum Court (West)												
SLCPS101[0.0]	SLCPS101[0.0]	0.0	6/7/2016	--	●					●	In Place	
SLCPS101[1.0]	SLCPS101[1.0]	1.0	6/7/2016	--	●					●	In Place	
SLCPS101[1.5]	SLCPS101[1.5]	1.5	--	--	●					●		Not analyzed shallow meets criteria
SLCPS102[0.0]	SLCPS102[0.0]	0.0	6/7/2016	--	●					●	In Place	
SLCPS102[1.0]	SLCPS102[1.0]	1.0	6/7/2016	--	●					●	In Place	
SLCPS102[1.5]	SLCPS102[1.5]	1.5	--	--	●					●		Not analyzed shallow meets criteria
SLCPS103[0.0]	SLCPS103[0.0]	0.0	6/7/2016	--	●					●	In Place	
SLCPS103[1.0]	--	1.0	--	--	●					●		Not analyzed shallow meets criteria
SLCPS103[1.5]	--	1.5	--	--	●					●		Not analyzed shallow meets criteria
	SLCPS201[0.5]	0.5	8/22/2016	--	●					●	In Place	
	SLCPS202[0.5]	0.5	8/22/2016	--	●					●	In Place	
	SLCPS203[0.5]	0.5	8/22/2016	--	●					●	In Place	
Excavation Sampling South of Lendrum Court (East)												
SLCEX104[TBD]	SLCEX104[1.0]	1.0	6/7/2016	--	●	●	●			●	In Place	
SLCEX105[TBD]	SLCEX105[1.0]	1.0	6/7/2016	--	●	●	●			●	In Place	

TABLE 3
SAMPLE TRACKING TABLE
Lendrum Court
Presidio of San Francisco, California

CSAP Proposed Sample ID	Confirmation Sample ID	Sample Depth (feet bgs)	Sample Date	Excavation Sample Location	Laboratory Analysis				Residential Cleanup Level for Sample Screening	Forest/ Recreational Cleanup Level for Sample Screening	Excavated or In Place?	Reason for Deviation from CSAP
					Lead (USEPA 6020)	As, Ba, Cu, Zn (USEPA 6020)	PAHs (USEPA 8270)	Dioxins/ Furans (USEPA 8290A)				
Perimeter Sampling South of Lendrum Court (East)												
SLCPS104[TBD]	SLCPS104[0.0]	0.0		--	●	●	●			●	Excavated	
SLCPS104[TBD+1]	SLCPS104[1.0]	1.0		--	●	●	●			●	In Place	
SLCPS105[TBD]	SLCPS105[0.5]	0.5		--	●	●	●			●	In Place	
SLCPS105[TBD+1]	SLCPS105[1.5]	1.5		--	●	●	●			●	In Place	
SLCPS106[TBD]	SLCPS106[0.5]	0.5		--	●	●	●			●	In Place	
SLCPS106[TBD+1]	SLCPS106[1.5]	1.5		--	●	●	●			●	In Place	
SLCPS107[TBD]	SLCPS107[0.5]	0.5		--	●	●	●			●	In Place	
SLCPS107[TBD+1]	--	TBD+1			●	●	●			●	In Place	
SLCPS108[TBD]	SLCPS108[0.0]	0.0		--	●	●	●			●	In Place	
SLCPS108[TBD+1]	--	TBD+1			●	●	●			●		Not analyzed shallow meets criteria
SLCPS109[TBD]	SLCPS109[0.5]	0.5		--	●	●	●			●	In Place	
SLCPS109[TBD+1]	--	TBD+1			●	●	●			●		Not analyzed shallow meets criteria
SLCPS110[TBD]	SLCPS110[0.5]	0.5		--	●	●	●			●	In Place	
SLCPS110[TBD+1]	--	TBD+1			●	●	●			●		Not analyzed shallow meets criteria
	SLCPS204[0.5]	0.5			●	●	●			●	In Place	

Abbreviations:
-- = not applicable
● = recommended/actual analysis or cleanup level
bgs = below ground surface
CSAP = Confirmation Sampling and Analysis Plan
TBD = to be determined
USEPA = United States Environmental Protection Agency

Note: Duplicate, equipment blank, and matrix spike and matrix spike duplicate (MS/MSD) samples will be collected. Ten percent (10%) of the samples collected will be duplicate and MS/MSD samples, and an equipment blank sample will be collected each day of sampling.

Meets Cleanup Levels
Exceeded Cleanup Levels

APPENDIX A

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-69894-1
Client Project/Site: Lendrum Ct. Data Gap Investigation

For:
TRC Solutions, Inc.
505 Sansome Street
Suite 1600
San Francisco, California 94111

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
1/27/2016 4:24:52 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-69894-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-69894-1

Comments
No additional comments.

Receipt
The samples were received on 1/21/2016 1:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.6º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-69894-1

Client Sample ID: 1279SB500(0.0) — Lab Sample ID: 720-69894-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	65		2.2		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1279SB501(0.0) — Lab Sample ID: 720-69894-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	150		2.7		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1279SB502(0.0) — Lab Sample ID: 720-69894-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	310		1.9		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1279SB503(0.0) — Lab Sample ID: 720-69894-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	420		2.3		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1279SB504(0.0) — Lab Sample ID: 720-69894-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	760		2.3		mg/Kg	4	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-69894-1

Client Sample ID: 1279SB500(0.0)
Date Collected: 01/20/16 10:52
Date Received: 01/21/16 13:55

Lab Sample ID: 720-69894-1
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	25		0.10		%			01/25/16 11:35	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-69894-1

Client Sample ID: 1279SB500(0.0)
Date Collected: 01/20/16 10:52
Date Received: 01/21/16 13:55

Lab Sample ID: 720-69894-1
Matrix: Solid
Percent Solids: 75.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	65		2.2		mg/Kg	☼	01/25/16 10:18	01/26/16 06:08	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-69894-1

Client Sample ID: 1279SB501(0.0)
Date Collected: 01/20/16 10:55
Date Received: 01/21/16 13:55

Lab Sample ID: 720-69894-2
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	32		0.10		%			01/25/16 11:35	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-69894-1

Client Sample ID: 1279SB501(0.0)
Date Collected: 01/20/16 10:55
Date Received: 01/21/16 13:55

Lab Sample ID: 720-69894-2
Matrix: Solid
Percent Solids: 68.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	150		2.7		mg/Kg	☼	01/25/16 10:18	01/26/16 06:13	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-69894-1

Client Sample ID: 1279SB502(0.0)
Date Collected: 01/20/16 10:57
Date Received: 01/21/16 13:55

Lab Sample ID: 720-69894-3
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23		0.10		%			01/25/16 11:35	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-69894-1

Client Sample ID: 1279SB502(0.0)
Date Collected: 01/20/16 10:57
Date Received: 01/21/16 13:55

Lab Sample ID: 720-69894-3
Matrix: Solid
Percent Solids: 76.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	310		1.9		mg/Kg	☼	01/25/16 10:18	01/26/16 06:19	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-69894-1

Client Sample ID: 1279SB503(0.0)
Date Collected: 01/20/16 11:02
Date Received: 01/21/16 13:55

Lab Sample ID: 720-69894-4
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	31		0.10		%			01/26/16 09:06	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-69894-1

Client Sample ID: 1279SB503(0.0)
Date Collected: 01/20/16 11:02
Date Received: 01/21/16 13:55

Lab Sample ID: 720-69894-4
Matrix: Solid
Percent Solids: 68.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	420		2.3		mg/Kg	☼	01/25/16 10:18	01/26/16 06:34	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-69894-1

Client Sample ID: 1279SB504(0.0)
Date Collected: 01/20/16 11:06
Date Received: 01/21/16 13:55

Lab Sample ID: 720-69894-5
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	39		0.10		%			01/26/16 09:06	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-69894-1

Client Sample ID: 1279SB504(0.0)
Date Collected: 01/20/16 11:06
Date Received: 01/21/16 13:55

Lab Sample ID: 720-69894-5
Matrix: Solid
Percent Solids: 60.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	760		2.3		mg/Kg	☼	01/25/16 10:18	01/26/16 06:39	4

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-196154/1-A
Matrix: Solid
Analysis Batch: 196261

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 196154

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50		mg/Kg		01/25/16 10:18	01/26/16 04:38	1

Lab Sample ID: LCS 720-196154/2-A
Matrix: Solid
Analysis Batch: 196261

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 196154

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			50.0	50.0		mg/Kg		100	80 - 120		

Lab Sample ID: LCSD 720-196154/3-A
Matrix: Solid
Analysis Batch: 196261

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 196154

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead			50.0	49.5		mg/Kg		99	80 - 120	1	20

Lab Sample ID: LCSSRM 720-196154/4-A
Matrix: Solid
Analysis Batch: 196261

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 196154

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			302	272		mg/Kg		90	62 - 113		

Method: Moisture - Percent Moisture

Lab Sample ID: 720-69894-4 DU
Matrix: Solid
Analysis Batch: 196241

Client Sample ID: 1279SB503(0.0)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	31			33		%				5	20

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-69894-1

Metals

Prep Batch: 196154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69894-1	1279SB500(0.0)	Total/NA	Solid	3050B	
720-69894-2	1279SB501(0.0)	Total/NA	Solid	3050B	
720-69894-3	1279SB502(0.0)	Total/NA	Solid	3050B	
720-69894-4	1279SB503(0.0)	Total/NA	Solid	3050B	
720-69894-5	1279SB504(0.0)	Total/NA	Solid	3050B	
LCS 720-196154/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 720-196154/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 720-196154/4-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 720-196154/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 196261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69894-1	1279SB500(0.0)	Total/NA	Solid	6010B	196154
720-69894-2	1279SB501(0.0)	Total/NA	Solid	6010B	196154
720-69894-3	1279SB502(0.0)	Total/NA	Solid	6010B	196154
720-69894-4	1279SB503(0.0)	Total/NA	Solid	6010B	196154
720-69894-5	1279SB504(0.0)	Total/NA	Solid	6010B	196154
LCS 720-196154/2-A	Lab Control Sample	Total/NA	Solid	6010B	196154
LCSD 720-196154/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	196154
LCSSRM 720-196154/4-A	Lab Control Sample	Total/NA	Solid	6010B	196154
MB 720-196154/1-A	Method Blank	Total/NA	Solid	6010B	196154

General Chemistry

Analysis Batch: 196169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69894-1	1279SB500(0.0)	Total/NA	Solid	Moisture	
720-69894-2	1279SB501(0.0)	Total/NA	Solid	Moisture	
720-69894-3	1279SB502(0.0)	Total/NA	Solid	Moisture	

Analysis Batch: 196241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69894-4	1279SB503(0.0)	Total/NA	Solid	Moisture	
720-69894-4 DU	1279SB503(0.0)	Total/NA	Solid	Moisture	
720-69894-5	1279SB504(0.0)	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-69894-1

Client Sample ID: 1279SB500(0.0) — **Lab Sample ID: 720-69894-1**
Date Collected: 01/20/16 10:52 — **Matrix: Solid**
Date Received: 01/21/16 13:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	196169	01/25/16 11:35	NVP	TAL PLS

Client Sample ID: 1279SB500(0.0) — **Lab Sample ID: 720-69894-1**
Date Collected: 01/20/16 10:52 — **Matrix: Solid**
Date Received: 01/21/16 13:55 — **Percent Solids: 75.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			196154	01/25/16 10:18	MJD	TAL PLS
Total/NA	Analysis	6010B		4	196261	01/26/16 06:08	SLK	TAL PLS

Client Sample ID: 1279SB501(0.0) — **Lab Sample ID: 720-69894-2**
Date Collected: 01/20/16 10:55 — **Matrix: Solid**
Date Received: 01/21/16 13:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	196169	01/25/16 11:35	NVP	TAL PLS

Client Sample ID: 1279SB501(0.0) — **Lab Sample ID: 720-69894-2**
Date Collected: 01/20/16 10:55 — **Matrix: Solid**
Date Received: 01/21/16 13:55 — **Percent Solids: 68.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			196154	01/25/16 10:18	MJD	TAL PLS
Total/NA	Analysis	6010B		4	196261	01/26/16 06:13	SLK	TAL PLS

Client Sample ID: 1279SB502(0.0) — **Lab Sample ID: 720-69894-3**
Date Collected: 01/20/16 10:57 — **Matrix: Solid**
Date Received: 01/21/16 13:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	196169	01/25/16 11:35	NVP	TAL PLS

Client Sample ID: 1279SB502(0.0) — **Lab Sample ID: 720-69894-3**
Date Collected: 01/20/16 10:57 — **Matrix: Solid**
Date Received: 01/21/16 13:55 — **Percent Solids: 76.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			196154	01/25/16 10:18	MJD	TAL PLS
Total/NA	Analysis	6010B		4	196261	01/26/16 06:19	SLK	TAL PLS

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-69894-1

Client Sample ID: 1279SB503(0.0) — **Lab Sample ID: 720-69894-4**
Date Collected: 01/20/16 11:02 — **Matrix: Solid**
Date Received: 01/21/16 13:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	196241	01/26/16 09:06	NVP	TAL PLS

Client Sample ID: 1279SB503(0.0) — **Lab Sample ID: 720-69894-4**
Date Collected: 01/20/16 11:02 — **Matrix: Solid**
Date Received: 01/21/16 13:55 — **Percent Solids: 68.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			196154	01/25/16 10:18	MJD	TAL PLS
Total/NA	Analysis	6010B		4	196261	01/26/16 06:34	SLK	TAL PLS

Client Sample ID: 1279SB504(0.0) — **Lab Sample ID: 720-69894-5**
Date Collected: 01/20/16 11:06 — **Matrix: Solid**
Date Received: 01/21/16 13:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	196241	01/26/16 09:06	NVP	TAL PLS

Client Sample ID: 1279SB504(0.0) — **Lab Sample ID: 720-69894-5**
Date Collected: 01/20/16 11:06 — **Matrix: Solid**
Date Received: 01/21/16 13:55 — **Percent Solids: 60.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			196154	01/25/16 10:18	MJD	TAL PLS
Total/NA	Analysis	6010B		4	196261	01/26/16 06:39	SLK	TAL PLS

Laboratory References:
TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-69894-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-16 *

* Certification renewal pending - certification considered valid.

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-69894-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-69894-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-69894-1	1279SB500(0.0)	Solid	01/20/16 10:52	01/21/16 13:55
720-69894-2	1279SB501(0.0)	Solid	01/20/16 10:55	01/21/16 13:55
720-69894-3	1279SB502(0.0)	Solid	01/20/16 10:57	01/21/16 13:55
720-69894-4	1279SB503(0.0)	Solid	01/20/16 11:02	01/21/16 13:55
720-69894-5	1279SB504(0.0)	Solid	01/20/16 11:06	01/21/16 13:55

TA

TRC

CHAIN OF CUSTODY RECORD

☐ **Mountain View Office**
1920 Old Middlefield Rd
Mountain View, CA 94043
Tel: 650.967.2365
Fax: 650.967.2785

☒ **San Francisco**
505 Sansome Street, Suite 1600
San Francisco, CA 94111
Tel: 415.434.2600
Fax: 415.434.2321

720-69894 ref# 1606242

Project Name: Lendrum Ct. Data Gap Investigation

Job No.: 229649

P.O. #:

Report To: Justin Hanzel-Durkin/Caroline Boechler

Sampler (print): Caroline Boechler

Sampler (signature): [signature]

Electronic Deliverable Format Required: ☒ YES ☐ NO

EDF LOGCODE: ☐ TRCO

Global ID # :

Sample Type: (Soil) Groundwater Soil Vapor

Turnaround Requirements

- ☒ 5 Working Days
- ☐ 72 Hours
- ☐ 24 Hours
- ☐ 2-3 Hours RUSH
- ☐ STANDARD

QC Requirement:
- ☐ Level IV
- ☐ EDF
- ☒ Excel/EDD

Sample I.D. (Field Point Name)	Date	Time	Lab I.D.	Sample Matrix	# of cont	Preserved?	☐ EPA 8260B –Full List ☐ Gas w/ ☐BTEX ☐ MTBE	☐ TPH EPA 8015M* ☐ Silica Gel ☐Diesel ☐ Motor Oil ☐ Other	Metals: ☒ Lead ☐ LUFT ☐ RCRA	TRPH (418.1) with silica gel column	☐ Ferrous Iron Fe +2(HACH 8146)	☐Hexavalent Chromium (7199)	2-Propanol	VOCs	TO-15	Organochlorine Pesticides (8081)	PCBs (8082)	PAHs (8310)
1279SB500[0.0]	1/20/16	1052		Soil	1	Ice			X									
1279SB501[0.0]	"	1055		"	"	"			"		⊗	Please retain all samples						
1279SB502[0.0]	"	1057		"	"	"			"			for potential additional						
1279SB503[0.0]	"	1102		"	"	"			"			analyses pending lead						
1279 SB504[0.0]	↓	1106		↓	↓	↓			↓			results ⊗						

720-69894 Chain of Custody

Relinquished By: [signature]	Date: 1/21/16	10:44	Received By: [signature] Date: 1-21-16 Time: 10:44
Relinquished By: [signature]	Date: 1-21-16	Time: 1355	Received By: [signature] Date: 1/21/16 Time: 1355
Relinquished By:	Date:	Time:	Lab of Record:
			Received by Lab: Date: Time:

PM Initial:

Temp: 5.6 °C

1/27/2016

Sharma, Dimple

From: Berube, Nathan <NBerube@trcsolutions.com>
Sent: Thursday, January 21, 2016 12:07 PM
To: Sharma, Dimple
Subject: TRC Lendrum Ct. Data Gap Investigation COC correction

Hi Dimple,

I sent 5 discrete soil samples to you this morning TRC job # 229649;

They are being analyzed for Lead and also need to be DRY WEIGHT CORRECTED, which I neglected to indicate on the COC.

Please ensure the lab is aware of this correction.

Thanks,

Nate

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-69894-1

Login Number: 69894
List Number: 1
Creator: Mullen, Joan

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-72655-1
Client Project/Site: Presidio
Revision: 1

For:
TRC Solutions, Inc.
10680 White Rock Road
Suite 100
Rancho Cordova, California 95670

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
6/15/2016 5:25:39 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Qualifiers

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-72655-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-72655-1

Comments
No additional comments.

Receipt
The samples were received on 6/3/2016 5:29 PM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperatures of the 2 coolers at receipt time were 2.1º C and 3.6º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1257EX101[0.5] — Lab Sample ID: 720-72655-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	62	F1	1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1257EX102[0.5] — Lab Sample ID: 720-72655-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	11		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1257EX103[0.5] — Lab Sample ID: 720-72655-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	22		0.87		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1257PS101[0.0] — Lab Sample ID: 720-72655-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	97		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1257PS102[0.0] — Lab Sample ID: 720-72655-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	74		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1257PS103[0.0] — Lab Sample ID: 720-72655-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	200		1.1		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1257PS104[0.0] — Lab Sample ID: 720-72655-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	50		1.6		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1257PS105[0.0] — Lab Sample ID: 720-72655-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	17		1.1		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1257PS106[0.0] — Lab Sample ID: 720-72655-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	20		1.4		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1257PS107[0.0] — Lab Sample ID: 720-72655-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	10		1.3		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1279EX101[2.0] — Lab Sample ID: 720-72655-26

This Detection Summary does not include radiochemical test results.

Client Sample ID: 1279EX101[2.0] (Continued)

Lab Sample ID: 720-72655-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	18		1.3		mg/Kg	1	☼	6010B	Total/NA
Barium	71		1.3		mg/Kg	1	☼	6010B	Total/NA
Arsenic	5.2		2.6		mg/Kg	1	☼	6010B	Total/NA
Copper	17		2.0		mg/Kg	1	☼	6010B	Total/NA
Zinc	41		2.6		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1279PS105RB106

Lab Sample ID: 720-72655-38

No Detections.

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1257EX101[0.5]
Date Collected: 06/03/16 10:51
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-1
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21.9		0.1		%			06/08/16 20:00	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1257EX101[0.5]
Date Collected: 06/03/16 10:51
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-1
Matrix: Solid
Percent Solids: 78.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	62	F1	1.2		mg/Kg	☼	06/08/16 07:30	06/09/16 14:02	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1257EX102[0.5]
Date Collected: 06/03/16 10:35
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-2
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.1		0.1		%			06/08/16 20:00	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1257EX102[0.5]
Date Collected: 06/03/16 10:35
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-2
Matrix: Solid
Percent Solids: 83.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	11		1.2		mg/Kg	☼	06/08/16 07:30	06/09/16 15:34	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1257EX103[0.5]
Date Collected: 06/03/16 10:45
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-3
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23.4		0.1		%			06/08/16 20:00	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1257EX103[0.5]
Date Collected: 06/03/16 10:45
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-3
Matrix: Solid
Percent Solids: 76.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	22		0.87		mg/Kg	☼	06/08/16 07:30	06/09/16 15:37	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1257PS101[0.0]
Date Collected: 06/03/16 08:28
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-4
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.5		0.1		%			06/08/16 20:00	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1257PS101[0.0]
Date Collected: 06/03/16 08:28
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-4
Matrix: Solid
Percent Solids: 85.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	97		1.2		mg/Kg	☼	06/08/16 07:30	06/09/16 15:40	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1257PS102[0.0]
Date Collected: 06/03/16 08:46
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-7
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.4		0.1		%			06/08/16 20:00	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1257PS102[0.0]
Date Collected: 06/03/16 08:46
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-7
Matrix: Solid
Percent Solids: 81.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	74		1.2		mg/Kg	☼	06/08/16 07:30	06/09/16 15:43	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1257PS103[0.0]
Date Collected: 06/03/16 08:58
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-10
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.3		0.1		%			06/08/16 20:00	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1257PS103[0.0]
Date Collected: 06/03/16 08:58
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-10
Matrix: Solid
Percent Solids: 90.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	200		1.1		mg/Kg	☼	06/08/16 07:30	06/09/16 15:46	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1257PS104[0.0]
Date Collected: 06/03/16 09:17
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-14
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	37.7		0.1		%			06/08/16 20:00	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1257PS104[0.0]
Date Collected: 06/03/16 09:17
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-14
Matrix: Solid
Percent Solids: 62.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	50		1.6		mg/Kg	☼	06/08/16 07:30	06/09/16 15:49	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1257PS105[0.0]
Date Collected: 06/03/16 09:33
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-17
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.4		0.1		%			06/08/16 20:00	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1257PS105[0.0]
Date Collected: 06/03/16 09:33
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-17
Matrix: Solid
Percent Solids: 88.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	17		1.1		mg/Kg	☼	06/08/16 07:30	06/09/16 15:52	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1257PS106[0.0]
Date Collected: 06/03/16 09:46
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-20
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24.7		0.1		%			06/08/16 20:00	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1257PS106[0.0]
Date Collected: 06/03/16 09:46
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-20
Matrix: Solid
Percent Solids: 75.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	20		1.4		mg/Kg	☼	06/08/16 07:30	06/09/16 16:01	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1257PS107[0.0]
Date Collected: 06/03/16 09:58
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-23
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23.0		0.1		%			06/08/16 20:00	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1257PS107[0.0]
Date Collected: 06/03/16 09:58
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-23
Matrix: Solid
Percent Solids: 77.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	10		1.3		mg/Kg	☼	06/08/16 07:30	06/09/16 16:04	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1279EX101[2.0]
Date Collected: 06/03/16 13:03
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-26
Matrix: Solid
Percent Solids: 75.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	18		1.3		mg/Kg	☼	06/08/16 07:30	06/09/16 16:07	1
Barium	71		1.3		mg/Kg	☼	06/08/16 07:30	06/09/16 16:07	1
Arsenic	5.2		2.6		mg/Kg	☼	06/08/16 07:30	06/09/16 16:07	1
Copper	17		2.0		mg/Kg	☼	06/08/16 07:30	06/09/16 16:07	1
Zinc	41		2.6		mg/Kg	☼	06/08/16 07:30	06/09/16 16:07	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24.5		0.1		%			06/08/16 20:00	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1279PS105RB106
Date Collected: 06/03/16 13:33
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-38
Matrix: Water

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0050		mg/L		06/09/16 08:30	06/09/16 17:29	1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 320-112917/1-A
Matrix: Solid
Analysis Batch: 113215

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 112917

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.0		mg/Kg		06/08/16 07:30	06/09/16 13:14	1
Barium	ND		1.0		mg/Kg		06/08/16 07:30	06/09/16 13:14	1
Arsenic	ND		2.0		mg/Kg		06/08/16 07:30	06/09/16 13:14	1
Copper	ND		1.5		mg/Kg		06/08/16 07:30	06/09/16 13:14	1
Zinc	ND		2.0		mg/Kg		06/08/16 07:30	06/09/16 13:14	1

Lab Sample ID: LCS 320-112917/2-A
Matrix: Solid
Analysis Batch: 113215

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 112917

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	50.3		mg/Kg		101	80 - 120
Barium	200	196		mg/Kg		98	80 - 120
Arsenic	200	192		mg/Kg		96	80 - 120
Copper	25.0	24.8		mg/Kg		99	80 - 120
Zinc	50.0	51.5		mg/Kg		103	80 - 120

Lab Sample ID: 720-72655-1 MS
Matrix: Solid
Analysis Batch: 113215

Client Sample ID: 1257EX101[0.5]
Prep Type: Total/NA
Prep Batch: 112917

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	62	F1	61.6	105	F1	mg/Kg	☼	71	80 - 120
Barium	91		246	316		mg/Kg	☼	91	80 - 120
Arsenic	4.0		246	213		mg/Kg	☼	85	80 - 120
Copper	14		30.8	42.3		mg/Kg	☼	91	80 - 120
Zinc	38		61.6	90.4		mg/Kg	☼	84	80 - 120

Lab Sample ID: 720-72655-1 MSD
Matrix: Solid
Analysis Batch: 113215

Client Sample ID: 1257EX101[0.5]
Prep Type: Total/NA
Prep Batch: 112917

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	62	F1	62.8	100	F1	mg/Kg	☼	62	80 - 120	5	35
Barium	91		251	316		mg/Kg	☼	90	80 - 120	0	35
Arsenic	4.0		251	215		mg/Kg	☼	84	80 - 120	1	35
Copper	14		31.4	43.1		mg/Kg	☼	92	80 - 120	2	35
Zinc	38		62.8	92.0		mg/Kg	☼	85	80 - 120	2	35

Lab Sample ID: MB 320-113127/1-A
Matrix: Water
Analysis Batch: 113260

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 113127

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0050		mg/L		06/09/16 08:30	06/09/16 16:50	1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 320-113127/2-A
Matrix: Water
Analysis Batch: 113260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 113127

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.500	0.506		mg/L		101	80 - 120

Method: D 2216 - Percent Moisture

Lab Sample ID: 720-72655-1 DU
Matrix: Solid
Analysis Batch: 113066

Client Sample ID: 1257EX101[0.5]
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	21.9		22.1		%		0.7	20

Metals

Prep Batch: 112917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72655-1	1257EX101[0.5]	Total/NA	Solid	3050B	
720-72655-1 MS	1257EX101[0.5]	Total/NA	Solid	3050B	
720-72655-1 MSD	1257EX101[0.5]	Total/NA	Solid	3050B	
720-72655-2	1257EX102[0.5]	Total/NA	Solid	3050B	
720-72655-3	1257EX103[0.5]	Total/NA	Solid	3050B	
720-72655-4	1257PS101[0.0]	Total/NA	Solid	3050B	
720-72655-7	1257PS102[0.0]	Total/NA	Solid	3050B	
720-72655-10	1257PS103[0.0]	Total/NA	Solid	3050B	
720-72655-14	1257PS104[0.0]	Total/NA	Solid	3050B	
720-72655-17	1257PS105[0.0]	Total/NA	Solid	3050B	
720-72655-20	1257PS106[0.0]	Total/NA	Solid	3050B	
720-72655-23	1257PS107[0.0]	Total/NA	Solid	3050B	
720-72655-26	1279EX101[2.0]	Total/NA	Solid	3050B	
LCS 320-112917/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 320-112917/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 113127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72655-38	1279PS105RB106	Total/NA	Water	3010A	
LCS 320-113127/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 320-113127/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 113215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72655-1	1257EX101[0.5]	Total/NA	Solid	6010B	112917
720-72655-1 MS	1257EX101[0.5]	Total/NA	Solid	6010B	112917
720-72655-1 MSD	1257EX101[0.5]	Total/NA	Solid	6010B	112917
720-72655-2	1257EX102[0.5]	Total/NA	Solid	6010B	112917
720-72655-3	1257EX103[0.5]	Total/NA	Solid	6010B	112917
720-72655-4	1257PS101[0.0]	Total/NA	Solid	6010B	112917
720-72655-7	1257PS102[0.0]	Total/NA	Solid	6010B	112917
720-72655-10	1257PS103[0.0]	Total/NA	Solid	6010B	112917
720-72655-14	1257PS104[0.0]	Total/NA	Solid	6010B	112917
720-72655-17	1257PS105[0.0]	Total/NA	Solid	6010B	112917
720-72655-20	1257PS106[0.0]	Total/NA	Solid	6010B	112917
720-72655-23	1257PS107[0.0]	Total/NA	Solid	6010B	112917
720-72655-26	1279EX101[2.0]	Total/NA	Solid	6010B	112917
LCS 320-112917/2-A	Lab Control Sample	Total/NA	Solid	6010B	112917
MB 320-112917/1-A	Method Blank	Total/NA	Solid	6010B	112917

Analysis Batch: 113260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72655-38	1279PS105RB106	Total/NA	Water	6010B	113127
LCS 320-113127/2-A	Lab Control Sample	Total/NA	Water	6010B	113127
MB 320-113127/1-A	Method Blank	Total/NA	Water	6010B	113127

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

General Chemistry

Analysis Batch: 113066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72655-1	1257EX101[0.5]	Total/NA	Solid	D 2216	
720-72655-1 DU	1257EX101[0.5]	Total/NA	Solid	D 2216	
720-72655-2	1257EX102[0.5]	Total/NA	Solid	D 2216	
720-72655-3	1257EX103[0.5]	Total/NA	Solid	D 2216	
720-72655-4	1257PS101[0.0]	Total/NA	Solid	D 2216	
720-72655-7	1257PS102[0.0]	Total/NA	Solid	D 2216	
720-72655-10	1257PS103[0.0]	Total/NA	Solid	D 2216	
720-72655-14	1257PS104[0.0]	Total/NA	Solid	D 2216	
720-72655-17	1257PS105[0.0]	Total/NA	Solid	D 2216	
720-72655-20	1257PS106[0.0]	Total/NA	Solid	D 2216	
720-72655-23	1257PS107[0.0]	Total/NA	Solid	D 2216	
720-72655-26	1279EX101[2.0]	Total/NA	Solid	D 2216	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1257EX101[0.5] — **Lab Sample ID: 720-72655-1**
Date Collected: 06/03/16 10:51 — **Matrix: Solid**
Date Received: 06/03/16 17:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113066	06/08/16 20:00	JMD	TAL SAC

Client Sample ID: 1257EX101[0.5] — **Lab Sample ID: 720-72655-1**
Date Collected: 06/03/16 10:51 — **Matrix: Solid**
Date Received: 06/03/16 17:29 — **Percent Solids: 78.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			112917	06/08/16 07:30	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113215	06/09/16 14:02	CV1	TAL SAC

Client Sample ID: 1257EX102[0.5] — **Lab Sample ID: 720-72655-2**
Date Collected: 06/03/16 10:35 — **Matrix: Solid**
Date Received: 06/03/16 17:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113066	06/08/16 20:00	JMD	TAL SAC

Client Sample ID: 1257EX102[0.5] — **Lab Sample ID: 720-72655-2**
Date Collected: 06/03/16 10:35 — **Matrix: Solid**
Date Received: 06/03/16 17:29 — **Percent Solids: 83.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			112917	06/08/16 07:30	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113215	06/09/16 15:34	CV1	TAL SAC

Client Sample ID: 1257EX103[0.5] — **Lab Sample ID: 720-72655-3**
Date Collected: 06/03/16 10:45 — **Matrix: Solid**
Date Received: 06/03/16 17:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113066	06/08/16 20:00	JMD	TAL SAC

Client Sample ID: 1257EX103[0.5] — **Lab Sample ID: 720-72655-3**
Date Collected: 06/03/16 10:45 — **Matrix: Solid**
Date Received: 06/03/16 17:29 — **Percent Solids: 76.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			112917	06/08/16 07:30	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113215	06/09/16 15:37	CV1	TAL SAC

Client Sample ID: 1257PS101[0.0] — **Lab Sample ID: 720-72655-4**
Date Collected: 06/03/16 08:28 — **Matrix: Solid**
Date Received: 06/03/16 17:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113066	06/08/16 20:00	JMD	TAL SAC

Client Sample ID: 1257PS101[0.0] — **Lab Sample ID: 720-72655-4**
Date Collected: 06/03/16 08:28 — **Matrix: Solid**
Date Received: 06/03/16 17:29 — **Percent Solids: 85.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			112917	06/08/16 07:30	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113215	06/09/16 15:40	CV1	TAL SAC

Client Sample ID: 1257PS102[0.0] — **Lab Sample ID: 720-72655-7**
Date Collected: 06/03/16 08:46 — **Matrix: Solid**
Date Received: 06/03/16 17:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113066	06/08/16 20:00	JMD	TAL SAC

Client Sample ID: 1257PS102[0.0] — **Lab Sample ID: 720-72655-7**
Date Collected: 06/03/16 08:46 — **Matrix: Solid**
Date Received: 06/03/16 17:29 — **Percent Solids: 81.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			112917	06/08/16 07:30	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113215	06/09/16 15:43	CV1	TAL SAC

Client Sample ID: 1257PS103[0.0] — **Lab Sample ID: 720-72655-10**
Date Collected: 06/03/16 08:58 — **Matrix: Solid**
Date Received: 06/03/16 17:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113066	06/08/16 20:00	JMD	TAL SAC

Client Sample ID: 1257PS103[0.0] — **Lab Sample ID: 720-72655-10**
Date Collected: 06/03/16 08:58 — **Matrix: Solid**
Date Received: 06/03/16 17:29 — **Percent Solids: 90.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			112917	06/08/16 07:30	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113215	06/09/16 15:46	CV1	TAL SAC

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1257PS104[0.0] — **Lab Sample ID: 720-72655-14**
Date Collected: 06/03/16 09:17 — **Matrix: Solid**
Date Received: 06/03/16 17:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113066	06/08/16 20:00	JMD	TAL SAC

Client Sample ID: 1257PS104[0.0] — **Lab Sample ID: 720-72655-14**
Date Collected: 06/03/16 09:17 — **Matrix: Solid**
Date Received: 06/03/16 17:29 — **Percent Solids: 62.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			112917	06/08/16 07:30	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113215	06/09/16 15:49	CV1	TAL SAC

Client Sample ID: 1257PS105[0.0] — **Lab Sample ID: 720-72655-17**
Date Collected: 06/03/16 09:33 — **Matrix: Solid**
Date Received: 06/03/16 17:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113066	06/08/16 20:00	JMD	TAL SAC

Client Sample ID: 1257PS105[0.0] — **Lab Sample ID: 720-72655-17**
Date Collected: 06/03/16 09:33 — **Matrix: Solid**
Date Received: 06/03/16 17:29 — **Percent Solids: 88.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			112917	06/08/16 07:30	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113215	06/09/16 15:52	CV1	TAL SAC

Client Sample ID: 1257PS106[0.0] — **Lab Sample ID: 720-72655-20**
Date Collected: 06/03/16 09:46 — **Matrix: Solid**
Date Received: 06/03/16 17:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113066	06/08/16 20:00	JMD	TAL SAC

Client Sample ID: 1257PS106[0.0] — **Lab Sample ID: 720-72655-20**
Date Collected: 06/03/16 09:46 — **Matrix: Solid**
Date Received: 06/03/16 17:29 — **Percent Solids: 75.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			112917	06/08/16 07:30	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113215	06/09/16 16:01	CV1	TAL SAC

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Client Sample ID: 1257PS107[0.0] — **Lab Sample ID: 720-72655-23**
Date Collected: 06/03/16 09:58 — **Matrix: Solid**
Date Received: 06/03/16 17:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113066	06/08/16 20:00	JMD	TAL SAC

Client Sample ID: 1257PS107[0.0] — **Lab Sample ID: 720-72655-23**
Date Collected: 06/03/16 09:58 — **Matrix: Solid**
Date Received: 06/03/16 17:29 — **Percent Solids: 77.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			112917	06/08/16 07:30	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113215	06/09/16 16:04	CV1	TAL SAC

Client Sample ID: 1279EX101[2.0] — **Lab Sample ID: 720-72655-26**
Date Collected: 06/03/16 13:03 — **Matrix: Solid**
Date Received: 06/03/16 17:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113066	06/08/16 20:00	JMD	TAL SAC

Client Sample ID: 1279EX101[2.0] — **Lab Sample ID: 720-72655-26**
Date Collected: 06/03/16 13:03 — **Matrix: Solid**
Date Received: 06/03/16 17:29 — **Percent Solids: 75.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			112917	06/08/16 07:30	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113215	06/09/16 16:07	CV1	TAL SAC

Client Sample ID: 1279PS105RB106 — **Lab Sample ID: 720-72655-38**
Date Collected: 06/03/16 13:33 — **Matrix: Water**
Date Received: 06/03/16 17:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			113127	06/09/16 08:30	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 17:29	CV1	TAL SAC

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Laboratory: TestAmerica Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-17
Alaska (UST)	State Program	10	UST-055	12-18-16
Arizona	State Program	9	AZ0708	08-11-16
Arkansas DEQ	State Program	6	88-0691	06-17-17
California	State Program	9	2897	01-31-17
Colorado	State Program	8	CA00044	08-31-16
Connecticut	State Program	1	PH-0691	06-30-17
Florida	NELAP	4	E87570	06-30-16
Hawaii	State Program	9	N/A	01-31-17
Illinois	NELAP	5	200060	03-17-17
Kansas	NELAP	7	E-10375	07-31-16
Louisiana	NELAP	6	30612	06-30-16
Maine	State Program	1	CA0004	04-18-18
Michigan	State Program	5	9947	01-31-18
Nevada	State Program	9	CA00044	07-31-16
New Jersey	NELAP	2	CA005	06-30-16
New York	NELAP	2	11666	04-01-17
Oregon	NELAP	10	4040	01-29-17
Pennsylvania	NELAP	3	68-01272	03-31-17
Texas	NELAP	6	T104704399	07-31-17
US Fish & Wildlife	Federal		LE148388-0	10-31-16
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-16
Utah	NELAP	8	CA00044	02-28-17
Virginia	NELAP	3	460278	03-14-17
Washington	State Program	10	C581	05-05-17
West Virginia (DW)	State Program	3	9930C	12-31-16
Wyoming	State Program	8	8TMS-L	01-29-17

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL SAC
D 2216	Percent Moisture	ASTM	TAL SAC

Protocol References:

ASTM = ASTM International

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-72655-1	1257EX101[0.5]	Solid	06/03/16 10:51	06/03/16 17:29
720-72655-2	1257EX102[0.5]	Solid	06/03/16 10:35	06/03/16 17:29
720-72655-3	1257EX103[0.5]	Solid	06/03/16 10:45	06/03/16 17:29
720-72655-4	1257PS101[0.0]	Solid	06/03/16 08:28	06/03/16 17:29
720-72655-7	1257PS102[0.0]	Solid	06/03/16 08:46	06/03/16 17:29
720-72655-10	1257PS103[0.0]	Solid	06/03/16 08:58	06/03/16 17:29
720-72655-14	1257PS104[0.0]	Solid	06/03/16 09:17	06/03/16 17:29
720-72655-17	1257PS105[0.0]	Solid	06/03/16 09:33	06/03/16 17:29
720-72655-20	1257PS106[0.0]	Solid	06/03/16 09:46	06/03/16 17:29
720-72655-23	1257PS107[0.0]	Solid	06/03/16 09:58	06/03/16 17:29
720-72655-26	1279EX101[2.0]	Solid	06/03/16 13:03	06/03/16 17:29
720-72655-38	1279PS105RB106	Water	06/03/16 13:33	06/03/16 17:29

TestAmerica Pleasanton
1220 Quarry Lane

Pleasanton, CA 94566-4756
phone 925 484.1919 fax 925.600.3002

Chain of Custody Record

720-72655-reu

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

6/15/2016

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date: 6/3/16	COC No:
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	2 of 4 COCs
505 Sansome Street Suite 1600	Analysis Turnaround Time			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(415) 644-3000 Phone	TAT if different from Below			Walk-in Client:
(415) 434-2321 FAX	☐ 7 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☑ 2 weeks (circled) JC			Job / SDG No.:
Site: Presidio of San Francisco	☑ ~~2 days~~			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA ~~6010~~ 6020)	As, Ba, Cu, Zn (USEPA 6020)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes:
1257PS103[1.5]	6/3/16	0910	G	S	1			X				HOLD
1257PS109[0.0]		0917						X				
1257PS104[0.5]		0920						X				HOLD
1257PS104[1.0]		0921						X				HOLD
1257PS105[0.0]		0933						X				
1257PS105[0.5]		0936						X				HOLD
1257PS105[1.0]		0940						X				HOLD
1257PS106[0.5]		0946						X				
1257PS106[0.5]		0950						X				HOLD
1257PS106[1.0]		0953						X				HOLD
1257PS107[0.5]		0958						X				
1257PS107[0.5]	↓	1001	↓	↓	↓			X				HOLD

720-72655 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected
Please hold all excess soil and water for potential future analysis

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C). Obs'd: _____ Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company: TRC	Date/Time: 6/3/16 1729	Received by:	Company: TA	Date/Time: 6/3/16 1729
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.9, dated 2/2/2016

TestAmerica Pleasanton
1220 Quarry Lane

Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

6/15/2016

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date: 6/3/16	COC No.
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	3 of 4 COCs
505 Sansome Street Suite 1600	Analysis Turnaround Time			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(415) 644-3000 Phone	TAT if different from Below _____			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☑ (week)			
Site: Presidio of San Francisco	☑ ~~2 days~~ JC			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA ~~8260~~) 6020	As, Ba, Cu, Zn (USEPA ~~6010~~) 6020	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes:
1257PS107[1.0]	6/3/16	1005	G	S	1			X				HOLD
1279EX101[2.0]		1303			1			X				
1279 PS101[2.0]		1138			1			X				HOLD
1279 PS101[3.0]		1147			1			X				HOLD
1279 PS103 [2.0]		1158			2			X				HOLD
1279 PS103 [3.0]		1207			1			X				HOLD
1279 PS104[2.5]		1204			1			X				HOLD
1279 PS104 [3.5]		1215			1			X				HOLD
1279 PS105 [2.5]		1324			1			X				HOLD
1279 PS105 [3.5]		1344			1			X				HOLD
1279 PS106 [4.5]		1400			1			X				HOLD
1279 PS106 [5.5]		1405			1			X				HOLD

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected
Please hold all excess soil and water for potential future analysis!

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:	Corr'd:	Therm ID No.:
Relinquished by:	Company: TRC	Date/Time: 6/3/16 1729	Received by:	Company:	Date/Time: 6/3/16 1729
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.9, dated 2/2/2016

TestAmerica Pleasanton
1220 Quarry Lane

Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date: 6/3/16	COC No:
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	4 of 4 COCs
505 Sansome Street Suite 1600	Analysis Turnaround Time			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(415) 644-3000 Phone	TAT if different from Below _____			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☑ ~~week~~			
Site: Presidio of San Francisco	☑ ~~2 days~~ JC			Job / SDG No.:
PO #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA 8260) 6020	As, Ba, Cu, Zn (USEPA 8260) 6020	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes
DUP060316-2	6/3/16	—	G	S	1			X				HOLD
1279PS105RB106	6/3/16	1333	G	W	3			X				

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected

Please hold all excess soil and water for potential future analysis

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____	Therm ID No.: _____

	Company	Date/Time		Company	Date/Time
Relinquished by:	TRC	6/3/16 1745	Received by:	TA	6/3/16 1729
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

720-72655-2 Rev.

Sharma, Dimple

From: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Sent: Monday, June 13, 2016 5:16 PM
To: Sharma, Dimple
Cc: Boecher, Caroline
Subject: RE: TestAmerica EDD and report files from 720-72655-1 Presidio

Ok one more for this one

1. Run 1279EX101[2.0] for As, Ba, Cu, Zn, PAHs (8270)

Justin Hanzel-Durbin
Senior Engineer/Project Manager
Environmental/Remediation

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415.644.3050 | F: 415.434.2321 | Cell: 415.209.3326

Follow us on LinkedIn or Twitter | www.trcsolutions.com
JHanzel-Durbin@trcsolutions.com

From: Hanzel-Durbin, Justin
Sent: Monday, June 13, 2016 4:32 PM
To: 'dimple.sharma@testamericainc.com' <dimple.sharma@testamericainc.com>
Cc: Caroline Boecher (CBoecher@trcsolutions.com) <CBoecher@trcsolutions.com>
Subject: RE: TestAmerica EDD and report files from 720-72655-1 Presidio

On this one please add the following analyses:

1. 1257PS102[0.0] analyzed for dioxins and furans 8290A
2. Analyze 1257PS103[0.5] for Lead dry weight corrected

720-72655 Chain of Custody

Reviewing the next batch in the next few minutes
Thanks
Justin

Justin Hanzel-Durbin
Senior Engineer/Project Manager
Environmental/Remediation

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T: 415.644.3050 | F: 415.434.2321 | Cell: 415.209.3326

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JHanzel-Durbin@trcsolutions.com

From: Sharma, Dimple [mailto:dimple.sharma@testamericainc.com]
Sent: Monday, June 13, 2016 4:01 PM
To: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Subject: TestAmerica EDD and report files from 720-72655-1 Presidio

720-72655-2

Sharma, Dimple

From: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Sent: Monday, June 13, 2016 4:32 PM
To: Sharma, Dimple
Cc: Boecher, Caroline
Subject: RE: TestAmerica EDD and report files from 720-72655-1 Presidio

On this one please add the following analyses:

1. 1257PS102[0.0] analyzed for dioxins and furans 8290A
2. Analyze 1257PS103[0.5] for Lead dry weight corrected

Reviewing the next batch in the next few minutes
Thanks
Justin

Justin Hanzel-Durbin
Senior Engineer/Project Manager
Environmental/Remediation

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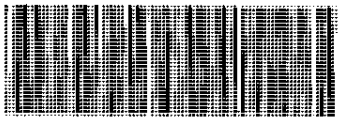
JHanzel-Durbin@trcsolutions.com

From: Sharma, Dimple [mailto:dimple.sharma@testamericainc.com]
Sent: Monday, June 13, 2016 4:01 PM
To: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Subject: TestAmerica EDD and report files from 720-72655-1 Presidio


720-72655 Chain of Custody

Hello,

Attached please find the EDD and report files for job 720-72655-1; Presidio

Please feel free to contact me if you have any questions.

Thank you.

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

DIMPLE SHARMA
Senior Project Manager

TestAmerica Pleasanton
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 925.484.1919
www.testamericainc.com

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Phone (925) 484-1919 Fax (925) 600-3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sharma, Dimple	Carrier Tracking No(s):	COC No: 720-29224.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: dimple.sharma@testamericainc.com		Page: Page 1 of 4
Company: TestAmerica Laboratories, Inc.		Analysis Requested		Job #: 720-72655-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 6/9/2016			Preservation Codes:
City: West Sacramento	TAT Requested (days):			A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - ph 4-5 L - EDA Z - other (specify) Other:
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Presidio	Project #: 72010678			
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Moisture/ (MOD) Local Method	6010B/3050B Lead	6010B/3010A Lead	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
1257EX101[0.5] (720-72655-1)	6/3/16	10:51 Pacific		Solid			X	X		1	
1257EX102[0.5] (720-72655-2)	6/3/16	10:35 Pacific		Solid			X	X		1	
1257EX103[0.5] (720-72655-3)	6/3/16	10:45 Pacific		Solid			X	X		1	
1257PS101[0.0] (720-72655-4)	6/3/16	08:28 Pacific		Solid			X	X		1	
1257PS101[0.5] (720-72655-5)	6/3/16	08:37 Pacific		Solid			X	X		1	
1257PS101[1.0] (720-72655-6)	6/3/16	08:40 Pacific		Solid			X	X		1	
1257PS102[0.0] (720-72655-7)	6/3/16	08:46 Pacific		Solid			X	X		1	
1257PS102[0.5] (720-72655-8)	6/3/16	08:50 Pacific		Solid			X	X		1	
1257PS102[1.0] (720-72655-9)	6/3/16	08:52 Pacific		Solid			X	X		1	
1257PS103[0.0] (720-72655-10)	6/3/16	08:58 Pacific		Solid			X	X		1	
1257PS103[0.5] (720-72655-11)	6/3/16	09:01 Pacific		Solid			X	X		1	

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/6/16	1855	Adrian Messecar	6-06-16 18:55	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

7.1°C

6/15/2016

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Phone (925) 484-1919 Fax (925) 600-3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sharma, Dimple	Carrier Tracking No(s):	COC No: 720-29224.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: dimple.sharma@testamericainc.com		Page: Page 2 of 4
Company: TestAmerica Laboratories, Inc.				Job #: 720-72655-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 6/9/2016			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Presidio	Project #: 72010678			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - ph 4-5
Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Moisture/ (MOD) Local Method	6010B/3050B Lead	6010B/3010A Lead	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
DUP060316-1 (720-72655-12)	6/3/16	Pacific		Solid			X	X		1	
1257PS103[1.0] (720-72655-13)	6/3/16	09:10 Pacific		Solid			X	X		1	
1257PS104[0.0] (720-72655-14)	6/3/16	09:17 Pacific		Solid			X	X		1	
1257PS104[0.5] (720-72655-15)	6/3/16	09:20 Pacific		Solid			X	X		1	
1257PS104[1.0] (720-72655-16)	6/3/16	09:21 Pacific		Solid			X	X		1	
1257PS105[0.0] (720-72655-17)	6/3/16	09:33 Pacific		Solid			X	X		1	
1257PS105[0.5] (720-72655-18)	6/3/16	09:36 Pacific		Solid			X	X		1	
1257PS105[1.0] (720-72655-19)	6/3/16	09:40 Pacific		Solid			X	X		1	
1257PS106[0.0] (720-72655-20)	6/3/16	09:46 Pacific		Solid			X	X		1	
1257PS106[0.5] (720-72655-21)	6/3/16	09:50 Pacific		Solid			X	X		1	
1257PS106[1.0] (720-72655-22)	6/3/16	09:53 Pacific		Solid			X	X		1	

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/6/16 1855	TA	Adrian Messecar	6-06-16 18:55	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

2.1°C

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

6/15/2016

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Phone (925) 484-1919 Fax (925) 600-3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sharma, Dimple	Carrier Tracking No(s):	COC No: 720-29224.3
Client Contact: Shipping/Receiving	Phone:	E-Mail: dimple.sharma@testamericainc.com		Page: Page 3 of 4
Company: TestAmerica Laboratories, Inc.		Analysis Requested		Job #: 720-72655-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 6/9/2016			Preservation Codes:
City: West Sacramento	TAT Requested (days):			A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - ph 4-5 L - EDA Z - other (specify) Other:
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Presidio	Project #: 72010678			
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Moisture/ (MOD) Local Method	6010B/3050B Lead	6010B/3010A Lead	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
1257PS107[0.0] (720-72655-23)	6/3/16	09:58 Pacific		Solid			X	X		1	
1257PS107[0.5] (720-72655-24)	6/3/16	10:01 Pacific		Solid			X	X		1	# Additional sample #29 with received samples CMK 6/7/16
1257PS107[1.0] (720-72655-25)	6/3/16	10:05 Pacific		Solid			X	X		1	
1279EX101[2.0] (720-72655-26)	6/3/16	13:03 Pacific		Solid			X	X		1	
1279PS101[2.0] (720-72655-27)	6/3/16	11:38 Pacific		Solid			X	X		1	
1279PS101[3.0] (720-72655-28)	6/3/16	11:47 Pacific		Solid			X	X		1	
# 1279PS103[2.0] (720-72655-29)	6/3/16	11:58 Pacific		Solid			X	X		1	
1279PS103[3.0] (720-72655-30)	6/3/16	12:07 Pacific		Solid			X	X		1	
1279PS104[2.5] (720-72655-31)	6/3/16	12:04 Pacific		Solid			X	X		1	
1279PS104[3.5] (720-72655-32)	6/3/16	12:15 Pacific		Solid			X	X		1	
1279PS105[2.5] (720-72655-33)	6/3/16	13:24 Pacific		Solid			X	X		1	

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/6/16 1855	TA	Adrian Messecar	6-06-16 18:55	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		2.1°C

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Phone (925) 484-1919 Fax (925) 600-3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sharma, Dimple	Carrier Tracking No(s):	COC No: 720-29224.4
Client Contact: Shipping/Receiving	Phone:	E-Mail: dimple.sharma@testamericainc.com		Page: Page 4 of 4
Company: TestAmerica Laboratories, Inc.		Analysis Requested		Job #: 720-72655-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 6/9/2016			Preservation Codes:
City: West Sacramento	TAT Requested (days):			A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - ph 4-5 L - EDA Z - other (specify) Other:
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Presidio	Project #: 72010678			
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Moisture/ (MOD) Local Method	6010B/3050B Lead	6010B/3010A Lead	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
1279PS105[3.5] (720-72655-34)	6/3/16	13:44 Pacific		Solid			X	X		1	
1279PS106[4.5] (720-72655-35)	6/3/16	14:00 Pacific		Solid			X	X		1	
1279PS106[5.5] (720-72655-36)	6/3/16	14:05 Pacific		Solid			X	X		1	
DUP050316-2 (720-72655-37)	6/3/16	Pacific		Solid			X	X		1	
1279PS105RB106 (720-72655-38)	6/3/16	13:33 Pacific		Water					X	1	

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/6/16	TA	Adrian Messecar	6-06-16 18:55	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Page 48 of 50

6/15/2016

2,E

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-72655-1

Login Number: 72655

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Arauz, Dennis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-72655-1

Login Number: 72655
List Number: 2
Creator: Edman, Connor M

List Source: TestAmerica Sacramento
List Creation: 06/07/16 10:47 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-72655-2
Client Project/Site: Presidio

For:
TRC Solutions, Inc.
10680 White Rock Road
Suite 100
Rancho Cordova, California 95670

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
6/29/2016 11:14:54 AM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

Dioxin

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-72655-2

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-72655-2

Comments
No additional comments.

Receipt
The samples were received on 6/3/2016 5:29 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.1° C and 3.6° C.

Receipt Exceptions

The following sample was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): 1279PS103[2.0] (720-72655-29) There was a sample B that was received.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dioxin
Method 8290, 8290A: The bracketing continuing calibration verification (CCV062216F) associated with batch 320-114992 has 13C-OCDD with percent difference value that is between the method criteria of 30% to 35% deviation from the initial calibration curve. Per method guidelines, an average relative response factor (RRF) is calculated from the bracketing CCV and is used to quantitate the Isotope Dilution Analyte (IDA) recovery in the associated samples.

Method 8290: The laboratory control sample (LCS) for preparation batch 320-113735 and analytical batch 320-114990 recovered outside control limits for 1,2,3,4,7,8,9-HpCDF. This analyte was biased high in the LCS and not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dioxin Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-2

Client Sample ID: 1257PS102[0.0] — Lab Sample ID: 720-72655-7

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
OCDD	17		10		pg/g	1		8290	Total/NA
Total TCDD	1.2		1.0		pg/g	1		8290	Total/NA

Client Sample ID: 1257PS103[0.5] — Lab Sample ID: 720-72655-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	440		1.3		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1279EX101[2.0] — Lab Sample ID: 720-72655-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	7.8		4.9		ug/Kg	1		8270C SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-2

Client Sample ID: 1257PS102[0.0]
Date Collected: 06/03/16 08:46
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-7
Matrix: Solid

Method: 8290 - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.0		pg/g		06/14/16 11:52	06/23/16 21:24	1
2,3,7,8-TCDF	ND		1.0		pg/g		06/14/16 11:52	06/23/16 21:24	1
1,2,3,7,8-PeCDD	ND		5.0		pg/g		06/14/16 11:52	06/23/16 21:24	1
1,2,3,7,8-PeCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 21:24	1
2,3,4,7,8-PeCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 21:24	1
1,2,3,4,7,8-HxCDD	ND		5.0		pg/g		06/14/16 11:52	06/23/16 21:24	1
1,2,3,6,7,8-HxCDD	ND		5.0		pg/g		06/14/16 11:52	06/23/16 21:24	1
1,2,3,7,8,9-HxCDD	ND		5.0		pg/g		06/14/16 11:52	06/23/16 21:24	1
1,2,3,4,7,8-HxCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 21:24	1
1,2,3,6,7,8-HxCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 21:24	1
2,3,4,6,7,8-HxCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 21:24	1
1,2,3,7,8,9-HxCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 21:24	1
1,2,3,4,6,7,8-HpCDD	ND		5.0		pg/g		06/14/16 11:52	06/23/16 21:24	1
1,2,3,4,6,7,8-HpCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 21:24	1
1,2,3,4,7,8,9-HpCDF	ND	*	5.0		pg/g		06/14/16 11:52	06/23/16 21:24	1
OCDD	**17**		10		pg/g		06/14/16 11:52	06/23/16 21:24	1
OCDF	ND		10		pg/g		06/14/16 11:52	06/23/16 21:24	1
Total TCDD	**1.2**		1.0		pg/g		06/14/16 11:52	06/23/16 21:24	1
Total TCDF	ND		1.0		pg/g		06/14/16 11:52	06/23/16 21:24	1
Total PeCDD	ND		5.0		pg/g		06/14/16 11:52	06/23/16 21:24	1
Total PeCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 21:24	1
Total HxCDD	ND		5.0		pg/g		06/14/16 11:52	06/23/16 21:24	1
Total HxCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 21:24	1
Total HpCDD	ND		5.0		pg/g		06/14/16 11:52	06/23/16 21:24	1
Total HpCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 21:24	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*70*		*40 - 135*	*06/14/16 11:52*	*06/23/16 21:24*	*1*
13C-2,3,7,8-TCDF	*67*		*40 - 135*	*06/14/16 11:52*	*06/23/16 21:24*	*1*
13C-1,2,3,7,8-PeCDD	*71*		*40 - 135*	*06/14/16 11:52*	*06/23/16 21:24*	*1*
13C-1,2,3,7,8-PeCDF	*67*		*40 - 135*	*06/14/16 11:52*	*06/23/16 21:24*	*1*
13C-1,2,3,6,7,8-HxCDD	*72*		*40 - 135*	*06/14/16 11:52*	*06/23/16 21:24*	*1*
13C-1,2,3,4,7,8-HxCDF	*69*		*40 - 135*	*06/14/16 11:52*	*06/23/16 21:24*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*85*		*40 - 135*	*06/14/16 11:52*	*06/23/16 21:24*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*76*		*40 - 135*	*06/14/16 11:52*	*06/23/16 21:24*	*1*
13C-OCDD	*78*		*40 - 135*	*06/14/16 11:52*	*06/23/16 21:24*	*1*

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-2

Client Sample ID: 1257PS103[0.5]
Date Collected: 06/03/16 09:01
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-11
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21.9		0.1		%			06/14/16 15:49	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-2

Client Sample ID: 1257PS103[0.5]
Date Collected: 06/03/16 09:01
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-11
Matrix: Solid
Percent Solids: 78.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	440		1.3		mg/Kg	☼	06/14/16 07:45	06/15/16 01:18	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-2

Client Sample ID: 1279EX101[2.0]
Date Collected: 06/03/16 13:03
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-26
Matrix: Solid

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		4.9		ug/Kg		06/15/16 12:23	06/21/16 12:57	1
Acenaphthylene	ND		4.9		ug/Kg		06/15/16 12:23	06/21/16 12:57	1
Anthracene	ND		4.9		ug/Kg		06/15/16 12:23	06/21/16 12:57	1
Benzo[a]anthracene	ND		4.9		ug/Kg		06/15/16 12:23	06/21/16 12:57	1
Benzo[a]pyrene	ND		4.9		ug/Kg		06/15/16 12:23	06/21/16 12:57	1
Benzo[b]fluoranthene	ND		4.9		ug/Kg		06/15/16 12:23	06/21/16 12:57	1
Benzo[g,h,i]perylene	ND		4.9		ug/Kg		06/15/16 12:23	06/21/16 12:57	1
Benzo[k]fluoranthene	ND		4.9		ug/Kg		06/15/16 12:23	06/21/16 12:57	1
Chrysene	ND		4.9		ug/Kg		06/15/16 12:23	06/21/16 12:57	1
Dibenz(a,h)anthracene	ND		4.9		ug/Kg		06/15/16 12:23	06/21/16 12:57	1
Fluoranthene	ND		4.9		ug/Kg		06/15/16 12:23	06/21/16 12:57	1
Fluorene	**7.8**		4.9		ug/Kg		06/15/16 12:23	06/21/16 12:57	1
Indeno[1,2,3-cd]pyrene	ND		4.9		ug/Kg		06/15/16 12:23	06/21/16 12:57	1
Naphthalene	ND		4.9		ug/Kg		06/15/16 12:23	06/21/16 12:57	1
Phenanthrene	ND		4.9		ug/Kg		06/15/16 12:23	06/21/16 12:57	1
Pyrene	ND		4.9		ug/Kg		06/15/16 12:23	06/21/16 12:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*87*		*53 - 113*	*06/15/16 12:23*	*06/21/16 12:57*	*1*
Terphenyl-d14	*105*		*70 - 144*	*06/15/16 12:23*	*06/21/16 12:57*	*1*
2-Fluorobiphenyl (Surr)	*100*		*53 - 113*	*06/15/16 12:23*	*06/21/16 12:57*	*1*

Surrogate Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-2

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
		NBZ	TPH	FBP					
Lab Sample ID	Client Sample ID	(53-113)	(70-144)	(53-113)					
720-72655-26	1279EX101[2.0]	87	105	100					
LCS 320-113918/2-A	Lab Control Sample	96	106	97					
MB 320-113918/1-A	Method Blank	90	107	91					

Surrogate Legend

NBZ = Nitrobenzene-d5
TPH = Terphenyl-d14
FBP = 2-Fluorobiphenyl (Surr)

Isotope Dilution Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-2

Method: 8290 - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	TCDD (40-135)	TCDF (40-135)	PeCDD (40-135)	PeCDF1 (40-135)	HxCDD2 (40-135)	HxCDF1 (40-135)	HpCDD (40-135)	HpCDF1 (40-135)
720-72655-7	1257PS102[0.0]	70	67	71	67	72	69	85	76
LCS 320-113735/2-A	Lab Control Sample	78	74	79	75	81	75	93	84
MB 320-113735/1-A	Method Blank	66	63	67	64	70	65	81	72

		Percent Isotope Dilution Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	OCDD (40-135)
720-72655-7	1257PS102[0.0]	78
LCS 320-113735/2-A	Lab Control Sample	101
MB 320-113735/1-A	Method Blank	88

Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD
TCDF = 13C-2,3,7,8-TCDF
PeCDD = 13C-1,2,3,7,8-PeCDD
PeCDF1 = 13C-1,2,3,7,8-PeCDF
HxCDD2 = 13C-1,2,3,6,7,8-HxCDD
HxCDF1 = 13C-1,2,3,4,7,8-HxCDF
HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
HpCDF1 = 13C-1,2,3,4,6,7,8-HpCDF
OCDD = 13C-OCDD

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 320-113918/1-A
Matrix: Solid
Analysis Batch: 114670

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 113918

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Acenaphthylene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Anthracene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Benzo[a]anthracene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Benzo[a]pyrene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Chrysene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Fluoranthene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Fluorene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Naphthalene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Phenanthrene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Pyrene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*90*		*53 - 113*	*06/15/16 12:23*	*06/21/16 11:58*	*1*
Terphenyl-d14	*107*		*70 - 144*	*06/15/16 12:23*	*06/21/16 11:58*	*1*
2-Fluorobiphenyl (Surr)	*91*		*53 - 113*	*06/15/16 12:23*	*06/21/16 11:58*	*1*

Lab Sample ID: LCS 320-113918/2-A
Matrix: Solid
Analysis Batch: 114670

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 113918

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	25.0	22.4		ug/Kg		90	51 - 111
Acenaphthylene	25.0	21.9		ug/Kg		88	51 - 111
Anthracene	25.0	22.0		ug/Kg		88	54 - 114
Benzo[a]anthracene	25.0	22.9		ug/Kg		92	66 - 126
Benzo[a]pyrene	25.0	22.1		ug/Kg		89	64 - 124
Benzo[b]fluoranthene	25.0	23.9		ug/Kg		95	65 - 125
Benzo[g,h,i]perylene	25.0	25.3		ug/Kg		101	54 - 134
Benzo[k]fluoranthene	25.0	23.6		ug/Kg		95	69 - 129
Chrysene	25.0	24.8		ug/Kg		99	67 - 127
Dibenz(a,h)anthracene	25.0	25.6		ug/Kg		103	58 - 128
Fluoranthene	25.0	23.3		ug/Kg		93	67 - 127
Fluorene	25.0	22.1		ug/Kg		88	54 - 114
Indeno[1,2,3-cd]pyrene	25.0	24.4		ug/Kg		97	59 - 133
Naphthalene	25.0	21.5		ug/Kg		86	52 - 112
Phenanthrene	25.0	22.2		ug/Kg		89	59 - 119
Pyrene	25.0	23.1		ug/Kg		92	71 - 131

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*96*		*53 - 113*
Terphenyl-d14	*106*		*70 - 144*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 320-113918/2-A
Matrix: Solid
Analysis Batch: 114670

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 113918

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	97		53 - 113

Method: 8290 - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 320-113735/1-A
Matrix: Solid
Analysis Batch: 114990

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 113735

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
2,3,7,8-TCDF	ND		1.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
1,2,3,7,8-PeCDD	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
1,2,3,7,8-PeCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
2,3,4,7,8-PeCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
1,2,3,4,7,8-HxCDD	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
1,2,3,6,7,8-HxCDD	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
1,2,3,7,8,9-HxCDD	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
1,2,3,4,7,8-HxCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
1,2,3,6,7,8-HxCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
2,3,4,6,7,8-HxCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
1,2,3,7,8,9-HxCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
1,2,3,4,6,7,8-HpCDD	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
1,2,3,4,6,7,8-HpCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
1,2,3,4,7,8,9-HpCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
OCDD	ND		10		pg/g		06/14/16 11:52	06/23/16 04:44	1
OCDF	ND		10		pg/g		06/14/16 11:52	06/23/16 04:44	1
Total TCDD	ND		1.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
Total TCDF	ND		1.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
Total PeCDD	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
Total PeCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
Total HxCDD	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
Total HxCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
Total HpCDD	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
Total HpCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	66		40 - 135	06/14/16 11:52	06/23/16 04:44	1
13C-2,3,7,8-TCDF	63		40 - 135	06/14/16 11:52	06/23/16 04:44	1
13C-1,2,3,7,8-PeCDD	67		40 - 135	06/14/16 11:52	06/23/16 04:44	1
13C-1,2,3,7,8-PeCDF	64		40 - 135	06/14/16 11:52	06/23/16 04:44	1
13C-1,2,3,6,7,8-HxCDD	70		40 - 135	06/14/16 11:52	06/23/16 04:44	1
13C-1,2,3,4,7,8-HxCDF	65		40 - 135	06/14/16 11:52	06/23/16 04:44	1
13C-1,2,3,4,6,7,8-HpCDD	81		40 - 135	06/14/16 11:52	06/23/16 04:44	1
13C-1,2,3,4,6,7,8-HpCDF	72		40 - 135	06/14/16 11:52	06/23/16 04:44	1
13C-OCDD	88		40 - 135	06/14/16 11:52	06/23/16 04:44	1

Method: 8290 - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-113735/2-A
Matrix: Solid
Analysis Batch: 114990

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 113735

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,7,8-TCDD	20.0	24.6		pg/g		123	60 - 138
2,3,7,8-TCDF	20.0	24.7		pg/g		123	56 - 158
1,2,3,7,8-PeCDD	100	121		pg/g		121	70 - 122
1,2,3,7,8-PeCDF	100	124		pg/g		124	69 - 134
2,3,4,7,8-PeCDF	100	122		pg/g		122	70 - 131
1,2,3,4,7,8-HxCDD	100	123		pg/g		123	60 - 138
1,2,3,6,7,8-HxCDD	100	121		pg/g		121	68 - 136
1,2,3,7,8,9-HxCDD	100	121		pg/g		121	68 - 138
1,2,3,4,7,8-HxCDF	100	126		pg/g		126	74 - 128
1,2,3,6,7,8-HxCDF	100	126		pg/g		126	67 - 140
2,3,4,6,7,8-HxCDF	100	128		pg/g		128	71 - 137
1,2,3,7,8,9-HxCDF	100	126		pg/g		126	72 - 134
1,2,3,4,6,7,8-HpCDD	100	121		pg/g		121	71 - 128
1,2,3,4,6,7,8-HpCDF	100	121		pg/g		121	71 - 134
1,2,3,4,7,8,9-HpCDF	100	135	*	pg/g		135	68 - 129
OCDD	200	243		pg/g		122	70 - 128
OCDF	200	235		pg/g		117	63 - 141

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C-2,3,7,8-TCDD	*78*		*40 - 135*
13C-2,3,7,8-TCDF	*74*		*40 - 135*
13C-1,2,3,7,8-PeCDD	*79*		*40 - 135*
13C-1,2,3,7,8-PeCDF	*75*		*40 - 135*
13C-1,2,3,6,7,8-HxCDD	*81*		*40 - 135*
13C-1,2,3,4,7,8-HxCDF	*75*		*40 - 135*
13C-1,2,3,4,6,7,8-HpCDD	*93*		*40 - 135*
13C-1,2,3,4,6,7,8-HpCDF	*84*		*40 - 135*
13C-OCDD	*101*		*40 - 135*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 320-113673/1-A
Matrix: Solid
Analysis Batch: 113846

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 113673

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.0		mg/Kg		06/14/16 07:45	06/14/16 18:18	1

Lab Sample ID: LCS 320-113673/2-A
Matrix: Solid
Analysis Batch: 113846

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 113673

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	49.0		mg/Kg		98	80 - 120
Barium	200	189		mg/Kg		94	80 - 120
Arsenic	200	197		mg/Kg		99	80 - 120
Copper	25.0	24.3		mg/Kg		97	80 - 120
Zinc	50.0	48.2		mg/Kg		96	80 - 120

GC/MS Semi VOA

Prep Batch: 113918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72655-26	1279EX101[2.0]	Total/NA	Solid	3550B	
LCS 320-113918/2-A	Lab Control Sample	Total/NA	Solid	3550B	
MB 320-113918/1-A	Method Blank	Total/NA	Solid	3550B	

Analysis Batch: 114670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72655-26	1279EX101[2.0]	Total/NA	Solid	8270C SIM	113918
LCS 320-113918/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	113918
MB 320-113918/1-A	Method Blank	Total/NA	Solid	8270C SIM	113918

Specialty Organics

Prep Batch: 113735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72655-7	1257PS102[0.0]	Total/NA	Solid	8290	
LCS 320-113735/2-A	Lab Control Sample	Total/NA	Solid	8290	
MB 320-113735/1-A	Method Blank	Total/NA	Solid	8290	

Analysis Batch: 114990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 320-113735/2-A	Lab Control Sample	Total/NA	Solid	8290	113735
MB 320-113735/1-A	Method Blank	Total/NA	Solid	8290	113735

Analysis Batch: 114992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72655-7	1257PS102[0.0]	Total/NA	Solid	8290	113735

Metals

Prep Batch: 113673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72655-11	1257PS103[0.5]	Total/NA	Solid	3050B	
LCS 320-113673/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 320-113673/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 113846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72655-11	1257PS103[0.5]	Total/NA	Solid	6010B	113673
LCS 320-113673/2-A	Lab Control Sample	Total/NA	Solid	6010B	113673
MB 320-113673/1-A	Method Blank	Total/NA	Solid	6010B	113673

General Chemistry

Analysis Batch: 113799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72655-11	1257PS103[0.5]	Total/NA	Solid	D 2216	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-2

Client Sample ID: 1257PS102[0.0]

Lab Sample ID: 720-72655-7
Date Collected: 06/03/16 08:46
Matrix: Solid
Date Received: 06/03/16 17:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8290			113735	06/14/16 11:52	BNB	TAL SAC
Total/NA	Analysis	8290		1	114992	06/23/16 21:24	SMA	TAL SAC

Client Sample ID: 1257PS103[0.5]

Lab Sample ID: 720-72655-11
Date Collected: 06/03/16 09:01
Matrix: Solid
Date Received: 06/03/16 17:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113799	06/14/16 15:49	JMD	TAL SAC

Client Sample ID: 1257PS103[0.5]

Lab Sample ID: 720-72655-11
Date Collected: 06/03/16 09:01
Matrix: Solid
Date Received: 06/03/16 17:29
Percent Solids: 78.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113673	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/15/16 01:18	CV1	TAL SAC

Client Sample ID: 1279EX101[2.0]

Lab Sample ID: 720-72655-26
Date Collected: 06/03/16 13:03
Matrix: Solid
Date Received: 06/03/16 17:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			113918	06/15/16 12:23	M1A	TAL SAC
Total/NA	Analysis	8270C SIM		1	114670	06/21/16 12:57	MEO	TAL SAC

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-2

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Laboratory: TestAmerica Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-17
Alaska (UST)	State Program	10	UST-055	12-18-16
Arizona	State Program	9	AZ0708	08-11-16
Arkansas DEQ	State Program	6	88-0691	06-17-17
California	State Program	9	2897	01-31-17
Colorado	State Program	8	CA00044	08-31-16
Connecticut	State Program	1	PH-0691	06-30-17
Florida	NELAP	4	E87570	06-30-17
Hawaii	State Program	9	N/A	01-31-17
Illinois	NELAP	5	200060	03-17-17
Kansas	NELAP	7	E-10375	07-31-16
Louisiana	NELAP	6	30612	06-30-17
Maine	State Program	1	CA0004	04-18-18
Michigan	State Program	5	9947	01-31-18
Nevada	State Program	9	CA00044	07-31-16
New Jersey	NELAP	2	CA005	06-30-16
New York	NELAP	2	11666	04-01-17
Oregon	NELAP	10	4040	01-29-17
Pennsylvania	NELAP	3	68-01272	03-31-17
Texas	NELAP	6	T104704399	07-31-17
US Fish & Wildlife	Federal		LE148388-0	10-31-16
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-16
Utah	NELAP	8	CA00044	02-28-17
Virginia	NELAP	3	460278	03-14-17
Washington	State Program	10	C581	05-05-17
West Virginia (DW)	State Program	3	9930C	12-31-16
Wyoming	State Program	8	8TMS-L	01-29-17

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-2

Method	Method Description	Protocol	Laboratory
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL SAC
8290	Dioxins and Furans (HRGC/HRMS)	SW846	TAL SAC
6010B	Metals (ICP)	SW846	TAL SAC
D 2216	Percent Moisture	ASTM	TAL SAC

Protocol References:

ASTM = ASTM International

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-72655-7	1257PS102[0.0]	Solid	06/03/16 08:46	06/03/16 17:29
720-72655-11	1257PS103[0.5]	Solid	06/03/16 09:01	06/03/16 17:29
720-72655-26	1279EX101[2.0]	Solid	06/03/16 13:03	06/03/16 17:29

TestAmerica Pleasanton
1220 Quarry Lane

Pleasanton, CA 94566-4756
phone 925 484.1919 fax 925.600.3002

Chain of Custody Record

720-72655-reu

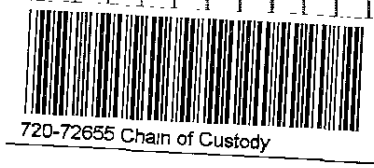
TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date: 6/3/16	COC No:
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	2 of 4 COCs
505 Sansome Street Suite 1600	Analysis Turnaround Time			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(415) 644-3000 Phone	TAT if different from Below			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☑ 1 week JC			Job / SDG No.:
Site: Presidio of San Francisco	☑ ~~2 days~~			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA ~~6010~~ 6020)	As, Ba, Cu, Zn (USEPA 6020)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes:
1257PS103[1.5]	6/3/16	0910	G	S	1			X				HOLD
1257PS109[0.0]		0917						X				
1257PS104[0.5]		0920						X				HOLD
1257PS104[1.0]		0921						X				HOLD
1257PS105[0.0]		0933						X				
1257PS105[0.5]		0936						X				HOLD
1257PS105[1.0]		0940						X				HOLD
1257PS106[0.5]		0946						X				
1257PS106[0.5]		0950						X				HOLD
1257PS106[1.0]		0953						X				HOLD
1257PS107[0.5]		0958						X				
1257PS107[0.5]	↓	1001	↓	↓	↓			X				HOLD



Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected
Please hold all excess soil and water for potential future analysis

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C). Obs'd: _____ Corr'd: _____	Therm ID No.: _____
Relinquished by:	Company: TRC	Date/Time: 6/3/16 1729	Received by:	Company: TA	Date/Time: 6/3/16 1729
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.9, dated 2/2/2016

TestAmerica Pleasanton
1220 Quarry Lane

Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date: 6/3/16	COC No.
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	3 of 4 COCs
505 Sansome Street Suite 1600	Analysis Turnaround Time			Sampler:
San Francisco, CA 94111	☑CALENDAR DAYS ☐WORKING DAYS			For Lab Use Only:
(415) 644-3000 Phone	TAT if different from Below _____			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☑ (1 week)			
Site: Presidio of San Francisco	☑ ~~2 days~~ JC			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA 8260) 6020	As, Ba, Cu, Zn (USEPA 6020)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes:
1257PS107[1.0]	6/3/16	1005	G	S	1			X				HOLD
1279EX101[2.0]		1303			1			X				
1279 PS101[2.0]		1138			1			X				HOLD
1279 PS101[3.0]		1147			1			X				HOLD
1279 PS103 [2.0]		1158			2			X				HOLD
1279 PS103 [3.0]		1207			1			X				HOLD
1279 PS104[2.5]		1204			1			X				HOLD
1279 PS104 [3.5]		1215			1			X				HOLD
1279 PS105 [2.5]		1324			1			X				HOLD
1279 PS105 [3.5]		1344			1			X				HOLD
1279 PS106 [4.5]		1400			1			X				HOLD
1279 PS106 [5.5]		1405			1			X				HOLD

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☐Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐Return to Client ☐Disposal by Lab ☐Archive for _____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected
Please hold all excess soil and water for potential future analysis!

Custody Seals Intact: ☐Yes ☐No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:	Corr'd:	Therm ID No.:
Relinquished by:	Company: TRC	Date/Time: 6/3/16 1729	Received by:	Company:	Date/Time: 6/3/16 1729
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.9, dated 2/2/2016

TestAmerica Pleasanton
1220 Quarry Lane

Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date: 6/3/16	COC No:
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	4 of 4 COCs
505 Sansome Street Suite 1600	Analysis Turnaround Time			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(415) 644-3000 Phone	TAT if different from Below _____			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☑ ~~week~~ JC			
Site: Presidio of San Francisco	☑ ~~2 days~~			Job / SDG No.:
PO #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA 8260) 6020	As, Ba, Cu, Zn (USEPA 8260) 6020	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes
DUP060316-2	6/3/16	—	G	S	1			X				HOLD
1279PS105RB106	6/3/16	1333	G	W	3			X				

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected

Please hold all excess soil and water for potential future analysis

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____	Therm ID No.: _____
Relinquished by:	Company: TRC	Date/Time: 6/3/16 1745	Received by:	Company: TA	Date/Time: 6/3/16 1729
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

720-72655-2 Rev.

Sharma, Dimple

From: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Sent: Monday, June 13, 2016 5:16 PM
To: Sharma, Dimple
Cc: Boecher, Caroline
Subject: RE: TestAmerica EDD and report files from 720-72655-1 Presidio

Ok one more for this one

1. Run 1279EX101[2.0] for As, Ba, Cu, Zn, PAHs (8270)

Justin Hanzel-Durbin
Senior Engineer/Project Manager
Environmental/Remediation

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415.644.3050 | F: 415.434.2321 | Cell: 415.209.3326

Follow us on LinkedIn or Twitter | www.trcsolutions.com
JHanzel-Durbin@trcsolutions.com

From: Hanzel-Durbin, Justin
Sent: Monday, June 13, 2016 4:32 PM
To: 'dimple.sharma@testamericainc.com' <dimple.sharma@testamericainc.com>
Cc: Caroline Boecher (CBoecher@trcsolutions.com) <CBoecher@trcsolutions.com>
Subject: RE: TestAmerica EDD and report files from 720-72655-1 Presidio

On this one please add the following analyses:

1. 1257PS102[0.0] analyzed for dioxins and furans 8290A
2. Analyze 1257PS103[0.5] for Lead dry weight corrected

720-72655 Chain of Custody

Reviewing the next batch in the next few minutes
Thanks
Justin

Justin Hanzel-Durbin
Senior Engineer/Project Manager
Environmental/Remediation

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415.644.3050 | F: 415.434.2321 | Cell: 415.209.3326

Follow us on LinkedIn or Twitter | www.trcsolutions.com
JHanzel-Durbin@trcsolutions.com

From: Sharma, Dimple [mailto:dimple.sharma@testamericainc.com]
Sent: Monday, June 13, 2016 4:01 PM
To: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Subject: TestAmerica EDD and report files from 720-72655-1 Presidio

720-72655-2

Sharma, Dimple

From: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Sent: Monday, June 13, 2016 4:32 PM
To: Sharma, Dimple
Cc: Boecher, Caroline
Subject: RE: TestAmerica EDD and report files from 720-72655-1 Presidio

On this one please add the following analyses:

1. 1257PS102[0.0] analyzed for dioxins and furans 8290A
2. Analyze 1257PS103[0.5] for Lead dry weight corrected

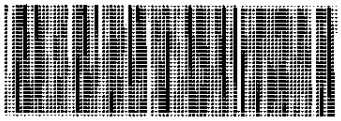
Reviewing the next batch in the next few minutes
Thanks
Justin

Justin Hanzel-Durbin
Senior Engineer/Project Manager
Environmental/Remediation

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415.644.3050 | F: 415.434.2321 | Cell: 415.209.3326

Follow us on LinkedIn or Twitter | www.trcsolutions.com
JHanzel-Durbin@trcsolutions.com

From: Sharma, Dimple [mailto:dimple.sharma@testamericainc.com]
Sent: Monday, June 13, 2016 4:01 PM
To: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Subject: TestAmerica EDD and report files from 720-72655-1 Presidio


720-72655 Chain of Custody

Hello,

Attached please find the EDD and report files for job 720-72655-1; Presidio

Please feel free to contact me if you have any questions.

Thank you.

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

DIMPLE SHARMA
Senior Project Manager

TestAmerica Pleasanton
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 925.484.1919
www.testamericainc.com

Sharma, Dimple 720-72655-3

From: Boecher, Caroline <CBoecher@trcsolutions.com>
Sent: Thursday, June 16, 2016 4:43 PM
To: Sharma, Dimple
Cc: ALISON YOUNG SIM; Hanzel-Durbin, Justin
Subject: Additional Analyses - Lendrum Court

Hi Dimple,

Please authorize the following samples for analysis:

720-72655-1:

- 1257PS101[0.5] – Total Lead dry weight corrected

720-72689-1:

- 1259PS104[0.5] – Total Lead dry weight corrected

Please let me know if you have any questions—thanks!

Carrie Boecher
Project Engineer

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415.644.3002 | F: 415.434.2321 | C: 651.249.6543

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720-72655 Chain of Custody

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-72655-2

Login Number: 72655
List Number: 1
Creator: Arauz, Dennis

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-72655-2

Login Number: 72655
List Number: 2
Creator: Edman, Connor M

List Source: TestAmerica Sacramento
List Creation: 06/07/16 10:47 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-72655-3
Client Project/Site: Presidio

For:
TRC Solutions, Inc.
10680 White Rock Road
Suite 100
Rancho Cordova, California 95670

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
6/24/2016 10:02:34 AM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-72655-3

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-72655-3

Comments
No additional comments.

Receipt
The samples were received on 6/3/2016 5:29 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.1° C and 3.6° C.

Receipt Exceptions

The following sample was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): 1279PS103[2.0] (720-72655-29) There was a sample B that was received.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-3

Client Sample ID: 1257PS101[0.5] **Lab Sample ID: 720-72655-5**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	4.4		1.1		mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-3

Client Sample ID: 1257PS101[0.5]
Date Collected: 06/03/16 08:37
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-5
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12.6		0.1		%			06/17/16 13:18	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-3

Client Sample ID: 1257PS101[0.5]
Date Collected: 06/03/16 08:37
Date Received: 06/03/16 17:29

Lab Sample ID: 720-72655-5
Matrix: Solid
Percent Solids: 87.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	4.4		1.1		mg/Kg	☼	06/21/16 07:00	06/21/16 18:24	1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 320-114587/1-A
Matrix: Solid
Analysis Batch: 114795

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 114587

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.0		mg/Kg		06/21/16 07:00	06/21/16 15:07	1

Lab Sample ID: LCS 320-114587/2-A
Matrix: Solid
Analysis Batch: 114795

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114587

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	49.6		mg/Kg		99	80 - 120

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-3

Metals

Prep Batch: 114587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72655-5	1257PS101[0.5]	Total/NA	Solid	3050B	
LCS 320-114587/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 320-114587/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 114795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72655-5	1257PS101[0.5]	Total/NA	Solid	6010B	114587
LCS 320-114587/2-A	Lab Control Sample	Total/NA	Solid	6010B	114587
MB 320-114587/1-A	Method Blank	Total/NA	Solid	6010B	114587

General Chemistry

Analysis Batch: 114259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72655-5	1257PS101[0.5]	Total/NA	Solid	D 2216	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-3

Client Sample ID: 1257PS101[0.5] — **Lab Sample ID: 720-72655-5**
Date Collected: 06/03/16 08:37 — **Matrix: Solid**
Date Received: 06/03/16 17:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	114259	06/17/16 13:18	NKN	TAL SAC

Client Sample ID: 1257PS101[0.5] — **Lab Sample ID: 720-72655-5**
Date Collected: 06/03/16 08:37 — **Matrix: Solid**
Date Received: 06/03/16 17:29 — **Percent Solids: 87.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			114587	06/21/16 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1	114795	06/21/16 18:24	CV1	TAL SAC

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-3

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Laboratory: TestAmerica Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-17
Alaska (UST)	State Program	10	UST-055	12-18-16
Arizona	State Program	9	AZ0708	08-11-16
Arkansas DEQ	State Program	6	88-0691	06-17-17
California	State Program	9	2897	01-31-17
Colorado	State Program	8	CA00044	08-31-16
Connecticut	State Program	1	PH-0691	06-30-17
Florida	NELAP	4	E87570	06-30-17
Hawaii	State Program	9	N/A	01-31-17
Illinois	NELAP	5	200060	03-17-17
Kansas	NELAP	7	E-10375	07-31-16
Louisiana	NELAP	6	30612	06-30-17
Maine	State Program	1	CA0004	04-18-18
Michigan	State Program	5	9947	01-31-18
Nevada	State Program	9	CA00044	07-31-16
New Jersey	NELAP	2	CA005	06-30-16
New York	NELAP	2	11666	04-01-17
Oregon	NELAP	10	4040	01-29-17
Pennsylvania	NELAP	3	68-01272	03-31-17
Texas	NELAP	6	T104704399	07-31-17
US Fish & Wildlife	Federal		LE148388-0	10-31-16
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-16
Utah	NELAP	8	CA00044	02-28-17
Virginia	NELAP	3	460278	03-14-17
Washington	State Program	10	C581	05-05-17
West Virginia (DW)	State Program	3	9930C	12-31-16
Wyoming	State Program	8	8TMS-L	01-29-17

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-3

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL SAC
D 2216	Percent Moisture	ASTM	TAL SAC

Protocol References:

ASTM = ASTM International

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72655-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-72655-5	1257PS101[0.5]	Solid	06/03/16 08:37	06/03/16 17:29

720-72655-3

Sharma, Dimple

From: Boecher, Caroline <CBoecher@trcsolutions.com>
Sent: Thursday, June 16, 2016 4:43 PM
To: ~~Sharma, Dimple~~
Cc: ALISON YOUNG SIM; Hanzel-Durbin, Justin
Subject: Additional Analyses - Lendrum Court

Hi Dimple,

Please authorize the following samples for analysis:

720-72655-1:

- 1257PS101[0.5] – Total Lead dry weight corrected

720-72689-1:

- 1259PS104[0.5] – Total Lead dry weight corrected

Please let me know if you have any questions—thanks!

Carrie Boecher
Project Engineer

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415.644.3002 | F: 415.434.2321 | C: 651.249.6543

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720-72655 Chain of Custody

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-72655-3

Login Number: 72655

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Arauz, Dennis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-72655-3

Login Number: 72655
List Number: 2
Creator: Edman, Connor M

List Source: TestAmerica Sacramento
List Creation: 06/07/16 10:47 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-72689-1
Client Project/Site: Presidio

For:
TRC Solutions, Inc.
10680 White Rock Road
Suite 100
Rancho Cordova, California 95670

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
6/13/2016 4:02:34 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-72689-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-72689-1

Comments
No additional comments.

Receipt
The samples were received on 6/6/2016 4:57 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.0º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1278EX101[0.5] — Lab Sample ID: 720-72689-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	5.7		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1278EX102[0.5] — Lab Sample ID: 720-72689-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	84		0.79		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1278PS101[0.5] — Lab Sample ID: 720-72689-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	40		0.83		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1278PS102[0.5] — Lab Sample ID: 720-72689-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	11		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1278PS103[0.5] — Lab Sample ID: 720-72689-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	42		1.3		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1278PS104[0.5] — Lab Sample ID: 720-72689-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	8.6		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: DUP 060616-1 — Lab Sample ID: 720-72689-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	6.6		1.1		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1279PS101[0.5] — Lab Sample ID: 720-72689-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	9.1		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1279PS102[1.0] — Lab Sample ID: 720-72689-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	34		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1279PS103[0.5] — Lab Sample ID: 720-72689-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	18		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1279PS104[0.5] — Lab Sample ID: 720-72689-12

This Detection Summary does not include radiochemical test results.

Client Sample ID: 1279PS104[0.5] (Continued) — Lab Sample ID: 720-72689-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	25		1.1		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1279PS105[1.0] — Lab Sample ID: 720-72689-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	6.2		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1279PS106[1.0] — Lab Sample ID: 720-72689-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	7.0		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1259PS101[0.0] — Lab Sample ID: 720-72689-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	42		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1259PS102[0.0] — Lab Sample ID: 720-72689-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	390		1.4		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1259PS103[0.0] — Lab Sample ID: 720-72689-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	190		1.1		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1259PS104[0.0] — Lab Sample ID: 720-72689-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	110		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1259PS105[0.5] — Lab Sample ID: 720-72689-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	100		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: DUP060616-2 — Lab Sample ID: 720-72689-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	67		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: DUP060616-3 — Lab Sample ID: 720-72689-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	270		1.3		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1259PS104RB105 — Lab Sample ID: 720-72689-31

No Detections.

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1278EX101[0.5]
Date Collected: 06/06/16 10:39
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-1
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.9		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1278EX101[0.5]
Date Collected: 06/06/16 10:39
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-1
Matrix: Solid
Percent Solids: 80.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	5.7		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 17:35	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1278EX102[0.5]
Date Collected: 06/06/16 10:34
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-2
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	35.6		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1278EX102[0.5]
Date Collected: 06/06/16 10:34
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-2
Matrix: Solid
Percent Solids: 64.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	84		0.79		mg/Kg	☼	06/09/16 06:45	06/09/16 17:56	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1278PS101[0.5]
Date Collected: 06/06/16 10:05
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-3
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	32.3		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1278PS101[0.5]
Date Collected: 06/06/16 10:05
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-3
Matrix: Solid
Percent Solids: 67.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	40		0.83		mg/Kg	☼	06/09/16 06:45	06/09/16 17:59	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1278PS102[0.5]
Date Collected: 06/06/16 10:12
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-4
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.3		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1278PS102[0.5]
Date Collected: 06/06/16 10:12
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-4
Matrix: Solid
Percent Solids: 79.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	11		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:02	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1278PS103[0.5]
Date Collected: 06/06/16 10:21
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-5
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24.1		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1278PS103[0.5]
Date Collected: 06/06/16 10:21
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-5
Matrix: Solid
Percent Solids: 75.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	42		1.3		mg/Kg	☼	06/09/16 06:45	06/09/16 18:05	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1278PS104[0.5]
Date Collected: 06/06/16 10:25
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-6
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.9		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1278PS104[0.5]
Date Collected: 06/06/16 10:25
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-6
Matrix: Solid
Percent Solids: 86.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	8.6		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:08	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: DUP 060616-1
Date Collected: 06/06/16 00:00
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-8
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.8		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: DUP 060616-1
Date Collected: 06/06/16 00:00
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-8
Matrix: Solid
Percent Solids: 90.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	6.6		1.1		mg/Kg	☼	06/09/16 06:45	06/09/16 18:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1279PS101[0.5]
Date Collected: 06/06/16 11:15
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-9
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12.9		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1279PS101[0.5]
Date Collected: 06/06/16 11:15
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-9
Matrix: Solid
Percent Solids: 87.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	9.1		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:14	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1279PS102[1.0]
Date Collected: 06/06/16 11:21
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-10
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.9		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1279PS102[1.0]
Date Collected: 06/06/16 11:21
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-10
Matrix: Solid
Percent Solids: 82.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	34		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:17	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1279PS103[0.5]
Date Collected: 06/06/16 11:26
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-11
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.6		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1279PS103[0.5]
Date Collected: 06/06/16 11:26
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-11
Matrix: Solid
Percent Solids: 85.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	18		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:27	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1279PS104[0.5]
Date Collected: 06/06/16 11:30
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-12
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.1		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1279PS104[0.5]
Date Collected: 06/06/16 11:30
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-12
Matrix: Solid
Percent Solids: 84.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	25		1.1		mg/Kg	☼	06/09/16 06:45	06/09/16 18:30	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1279PS105[1.0]
Date Collected: 06/06/16 11:40
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-14
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.1		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1279PS105[1.0]
Date Collected: 06/06/16 11:40
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-14
Matrix: Solid
Percent Solids: 84.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	6.2		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:33	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1279PS106[1.0]
Date Collected: 06/06/16 11:45
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-15
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.1		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1279PS106[1.0]
Date Collected: 06/06/16 11:45
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-15
Matrix: Solid
Percent Solids: 82.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	7.0		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:36	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1259PS101[0.0]
Date Collected: 06/06/16 12:54
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-17
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.8		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1259PS101[0.0]
Date Collected: 06/06/16 12:54
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-17
Matrix: Solid
Percent Solids: 82.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	42		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:39	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1259PS102[0.0]
Date Collected: 06/06/16 13:10
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-19
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	30.0		0.1		%			06/09/16 19:11	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1259PS102[0.0]
Date Collected: 06/06/16 13:10
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-19
Matrix: Solid
Percent Solids: 70.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	390		1.4		mg/Kg	☼	06/09/16 06:45	06/09/16 18:42	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1259PS103[0.0]
Date Collected: 06/06/16 13:22
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-22
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.8		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1259PS103[0.0]
Date Collected: 06/06/16 13:22
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-22
Matrix: Solid
Percent Solids: 88.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	190		1.1		mg/Kg	☼	06/09/16 06:45	06/09/16 18:45	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1259PS104[0.0]
Date Collected: 06/06/16 13:32
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-25
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.2		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1259PS104[0.0]
Date Collected: 06/06/16 13:32
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-25
Matrix: Solid
Percent Solids: 84.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	110		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:48	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1259PS105[0.5]
Date Collected: 06/06/16 14:02
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-28
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21.4		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1259PS105[0.5]
Date Collected: 06/06/16 14:02
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-28
Matrix: Solid
Percent Solids: 78.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	100		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:51	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: DUP060616-2
Date Collected: 06/06/16 00:00
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-29
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.2		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: DUP060616-2
Date Collected: 06/06/16 00:00
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-29
Matrix: Solid
Percent Solids: 80.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	67		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:54	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: DUP060616-3
Date Collected: 06/06/16 00:00
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-30
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23.0		0.1		%			06/09/16 18:48	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: DUP060616-3
Date Collected: 06/06/16 00:00
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-30
Matrix: Solid
Percent Solids: 77.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	270		1.3		mg/Kg	☼	06/09/16 06:45	06/09/16 19:03	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1259PS104RB105
Date Collected: 06/06/16 13:50
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-31
Matrix: Water

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0050		mg/L		06/09/16 08:30	06/09/16 17:14	1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 320-113071/1-A
Matrix: Solid
Analysis Batch: 113260

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 113071

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.0		mg/Kg		06/09/16 06:45	06/09/16 16:56	1

Lab Sample ID: LCS 320-113071/2-A
Matrix: Solid
Analysis Batch: 113260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 113071

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	49.4		mg/Kg		99	80 - 120

Lab Sample ID: 720-72689-1 MS
Matrix: Solid
Analysis Batch: 113260

Client Sample ID: 1278EX101[0.5]
Prep Type: Total/NA
Prep Batch: 113071

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	5.7		62.4	61.2		mg/Kg	☼	89	80 - 120

Lab Sample ID: 720-72689-1 MSD
Matrix: Solid
Analysis Batch: 113260

Client Sample ID: 1278EX101[0.5]
Prep Type: Total/NA
Prep Batch: 113071

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	5.7		61.2	59.8		mg/Kg	☼	88	80 - 120	2	35

Lab Sample ID: MB 320-113127/1-A
Matrix: Water
Analysis Batch: 113260

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 113127

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0050		mg/L		06/09/16 08:30	06/09/16 16:50	1

Lab Sample ID: LCS 320-113127/2-A
Matrix: Water
Analysis Batch: 113260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 113127

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.500	0.506		mg/L		101	80 - 120

Lab Sample ID: 720-72689-31 MS
Matrix: Water
Analysis Batch: 113260

Client Sample ID: 1259PS104RB105
Prep Type: Total/NA
Prep Batch: 113127

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	ND		0.500	0.498		mg/L		100	80 - 120

Lab Sample ID: 720-72689-31 MSD
Matrix: Water
Analysis Batch: 113260

Client Sample ID: 1259PS104RB105
Prep Type: Total/NA
Prep Batch: 113127

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		0.500	0.498		mg/L		100	80 - 120	0	20

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Method: D 2216 - Percent Moisture

Lab Sample ID: 720-72689-1 DU
Matrix: Solid
Analysis Batch: 113244

Client Sample ID: 1278EX101[0.5]
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	19.9			20.0		%				0.5	20

Metals

Prep Batch: 113071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-1	1278EX101[0.5]	Total/NA	Solid	3050B	
720-72689-1 MS	1278EX101[0.5]	Total/NA	Solid	3050B	
720-72689-1 MSD	1278EX101[0.5]	Total/NA	Solid	3050B	
720-72689-2	1278EX102[0.5]	Total/NA	Solid	3050B	
720-72689-3	1278PS101[0.5]	Total/NA	Solid	3050B	
720-72689-4	1278PS102[0.5]	Total/NA	Solid	3050B	
720-72689-5	1278PS103[0.5]	Total/NA	Solid	3050B	
720-72689-6	1278PS104[0.5]	Total/NA	Solid	3050B	
720-72689-8	DUP 060616-1	Total/NA	Solid	3050B	
720-72689-9	1279PS101[0.5]	Total/NA	Solid	3050B	
720-72689-10	1279PS102[1.0]	Total/NA	Solid	3050B	
720-72689-11	1279PS103[0.5]	Total/NA	Solid	3050B	
720-72689-12	1279PS104[0.5]	Total/NA	Solid	3050B	
720-72689-14	1279PS105[1.0]	Total/NA	Solid	3050B	
720-72689-15	1279PS106[1.0]	Total/NA	Solid	3050B	
720-72689-17	1259PS101[0.0]	Total/NA	Solid	3050B	
720-72689-19	1259PS102[0.0]	Total/NA	Solid	3050B	
720-72689-22	1259PS103[0.0]	Total/NA	Solid	3050B	
720-72689-25	1259PS104[0.0]	Total/NA	Solid	3050B	
720-72689-28	1259PS105[0.5]	Total/NA	Solid	3050B	
720-72689-29	DUP060616-2	Total/NA	Solid	3050B	
720-72689-30	DUP060616-3	Total/NA	Solid	3050B	
LCS 320-113071/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 320-113071/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 113127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-31	1259PS104RB105	Total/NA	Water	3010A	
720-72689-31 MS	1259PS104RB105	Total/NA	Water	3010A	
720-72689-31 MSD	1259PS104RB105	Total/NA	Water	3010A	
LCS 320-113127/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 320-113127/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 113260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-1	1278EX101[0.5]	Total/NA	Solid	6010B	113071
720-72689-1 MS	1278EX101[0.5]	Total/NA	Solid	6010B	113071
720-72689-1 MSD	1278EX101[0.5]	Total/NA	Solid	6010B	113071
720-72689-2	1278EX102[0.5]	Total/NA	Solid	6010B	113071
720-72689-3	1278PS101[0.5]	Total/NA	Solid	6010B	113071
720-72689-4	1278PS102[0.5]	Total/NA	Solid	6010B	113071
720-72689-5	1278PS103[0.5]	Total/NA	Solid	6010B	113071
720-72689-6	1278PS104[0.5]	Total/NA	Solid	6010B	113071
720-72689-8	DUP 060616-1	Total/NA	Solid	6010B	113071
720-72689-9	1279PS101[0.5]	Total/NA	Solid	6010B	113071
720-72689-10	1279PS102[1.0]	Total/NA	Solid	6010B	113071
720-72689-11	1279PS103[0.5]	Total/NA	Solid	6010B	113071
720-72689-12	1279PS104[0.5]	Total/NA	Solid	6010B	113071
720-72689-14	1279PS105[1.0]	Total/NA	Solid	6010B	113071
720-72689-15	1279PS106[1.0]	Total/NA	Solid	6010B	113071
720-72689-17	1259PS101[0.0]	Total/NA	Solid	6010B	113071

Metals (Continued)

Analysis Batch: 113260 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-19	1259PS102[0.0]	Total/NA	Solid	6010B	113071
720-72689-22	1259PS103[0.0]	Total/NA	Solid	6010B	113071
720-72689-25	1259PS104[0.0]	Total/NA	Solid	6010B	113071
720-72689-28	1259PS105[0.5]	Total/NA	Solid	6010B	113071
720-72689-29	DUP060616-2	Total/NA	Solid	6010B	113071
720-72689-30	DUP060616-3	Total/NA	Solid	6010B	113071
720-72689-31	1259PS104RB105	Total/NA	Water	6010B	113127
720-72689-31 MS	1259PS104RB105	Total/NA	Water	6010B	113127
720-72689-31 MSD	1259PS104RB105	Total/NA	Water	6010B	113127
LCS 320-113071/2-A	Lab Control Sample	Total/NA	Solid	6010B	113071
LCS 320-113127/2-A	Lab Control Sample	Total/NA	Water	6010B	113127
MB 320-113071/1-A	Method Blank	Total/NA	Solid	6010B	113071
MB 320-113127/1-A	Method Blank	Total/NA	Water	6010B	113127

General Chemistry

Analysis Batch: 113243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-30	DUP060616-3	Total/NA	Solid	D 2216	

Analysis Batch: 113244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-1	1278EX101[0.5]	Total/NA	Solid	D 2216	
720-72689-1 DU	1278EX101[0.5]	Total/NA	Solid	D 2216	
720-72689-2	1278EX102[0.5]	Total/NA	Solid	D 2216	
720-72689-3	1278PS101[0.5]	Total/NA	Solid	D 2216	
720-72689-4	1278PS102[0.5]	Total/NA	Solid	D 2216	
720-72689-5	1278PS103[0.5]	Total/NA	Solid	D 2216	
720-72689-6	1278PS104[0.5]	Total/NA	Solid	D 2216	
720-72689-8	DUP 060616-1	Total/NA	Solid	D 2216	
720-72689-9	1279PS101[0.5]	Total/NA	Solid	D 2216	
720-72689-10	1279PS102[1.0]	Total/NA	Solid	D 2216	
720-72689-11	1279PS103[0.5]	Total/NA	Solid	D 2216	
720-72689-12	1279PS104[0.5]	Total/NA	Solid	D 2216	
720-72689-14	1279PS105[1.0]	Total/NA	Solid	D 2216	
720-72689-15	1279PS106[1.0]	Total/NA	Solid	D 2216	
720-72689-17	1259PS101[0.0]	Total/NA	Solid	D 2216	
720-72689-19	1259PS102[0.0]	Total/NA	Solid	D 2216	
720-72689-22	1259PS103[0.0]	Total/NA	Solid	D 2216	
720-72689-25	1259PS104[0.0]	Total/NA	Solid	D 2216	
720-72689-28	1259PS105[0.5]	Total/NA	Solid	D 2216	
720-72689-29	DUP060616-2	Total/NA	Solid	D 2216	

Client Sample ID: 1278EX101[0.5] — **Lab Sample ID: 720-72689-1**
Date Collected: 06/06/16 10:39 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1278EX101[0.5] — **Lab Sample ID: 720-72689-1**
Date Collected: 06/06/16 10:39 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 80.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 17:35	CV1	TAL SAC

Client Sample ID: 1278EX102[0.5] — **Lab Sample ID: 720-72689-2**
Date Collected: 06/06/16 10:34 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1278EX102[0.5] — **Lab Sample ID: 720-72689-2**
Date Collected: 06/06/16 10:34 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 64.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 17:56	CV1	TAL SAC

Client Sample ID: 1278PS101[0.5] — **Lab Sample ID: 720-72689-3**
Date Collected: 06/06/16 10:05 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1278PS101[0.5] — **Lab Sample ID: 720-72689-3**
Date Collected: 06/06/16 10:05 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 67.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 17:59	CV1	TAL SAC

Client Sample ID: 1278PS102[0.5] — **Lab Sample ID: 720-72689-4**
Date Collected: 06/06/16 10:12 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1278PS102[0.5] — **Lab Sample ID: 720-72689-4**
Date Collected: 06/06/16 10:12 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 79.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:02	CV1	TAL SAC

Client Sample ID: 1278PS103[0.5] — **Lab Sample ID: 720-72689-5**
Date Collected: 06/06/16 10:21 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1278PS103[0.5] — **Lab Sample ID: 720-72689-5**
Date Collected: 06/06/16 10:21 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 75.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:05	CV1	TAL SAC

Client Sample ID: 1278PS104[0.5] — **Lab Sample ID: 720-72689-6**
Date Collected: 06/06/16 10:25 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1278PS104[0.5] — **Lab Sample ID: 720-72689-6**
Date Collected: 06/06/16 10:25 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 86.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:08	CV1	TAL SAC

Client Sample ID: DUP 060616-1 — **Lab Sample ID: 720-72689-8**
Date Collected: 06/06/16 00:00 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: DUP 060616-1 — **Lab Sample ID: 720-72689-8**
Date Collected: 06/06/16 00:00 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 90.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:11	CV1	TAL SAC

Client Sample ID: 1279PS101[0.5] — **Lab Sample ID: 720-72689-9**
Date Collected: 06/06/16 11:15 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1279PS101[0.5] — **Lab Sample ID: 720-72689-9**
Date Collected: 06/06/16 11:15 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 87.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:14	CV1	TAL SAC

Client Sample ID: 1279PS102[1.0] — **Lab Sample ID: 720-72689-10**
Date Collected: 06/06/16 11:21 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1279PS102[1.0] — **Lab Sample ID: 720-72689-10**
Date Collected: 06/06/16 11:21 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 82.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:17	CV1	TAL SAC

Client Sample ID: 1279PS103[0.5] — **Lab Sample ID: 720-72689-11**
Date Collected: 06/06/16 11:26 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1279PS103[0.5] — **Lab Sample ID: 720-72689-11**
Date Collected: 06/06/16 11:26 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 85.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:27	CV1	TAL SAC

Client Sample ID: 1279PS104[0.5] — **Lab Sample ID: 720-72689-12**
Date Collected: 06/06/16 11:30 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1279PS104[0.5] — **Lab Sample ID: 720-72689-12**
Date Collected: 06/06/16 11:30 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 84.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:30	CV1	TAL SAC

Client Sample ID: 1279PS105[1.0] — **Lab Sample ID: 720-72689-14**
Date Collected: 06/06/16 11:40 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1279PS105[1.0] — **Lab Sample ID: 720-72689-14**
Date Collected: 06/06/16 11:40 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 84.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:33	CV1	TAL SAC

Client Sample ID: 1279PS106[1.0] — **Lab Sample ID: 720-72689-15**
Date Collected: 06/06/16 11:45 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1279PS106[1.0] — **Lab Sample ID: 720-72689-15**
Date Collected: 06/06/16 11:45 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 82.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:36	CV1	TAL SAC

Client Sample ID: 1259PS101[0.0] — **Lab Sample ID: 720-72689-17**
Date Collected: 06/06/16 12:54 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1259PS101[0.0] — **Lab Sample ID: 720-72689-17**
Date Collected: 06/06/16 12:54 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 82.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:39	CV1	TAL SAC

Client Sample ID: 1259PS102[0.0] — **Lab Sample ID: 720-72689-19**
Date Collected: 06/06/16 13:10 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1259PS102[0.0] — **Lab Sample ID: 720-72689-19**
Date Collected: 06/06/16 13:10 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 70.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:42	CV1	TAL SAC

Client Sample ID: 1259PS103[0.0] — **Lab Sample ID: 720-72689-22**
Date Collected: 06/06/16 13:22 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1259PS103[0.0] — **Lab Sample ID: 720-72689-22**
Date Collected: 06/06/16 13:22 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 88.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:45	CV1	TAL SAC

Client Sample ID: 1259PS104[0.0] — **Lab Sample ID: 720-72689-25**
Date Collected: 06/06/16 13:32 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1259PS104[0.0] — **Lab Sample ID: 720-72689-25**
Date Collected: 06/06/16 13:32 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 84.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:48	CV1	TAL SAC

Client Sample ID: 1259PS105[0.5] — **Lab Sample ID: 720-72689-28**
Date Collected: 06/06/16 14:02 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1259PS105[0.5] — **Lab Sample ID: 720-72689-28**
Date Collected: 06/06/16 14:02 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 78.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:51	CV1	TAL SAC

Client Sample ID: DUP060616-2

Lab Sample ID: 720-72689-29

Date Collected: 06/06/16 00:00

Matrix: Solid

Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: DUP060616-2

Lab Sample ID: 720-72689-29

Date Collected: 06/06/16 00:00

Matrix: Solid

Date Received: 06/06/16 16:57

Percent Solids: 80.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:54	CV1	TAL SAC

Client Sample ID: DUP060616-3

Lab Sample ID: 720-72689-30

Date Collected: 06/06/16 00:00

Matrix: Solid

Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113243	06/09/16 18:48	JMD	TAL SAC

Client Sample ID: DUP060616-3

Lab Sample ID: 720-72689-30

Date Collected: 06/06/16 00:00

Matrix: Solid

Date Received: 06/06/16 16:57

Percent Solids: 77.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 19:03	CV1	TAL SAC

Client Sample ID: 1259PS104RB105

Lab Sample ID: 720-72689-31

Date Collected: 06/06/16 13:50

Matrix: Water

Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			113127	06/09/16 08:30	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 17:14	CV1	TAL SAC

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Laboratory: TestAmerica Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-17
Alaska (UST)	State Program	10	UST-055	12-18-16
Arizona	State Program	9	AZ0708	08-11-16
Arkansas DEQ	State Program	6	88-0691	06-17-17
California	State Program	9	2897	01-31-17
Colorado	State Program	8	CA00044	08-31-16
Connecticut	State Program	1	PH-0691	06-30-17
Florida	NELAP	4	E87570	06-30-16
Hawaii	State Program	9	N/A	01-31-17
Illinois	NELAP	5	200060	03-17-17
Kansas	NELAP	7	E-10375	07-31-16
Louisiana	NELAP	6	30612	06-30-16
Maine	State Program	1	CA0004	04-18-18
Michigan	State Program	5	9947	01-31-18
Nevada	State Program	9	CA00044	07-31-16
New Jersey	NELAP	2	CA005	06-30-16
New York	NELAP	2	11666	04-01-17
Oregon	NELAP	10	4040	01-29-17
Pennsylvania	NELAP	3	68-01272	03-31-17
Texas	NELAP	6	T104704399	07-31-17
US Fish & Wildlife	Federal		LE148388-0	10-31-16
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-16
Utah	NELAP	8	CA00044	02-28-17
Virginia	NELAP	3	460278	03-14-17
Washington	State Program	10	C581	05-05-17
West Virginia (DW)	State Program	3	9930C	12-31-16
Wyoming	State Program	8	8TMS-L	01-29-17

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL SAC
D 2216	Percent Moisture	ASTM	TAL SAC

Protocol References:

ASTM = ASTM International

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-72689-1	1278EX101[0.5]	Solid	06/06/16 10:39	06/06/16 16:57
720-72689-2	1278EX102[0.5]	Solid	06/06/16 10:34	06/06/16 16:57
720-72689-3	1278PS101[0.5]	Solid	06/06/16 10:05	06/06/16 16:57
720-72689-4	1278PS102[0.5]	Solid	06/06/16 10:12	06/06/16 16:57
720-72689-5	1278PS103[0.5]	Solid	06/06/16 10:21	06/06/16 16:57
720-72689-6	1278PS104[0.5]	Solid	06/06/16 10:25	06/06/16 16:57
720-72689-8	DUP 060616-1	Solid	06/06/16 00:00	06/06/16 16:57
720-72689-9	1279PS101[0.5]	Solid	06/06/16 11:15	06/06/16 16:57
720-72689-10	1279PS102[1.0]	Solid	06/06/16 11:21	06/06/16 16:57
720-72689-11	1279PS103[0.5]	Solid	06/06/16 11:26	06/06/16 16:57
720-72689-12	1279PS104[0.5]	Solid	06/06/16 11:30	06/06/16 16:57
720-72689-14	1279PS105[1.0]	Solid	06/06/16 11:40	06/06/16 16:57
720-72689-15	1279PS106[1.0]	Solid	06/06/16 11:45	06/06/16 16:57
720-72689-17	1259PS101[0.0]	Solid	06/06/16 12:54	06/06/16 16:57
720-72689-19	1259PS102[0.0]	Solid	06/06/16 13:10	06/06/16 16:57
720-72689-22	1259PS103[0.0]	Solid	06/06/16 13:22	06/06/16 16:57
720-72689-25	1259PS104[0.0]	Solid	06/06/16 13:32	06/06/16 16:57
720-72689-28	1259PS105[0.5]	Solid	06/06/16 14:02	06/06/16 16:57
720-72689-29	DUP060616-2	Solid	06/06/16 00:00	06/06/16 16:57
720-72689-30	DUP060616-3	Solid	06/06/16 00:00	06/06/16 16:57
720-72689-31	1259PS104RB105	Water	06/06/16 13:50	06/06/16 16:57

TestAmerica Pleasanton
1220 Quarry Lane

Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

720-72689

Chain of Custody Record

16 & 19

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

6/13/2016

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date: 6/6/16	COC No.
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	1 of 3 COCs
505 Sansome Street Suite 1600	**Analysis Turnaround Time**			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(415) 644-3000 Phone	TAT if different from Below _____			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☑ 1 week			
Site: Presidio of San Francisco	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA 6020)	As, Ba, Cu, Zn (USEPA 6020)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes:
1278EX101[0.5]	6/6/16	1039	G	S	1			X				
1278Ex102 [0.5]		1034						X				
1278 PS101[0.5]		1005						X				
1278PS102 [0.5]		1012						X				
1278PS103[0.5]		1021						X				
1278 PS 104 [0.5]		1025						X				
~~Dup~~ 1278 PS104 [2.5]		0902						X				HOLD
DUP 060616-1		—						X				
1279 PS101 [0.5]		1115						X				
1279 PS102 [1.0]		1121						X				
1279 PS103 [0.5]		1126						X				
1279 PS104 [0.5]	↓	1130	↓	↓	↓			X				

720-72689 Chain of Custody

Page 62 of 68

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other: _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected
Please hold all excess soil & water for potential future analysis

2.0 °C

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____			
Relinquished by:	Company: TRC	Date/Time: 6/6/16 1657	Received by:	Company:	Date/Time: 6/6/16 1657
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Pleasanton
1220 Quarry Lane

Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

6/13/2016

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date: 6/6/16	COC No:
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	2 of 3 COCs
505 Sansome Street Suite 1600	Analysis Turnaround Time			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(415) 644-3000 Phone	TAT if different from Below			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☑ 1 week			Job / SDG No.:
Site: Presidio of San Francisco	☐ 2 days			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA 6020)	As, Ba, Cu, Zn (USEPA 6020)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes:
1279 PS 104 [1.0]	6/6/16	1135	G	S	1			X				HOLD
1279 PS 105 [1.0]	"	1140	"	"	"			X				
1279 PS 106 [1.0]	"	1145	"	"	"			X				
1279 PS 106 [2.0]	"	1150	"	"	"			X				HOLD
1259 PS 101 [0.0]	"	1254	"	"	"			X				
1259 PS 101 [0.5]	"	1258	"	"	"			X				HOLD
1259 PS 102 [0.0]	"	1310	"	"	"			X				
1259 PS 102 [0.5]	"	1312	"	"	"			X				HOLD
1259 PS 102 [1.0]	"	1315	"	"	"			X				HOLD
1259 PS 103 [0.0]	"	1322	"	"	"			X				
1259 PS 103 [0.5]	"	1325	"	"	"			X				HOLD
1259 PS 103 [1.0]	↓	1327	↓	↓	↓			X				HOLD

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected
Please hold all excess soil & water for potential feature analysis

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company: TRC	Date/Time: 6/6/16 1657	Received by:	Company:	Date/Time: 6/6/16 1657
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.9, dated 2/2/2016

TestAmerica Pleasanton
1220 Quarry Lane

Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

6/13/2016

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date: 6/6/16	COC No.
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	3 of 3 COCs
505 Sansome Street Suite 1600	**Analysis Turnaround Time**			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(415) 644-3000 Phone	TAT if different from Below ____			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☑ 1 week			
Site: Presidio of San Francisco	☐ 2 days			Job / SDG No.:
PO #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA 6020)	As, Ba, Cu, Zn (USEPA 6020)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes:
1259PS104[0.0]	6/6/16	1332	G	S	1			X				
1259PS104[0.5]	"	1325	"	"	"			X				HOLD
1259PS104[1.0]	"	1340	"	"	"			X				HOLD
1259PS105[0.5]	"	1402	"	"	"			X				
DUP060616-2	"	—	"	"	"			X				
DUP060616-3	"	—	"	"	"			X				
1259PS104RB105	↓	1350	G	W	3			X				

Preservation Used: 1= Ice, 2= HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:
All samples to be dry weight corrected
Please hold all excess soil & water for potential future analysis

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: ____ Corr'd: ____	Therm ID No.: ____
Relinquished by:	Company: TRC	Date/Time: 6/6/16 1657	Received by:	Company: TA	Date/Time: 6/6/16 1657
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Phone (925) 484-1919 Fax (925) 600-3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sharma, Dimple	Carrier Tracking No(s):	COC No: 720-29237.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: dimple.sharma@testamericainc.com		Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Analysis Requested		Job #: 720-72689-1
Address: 880 Riverside Parkway,	Due Date Requested: 6/10/2016			Preservation Codes:
City: West Sacramento	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: CA, 95605				Other:
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Presidio	Project #: 72010678			
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Moisture/ (MOD) Local Method	6010B/3050B Lead	6010B/3010A Lead	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
1278EX101[0.5] (720-72689-1)	6/6/16	10:39 Pacific		Solid			X	X		1	
1278EX102[0.5] (720-72689-2)	6/6/16	10:34 Pacific		Solid			X	X		1	
1278PS101[0.5] (720-72689-3)	6/6/16	10:05 Pacific		Solid			X	X		1	
1278PS102[0.5] (720-72689-4)	6/6/16	10:12 Pacific		Solid			X	X		1	
1278PS103[0.5] (720-72689-5)	6/6/16	10:21 Pacific		Solid			X	X		1	
1278PS104[0.5] (720-72689-6)	6/6/16	10:25 Pacific		Solid			X	X		1	
DUP 060616-1 (720-72689-8)	6/6/16	Pacific		Solid			X	X		1	
1279PS101[0.5] (720-72689-9)	6/6/16	11:15 Pacific		Solid			X	X		1	
1279PS102[1.0] (720-72689-10)	6/6/16	11:21 Pacific		Solid			X	X		1	
1279PS103[0.5] (720-72689-11)	6/6/16	11:26 Pacific		Solid			X	X		1	
1279PS104[0.5] (720-72689-12)	6/6/16	11:30 Pacific		Solid			X	X		1	

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		6/7/16 1825	TA		6-7-16 1825	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.1°C

6/13/2016

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Phone (925) 484-1919 Fax (925) 600-3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sharma, Dimple	Carrier Tracking No(s):	COC No: 720-29237.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: dimple.sharma@testamericainc.com		Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Analysis Requested		Job #: 720-72689-1

Address: 880 Riverside Parkway,	Due Date Requested: 6/10/2016
City: West Sacramento	TAT Requested (days):
State, Zip: CA, 95605	
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:
Email:	WO #:
Project Name: Presidio	Project #: 72010678
Site:	SSOW#:

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Moisture/ (MOD) Local Method	6010B/3050B Lead	6010B/3010A Lead	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
1279PS105[1.0] (720-72689-14)	6/6/16	11:40 Pacific		Solid			X	X		1	
1279PS106[1.0] (720-72689-15)	6/6/16	11:45 Pacific		Solid			X	X		1	
1259PS101[0.0] (720-72689-17)	6/6/16	12:54 Pacific		Solid			X	X		1	
1259PS102[0.0] (720-72689-19)	6/6/16	13:10 Pacific		Solid			X	X		1	
1259PS103[0.0] (720-72689-22)	6/6/16	13:22 Pacific		Solid			X	X		1	
1259PS104[0.0] (720-72689-25)	6/6/16	13:32 Pacific		Solid			X	X		1	
1259PS105[0.5] (720-72689-28)	6/6/16	14:02 Pacific		Solid			X	X		1	
DUP060616-2 (720-72689-29)	6/6/16	Pacific		Solid			X	X		1	
DUP060616-3 (720-72689-30)	6/6/16	Pacific		Solid			X	X		1	
1259PS104RB105 (720-72689-31)	6/6/16	13:50 Pacific		Water					X	1	

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 6/7/16 1825	Company TA	Received by:	Date/Time: 6-7-16 1825	Company TAS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

6/13/2016

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-72689-1

Login Number: 72689

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Arauz, Dennis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-72689-1

Login Number: 72689
List Number: 2
Creator: Shockley, Wesley S

List Source: TestAmerica Sacramento
List Creation: 06/08/16 10:14 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-72689-1
Client Project/Site: Presidio
Revision: 1

For:
TRC Solutions, Inc.
10680 White Rock Road
Suite 100
Rancho Cordova, California 95670

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
6/16/2016 3:00:31 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-72689-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-72689-1

Comments
No additional comments.

Receipt
The samples were received on 6/6/2016 4:57 PM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperature of the cooler at receipt was 2.0º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1278EX101[0.5] — Lab Sample ID: 720-72689-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	5.7		1.2		mg/Kg	1	☼	6010B	Total/NA
Barium	46		1.2		mg/Kg	1	☼	6010B	Total/NA
Arsenic	5.0		2.4		mg/Kg	1	☼	6010B	Total/NA
Copper	12		1.8		mg/Kg	1	☼	6010B	Total/NA
Zinc	33		2.4		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1278EX102[0.5] — Lab Sample ID: 720-72689-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	84		0.79		mg/Kg	1	☼	6010B	Total/NA
Barium	71		0.79		mg/Kg	1	☼	6010B	Total/NA
Arsenic	4.4		1.6		mg/Kg	1	☼	6010B	Total/NA
Copper	20		1.2		mg/Kg	1	☼	6010B	Total/NA
Zinc	81		1.6		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1278PS101[0.5] — Lab Sample ID: 720-72689-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	40		0.83		mg/Kg	1	☼	6010B	Total/NA
Barium	69		0.83		mg/Kg	1	☼	6010B	Total/NA
Arsenic	4.3		1.7		mg/Kg	1	☼	6010B	Total/NA
Copper	14		1.3		mg/Kg	1	☼	6010B	Total/NA
Zinc	47		1.7		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1278PS102[0.5] — Lab Sample ID: 720-72689-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	11		1.2		mg/Kg	1	☼	6010B	Total/NA
Barium	51		1.2		mg/Kg	1	☼	6010B	Total/NA
Arsenic	4.4		2.5		mg/Kg	1	☼	6010B	Total/NA
Copper	11		1.8		mg/Kg	1	☼	6010B	Total/NA
Zinc	38		2.5		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1278PS103[0.5] — Lab Sample ID: 720-72689-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	42		1.3		mg/Kg	1	☼	6010B	Total/NA
Barium	43		1.3		mg/Kg	1	☼	6010B	Total/NA
Arsenic	4.8		2.6		mg/Kg	1	☼	6010B	Total/NA
Copper	15		2.0		mg/Kg	1	☼	6010B	Total/NA
Zinc	44		2.6		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1278PS104[0.5] — Lab Sample ID: 720-72689-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	8.6		1.2		mg/Kg	1	☼	6010B	Total/NA
Barium	110		1.2		mg/Kg	1	☼	6010B	Total/NA
Arsenic	3.4		2.3		mg/Kg	1	☼	6010B	Total/NA
Copper	11		1.7		mg/Kg	1	☼	6010B	Total/NA
Zinc	27		2.3		mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: DUP 060616-1 — Lab Sample ID: 720-72689-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	6.6		1.1		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1279PS101[0.5] — Lab Sample ID: 720-72689-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	9.1		1.2		mg/Kg	1	☼	6010B	Total/NA
Barium	150		1.2		mg/Kg	1	☼	6010B	Total/NA
Arsenic	4.3		2.3		mg/Kg	1	☼	6010B	Total/NA
Copper	19		1.7		mg/Kg	1	☼	6010B	Total/NA
Zinc	44		2.3		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1279PS102[1.0] — Lab Sample ID: 720-72689-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	34		1.2		mg/Kg	1	☼	6010B	Total/NA
Barium	77		1.2		mg/Kg	1	☼	6010B	Total/NA
Arsenic	4.4		2.4		mg/Kg	1	☼	6010B	Total/NA
Copper	13		1.8		mg/Kg	1	☼	6010B	Total/NA
Zinc	40		2.4		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1279PS103[0.5] — Lab Sample ID: 720-72689-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	18		1.2		mg/Kg	1	☼	6010B	Total/NA
Barium	170		1.2		mg/Kg	1	☼	6010B	Total/NA
Arsenic	4.5		2.4		mg/Kg	1	☼	6010B	Total/NA
Copper	13		1.8		mg/Kg	1	☼	6010B	Total/NA
Zinc	39		2.4		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1279PS104[0.5] — Lab Sample ID: 720-72689-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	25		1.1		mg/Kg	1	☼	6010B	Total/NA
Barium	81		1.1		mg/Kg	1	☼	6010B	Total/NA
Arsenic	4.2		2.3		mg/Kg	1	☼	6010B	Total/NA
Copper	13		1.7		mg/Kg	1	☼	6010B	Total/NA
Zinc	41		2.3		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1279PS105[1.0] — Lab Sample ID: 720-72689-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	6.2		1.2		mg/Kg	1	☼	6010B	Total/NA
Barium	92		1.2		mg/Kg	1	☼	6010B	Total/NA
Arsenic	4.5		2.4		mg/Kg	1	☼	6010B	Total/NA
Copper	15		1.8		mg/Kg	1	☼	6010B	Total/NA
Zinc	37		2.4		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1279PS106[1.0] — Lab Sample ID: 720-72689-15

This Detection Summary does not include radiochemical test results.

Client Sample ID: 1279PS106[1.0] (Continued) — Lab Sample ID: 720-72689-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	7.0		1.2		mg/Kg	1	☼	6010B	Total/NA
Barium	91		1.2		mg/Kg	1	☼	6010B	Total/NA
Arsenic	4.4		2.5		mg/Kg	1	☼	6010B	Total/NA
Copper	12		1.9		mg/Kg	1	☼	6010B	Total/NA
Zinc	27		2.5		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1259PS101[0.0] — Lab Sample ID: 720-72689-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	42		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1259PS102[0.0] — Lab Sample ID: 720-72689-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	390		1.4		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1259PS103[0.0] — Lab Sample ID: 720-72689-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	190		1.1		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1259PS104[0.0] — Lab Sample ID: 720-72689-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	110		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1259PS105[0.5] — Lab Sample ID: 720-72689-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	100		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: DUP060616-2 — Lab Sample ID: 720-72689-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	67		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: DUP060616-3 — Lab Sample ID: 720-72689-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	270		1.3		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1259PS104RB105 — Lab Sample ID: 720-72689-31

No Detections.

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1278EX101[0.5]
Date Collected: 06/06/16 10:39
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-1
Matrix: Solid
Percent Solids: 80.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	5.7		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 17:35	1
Barium	46		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 17:35	1
Arsenic	5.0		2.4		mg/Kg	☼	06/09/16 06:45	06/09/16 17:35	1
Copper	12		1.8		mg/Kg	☼	06/09/16 06:45	06/09/16 17:35	1
Zinc	33		2.4		mg/Kg	☼	06/09/16 06:45	06/09/16 17:35	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.9		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1278EX102[0.5]
Date Collected: 06/06/16 10:34
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-2
Matrix: Solid
Percent Solids: 64.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	84		0.79		mg/Kg	☼	06/09/16 06:45	06/09/16 17:56	1
Barium	71		0.79		mg/Kg	☼	06/09/16 06:45	06/09/16 17:56	1
Arsenic	4.4		1.6		mg/Kg	☼	06/09/16 06:45	06/09/16 17:56	1
Copper	20		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 17:56	1
Zinc	81		1.6		mg/Kg	☼	06/09/16 06:45	06/09/16 17:56	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	35.6		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1278PS101[0.5]
Date Collected: 06/06/16 10:05
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-3
Matrix: Solid
Percent Solids: 67.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	40		0.83		mg/Kg	☼	06/09/16 06:45	06/09/16 17:59	1
Barium	69		0.83		mg/Kg	☼	06/09/16 06:45	06/09/16 17:59	1
Arsenic	4.3		1.7		mg/Kg	☼	06/09/16 06:45	06/09/16 17:59	1
Copper	14		1.3		mg/Kg	☼	06/09/16 06:45	06/09/16 17:59	1
Zinc	47		1.7		mg/Kg	☼	06/09/16 06:45	06/09/16 17:59	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	32.3		0.1		%			06/09/16 19:11	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1278PS102[0.5]
Date Collected: 06/06/16 10:12
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-4
Matrix: Solid
Percent Solids: 79.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	11		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:02	1
Barium	51		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:02	1
Arsenic	4.4		2.5		mg/Kg	☼	06/09/16 06:45	06/09/16 18:02	1
Copper	11		1.8		mg/Kg	☼	06/09/16 06:45	06/09/16 18:02	1
Zinc	38		2.5		mg/Kg	☼	06/09/16 06:45	06/09/16 18:02	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.3		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1278PS103[0.5]
Date Collected: 06/06/16 10:21
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-5
Matrix: Solid
Percent Solids: 75.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	42		1.3		mg/Kg	☼	06/09/16 06:45	06/09/16 18:05	1
Barium	43		1.3		mg/Kg	☼	06/09/16 06:45	06/09/16 18:05	1
Arsenic	4.8		2.6		mg/Kg	☼	06/09/16 06:45	06/09/16 18:05	1
Copper	15		2.0		mg/Kg	☼	06/09/16 06:45	06/09/16 18:05	1
Zinc	44		2.6		mg/Kg	☼	06/09/16 06:45	06/09/16 18:05	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24.1		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1278PS104[0.5]
Date Collected: 06/06/16 10:25
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-6
Matrix: Solid
Percent Solids: 86.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	8.6		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:08	1
Barium	110		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:08	1
Arsenic	3.4		2.3		mg/Kg	☼	06/09/16 06:45	06/09/16 18:08	1
Copper	11		1.7		mg/Kg	☼	06/09/16 06:45	06/09/16 18:08	1
Zinc	27		2.3		mg/Kg	☼	06/09/16 06:45	06/09/16 18:08	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.9		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: DUP 060616-1
Date Collected: 06/06/16 00:00
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-8
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.8		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: DUP 060616-1
Date Collected: 06/06/16 00:00
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-8
Matrix: Solid
Percent Solids: 90.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	6.6		1.1		mg/Kg	☼	06/09/16 06:45	06/09/16 18:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1279PS101[0.5]
Date Collected: 06/06/16 11:15
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-9
Matrix: Solid
Percent Solids: 87.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	9.1		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:14	1
Barium	150		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:14	1
Arsenic	4.3		2.3		mg/Kg	☼	06/09/16 06:45	06/09/16 18:14	1
Copper	19		1.7		mg/Kg	☼	06/09/16 06:45	06/09/16 18:14	1
Zinc	44		2.3		mg/Kg	☼	06/09/16 06:45	06/09/16 18:14	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12.9		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1279PS102[1.0]
Date Collected: 06/06/16 11:21
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-10
Matrix: Solid
Percent Solids: 82.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	34		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:17	1
Barium	77		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:17	1
Arsenic	4.4		2.4		mg/Kg	☼	06/09/16 06:45	06/09/16 18:17	1
Copper	13		1.8		mg/Kg	☼	06/09/16 06:45	06/09/16 18:17	1
Zinc	40		2.4		mg/Kg	☼	06/09/16 06:45	06/09/16 18:17	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.9		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1279PS103[0.5]
Date Collected: 06/06/16 11:26
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-11
Matrix: Solid
Percent Solids: 85.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	18		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:27	1
Barium	170		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:27	1
Arsenic	4.5		2.4		mg/Kg	☼	06/09/16 06:45	06/09/16 18:27	1
Copper	13		1.8		mg/Kg	☼	06/09/16 06:45	06/09/16 18:27	1
Zinc	39		2.4		mg/Kg	☼	06/09/16 06:45	06/09/16 18:27	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.6		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1279PS104[0.5]
Date Collected: 06/06/16 11:30
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-12
Matrix: Solid
Percent Solids: 84.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	25		1.1		mg/Kg	☼	06/09/16 06:45	06/09/16 18:30	1
Barium	81		1.1		mg/Kg	☼	06/09/16 06:45	06/09/16 18:30	1
Arsenic	4.2		2.3		mg/Kg	☼	06/09/16 06:45	06/09/16 18:30	1
Copper	13		1.7		mg/Kg	☼	06/09/16 06:45	06/09/16 18:30	1
Zinc	41		2.3		mg/Kg	☼	06/09/16 06:45	06/09/16 18:30	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.1		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1279PS105[1.0]
Date Collected: 06/06/16 11:40
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-14
Matrix: Solid
Percent Solids: 84.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	6.2		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:33	1
Barium	92		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:33	1
Arsenic	4.5		2.4		mg/Kg	☼	06/09/16 06:45	06/09/16 18:33	1
Copper	15		1.8		mg/Kg	☼	06/09/16 06:45	06/09/16 18:33	1
Zinc	37		2.4		mg/Kg	☼	06/09/16 06:45	06/09/16 18:33	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.1		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1279PS106[1.0]
Date Collected: 06/06/16 11:45
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-15
Matrix: Solid
Percent Solids: 82.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	7.0		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:36	1
Barium	91		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:36	1
Arsenic	4.4		2.5		mg/Kg	☼	06/09/16 06:45	06/09/16 18:36	1
Copper	12		1.9		mg/Kg	☼	06/09/16 06:45	06/09/16 18:36	1
Zinc	27		2.5		mg/Kg	☼	06/09/16 06:45	06/09/16 18:36	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.1		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1259PS101[0.0]
Date Collected: 06/06/16 12:54
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-17
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.8		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1259PS101[0.0]
Date Collected: 06/06/16 12:54
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-17
Matrix: Solid
Percent Solids: 82.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	42		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:39	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1259PS102[0.0]
Date Collected: 06/06/16 13:10
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-19
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	30.0		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1259PS102[0.0]
Date Collected: 06/06/16 13:10
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-19
Matrix: Solid
Percent Solids: 70.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	390		1.4		mg/Kg	☼	06/09/16 06:45	06/09/16 18:42	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1259PS103[0.0]
Date Collected: 06/06/16 13:22
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-22
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.8		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1259PS103[0.0]
Date Collected: 06/06/16 13:22
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-22
Matrix: Solid
Percent Solids: 88.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	190		1.1		mg/Kg	☼	06/09/16 06:45	06/09/16 18:45	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1259PS104[0.0]
Date Collected: 06/06/16 13:32
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-25
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.2		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1259PS104[0.0]
Date Collected: 06/06/16 13:32
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-25
Matrix: Solid
Percent Solids: 84.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	110		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:48	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1259PS105[0.5]
Date Collected: 06/06/16 14:02
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-28
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21.4		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1259PS105[0.5]
Date Collected: 06/06/16 14:02
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-28
Matrix: Solid
Percent Solids: 78.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	100		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:51	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: DUP060616-2
Date Collected: 06/06/16 00:00
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-29
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.2		0.1		%			06/09/16 19:11	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: DUP060616-2
Date Collected: 06/06/16 00:00
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-29
Matrix: Solid
Percent Solids: 80.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	67		1.2		mg/Kg	☼	06/09/16 06:45	06/09/16 18:54	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: DUP060616-3
Date Collected: 06/06/16 00:00
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-30
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23.0		0.1		%			06/09/16 18:48	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: DUP060616-3
Date Collected: 06/06/16 00:00
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-30
Matrix: Solid
Percent Solids: 77.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	270		1.3		mg/Kg	☼	06/09/16 06:45	06/09/16 19:03	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1259PS104RB105
Date Collected: 06/06/16 13:50
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-31
Matrix: Water

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0050		mg/L		06/09/16 08:30	06/09/16 17:14	1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 320-113071/1-A
Matrix: Solid
Analysis Batch: 113260

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 113071

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.0		mg/Kg		06/09/16 06:45	06/09/16 16:56	1
Barium	ND		1.0		mg/Kg		06/09/16 06:45	06/09/16 16:56	1
Arsenic	ND		2.0		mg/Kg		06/09/16 06:45	06/09/16 16:56	1
Copper	ND		1.5		mg/Kg		06/09/16 06:45	06/09/16 16:56	1
Zinc	ND		2.0		mg/Kg		06/09/16 06:45	06/09/16 16:56	1

Lab Sample ID: LCS 320-113071/2-A
Matrix: Solid
Analysis Batch: 113260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 113071

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	49.4		mg/Kg		99	80 - 120
Barium	200	197		mg/Kg		99	80 - 120
Arsenic	200	192		mg/Kg		96	80 - 120
Copper	25.0	24.3		mg/Kg		97	80 - 120
Zinc	50.0	49.3		mg/Kg		99	80 - 120

Lab Sample ID: 720-72689-1 MS
Matrix: Solid
Analysis Batch: 113260

Client Sample ID: 1278EX101[0.5]
Prep Type: Total/NA
Prep Batch: 113071

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	5.7		62.4	61.2		mg/Kg	☼	89	80 - 120
Barium	46		250	277		mg/Kg	☼	92	80 - 120
Arsenic	5.0		250	224		mg/Kg	☼	88	80 - 120
Copper	12		31.2	41.7		mg/Kg	☼	96	80 - 120
Zinc	33		62.4	87.9		mg/Kg	☼	88	80 - 120

Lab Sample ID: 720-72689-1 MSD
Matrix: Solid
Analysis Batch: 113260

Client Sample ID: 1278EX101[0.5]
Prep Type: Total/NA
Prep Batch: 113071

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	5.7		61.2	59.8		mg/Kg	☼	88	80 - 120	2	35
Barium	46		245	291		mg/Kg	☼	100	80 - 120	5	35
Arsenic	5.0		245	224		mg/Kg	☼	89	80 - 120	0	35
Copper	12		30.6	41.4		mg/Kg	☼	97	80 - 120	1	35
Zinc	33		61.2	88.0		mg/Kg	☼	90	80 - 120	0	35

Lab Sample ID: MB 320-113127/1-A
Matrix: Water
Analysis Batch: 113260

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 113127

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0050		mg/L		06/09/16 08:30	06/09/16 16:50	1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 320-113127/2-A
Matrix: Water
Analysis Batch: 113260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 113127

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.500	0.506		mg/L		101	80 - 120

Lab Sample ID: 720-72689-31 MS
Matrix: Water
Analysis Batch: 113260

Client Sample ID: 1259PS104RB105
Prep Type: Total/NA
Prep Batch: 113127

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	ND		0.500	0.498		mg/L		100	80 - 120

Lab Sample ID: 720-72689-31 MSD
Matrix: Water
Analysis Batch: 113260

Client Sample ID: 1259PS104RB105
Prep Type: Total/NA
Prep Batch: 113127

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		0.500	0.498		mg/L		100	80 - 120	0	20

Method: D 2216 - Percent Moisture

Lab Sample ID: 720-72689-1 DU
Matrix: Solid
Analysis Batch: 113244

Client Sample ID: 1278EX101[0.5]
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	19.9		20.0		%		0.5	20

Metals

Prep Batch: 113071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-1	1278EX101[0.5]	Total/NA	Solid	3050B	
720-72689-1 MS	1278EX101[0.5]	Total/NA	Solid	3050B	
720-72689-1 MSD	1278EX101[0.5]	Total/NA	Solid	3050B	
720-72689-2	1278EX102[0.5]	Total/NA	Solid	3050B	
720-72689-3	1278PS101[0.5]	Total/NA	Solid	3050B	
720-72689-4	1278PS102[0.5]	Total/NA	Solid	3050B	
720-72689-5	1278PS103[0.5]	Total/NA	Solid	3050B	
720-72689-6	1278PS104[0.5]	Total/NA	Solid	3050B	
720-72689-8	DUP 060616-1	Total/NA	Solid	3050B	
720-72689-9	1279PS101[0.5]	Total/NA	Solid	3050B	
720-72689-10	1279PS102[1.0]	Total/NA	Solid	3050B	
720-72689-11	1279PS103[0.5]	Total/NA	Solid	3050B	
720-72689-12	1279PS104[0.5]	Total/NA	Solid	3050B	
720-72689-14	1279PS105[1.0]	Total/NA	Solid	3050B	
720-72689-15	1279PS106[1.0]	Total/NA	Solid	3050B	
720-72689-17	1259PS101[0.0]	Total/NA	Solid	3050B	
720-72689-19	1259PS102[0.0]	Total/NA	Solid	3050B	
720-72689-22	1259PS103[0.0]	Total/NA	Solid	3050B	
720-72689-25	1259PS104[0.0]	Total/NA	Solid	3050B	
720-72689-28	1259PS105[0.5]	Total/NA	Solid	3050B	
720-72689-29	DUP060616-2	Total/NA	Solid	3050B	
720-72689-30	DUP060616-3	Total/NA	Solid	3050B	
LCS 320-113071/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 320-113071/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 113127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-31	1259PS104RB105	Total/NA	Water	3010A	
720-72689-31 MS	1259PS104RB105	Total/NA	Water	3010A	
720-72689-31 MSD	1259PS104RB105	Total/NA	Water	3010A	
LCS 320-113127/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 320-113127/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 113260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-1	1278EX101[0.5]	Total/NA	Solid	6010B	113071
720-72689-1 MS	1278EX101[0.5]	Total/NA	Solid	6010B	113071
720-72689-1 MSD	1278EX101[0.5]	Total/NA	Solid	6010B	113071
720-72689-2	1278EX102[0.5]	Total/NA	Solid	6010B	113071
720-72689-3	1278PS101[0.5]	Total/NA	Solid	6010B	113071
720-72689-4	1278PS102[0.5]	Total/NA	Solid	6010B	113071
720-72689-5	1278PS103[0.5]	Total/NA	Solid	6010B	113071
720-72689-6	1278PS104[0.5]	Total/NA	Solid	6010B	113071
720-72689-8	DUP 060616-1	Total/NA	Solid	6010B	113071
720-72689-9	1279PS101[0.5]	Total/NA	Solid	6010B	113071
720-72689-10	1279PS102[1.0]	Total/NA	Solid	6010B	113071
720-72689-11	1279PS103[0.5]	Total/NA	Solid	6010B	113071
720-72689-12	1279PS104[0.5]	Total/NA	Solid	6010B	113071
720-72689-14	1279PS105[1.0]	Total/NA	Solid	6010B	113071
720-72689-15	1279PS106[1.0]	Total/NA	Solid	6010B	113071
720-72689-17	1259PS101[0.0]	Total/NA	Solid	6010B	113071

Metals (Continued)

Analysis Batch: 113260 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-19	1259PS102[0.0]	Total/NA	Solid	6010B	113071
720-72689-22	1259PS103[0.0]	Total/NA	Solid	6010B	113071
720-72689-25	1259PS104[0.0]	Total/NA	Solid	6010B	113071
720-72689-28	1259PS105[0.5]	Total/NA	Solid	6010B	113071
720-72689-29	DUP060616-2	Total/NA	Solid	6010B	113071
720-72689-30	DUP060616-3	Total/NA	Solid	6010B	113071
720-72689-31	1259PS104RB105	Total/NA	Water	6010B	113127
720-72689-31 MS	1259PS104RB105	Total/NA	Water	6010B	113127
720-72689-31 MSD	1259PS104RB105	Total/NA	Water	6010B	113127
LCS 320-113071/2-A	Lab Control Sample	Total/NA	Solid	6010B	113071
LCS 320-113127/2-A	Lab Control Sample	Total/NA	Water	6010B	113127
MB 320-113071/1-A	Method Blank	Total/NA	Solid	6010B	113071
MB 320-113127/1-A	Method Blank	Total/NA	Water	6010B	113127

General Chemistry

Analysis Batch: 113243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-30	DUP060616-3	Total/NA	Solid	D 2216	

Analysis Batch: 113244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-1	1278EX101[0.5]	Total/NA	Solid	D 2216	
720-72689-1 DU	1278EX101[0.5]	Total/NA	Solid	D 2216	
720-72689-2	1278EX102[0.5]	Total/NA	Solid	D 2216	
720-72689-3	1278PS101[0.5]	Total/NA	Solid	D 2216	
720-72689-4	1278PS102[0.5]	Total/NA	Solid	D 2216	
720-72689-5	1278PS103[0.5]	Total/NA	Solid	D 2216	
720-72689-6	1278PS104[0.5]	Total/NA	Solid	D 2216	
720-72689-8	DUP 060616-1	Total/NA	Solid	D 2216	
720-72689-9	1279PS101[0.5]	Total/NA	Solid	D 2216	
720-72689-10	1279PS102[1.0]	Total/NA	Solid	D 2216	
720-72689-11	1279PS103[0.5]	Total/NA	Solid	D 2216	
720-72689-12	1279PS104[0.5]	Total/NA	Solid	D 2216	
720-72689-14	1279PS105[1.0]	Total/NA	Solid	D 2216	
720-72689-15	1279PS106[1.0]	Total/NA	Solid	D 2216	
720-72689-17	1259PS101[0.0]	Total/NA	Solid	D 2216	
720-72689-19	1259PS102[0.0]	Total/NA	Solid	D 2216	
720-72689-22	1259PS103[0.0]	Total/NA	Solid	D 2216	
720-72689-25	1259PS104[0.0]	Total/NA	Solid	D 2216	
720-72689-28	1259PS105[0.5]	Total/NA	Solid	D 2216	
720-72689-29	DUP060616-2	Total/NA	Solid	D 2216	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: 1278EX101[0.5] — **Lab Sample ID: 720-72689-1**
Date Collected: 06/06/16 10:39 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1278EX101[0.5] — **Lab Sample ID: 720-72689-1**
Date Collected: 06/06/16 10:39 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 80.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 17:35	CV1	TAL SAC

Client Sample ID: 1278EX102[0.5] — **Lab Sample ID: 720-72689-2**
Date Collected: 06/06/16 10:34 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1278EX102[0.5] — **Lab Sample ID: 720-72689-2**
Date Collected: 06/06/16 10:34 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 64.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 17:56	CV1	TAL SAC

Client Sample ID: 1278PS101[0.5] — **Lab Sample ID: 720-72689-3**
Date Collected: 06/06/16 10:05 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1278PS101[0.5] — **Lab Sample ID: 720-72689-3**
Date Collected: 06/06/16 10:05 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 67.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 17:59	CV1	TAL SAC

Client Sample ID: 1278PS102[0.5] — **Lab Sample ID: 720-72689-4**
Date Collected: 06/06/16 10:12 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1278PS102[0.5] — **Lab Sample ID: 720-72689-4**
Date Collected: 06/06/16 10:12 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 79.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:02	CV1	TAL SAC

Client Sample ID: 1278PS103[0.5] — **Lab Sample ID: 720-72689-5**
Date Collected: 06/06/16 10:21 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1278PS103[0.5] — **Lab Sample ID: 720-72689-5**
Date Collected: 06/06/16 10:21 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 75.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:05	CV1	TAL SAC

Client Sample ID: 1278PS104[0.5] — **Lab Sample ID: 720-72689-6**
Date Collected: 06/06/16 10:25 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1278PS104[0.5] — **Lab Sample ID: 720-72689-6**
Date Collected: 06/06/16 10:25 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 86.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:08	CV1	TAL SAC

Client Sample ID: DUP 060616-1 — **Lab Sample ID: 720-72689-8**
Date Collected: 06/06/16 00:00 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: DUP 060616-1 — **Lab Sample ID: 720-72689-8**
Date Collected: 06/06/16 00:00 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 90.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:11	CV1	TAL SAC

Client Sample ID: 1279PS101[0.5] — **Lab Sample ID: 720-72689-9**
Date Collected: 06/06/16 11:15 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1279PS101[0.5] — **Lab Sample ID: 720-72689-9**
Date Collected: 06/06/16 11:15 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 87.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:14	CV1	TAL SAC

Client Sample ID: 1279PS102[1.0] — **Lab Sample ID: 720-72689-10**
Date Collected: 06/06/16 11:21 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1279PS102[1.0] — **Lab Sample ID: 720-72689-10**
Date Collected: 06/06/16 11:21 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 82.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:17	CV1	TAL SAC

Client Sample ID: 1279PS103[0.5] — **Lab Sample ID: 720-72689-11**
Date Collected: 06/06/16 11:26 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1279PS103[0.5] — **Lab Sample ID: 720-72689-11**
Date Collected: 06/06/16 11:26 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 85.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:27	CV1	TAL SAC

Client Sample ID: 1279PS104[0.5] — **Lab Sample ID: 720-72689-12**
Date Collected: 06/06/16 11:30 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1279PS104[0.5] — **Lab Sample ID: 720-72689-12**
Date Collected: 06/06/16 11:30 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 84.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:30	CV1	TAL SAC

Client Sample ID: 1279PS105[1.0] — **Lab Sample ID: 720-72689-14**
Date Collected: 06/06/16 11:40 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1279PS105[1.0] — **Lab Sample ID: 720-72689-14**
Date Collected: 06/06/16 11:40 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 84.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:33	CV1	TAL SAC

Client Sample ID: 1279PS106[1.0] — **Lab Sample ID: 720-72689-15**
Date Collected: 06/06/16 11:45 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1279PS106[1.0] — **Lab Sample ID: 720-72689-15**
Date Collected: 06/06/16 11:45 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 82.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:36	CV1	TAL SAC

Client Sample ID: 1259PS101[0.0] — **Lab Sample ID: 720-72689-17**
Date Collected: 06/06/16 12:54 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1259PS101[0.0] — **Lab Sample ID: 720-72689-17**
Date Collected: 06/06/16 12:54 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 82.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:39	CV1	TAL SAC

Client Sample ID: 1259PS102[0.0] — **Lab Sample ID: 720-72689-19**
Date Collected: 06/06/16 13:10 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1259PS102[0.0] — **Lab Sample ID: 720-72689-19**
Date Collected: 06/06/16 13:10 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 70.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:42	CV1	TAL SAC

Client Sample ID: 1259PS103[0.0] — **Lab Sample ID: 720-72689-22**
Date Collected: 06/06/16 13:22 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1259PS103[0.0] — **Lab Sample ID: 720-72689-22**
Date Collected: 06/06/16 13:22 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 88.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:45	CV1	TAL SAC

Client Sample ID: 1259PS104[0.0] — **Lab Sample ID: 720-72689-25**
Date Collected: 06/06/16 13:32 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1259PS104[0.0] — **Lab Sample ID: 720-72689-25**
Date Collected: 06/06/16 13:32 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 84.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:48	CV1	TAL SAC

Client Sample ID: 1259PS105[0.5] — **Lab Sample ID: 720-72689-28**
Date Collected: 06/06/16 14:02 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: 1259PS105[0.5] — **Lab Sample ID: 720-72689-28**
Date Collected: 06/06/16 14:02 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 78.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:51	CV1	TAL SAC

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Client Sample ID: DUP060616-2
Lab Sample ID: 720-72689-29

Date Collected: 06/06/16 00:00
Matrix: Solid
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113244	06/09/16 19:11	JMD	TAL SAC

Client Sample ID: DUP060616-2
Lab Sample ID: 720-72689-29

Date Collected: 06/06/16 00:00
Matrix: Solid
Date Received: 06/06/16 16:57
Percent Solids: 80.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 18:54	CV1	TAL SAC

Client Sample ID: DUP060616-3
Lab Sample ID: 720-72689-30

Date Collected: 06/06/16 00:00
Matrix: Solid
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113243	06/09/16 18:48	JMD	TAL SAC

Client Sample ID: DUP060616-3
Lab Sample ID: 720-72689-30

Date Collected: 06/06/16 00:00
Matrix: Solid
Date Received: 06/06/16 16:57
Percent Solids: 77.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113071	06/09/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 19:03	CV1	TAL SAC

Client Sample ID: 1259PS104RB105
Lab Sample ID: 720-72689-31

Date Collected: 06/06/16 13:50
Matrix: Water
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			113127	06/09/16 08:30	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 17:14	CV1	TAL SAC

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Laboratory: TestAmerica Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-17
Alaska (UST)	State Program	10	UST-055	12-18-16
Arizona	State Program	9	AZ0708	08-11-16
Arkansas DEQ	State Program	6	88-0691	06-17-17
California	State Program	9	2897	01-31-17
Colorado	State Program	8	CA00044	08-31-16
Connecticut	State Program	1	PH-0691	06-30-17
Florida	NELAP	4	E87570	06-30-16
Hawaii	State Program	9	N/A	01-31-17
Illinois	NELAP	5	200060	03-17-17
Kansas	NELAP	7	E-10375	07-31-16
Louisiana	NELAP	6	30612	06-30-16
Maine	State Program	1	CA0004	04-18-18
Michigan	State Program	5	9947	01-31-18
Nevada	State Program	9	CA00044	07-31-16
New Jersey	NELAP	2	CA005	06-30-16
New York	NELAP	2	11666	04-01-17
Oregon	NELAP	10	4040	01-29-17
Pennsylvania	NELAP	3	68-01272	03-31-17
Texas	NELAP	6	T104704399	07-31-17
US Fish & Wildlife	Federal		LE148388-0	10-31-16
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-16
Utah	NELAP	8	CA00044	02-28-17
Virginia	NELAP	3	460278	03-14-17
Washington	State Program	10	C581	05-05-17
West Virginia (DW)	State Program	3	9930C	12-31-16
Wyoming	State Program	8	8TMS-L	01-29-17

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL SAC
D 2216	Percent Moisture	ASTM	TAL SAC

Protocol References:

ASTM = ASTM International

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-72689-1	1278EX101[0.5]	Solid	06/06/16 10:39	06/06/16 16:57
720-72689-2	1278EX102[0.5]	Solid	06/06/16 10:34	06/06/16 16:57
720-72689-3	1278PS101[0.5]	Solid	06/06/16 10:05	06/06/16 16:57
720-72689-4	1278PS102[0.5]	Solid	06/06/16 10:12	06/06/16 16:57
720-72689-5	1278PS103[0.5]	Solid	06/06/16 10:21	06/06/16 16:57
720-72689-6	1278PS104[0.5]	Solid	06/06/16 10:25	06/06/16 16:57
720-72689-8	DUP 060616-1	Solid	06/06/16 00:00	06/06/16 16:57
720-72689-9	1279PS101[0.5]	Solid	06/06/16 11:15	06/06/16 16:57
720-72689-10	1279PS102[1.0]	Solid	06/06/16 11:21	06/06/16 16:57
720-72689-11	1279PS103[0.5]	Solid	06/06/16 11:26	06/06/16 16:57
720-72689-12	1279PS104[0.5]	Solid	06/06/16 11:30	06/06/16 16:57
720-72689-14	1279PS105[1.0]	Solid	06/06/16 11:40	06/06/16 16:57
720-72689-15	1279PS106[1.0]	Solid	06/06/16 11:45	06/06/16 16:57
720-72689-17	1259PS101[0.0]	Solid	06/06/16 12:54	06/06/16 16:57
720-72689-19	1259PS102[0.0]	Solid	06/06/16 13:10	06/06/16 16:57
720-72689-22	1259PS103[0.0]	Solid	06/06/16 13:22	06/06/16 16:57
720-72689-25	1259PS104[0.0]	Solid	06/06/16 13:32	06/06/16 16:57
720-72689-28	1259PS105[0.5]	Solid	06/06/16 14:02	06/06/16 16:57
720-72689-29	DUP060616-2	Solid	06/06/16 00:00	06/06/16 16:57
720-72689-30	DUP060616-3	Solid	06/06/16 00:00	06/06/16 16:57
720-72689-31	1259PS104RB105	Water	06/06/16 13:50	06/06/16 16:57

TestAmerica Pleasanton
1220 Quarry Lane

Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

720-72689

Chain of Custody Record

16 & 19

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

6/16/2016

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date: 6/6/16	COC No.
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	1 of 3 COCs
505 Sansome Street Suite 1600	Analysis Turnaround Time			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(415) 644-3000 Phone	TAT if different from Below			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☑ 1 week			
Site: Presidio of San Francisco	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA 6020)	As, Ba, Cu, Zn (USEPA 6020)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes:
1278 EX101 [0.5]	6/6/16	1039	G	S	1			X				
1278 EX102 [0.5]		1034						X				
1278 PS101 [0.5]		1005						X				
1278 PS102 [0.5]		1012						X				
#1278 PS103 [0.5]		1021						X				
1278 PS 104 [0.5]		1025						X				
~~Dup~~ 1278 PS104 [2.5]		0902						X				HOLD
DUP 060616-1		—						X				
1279 PS101 [0.5]		1115						X				
1279 PS102 [1.0]		1121						X				
1279 PS 103 [0.5]		1126						X				
1279 PS104 [0.5]	↓	1130	↓	↓	↓			X				

720-72689 Chain of Custody

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other:

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected
Please hold all excess soil & water for potential future analysis

2.0 °C

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd:	Corr'd:	Therm ID No.:
Relinquished by:	Company: TRC	Date/Time: 6/6/16 1657	Received by:	Company:	Date/Time: 6/6/16 1657
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Pleasanton
1220 Quarry Lane

Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

6/16/2016

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date: 6/6/16	COC No:
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	2 of 3 COCs
505 Sansome Street Suite 1600	Analysis Turnaround Time			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(415) 644-3000 Phone	TAT if different from Below			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☑ 1 week			Job / SDG No.:
Site: Presidio of San Francisco	☐ 2 days			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA 6020)	As, Ba, Cu, Zn (USEPA 6020)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes:
1279 PS 104 [1.0]	6/6/16	1135	G	S	1			X				HOLD
1279 PS 105 [1.0]	"	1140	"	"	"			X				
1279 PS 106 [1.0]	"	1145	"	"	"			X				
1279 PS 106 [2.0]	"	1150	"	"	"			X				HOLD
1259 PS 101 [0.0]	"	1254	"	"	"			X				
1259 PS 101 [0.5]	"	1258	"	"	"			X				HOLD
1259 PS 102 [0.0]	"	1310	"	"	"			X				
1259 PS 102 [0.5]	"	1312	"	"	"			X				HOLD
1259 PS 102 [1.0]	"	1315	"	"	"			X				HOLD
1259 PS 103 [0.0]	"	1322	"	"	"			X				
1259 PS 103 [0.5]	"	1325	"	"	"			X				HOLD
1259 PS 103 [1.0]	↓	1327	↓	↓	↓			X				HOLD

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected
Please hold all excess soil & water for potential feature analysis

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company: TRC	Date/Time: 6/6/16 1657	Received by:	Company:	Date/Time: 6/6/16 1657
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Pleasanton
1220 Quarry Lane

Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

6/16/2016

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date: 6/6/16	COC No.
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	3 of 3 COCs
505 Sansome Street Suite 1600	**Analysis Turnaround Time**			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(415) 644-3000 Phone	TAT if different from Below _____			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☑ 1 week			
Site: Presidio of San Francisco	☐ 2 days			Job / SDG No.:
PO #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA 6020)	As, Ba, Cu, Zn (USEPA 6020)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes:
1259PS104[0.0]	6/6/16	1332	G	S	1			X				
1259PS104[0.5]	"	1325	"	"	"			X				HOLD
1259PS104[1.0]	"	1340	"	"	"			X				HOLD
1259PS105[0.5]	"	1402	"	"	"			X				
DUP060616-2	"	—	"	"	"			X				
DUP060616-3	"	—	"	"	"			X				
1259PS104RB105	"	1350	G	W	3			X				

Preservation Used: 1= Ice, 2= HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
All samples to be dry weight corrected
Please hold all excess soil & water for potential future analysis

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____		Therm ID No.: _____
Relinquished by:	Company: TRC	Date/Time: 6/6/16 1657	Received by:	Company: TA	Date/Time: 6/6/16 1657
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time

Form No. CA-C-WI-002, Rev. 4.9, dated 2/2/2016

720-72689-2

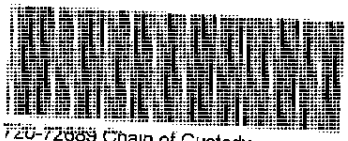
Sharma, Dimple

From: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Sent: Monday, June 13, 2016 5:13 PM
To: Sharma, Dimple
Subject: RE: TestAmerica EDD and report files from 720-72689-1 Presidio

Next round for this set:

1. Run 1259PS102[0.5] for Lead dry weight corrected
2. Run 1259PS103[0.5] for Lead dry weight corrected
3. Run 1278EX101[0.5] for As, Ba, Cu, Zn, PAHs (8270)
4. Run 1278EX102[0.5] for As, Ba, Cu, Zn, PAHs (8270), and Dioxins and Furans
5. Run 1278PS101[0.5] for As, Ba, Cu, Zn, PAHs (8270),
6. Run 1278PS102[0.5] for As, Ba, Cu, Zn, PAHs (8270),
7. Run 1278PS103[0.5] for As, Ba, Cu, Zn, PAHs (8270),
8. Run 1278PS104[0.5] for As, Ba, Cu, Zn, PAHs (8270),
9. Run 1279PS101[0.5] for As, Ba, Cu, Zn, PAHs (8270),
10. Run 1279PS102[1.0] for As, Ba, Cu, Zn, PAHs (8270),
11. Run 1279PS103[0.5] for As, Ba, Cu, Zn, PAHs (8270), and Dioxins and Furans
12. Run 1279PS104[0.5] for As, Ba, Cu, Zn, PAHs (8270),
13. Run 1279PS105[1.0] for As, Ba, Cu, Zn, PAHs (8270),
14. Run 1279PS106[1.0] for As, Ba, Cu, Zn, PAHs (8270),

Standard TAT for all of these, Thanks
Justin


720-72689 Chain of Custody

Justin Hanzel-Durbin
Senior Engineer/Project Manager
Environmental/Remediation

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415.644.3050 | F: 415.434.2321 | Cell: 415.209.3326

Follow us on LinkedIn or Twitter | www.trcsolutions.com

JHanzel-Durbin@trcsolutions.com

From: Sharma, Dimple [mailto:dimple.sharma@testamericainc.com]
Sent: Monday, June 13, 2016 4:06 PM
To: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Subject: TestAmerica EDD and report files from 720-72689-1 Presidio

Hello,

Attached please find the EDD and report files for job 720-72689-1; Presidio

Please feel free to contact me if you have any questions.

Thank you.

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Phone (925) 484-1919 Fax (925) 600-3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sharma, Dimple	Carrier Tracking No(s):	COC No: 720-29237.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: dimple.sharma@testamericainc.com		Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Analysis Requested		Job #: 720-72689-1
Address: 880 Riverside Parkway,	Due Date Requested: 6/10/2016			Preservation Codes:
City: West Sacramento	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: CA, 95605				Other:
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Presidio	Project #: 72010678			
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Moisture/ (MOD) Local Method	6010B/3050B Lead	6010B/3010A Lead	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
1278EX101[0.5] (720-72689-1)	6/6/16	10:39 Pacific		Solid			X	X		1	
1278EX102[0.5] (720-72689-2)	6/6/16	10:34 Pacific		Solid			X	X		1	
1278PS101[0.5] (720-72689-3)	6/6/16	10:05 Pacific		Solid			X	X		1	
1278PS102[0.5] (720-72689-4)	6/6/16	10:12 Pacific		Solid			X	X		1	
1278PS103[0.5] (720-72689-5)	6/6/16	10:21 Pacific		Solid			X	X		1	
1278PS104[0.5] (720-72689-6)	6/6/16	10:25 Pacific		Solid			X	X		1	
DUP 060616-1 (720-72689-8)	6/6/16	Pacific		Solid			X	X		1	
1279PS101[0.5] (720-72689-9)	6/6/16	11:15 Pacific		Solid			X	X		1	
1279PS102[1.0] (720-72689-10)	6/6/16	11:21 Pacific		Solid			X	X		1	
1279PS103[0.5] (720-72689-11)	6/6/16	11:26 Pacific		Solid			X	X		1	
1279PS104[0.5] (720-72689-12)	6/6/16	11:30 Pacific		Solid			X	X		1	

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		6/7/16 1825	TA		6-7-16 1825	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.1°C

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6/16/2016

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Phone (925) 484-1919 Fax (925) 600-3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sharma, Dimple	Carrier Tracking No(s):	COC No: 720-29237.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: dimple.sharma@testamericainc.com		Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Analysis Requested		Job #: 720-72689-1

Address: 880 Riverside Parkway,	Due Date Requested: 6/10/2016
City: West Sacramento	TAT Requested (days):
State, Zip: CA, 95605	
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:
Email:	WO #:
Project Name: Presidio	Project #: 72010678
Site:	SSOW#:

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Moisture/ (MOD) Local Method	6010B/3050B Lead	6010B/3010A Lead	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
1279PS105[1.0] (720-72689-14)	6/6/16	11:40 Pacific		Solid			X	X		1	
1279PS106[1.0] (720-72689-15)	6/6/16	11:45 Pacific		Solid			X	X		1	
1259PS101[0.0] (720-72689-17)	6/6/16	12:54 Pacific		Solid			X	X		1	
1259PS102[0.0] (720-72689-19)	6/6/16	13:10 Pacific		Solid			X	X		1	
1259PS103[0.0] (720-72689-22)	6/6/16	13:22 Pacific		Solid			X	X		1	
1259PS104[0.0] (720-72689-25)	6/6/16	13:32 Pacific		Solid			X	X		1	
1259PS105[0.5] (720-72689-28)	6/6/16	14:02 Pacific		Solid			X	X		1	
DUP060616-2 (720-72689-29)	6/6/16	Pacific		Solid			X	X		1	
DUP060616-3 (720-72689-30)	6/6/16	Pacific		Solid			X	X		1	
1259PS104RB105 (720-72689-31)	6/6/16	13:50 Pacific		Water					X	1	

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time	Company	Received by:	Date/Time	Company
Relinquished by:	6/7/16 1825	TA		6-7-16 1825	TALS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:	

6/16/2016

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Phone (925) 484-1919 Fax (925) 600-3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sharma, Dimple	Carrier Tracking No(s):	COC No: 720-29355.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: dimple.sharma@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Analysis Requested		Job #: 720-72689-2
Address: 880 Riverside Parkway, ,	Due Date Requested: 6/23/2016			Preservation Codes:
City: West Sacramento	TAT Requested (days):			A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - ph 4-5 L - EDA Z - other (specify) Other:
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Presidio	Project #: 72010678			
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Moisture/ (MOD) Local Method	6010B/3050B Lead	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
1259PS102[0.5] (720-72689-20)	6/6/16	13:12 Pacific		Solid			X	X	1	
1259PS103[0.5] (720-72689-23)	6/6/16	13:25 Pacific		Solid			X	X	1	

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		6/14/16 1845	TA		6-14-16 1845	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: Yes

6/16/2016

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-72689-1

Login Number: 72689

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Arauz, Dennis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-72689-1

Login Number: 72689
List Number: 2
Creator: Shockley, Wesley S

List Source: TestAmerica Sacramento
List Creation: 06/08/16 10:14 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-72689-1

Login Number: 72689
List Number: 3
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 06/14/16 08:12 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-72689-1

Login Number: 72689
List Number: 4
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 06/14/16 08:15 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-72689-2
Client Project/Site: Presidio

For:
TRC Solutions, Inc.
10680 White Rock Road
Suite 100
Rancho Cordova, California 95670

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
6/30/2016 11:12:46 AM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-2

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
X	Surrogate is outside control limits

Dioxin

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-72689-2

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-72689-2

Comments
No additional comments.

Receipt
The samples were received on 6/6/2016 4:57 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.0º C.

GC/MS Semi VOA
Method 8270C SIM: The following samples required a dilution due to the nature of the sample matrix: 1278PS101[0.5] (720-72689-3), 1279PS101[0.5] (720-72689-9), 1279PS102[1.0] (720-72689-10), 1279PS103[0.5] (720-72689-11), 1279PS104[0.5] (720-72689-12), 1279PS105[1.0] (720-72689-14) and 1279PS106[1.0] (720-72689-15). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information. Reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Dioxin
Method 8290, 8290A: The bracketing continuing calibration verification (CCV062216F) associated with batch 320-114992 has 13C-OCDD with percent difference value that is between the method criteria of 30% to 35% deviation from the initial calibration curve. Per method guidelines, an average relative response factor (RRF) is calculated from the bracketing CCV and is used to quantitate the Isotope Dilution Analyte (IDA) recovery in the associated samples.

Method 8290: The laboratory control sample (LCS) for preparation batch 320-113735 and analytical batch 320-114990 recovered outside control limits for 1,2,3,4,7,8,9-HpCDF. This analyte was biased high in the LCS and not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dioxin Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-2

Client Sample ID: 1278EX101[0.5] — Lab Sample ID: 720-72689-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	8.8		5.9		ug/Kg	1	☼	8270C SIM	Total/NA

Client Sample ID: 1278EX102[0.5] — Lab Sample ID: 720-72689-2

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
OCDD	15		15		pg/g	1	☼	8290	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	23		8.2		ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	35		8.2		ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	45		8.2		ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	15		8.2		ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[k]fluoranthene	14		8.2		ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	35		8.2		ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	39		8.2		ug/Kg	1	☼	8270C SIM	Total/NA
Fluorene	17		8.2		ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	17		8.2		ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	25		8.2		ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	41		8.2		ug/Kg	1	☼	8270C SIM	Total/NA

Client Sample ID: 1278PS101[0.5] — Lab Sample ID: 720-72689-3

No Detections.

Client Sample ID: 1278PS102[0.5] — Lab Sample ID: 720-72689-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	11		6.8		ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	8.0		6.8		ug/Kg	1	☼	8270C SIM	Total/NA

Client Sample ID: 1278PS103[0.5] — Lab Sample ID: 720-72689-5

No Detections.

Client Sample ID: 1278PS104[0.5] — Lab Sample ID: 720-72689-6

No Detections.

Client Sample ID: 1279PS101[0.5] — Lab Sample ID: 720-72689-9

No Detections.

Client Sample ID: 1279PS102[1.0] — Lab Sample ID: 720-72689-10

No Detections.

Client Sample ID: 1279PS103[0.5] — Lab Sample ID: 720-72689-11

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	12		5.9		pg/g	1	☼	8290	Total/NA
OCDD	100		12		pg/g	1	☼	8290	Total/NA
OCDF	12		12		pg/g	1	☼	8290	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 1279PS103[0.5] (Continued) — Lab Sample ID: 720-72689-11

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
Total TCDF	3.7		1.2		pg/g	1	☼	8290	Total/NA
Total HpCDD	19		5.9		pg/g	1	☼	8290	Total/NA

Client Sample ID: 1279PS104[0.5] — Lab Sample ID: 720-72689-12

No Detections.

Client Sample ID: 1279PS105[1.0] — Lab Sample ID: 720-72689-14

No Detections.

Client Sample ID: 1279PS106[1.0] — Lab Sample ID: 720-72689-15

No Detections.

Client Sample ID: 1259PS102[0.5] — Lab Sample ID: 720-72689-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	31		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1259PS103[0.5] — Lab Sample ID: 720-72689-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	20		1.1		mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-2

Client Sample ID: 1278EX101[0.5]
Date Collected: 06/06/16 10:39
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-1
Matrix: Solid
Percent Solids: 80.1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 13:26	1
Acenaphthylene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 13:26	1
Anthracene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 13:26	1
Benzo[a]anthracene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 13:26	1
Benzo[a]pyrene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 13:26	1
Benzo[b]fluoranthene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 13:26	1
Benzo[g,h,i]perylene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 13:26	1
Benzo[k]fluoranthene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 13:26	1
Chrysene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 13:26	1
Dibenz(a,h)anthracene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 13:26	1
Fluoranthene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 13:26	1
Fluorene	**8.8**		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 13:26	1
Indeno[1,2,3-cd]pyrene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 13:26	1
Naphthalene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 13:26	1
Phenanthrene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 13:26	1
Pyrene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 13:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*95*		*53 - 113*	*06/15/16 12:23*	*06/21/16 13:26*	*1*
Terphenyl-d14	*102*		*70 - 144*	*06/15/16 12:23*	*06/21/16 13:26*	*1*
2-Fluorobiphenyl (Surr)	*95*		*53 - 113*	*06/15/16 12:23*	*06/21/16 13:26*	*1*

Client Sample ID: 1278EX102[0.5]

Date Collected: 06/06/16 10:34
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-2

Matrix: Solid
Percent Solids: 64.4

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		8.2		ug/Kg	☼	06/15/16 12:23	06/21/16 13:55	1
Acenaphthylene	ND		8.2		ug/Kg	☼	06/15/16 12:23	06/21/16 13:55	1
Anthracene	ND		8.2		ug/Kg	☼	06/15/16 12:23	06/21/16 13:55	1
Benzo[a]anthracene	**23**		8.2		ug/Kg	☼	06/15/16 12:23	06/21/16 13:55	1
Benzo[a]pyrene	**35**		8.2		ug/Kg	☼	06/15/16 12:23	06/21/16 13:55	1
Benzo[b]fluoranthene	**45**		8.2		ug/Kg	☼	06/15/16 12:23	06/21/16 13:55	1
Benzo[g,h,i]perylene	**15**		8.2		ug/Kg	☼	06/15/16 12:23	06/21/16 13:55	1
Benzo[k]fluoranthene	**14**		8.2		ug/Kg	☼	06/15/16 12:23	06/21/16 13:55	1
Chrysene	**35**		8.2		ug/Kg	☼	06/15/16 12:23	06/21/16 13:55	1
Dibenz(a,h)anthracene	ND		8.2		ug/Kg	☼	06/15/16 12:23	06/21/16 13:55	1
Fluoranthene	**39**		8.2		ug/Kg	☼	06/15/16 12:23	06/21/16 13:55	1
Fluorene	**17**		8.2		ug/Kg	☼	06/15/16 12:23	06/21/16 13:55	1
Indeno[1,2,3-cd]pyrene	**17**		8.2		ug/Kg	☼	06/15/16 12:23	06/21/16 13:55	1
Naphthalene	ND		8.2		ug/Kg	☼	06/15/16 12:23	06/21/16 13:55	1
Phenanthrene	**25**		8.2		ug/Kg	☼	06/15/16 12:23	06/21/16 13:55	1
Pyrene	**41**		8.2		ug/Kg	☼	06/15/16 12:23	06/21/16 13:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*97*		*53 - 113*	*06/15/16 12:23*	*06/21/16 13:55*	*1*
Terphenyl-d14	*94*		*70 - 144*	*06/15/16 12:23*	*06/21/16 13:55*	*1*
2-Fluorobiphenyl (Surr)	*92*		*53 - 113*	*06/15/16 12:23*	*06/21/16 13:55*	*1*

Method: 8290 - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.5		pg/g	☼	06/14/16 11:52	06/23/16 22:10	1
2,3,7,8-TCDF	ND		1.5		pg/g	☼	06/14/16 11:52	06/23/16 22:10	1
1,2,3,7,8-PeCDD	ND		7.7		pg/g	☼	06/14/16 11:52	06/23/16 22:10	1
1,2,3,7,8-PeCDF	ND		7.7		pg/g	☼	06/14/16 11:52	06/23/16 22:10	1
2,3,4,7,8-PeCDF	ND		7.7		pg/g	☼	06/14/16 11:52	06/23/16 22:10	1
1,2,3,4,7,8-HxCDD	ND		7.7		pg/g	☼	06/14/16 11:52	06/23/16 22:10	1
1,2,3,6,7,8-HxCDD	ND		7.7		pg/g	☼	06/14/16 11:52	06/23/16 22:10	1
1,2,3,7,8,9-HxCDD	ND		7.7		pg/g	☼	06/14/16 11:52	06/23/16 22:10	1
1,2,3,4,7,8-HxCDF	ND		7.7		pg/g	☼	06/14/16 11:52	06/23/16 22:10	1
1,2,3,6,7,8-HxCDF	ND		7.7		pg/g	☼	06/14/16 11:52	06/23/16 22:10	1
2,3,4,6,7,8-HxCDF	ND		7.7		pg/g	☼	06/14/16 11:52	06/23/16 22:10	1
1,2,3,7,8,9-HxCDF	ND		7.7		pg/g	☼	06/14/16 11:52	06/23/16 22:10	1
1,2,3,4,6,7,8-HpCDD	ND		7.7		pg/g	☼	06/14/16 11:52	06/23/16 22:10	1
1,2,3,4,6,7,8-HpCDF	ND		7.7		pg/g	☼	06/14/16 11:52	06/23/16 22:10	1
1,2,3,4,7,8,9-HpCDF	ND	*	7.7		pg/g	☼	06/14/16 11:52	06/23/16 22:10	1
OCDD	**15**		15		pg/g	☼	06/14/16 11:52	06/23/16 22:10	1
OCDF	ND		15		pg/g	☼	06/14/16 11:52	06/23/16 22:10	1
Total TCDD	ND		1.5		pg/g	☼	06/14/16 11:52	06/23/16 22:10	1
Total TCDF	ND		1.5		pg/g	☼	06/14/16 11:52	06/23/16 22:10	1
Total PeCDD	ND		7.7		pg/g	☼	06/14/16 11:52	06/23/16 22:10	1
Total PeCDF	ND		7.7		pg/g	☼	06/14/16 11:52	06/23/16 22:10	1
Total HxCDD	ND		7.7		pg/g	☼	06/14/16 11:52	06/23/16 22:10	1
Total HxCDF	ND		7.7		pg/g	☼	06/14/16 11:52	06/23/16 22:10	1
Total HpCDD	ND		7.7		pg/g	☼	06/14/16 11:52	06/23/16 22:10	1
Total HpCDF	ND		7.7		pg/g	☼	06/14/16 11:52	06/23/16 22:10	1

Client Sample ID: 1278EX102[0.5]
Date Collected: 06/06/16 10:34
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-2
Matrix: Solid
Percent Solids: 64.4

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	76		40 - 135	06/14/16 11:52	06/23/16 22:10	1
13C-2,3,7,8-TCDF	73		40 - 135	06/14/16 11:52	06/23/16 22:10	1
13C-1,2,3,7,8-PeCDD	78		40 - 135	06/14/16 11:52	06/23/16 22:10	1
13C-1,2,3,7,8-PeCDF	74		40 - 135	06/14/16 11:52	06/23/16 22:10	1
13C-1,2,3,6,7,8-HxCDD	79		40 - 135	06/14/16 11:52	06/23/16 22:10	1
13C-1,2,3,4,7,8-HxCDF	74		40 - 135	06/14/16 11:52	06/23/16 22:10	1
13C-1,2,3,4,6,7,8-HpCDD	91		40 - 135	06/14/16 11:52	06/23/16 22:10	1
13C-1,2,3,4,6,7,8-HpCDF	81		40 - 135	06/14/16 11:52	06/23/16 22:10	1
13C-OCDD	82		40 - 135	06/14/16 11:52	06/23/16 22:10	1

Client Sample ID: 1278PS101[0.5]
Date Collected: 06/06/16 10:05
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-3
Matrix: Solid
Percent Solids: 67.7

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		68		ug/Kg	☼	06/15/16 12:23	06/21/16 20:13	10
Acenaphthylene	ND		68		ug/Kg	☼	06/15/16 12:23	06/21/16 20:13	10
Anthracene	ND		68		ug/Kg	☼	06/15/16 12:23	06/21/16 20:13	10
Benzo[a]anthracene	ND		68		ug/Kg	☼	06/15/16 12:23	06/21/16 20:13	10
Benzo[a]pyrene	ND		68		ug/Kg	☼	06/15/16 12:23	06/21/16 20:13	10
Benzo[b]fluoranthene	ND		68		ug/Kg	☼	06/15/16 12:23	06/21/16 20:13	10
Benzo[g,h,i]perylene	ND		68		ug/Kg	☼	06/15/16 12:23	06/21/16 20:13	10
Benzo[k]fluoranthene	ND		68		ug/Kg	☼	06/15/16 12:23	06/21/16 20:13	10
Chrysene	ND		68		ug/Kg	☼	06/15/16 12:23	06/21/16 20:13	10
Dibenz(a,h)anthracene	ND		68		ug/Kg	☼	06/15/16 12:23	06/21/16 20:13	10
Fluoranthene	ND		68		ug/Kg	☼	06/15/16 12:23	06/21/16 20:13	10
Fluorene	ND		68		ug/Kg	☼	06/15/16 12:23	06/21/16 20:13	10
Indeno[1,2,3-cd]pyrene	ND		68		ug/Kg	☼	06/15/16 12:23	06/21/16 20:13	10
Naphthalene	ND		68		ug/Kg	☼	06/15/16 12:23	06/21/16 20:13	10
Phenanthrene	ND		68		ug/Kg	☼	06/15/16 12:23	06/21/16 20:13	10
Pyrene	ND		68		ug/Kg	☼	06/15/16 12:23	06/21/16 20:13	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*113*		*53 - 113*	*06/15/16 12:23*	*06/21/16 20:13*	*10*
Terphenyl-d14	*0*	*X*	*70 - 144*	*06/15/16 12:23*	*06/21/16 20:13*	*10*
2-Fluorobiphenyl (Surr)	*105*		*53 - 113*	*06/15/16 12:23*	*06/21/16 20:13*	*10*

Client Sample ID: 1278PS102[0.5]
Date Collected: 06/06/16 10:12
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-4
Matrix: Solid
Percent Solids: 79.7

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		6.8		ug/Kg	☼	06/15/16 12:23	06/21/16 14:53	1
Acenaphthylene	ND		6.8		ug/Kg	☼	06/15/16 12:23	06/21/16 14:53	1
Anthracene	ND		6.8		ug/Kg	☼	06/15/16 12:23	06/21/16 14:53	1
Benzo[a]anthracene	ND		6.8		ug/Kg	☼	06/15/16 12:23	06/21/16 14:53	1
Benzo[a]pyrene	ND		6.8		ug/Kg	☼	06/15/16 12:23	06/21/16 14:53	1
Benzo[b]fluoranthene	ND		6.8		ug/Kg	☼	06/15/16 12:23	06/21/16 14:53	1
Benzo[g,h,i]perylene	ND		6.8		ug/Kg	☼	06/15/16 12:23	06/21/16 14:53	1
Benzo[k]fluoranthene	ND		6.8		ug/Kg	☼	06/15/16 12:23	06/21/16 14:53	1
Chrysene	ND		6.8		ug/Kg	☼	06/15/16 12:23	06/21/16 14:53	1
Dibenz(a,h)anthracene	ND		6.8		ug/Kg	☼	06/15/16 12:23	06/21/16 14:53	1
Fluoranthene	ND		6.8		ug/Kg	☼	06/15/16 12:23	06/21/16 14:53	1
Fluorene	**11**		6.8		ug/Kg	☼	06/15/16 12:23	06/21/16 14:53	1
Indeno[1,2,3-cd]pyrene	ND		6.8		ug/Kg	☼	06/15/16 12:23	06/21/16 14:53	1
Naphthalene	ND		6.8		ug/Kg	☼	06/15/16 12:23	06/21/16 14:53	1
Phenanthrene	**8.0**		6.8		ug/Kg	☼	06/15/16 12:23	06/21/16 14:53	1
Pyrene	ND		6.8		ug/Kg	☼	06/15/16 12:23	06/21/16 14:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*95*		*53 - 113*	*06/15/16 12:23*	*06/21/16 14:53*	*1*
Terphenyl-d14	*106*		*70 - 144*	*06/15/16 12:23*	*06/21/16 14:53*	*1*
2-Fluorobiphenyl (Surr)	*98*		*53 - 113*	*06/15/16 12:23*	*06/21/16 14:53*	*1*

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-2

Client Sample ID: 1278PS103[0.5]
Date Collected: 06/06/16 10:21
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-5
Matrix: Solid
Percent Solids: 75.9

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		6.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:22	1
Acenaphthylene	ND		6.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:22	1
Anthracene	ND		6.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:22	1
Benzo[a]anthracene	ND		6.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:22	1
Benzo[a]pyrene	ND		6.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:22	1
Benzo[b]fluoranthene	ND		6.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:22	1
Benzo[g,h,i]perylene	ND		6.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:22	1
Benzo[k]fluoranthene	ND		6.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:22	1
Chrysene	ND		6.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:22	1
Dibenz(a,h)anthracene	ND		6.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:22	1
Fluoranthene	ND		6.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:22	1
Fluorene	ND		6.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:22	1
Indeno[1,2,3-cd]pyrene	ND		6.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:22	1
Naphthalene	ND		6.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:22	1
Phenanthrene	ND		6.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:22	1
Pyrene	ND		6.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*90*		*53 - 113*	*06/15/16 12:23*	*06/21/16 15:22*	*1*
Terphenyl-d14	*108*		*70 - 144*	*06/15/16 12:23*	*06/21/16 15:22*	*1*
2-Fluorobiphenyl (Surr)	*94*		*53 - 113*	*06/15/16 12:23*	*06/21/16 15:22*	*1*

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-2

Client Sample ID: 1278PS104[0.5]
Date Collected: 06/06/16 10:25
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-6
Matrix: Solid
Percent Solids: 86.1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:51	1
Acenaphthylene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:51	1
Anthracene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:51	1
Benzo[a]anthracene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:51	1
Benzo[a]pyrene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:51	1
Benzo[b]fluoranthene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:51	1
Benzo[g,h,i]perylene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:51	1
Benzo[k]fluoranthene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:51	1
Chrysene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:51	1
Dibenz(a,h)anthracene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:51	1
Fluoranthene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:51	1
Fluorene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:51	1
Indeno[1,2,3-cd]pyrene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:51	1
Naphthalene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:51	1
Phenanthrene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:51	1
Pyrene	ND		5.9		ug/Kg	☼	06/15/16 12:23	06/21/16 15:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*92*		*53 - 113*	*06/15/16 12:23*	*06/21/16 15:51*	*1*
Terphenyl-d14	*103*		*70 - 144*	*06/15/16 12:23*	*06/21/16 15:51*	*1*
2-Fluorobiphenyl (Surr)	*95*		*53 - 113*	*06/15/16 12:23*	*06/21/16 15:51*	*1*

Client Sample ID: 1279PS101[0.5]
Date Collected: 06/06/16 11:15
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-9
Matrix: Solid
Percent Solids: 87.1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 16:20	10
Acenaphthylene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 16:20	10
Anthracene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 16:20	10
Benzo[a]anthracene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 16:20	10
Benzo[a]pyrene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 16:20	10
Benzo[b]fluoranthene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 16:20	10
Benzo[g,h,i]perylene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 16:20	10
Benzo[k]fluoranthene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 16:20	10
Chrysene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 16:20	10
Dibenz(a,h)anthracene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 16:20	10
Fluoranthene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 16:20	10
Fluorene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 16:20	10
Indeno[1,2,3-cd]pyrene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 16:20	10
Naphthalene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 16:20	10
Phenanthrene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 16:20	10
Pyrene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 16:20	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*104*		*53 - 113*	*06/15/16 12:23*	*06/21/16 16:20*	*10*
Terphenyl-d14	*108*		*70 - 144*	*06/15/16 12:23*	*06/21/16 16:20*	*10*
2-Fluorobiphenyl (Surr)	*101*		*53 - 113*	*06/15/16 12:23*	*06/21/16 16:20*	*10*

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-2

Client Sample ID: 1279PS102[1.0]
Date Collected: 06/06/16 11:21
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-10
Matrix: Solid
Percent Solids: 82.1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		58		ug/Kg	☼	06/15/16 12:23	06/21/16 16:50	10
Acenaphthylene	ND		58		ug/Kg	☼	06/15/16 12:23	06/21/16 16:50	10
Anthracene	ND		58		ug/Kg	☼	06/15/16 12:23	06/21/16 16:50	10
Benzo[a]anthracene	ND		58		ug/Kg	☼	06/15/16 12:23	06/21/16 16:50	10
Benzo[a]pyrene	ND		58		ug/Kg	☼	06/15/16 12:23	06/21/16 16:50	10
Benzo[b]fluoranthene	ND		58		ug/Kg	☼	06/15/16 12:23	06/21/16 16:50	10
Benzo[g,h,i]perylene	ND		58		ug/Kg	☼	06/15/16 12:23	06/21/16 16:50	10
Benzo[k]fluoranthene	ND		58		ug/Kg	☼	06/15/16 12:23	06/21/16 16:50	10
Chrysene	ND		58		ug/Kg	☼	06/15/16 12:23	06/21/16 16:50	10
Dibenz(a,h)anthracene	ND		58		ug/Kg	☼	06/15/16 12:23	06/21/16 16:50	10
Fluoranthene	ND		58		ug/Kg	☼	06/15/16 12:23	06/21/16 16:50	10
Fluorene	ND		58		ug/Kg	☼	06/15/16 12:23	06/21/16 16:50	10
Indeno[1,2,3-cd]pyrene	ND		58		ug/Kg	☼	06/15/16 12:23	06/21/16 16:50	10
Naphthalene	ND		58		ug/Kg	☼	06/15/16 12:23	06/21/16 16:50	10
Phenanthrene	ND		58		ug/Kg	☼	06/15/16 12:23	06/21/16 16:50	10
Pyrene	ND		58		ug/Kg	☼	06/15/16 12:23	06/21/16 16:50	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*103*		*53 - 113*	*06/15/16 12:23*	*06/21/16 16:50*	*10*
Terphenyl-d14	*108*		*70 - 144*	*06/15/16 12:23*	*06/21/16 16:50*	*10*
2-Fluorobiphenyl (Surr)	*99*		*53 - 113*	*06/15/16 12:23*	*06/21/16 16:50*	*10*

Client Sample ID: 1279PS103[0.5]
Date Collected: 06/06/16 11:26
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-11
Matrix: Solid
Percent Solids: 85.4

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		64		ug/Kg	☼	06/15/16 12:23	06/21/16 17:19	10
Acenaphthylene	ND		64		ug/Kg	☼	06/15/16 12:23	06/21/16 17:19	10
Anthracene	ND		64		ug/Kg	☼	06/15/16 12:23	06/21/16 17:19	10
Benzo[a]anthracene	ND		64		ug/Kg	☼	06/15/16 12:23	06/21/16 17:19	10
Benzo[a]pyrene	ND		64		ug/Kg	☼	06/15/16 12:23	06/21/16 17:19	10
Benzo[b]fluoranthene	ND		64		ug/Kg	☼	06/15/16 12:23	06/21/16 17:19	10
Benzo[g,h,i]perylene	ND		64		ug/Kg	☼	06/15/16 12:23	06/21/16 17:19	10
Benzo[k]fluoranthene	ND		64		ug/Kg	☼	06/15/16 12:23	06/21/16 17:19	10
Chrysene	ND		64		ug/Kg	☼	06/15/16 12:23	06/21/16 17:19	10
Dibenz(a,h)anthracene	ND		64		ug/Kg	☼	06/15/16 12:23	06/21/16 17:19	10
Fluoranthene	ND		64		ug/Kg	☼	06/15/16 12:23	06/21/16 17:19	10
Fluorene	ND		64		ug/Kg	☼	06/15/16 12:23	06/21/16 17:19	10
Indeno[1,2,3-cd]pyrene	ND		64		ug/Kg	☼	06/15/16 12:23	06/21/16 17:19	10
Naphthalene	ND		64		ug/Kg	☼	06/15/16 12:23	06/21/16 17:19	10
Phenanthrene	ND		64		ug/Kg	☼	06/15/16 12:23	06/21/16 17:19	10
Pyrene	ND		64		ug/Kg	☼	06/15/16 12:23	06/21/16 17:19	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*92*		*53 - 113*	*06/15/16 12:23*	*06/21/16 17:19*	*10*
Terphenyl-d14	*105*		*70 - 144*	*06/15/16 12:23*	*06/21/16 17:19*	*10*
2-Fluorobiphenyl (Surr)	*104*		*53 - 113*	*06/15/16 12:23*	*06/21/16 17:19*	*10*

Method: 8290 - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.2		pg/g	☼	06/14/16 11:52	06/24/16 15:51	1
2,3,7,8-TCDF	ND		1.2		pg/g	☼	06/14/16 11:52	06/24/16 15:51	1
1,2,3,7,8-PeCDD	ND		5.9		pg/g	☼	06/14/16 11:52	06/24/16 15:51	1
1,2,3,7,8-PeCDF	ND		5.9		pg/g	☼	06/14/16 11:52	06/24/16 15:51	1
2,3,4,7,8-PeCDF	ND		5.9		pg/g	☼	06/14/16 11:52	06/24/16 15:51	1
1,2,3,4,7,8-HxCDD	ND		5.9		pg/g	☼	06/14/16 11:52	06/24/16 15:51	1
1,2,3,6,7,8-HxCDD	ND		5.9		pg/g	☼	06/14/16 11:52	06/24/16 15:51	1
1,2,3,7,8,9-HxCDD	ND		5.9		pg/g	☼	06/14/16 11:52	06/24/16 15:51	1
1,2,3,4,7,8-HxCDF	ND		5.9		pg/g	☼	06/14/16 11:52	06/24/16 15:51	1
1,2,3,6,7,8-HxCDF	ND		5.9		pg/g	☼	06/14/16 11:52	06/24/16 15:51	1
2,3,4,6,7,8-HxCDF	ND		5.9		pg/g	☼	06/14/16 11:52	06/24/16 15:51	1
1,2,3,7,8,9-HxCDF	ND		5.9		pg/g	☼	06/14/16 11:52	06/24/16 15:51	1
1,2,3,4,6,7,8-HpCDD	**12**		5.9		pg/g	☼	06/14/16 11:52	06/24/16 15:51	1
1,2,3,4,6,7,8-HpCDF	ND		5.9		pg/g	☼	06/14/16 11:52	06/24/16 15:51	1
1,2,3,4,7,8,9-HpCDF	ND	*	5.9		pg/g	☼	06/14/16 11:52	06/24/16 15:51	1
OCDD	**100**		12		pg/g	☼	06/14/16 11:52	06/24/16 15:51	1
OCDF	**12**		12		pg/g	☼	06/14/16 11:52	06/24/16 15:51	1
Total TCDD	ND		1.2		pg/g	☼	06/14/16 11:52	06/24/16 15:51	1
Total TCDF	**3.7**		1.2		pg/g	☼	06/14/16 11:52	06/24/16 15:51	1
Total PeCDD	ND		5.9		pg/g	☼	06/14/16 11:52	06/24/16 15:51	1
Total PeCDF	ND		5.9		pg/g	☼	06/14/16 11:52	06/24/16 15:51	1
Total HxCDD	ND		5.9		pg/g	☼	06/14/16 11:52	06/24/16 15:51	1
Total HxCDF	ND		5.9		pg/g	☼	06/14/16 11:52	06/24/16 15:51	1
Total HpCDD	**19**		5.9		pg/g	☼	06/14/16 11:52	06/24/16 15:51	1
Total HpCDF	ND		5.9		pg/g	☼	06/14/16 11:52	06/24/16 15:51	1

Client Sample ID: 1279PS103[0.5]
Date Collected: 06/06/16 11:26
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-11
Matrix: Solid
Percent Solids: 85.4

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	75		40 - 135	06/14/16 11:52	06/24/16 15:51	1
13C-2,3,7,8-TCDF	75		40 - 135	06/14/16 11:52	06/24/16 15:51	1
13C-1,2,3,7,8-PeCDD	69		40 - 135	06/14/16 11:52	06/24/16 15:51	1
13C-1,2,3,7,8-PeCDF	72		40 - 135	06/14/16 11:52	06/24/16 15:51	1
13C-1,2,3,6,7,8-HxCDD	81		40 - 135	06/14/16 11:52	06/24/16 15:51	1
13C-1,2,3,4,7,8-HxCDF	81		40 - 135	06/14/16 11:52	06/24/16 15:51	1
13C-1,2,3,4,6,7,8-HpCDD	77		40 - 135	06/14/16 11:52	06/24/16 15:51	1
13C-1,2,3,4,6,7,8-HpCDF	82		40 - 135	06/14/16 11:52	06/24/16 15:51	1
13C-OCDD	69		40 - 135	06/14/16 11:52	06/24/16 15:51	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-2

Client Sample ID: 1279PS104[0.5]
Date Collected: 06/06/16 11:30
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-12
Matrix: Solid
Percent Solids: 84.9

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 17:48	10
Acenaphthylene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 17:48	10
Anthracene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 17:48	10
Benzo[a]anthracene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 17:48	10
Benzo[a]pyrene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 17:48	10
Benzo[b]fluoranthene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 17:48	10
Benzo[g,h,i]perylene	ND	F1	62		ug/Kg	☼	06/15/16 12:23	06/21/16 17:48	10
Benzo[k]fluoranthene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 17:48	10
Chrysene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 17:48	10
Dibenz(a,h)anthracene	ND	F1	62		ug/Kg	☼	06/15/16 12:23	06/21/16 17:48	10
Fluoranthene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 17:48	10
Fluorene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 17:48	10
Indeno[1,2,3-cd]pyrene	ND	F1	62		ug/Kg	☼	06/15/16 12:23	06/21/16 17:48	10
Naphthalene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 17:48	10
Phenanthrene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 17:48	10
Pyrene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 17:48	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*87*		*53 - 113*	*06/15/16 12:23*	*06/21/16 17:48*	*10*
Terphenyl-d14	*113*		*70 - 144*	*06/15/16 12:23*	*06/21/16 17:48*	*10*
2-Fluorobiphenyl (Surr)	*105*		*53 - 113*	*06/15/16 12:23*	*06/21/16 17:48*	*10*

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-2

Client Sample ID: 1279PS105[1.0]
Date Collected: 06/06/16 11:40
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-14
Matrix: Solid
Percent Solids: 84.9

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 19:15	10
Acenaphthylene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 19:15	10
Anthracene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 19:15	10
Benzo[a]anthracene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 19:15	10
Benzo[a]pyrene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 19:15	10
Benzo[b]fluoranthene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 19:15	10
Benzo[g,h,i]perylene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 19:15	10
Benzo[k]fluoranthene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 19:15	10
Chrysene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 19:15	10
Dibenz(a,h)anthracene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 19:15	10
Fluoranthene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 19:15	10
Fluorene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 19:15	10
Indeno[1,2,3-cd]pyrene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 19:15	10
Naphthalene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 19:15	10
Phenanthrene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 19:15	10
Pyrene	ND		62		ug/Kg	☼	06/15/16 12:23	06/21/16 19:15	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*103*		*53 - 113*	*06/15/16 12:23*	*06/21/16 19:15*	*10*
Terphenyl-d14	*111*		*70 - 144*	*06/15/16 12:23*	*06/21/16 19:15*	*10*
2-Fluorobiphenyl (Surr)	*104*		*53 - 113*	*06/15/16 12:23*	*06/21/16 19:15*	*10*

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-2

Client Sample ID: 1279PS106[1.0]
Date Collected: 06/06/16 11:45
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-15
Matrix: Solid
Percent Solids: 82.9

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		61		ug/Kg	☼	06/15/16 12:23	06/21/16 19:44	10
Acenaphthylene	ND		61		ug/Kg	☼	06/15/16 12:23	06/21/16 19:44	10
Anthracene	ND		61		ug/Kg	☼	06/15/16 12:23	06/21/16 19:44	10
Benzo[a]anthracene	ND		61		ug/Kg	☼	06/15/16 12:23	06/21/16 19:44	10
Benzo[a]pyrene	ND		61		ug/Kg	☼	06/15/16 12:23	06/21/16 19:44	10
Benzo[b]fluoranthene	ND		61		ug/Kg	☼	06/15/16 12:23	06/21/16 19:44	10
Benzo[g,h,i]perylene	ND		61		ug/Kg	☼	06/15/16 12:23	06/21/16 19:44	10
Benzo[k]fluoranthene	ND		61		ug/Kg	☼	06/15/16 12:23	06/21/16 19:44	10
Chrysene	ND		61		ug/Kg	☼	06/15/16 12:23	06/21/16 19:44	10
Dibenz(a,h)anthracene	ND		61		ug/Kg	☼	06/15/16 12:23	06/21/16 19:44	10
Fluoranthene	ND		61		ug/Kg	☼	06/15/16 12:23	06/21/16 19:44	10
Fluorene	ND		61		ug/Kg	☼	06/15/16 12:23	06/21/16 19:44	10
Indeno[1,2,3-cd]pyrene	ND		61		ug/Kg	☼	06/15/16 12:23	06/21/16 19:44	10
Naphthalene	ND		61		ug/Kg	☼	06/15/16 12:23	06/21/16 19:44	10
Phenanthrene	ND		61		ug/Kg	☼	06/15/16 12:23	06/21/16 19:44	10
Pyrene	ND		61		ug/Kg	☼	06/15/16 12:23	06/21/16 19:44	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*101*		*53 - 113*	*06/15/16 12:23*	*06/21/16 19:44*	*10*
Terphenyl-d14	*105*		*70 - 144*	*06/15/16 12:23*	*06/21/16 19:44*	*10*
2-Fluorobiphenyl (Surr)	*100*		*53 - 113*	*06/15/16 12:23*	*06/21/16 19:44*	*10*

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-2

Client Sample ID: 1259PS102[0.5]
Date Collected: 06/06/16 13:12
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-20
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.0		0.1		%			06/21/16 16:29	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-2

Client Sample ID: 1259PS102[0.5]
Date Collected: 06/06/16 13:12
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-20
Matrix: Solid
Percent Solids: 84.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	31		1.2		mg/Kg	☼	06/21/16 07:00	06/21/16 18:27	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-2

Client Sample ID: 1259PS103[0.5]
Date Collected: 06/06/16 13:25
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-23
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10		0.1		%			06/17/16 13:18	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-2

Client Sample ID: 1259PS103[0.5]
Date Collected: 06/06/16 13:25
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-23
Matrix: Solid
Percent Solids: 90.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	20		1.1		mg/Kg	☼	06/21/16 07:00	06/21/16 18:30	1

Surrogate Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-2

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		NBZ	TPH	FBP
Lab Sample ID	Client Sample ID	(53-113)	(70-144)	(53-113)
720-72689-1	1278EX101[0.5]	95	102	95
720-72689-2	1278EX102[0.5]	97	94	92
720-72689-3	1278PS101[0.5]	113	0 X	105
720-72689-4	1278PS102[0.5]	95	106	98
720-72689-5	1278PS103[0.5]	90	108	94
720-72689-6	1278PS104[0.5]	92	103	95
720-72689-9	1279PS101[0.5]	104	108	101
720-72689-10	1279PS102[1.0]	103	108	99
720-72689-11	1279PS103[0.5]	92	105	104
720-72689-12	1279PS104[0.5]	87	113	105
720-72689-12 MS	1279PS104[0.5]	86	98	92
720-72689-12 MSD	1279PS104[0.5]	95	111	104
720-72689-14	1279PS105[1.0]	103	111	104
720-72689-15	1279PS106[1.0]	101	105	100
LCS 320-113918/2-A	Lab Control Sample	96	106	97
MB 320-113918/1-A	Method Blank	90	107	91

Surrogate Legend

NBZ = Nitrobenzene-d5
TPH = Terphenyl-d14
FBP = 2-Fluorobiphenyl (Surr)

Isotope Dilution Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-2

Method: 8290 - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	TCDD (40-135)	TCDF (40-135)	PeCDD (40-135)	PeCDF1 (40-135)	HxCDD2 (40-135)	HxCDF1 (40-135)	HpCDD (40-135)	HpCDF1 (40-135)
720-72689-2	1278EX102[0.5]	76	73	78	74	79	74	91	81
720-72689-11	1279PS103[0.5]	75	75	69	72	81	81	77	82
LCS 320-113735/2-A	Lab Control Sample	78	74	79	75	81	75	93	84
MB 320-113735/1-A	Method Blank	66	63	67	64	70	65	81	72

		Percent Isotope Dilution Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	OCDD (40-135)
720-72689-2	1278EX102[0.5]	82
720-72689-11	1279PS103[0.5]	69
LCS 320-113735/2-A	Lab Control Sample	101
MB 320-113735/1-A	Method Blank	88

Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD
TCDF = 13C-2,3,7,8-TCDF
PeCDD = 13C-1,2,3,7,8-PeCDD
PeCDF1 = 13C-1,2,3,7,8-PeCDF
HxCDD2 = 13C-1,2,3,6,7,8-HxCDD
HxCDF1 = 13C-1,2,3,4,7,8-HxCDF
HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
HpCDF1 = 13C-1,2,3,4,6,7,8-HpCDF
OCDD = 13C-OCDD

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 320-113918/1-A
Matrix: Solid
Analysis Batch: 114670

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 113918

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Acenaphthylene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Anthracene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Benzo[a]anthracene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Benzo[a]pyrene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Chrysene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Fluoranthene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Fluorene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Naphthalene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Phenanthrene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1
Pyrene	ND		5.0		ug/Kg		06/15/16 12:23	06/21/16 11:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*90*		*53 - 113*	*06/15/16 12:23*	*06/21/16 11:58*	*1*
Terphenyl-d14	*107*		*70 - 144*	*06/15/16 12:23*	*06/21/16 11:58*	*1*
2-Fluorobiphenyl (Surr)	*91*		*53 - 113*	*06/15/16 12:23*	*06/21/16 11:58*	*1*

Lab Sample ID: LCS 320-113918/2-A
Matrix: Solid
Analysis Batch: 114670

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 113918

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	25.0	22.4		ug/Kg		90	51 - 111
Acenaphthylene	25.0	21.9		ug/Kg		88	51 - 111
Anthracene	25.0	22.0		ug/Kg		88	54 - 114
Benzo[a]anthracene	25.0	22.9		ug/Kg		92	66 - 126
Benzo[a]pyrene	25.0	22.1		ug/Kg		89	64 - 124
Benzo[b]fluoranthene	25.0	23.9		ug/Kg		95	65 - 125
Benzo[g,h,i]perylene	25.0	25.3		ug/Kg		101	54 - 134
Benzo[k]fluoranthene	25.0	23.6		ug/Kg		95	69 - 129
Chrysene	25.0	24.8		ug/Kg		99	67 - 127
Dibenz(a,h)anthracene	25.0	25.6		ug/Kg		103	58 - 128
Fluoranthene	25.0	23.3		ug/Kg		93	67 - 127
Fluorene	25.0	22.1		ug/Kg		88	54 - 114
Indeno[1,2,3-cd]pyrene	25.0	24.4		ug/Kg		97	59 - 133
Naphthalene	25.0	21.5		ug/Kg		86	52 - 112
Phenanthrene	25.0	22.2		ug/Kg		89	59 - 119
Pyrene	25.0	23.1		ug/Kg		92	71 - 131

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*96*		*53 - 113*
Terphenyl-d14	*106*		*70 - 144*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 320-113918/2-A
Matrix: Solid
Analysis Batch: 114670

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 113918

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	97		53 - 113

Lab Sample ID: 720-72689-12 MS
Matrix: Solid
Analysis Batch: 114670

Client Sample ID: 1279PS104[0.5]
Prep Type: Total/NA
Prep Batch: 113918

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	ND		30.6	ND		ug/Kg	☼	83	51 - 111
Acenaphthylene	ND		30.6	ND		ug/Kg	☼	85	51 - 111
Anthracene	ND		30.6	ND		ug/Kg	☼	89	54 - 114
Benzo[a]anthracene	ND		30.6	ND		ug/Kg	☼	109	66 - 126
Benzo[a]pyrene	ND		30.6	ND		ug/Kg	☼	100	64 - 124
Benzo[b]fluoranthene	ND		30.6	ND		ug/Kg	☼	112	65 - 125
Benzo[g,h,i]perylene	ND	F1	30.6	ND	F1	ug/Kg	☼	0	54 - 134
Benzo[k]fluoranthene	ND		30.6	ND		ug/Kg	☼	108	69 - 129
Chrysene	ND		30.6	ND		ug/Kg	☼	118	67 - 127
Dibenz(a,h)anthracene	ND	F1	30.6	ND	F1	ug/Kg	☼	0	58 - 128
Fluoranthene	ND		30.6	ND		ug/Kg	☼	123	67 - 127
Fluorene	ND		30.6	ND		ug/Kg	☼	80	54 - 114
Indeno[1,2,3-cd]pyrene	ND	F1	30.6	ND	F1	ug/Kg	☼	57	59 - 133
Naphthalene	ND		30.6	ND		ug/Kg	☼	79	52 - 112
Phenanthrene	ND		30.6	ND		ug/Kg	☼	92	59 - 119
Pyrene	ND		30.6	ND		ug/Kg	☼	122	71 - 131

Surrogate	MS %Recovery	MS Qualifier	Limits
Nitrobenzene-d5	86		53 - 113
Terphenyl-d14	98		70 - 144
2-Fluorobiphenyl (Surr)	92		53 - 113

Lab Sample ID: 720-72689-12 MSD
Matrix: Solid
Analysis Batch: 114670

Client Sample ID: 1279PS104[0.5]
Prep Type: Total/NA
Prep Batch: 113918

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	ND		29.2	ND		ug/Kg	☼	91	51 - 111	4	30
Acenaphthylene	ND		29.2	ND		ug/Kg	☼	93	51 - 111	4	30
Anthracene	ND		29.2	ND		ug/Kg	☼	95	54 - 114	1	30
Benzo[a]anthracene	ND		29.2	ND		ug/Kg	☼	111	66 - 126	3	30
Benzo[a]pyrene	ND		29.2	ND		ug/Kg	☼	101	64 - 124	3	30
Benzo[b]fluoranthene	ND		29.2	ND		ug/Kg	☼	111	65 - 125	5	30
Benzo[g,h,i]perylene	ND	F1	29.2	ND	F1	ug/Kg	☼	0	54 - 134	NC	30
Benzo[k]fluoranthene	ND		29.2	ND		ug/Kg	☼	120	69 - 129	6	30
Chrysene	ND		29.2	ND		ug/Kg	☼	117	67 - 127	6	30
Dibenz(a,h)anthracene	ND	F1	29.2	ND	F1	ug/Kg	☼	0	58 - 128	NC	30
Fluoranthene	ND		29.2	ND		ug/Kg	☼	117	67 - 127	10	30
Fluorene	ND		29.2	ND		ug/Kg	☼	89	54 - 114	6	30
Indeno[1,2,3-cd]pyrene	ND	F1	29.2	ND		ug/Kg	☼	59	59 - 133	1	30
Naphthalene	ND		29.2	ND		ug/Kg	☼	85	52 - 112	2	30

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 720-72689-12 MSD
Matrix: Solid
Analysis Batch: 114670

Client Sample ID: 1279PS104[0.5]
Prep Type: Total/NA
Prep Batch: 113918

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenanthrene	ND		29.2	ND		ug/Kg	☼	97	59 - 119	0	30
Pyrene	ND		29.2	ND		ug/Kg	☼	115	71 - 131	10	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Nitrobenzene-d5	*95*		*53 - 113*
Terphenyl-d14	*111*		*70 - 144*
2-Fluorobiphenyl (Surr)	*104*		*53 - 113*

Method: 8290 - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 320-113735/1-A
Matrix: Solid
Analysis Batch: 114990

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 113735

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
2,3,7,8-TCDF	ND		1.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
1,2,3,7,8-PeCDD	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
1,2,3,7,8-PeCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
2,3,4,7,8-PeCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
1,2,3,4,7,8-HxCDD	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
1,2,3,6,7,8-HxCDD	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
1,2,3,7,8,9-HxCDD	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
1,2,3,4,7,8-HxCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
1,2,3,6,7,8-HxCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
2,3,4,6,7,8-HxCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
1,2,3,7,8,9-HxCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
1,2,3,4,6,7,8-HpCDD	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
1,2,3,4,6,7,8-HpCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
1,2,3,4,7,8,9-HpCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
OCDD	ND		10		pg/g		06/14/16 11:52	06/23/16 04:44	1
OCDF	ND		10		pg/g		06/14/16 11:52	06/23/16 04:44	1
Total TCDD	ND		1.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
Total TCDF	ND		1.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
Total PeCDD	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
Total PeCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
Total HxCDD	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
Total HxCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
Total HpCDD	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1
Total HpCDF	ND		5.0		pg/g		06/14/16 11:52	06/23/16 04:44	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*66*		*40 - 135*	*06/14/16 11:52*	*06/23/16 04:44*	*1*
13C-2,3,7,8-TCDF	*63*		*40 - 135*	*06/14/16 11:52*	*06/23/16 04:44*	*1*
13C-1,2,3,7,8-PeCDD	*67*		*40 - 135*	*06/14/16 11:52*	*06/23/16 04:44*	*1*
13C-1,2,3,7,8-PeCDF	*64*		*40 - 135*	*06/14/16 11:52*	*06/23/16 04:44*	*1*
13C-1,2,3,6,7,8-HxCDD	*70*		*40 - 135*	*06/14/16 11:52*	*06/23/16 04:44*	*1*
13C-1,2,3,4,7,8-HxCDF	*65*		*40 - 135*	*06/14/16 11:52*	*06/23/16 04:44*	*1*

Method: 8290 - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-113735/1-A
Matrix: Solid
Analysis Batch: 114990

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 113735

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDD	81		40 - 135	06/14/16 11:52	06/23/16 04:44	1
13C-1,2,3,4,6,7,8-HpCDF	72		40 - 135	06/14/16 11:52	06/23/16 04:44	1
13C-OCDD	88		40 - 135	06/14/16 11:52	06/23/16 04:44	1

Lab Sample ID: LCS 320-113735/2-A
Matrix: Solid
Analysis Batch: 114990

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 113735

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,7,8-TCDD	20.0	24.6		pg/g		123	60 - 138
2,3,7,8-TCDF	20.0	24.7		pg/g		123	56 - 158
1,2,3,7,8-PeCDD	100	121		pg/g		121	70 - 122
1,2,3,7,8-PeCDF	100	124		pg/g		124	69 - 134
2,3,4,7,8-PeCDF	100	122		pg/g		122	70 - 131
1,2,3,4,7,8-HxCDD	100	123		pg/g		123	60 - 138
1,2,3,6,7,8-HxCDD	100	121		pg/g		121	68 - 136
1,2,3,7,8,9-HxCDD	100	121		pg/g		121	68 - 138
1,2,3,4,7,8-HxCDF	100	126		pg/g		126	74 - 128
1,2,3,6,7,8-HxCDF	100	126		pg/g		126	67 - 140
2,3,4,6,7,8-HxCDF	100	128		pg/g		128	71 - 137
1,2,3,7,8,9-HxCDF	100	126		pg/g		126	72 - 134
1,2,3,4,6,7,8-HpCDD	100	121		pg/g		121	71 - 128
1,2,3,4,6,7,8-HpCDF	100	121		pg/g		121	71 - 134
1,2,3,4,7,8,9-HpCDF	100	135	*	pg/g		135	68 - 129
OCDD	200	243		pg/g		122	70 - 128
OCDF	200	235		pg/g		117	63 - 141

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C-2,3,7,8-TCDD	78		40 - 135
13C-2,3,7,8-TCDF	74		40 - 135
13C-1,2,3,7,8-PeCDD	79		40 - 135
13C-1,2,3,7,8-PeCDF	75		40 - 135
13C-1,2,3,6,7,8-HxCDD	81		40 - 135
13C-1,2,3,4,7,8-HxCDF	75		40 - 135
13C-1,2,3,4,6,7,8-HpCDD	93		40 - 135
13C-1,2,3,4,6,7,8-HpCDF	84		40 - 135
13C-OCDD	101		40 - 135

Method: D 2216 - Percent Moisture

Lab Sample ID: 720-72689-23 DU
Matrix: Solid
Analysis Batch: 114259

Client Sample ID: 1259PS103[0.5]
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	10		10.3		%		3	20

GC/MS Semi VOA

Prep Batch: 113918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-1	1278EX101[0.5]	Total/NA	Solid	3550B	
720-72689-2	1278EX102[0.5]	Total/NA	Solid	3550B	
720-72689-3	1278PS101[0.5]	Total/NA	Solid	3550B	
720-72689-4	1278PS102[0.5]	Total/NA	Solid	3550B	
720-72689-5	1278PS103[0.5]	Total/NA	Solid	3550B	
720-72689-6	1278PS104[0.5]	Total/NA	Solid	3550B	
720-72689-9	1279PS101[0.5]	Total/NA	Solid	3550B	
720-72689-10	1279PS102[1.0]	Total/NA	Solid	3550B	
720-72689-11	1279PS103[0.5]	Total/NA	Solid	3550B	
720-72689-12	1279PS104[0.5]	Total/NA	Solid	3550B	
720-72689-12 MS	1279PS104[0.5]	Total/NA	Solid	3550B	
720-72689-12 MSD	1279PS104[0.5]	Total/NA	Solid	3550B	
720-72689-14	1279PS105[1.0]	Total/NA	Solid	3550B	
720-72689-15	1279PS106[1.0]	Total/NA	Solid	3550B	
LCS 320-113918/2-A	Lab Control Sample	Total/NA	Solid	3550B	
MB 320-113918/1-A	Method Blank	Total/NA	Solid	3550B	

Analysis Batch: 114670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-1	1278EX101[0.5]	Total/NA	Solid	8270C SIM	113918
720-72689-2	1278EX102[0.5]	Total/NA	Solid	8270C SIM	113918
720-72689-3	1278PS101[0.5]	Total/NA	Solid	8270C SIM	113918
720-72689-4	1278PS102[0.5]	Total/NA	Solid	8270C SIM	113918
720-72689-5	1278PS103[0.5]	Total/NA	Solid	8270C SIM	113918
720-72689-6	1278PS104[0.5]	Total/NA	Solid	8270C SIM	113918
720-72689-9	1279PS101[0.5]	Total/NA	Solid	8270C SIM	113918
720-72689-10	1279PS102[1.0]	Total/NA	Solid	8270C SIM	113918
720-72689-11	1279PS103[0.5]	Total/NA	Solid	8270C SIM	113918
720-72689-12	1279PS104[0.5]	Total/NA	Solid	8270C SIM	113918
720-72689-12 MS	1279PS104[0.5]	Total/NA	Solid	8270C SIM	113918
720-72689-12 MSD	1279PS104[0.5]	Total/NA	Solid	8270C SIM	113918
720-72689-14	1279PS105[1.0]	Total/NA	Solid	8270C SIM	113918
720-72689-15	1279PS106[1.0]	Total/NA	Solid	8270C SIM	113918
LCS 320-113918/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	113918
MB 320-113918/1-A	Method Blank	Total/NA	Solid	8270C SIM	113918

Specialty Organics

Prep Batch: 113735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-2	1278EX102[0.5]	Total/NA	Solid	8290	
720-72689-11	1279PS103[0.5]	Total/NA	Solid	8290	
LCS 320-113735/2-A	Lab Control Sample	Total/NA	Solid	8290	
MB 320-113735/1-A	Method Blank	Total/NA	Solid	8290	

Analysis Batch: 114990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 320-113735/2-A	Lab Control Sample	Total/NA	Solid	8290	113735
MB 320-113735/1-A	Method Blank	Total/NA	Solid	8290	113735

Specialty Organics (Continued)

Analysis Batch: 114992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-2	1278EX102[0.5]	Total/NA	Solid	8290	113735

Analysis Batch: 115260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-11	1279PS103[0.5]	Total/NA	Solid	8290	113735

Metals

Prep Batch: 114587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-20	1259PS102[0.5]	Total/NA	Solid	3050B	
720-72689-23	1259PS103[0.5]	Total/NA	Solid	3050B	

Analysis Batch: 114795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-20	1259PS102[0.5]	Total/NA	Solid	6010B	114587
720-72689-23	1259PS103[0.5]	Total/NA	Solid	6010B	114587

General Chemistry

Analysis Batch: 114259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-23	1259PS103[0.5]	Total/NA	Solid	D 2216	
720-72689-23 DU	1259PS103[0.5]	Total/NA	Solid	D 2216	

Analysis Batch: 114756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-20	1259PS102[0.5]	Total/NA	Solid	D 2216	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-2

Client Sample ID: 1278EX101[0.5]
Lab Sample ID: 720-72689-1
Date Collected: 06/06/16 10:39
Matrix: Solid
Date Received: 06/06/16 16:57
Percent Solids: 80.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			113918	06/15/16 12:23	M1A	TAL SAC
Total/NA	Analysis	8270C SIM		1	114670	06/21/16 13:26	MEO	TAL SAC

Client Sample ID: 1278EX102[0.5]
Lab Sample ID: 720-72689-2
Date Collected: 06/06/16 10:34
Matrix: Solid
Date Received: 06/06/16 16:57
Percent Solids: 64.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			113918	06/15/16 12:23	M1A	TAL SAC
Total/NA	Analysis	8270C SIM		1	114670	06/21/16 13:55	MEO	TAL SAC
Total/NA	Prep	8290			113735	06/14/16 11:52	BNB	TAL SAC
Total/NA	Analysis	8290		1	114992	06/23/16 22:10	SMA	TAL SAC

Client Sample ID: 1278PS101[0.5]
Lab Sample ID: 720-72689-3
Date Collected: 06/06/16 10:05
Matrix: Solid
Date Received: 06/06/16 16:57
Percent Solids: 67.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			113918	06/15/16 12:23	M1A	TAL SAC
Total/NA	Analysis	8270C SIM		10	114670	06/21/16 20:13	MEO	TAL SAC

Client Sample ID: 1278PS102[0.5]
Lab Sample ID: 720-72689-4
Date Collected: 06/06/16 10:12
Matrix: Solid
Date Received: 06/06/16 16:57
Percent Solids: 79.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			113918	06/15/16 12:23	M1A	TAL SAC
Total/NA	Analysis	8270C SIM		1	114670	06/21/16 14:53	MEO	TAL SAC

Client Sample ID: 1278PS103[0.5]
Lab Sample ID: 720-72689-5
Date Collected: 06/06/16 10:21
Matrix: Solid
Date Received: 06/06/16 16:57
Percent Solids: 75.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			113918	06/15/16 12:23	M1A	TAL SAC
Total/NA	Analysis	8270C SIM		1	114670	06/21/16 15:22	MEO	TAL SAC

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-2

Client Sample ID: 1278PS104[0.5]

Lab Sample ID: 720-72689-6
Date Collected: 06/06/16 10:25
Matrix: Solid
Date Received: 06/06/16 16:57
Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			113918	06/15/16 12:23	M1A	TAL SAC
Total/NA	Analysis	8270C SIM		1	114670	06/21/16 15:51	MEO	TAL SAC

Client Sample ID: 1279PS101[0.5]

Lab Sample ID: 720-72689-9
Date Collected: 06/06/16 11:15
Matrix: Solid
Date Received: 06/06/16 16:57
Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			113918	06/15/16 12:23	M1A	TAL SAC
Total/NA	Analysis	8270C SIM		10	114670	06/21/16 16:20	MEO	TAL SAC

Client Sample ID: 1279PS102[1.0]

Lab Sample ID: 720-72689-10
Date Collected: 06/06/16 11:21
Matrix: Solid
Date Received: 06/06/16 16:57
Percent Solids: 82.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			113918	06/15/16 12:23	M1A	TAL SAC
Total/NA	Analysis	8270C SIM		10	114670	06/21/16 16:50	MEO	TAL SAC

Client Sample ID: 1279PS103[0.5]

Lab Sample ID: 720-72689-11
Date Collected: 06/06/16 11:26
Matrix: Solid
Date Received: 06/06/16 16:57
Percent Solids: 85.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			113918	06/15/16 12:23	M1A	TAL SAC
Total/NA	Analysis	8270C SIM		10	114670	06/21/16 17:19	MEO	TAL SAC
Total/NA	Prep	8290			113735	06/14/16 11:52	BNB	TAL SAC
Total/NA	Analysis	8290		1	115260	06/24/16 15:51	ALM	TAL SAC

Client Sample ID: 1279PS104[0.5]

Lab Sample ID: 720-72689-12
Date Collected: 06/06/16 11:30
Matrix: Solid
Date Received: 06/06/16 16:57
Percent Solids: 84.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			113918	06/15/16 12:23	M1A	TAL SAC
Total/NA	Analysis	8270C SIM		10	114670	06/21/16 17:48	MEO	TAL SAC

Client Sample ID: 1279PS105[1.0]

Lab Sample ID: 720-72689-14
Date Collected: 06/06/16 11:40
Matrix: Solid
Date Received: 06/06/16 16:57
Percent Solids: 84.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			113918	06/15/16 12:23	M1A	TAL SAC

Client Sample ID: 1279PS105[1.0]

Lab Sample ID: 720-72689-14
Date Collected: 06/06/16 11:40
Matrix: Solid
Date Received: 06/06/16 16:57
Percent Solids: 84.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270C SIM		10	114670	06/21/16 19:15	MEO	TAL SAC

Client Sample ID: 1279PS106[1.0]

Lab Sample ID: 720-72689-15
Date Collected: 06/06/16 11:45
Matrix: Solid
Date Received: 06/06/16 16:57
Percent Solids: 82.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			113918	06/15/16 12:23	M1A	TAL SAC
Total/NA	Analysis	8270C SIM		10	114670	06/21/16 19:44	MEO	TAL SAC

Client Sample ID: 1259PS102[0.5]

Lab Sample ID: 720-72689-20
Date Collected: 06/06/16 13:12
Matrix: Solid
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	114756	06/21/16 16:29	JMD	TAL SAC

Client Sample ID: 1259PS102[0.5]

Lab Sample ID: 720-72689-20
Date Collected: 06/06/16 13:12
Matrix: Solid
Date Received: 06/06/16 16:57
Percent Solids: 84.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			114587	06/21/16 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1	114795	06/21/16 18:27	CV1	TAL SAC

Client Sample ID: 1259PS103[0.5]

Lab Sample ID: 720-72689-23
Date Collected: 06/06/16 13:25
Matrix: Solid
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	114259	06/17/16 13:18	NKN	TAL SAC

Client Sample ID: 1259PS103[0.5]

Lab Sample ID: 720-72689-23
Date Collected: 06/06/16 13:25
Matrix: Solid
Date Received: 06/06/16 16:57
Percent Solids: 90.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			114587	06/21/16 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1	114795	06/21/16 18:30	CV1	TAL SAC

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-2

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Laboratory: TestAmerica Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-17
Alaska (UST)	State Program	10	UST-055	12-18-16
Arizona	State Program	9	AZ0708	08-11-16
Arkansas DEQ	State Program	6	88-0691	06-17-17
California	State Program	9	2897	01-31-17
Colorado	State Program	8	CA00044	08-31-16
Connecticut	State Program	1	PH-0691	06-30-17
Florida	NELAP	4	E87570	06-30-17
Hawaii	State Program	9	N/A	01-31-17
Illinois	NELAP	5	200060	03-17-17
Kansas	NELAP	7	E-10375	07-31-16
Louisiana	NELAP	6	30612	06-30-17
Maine	State Program	1	CA0004	04-18-18
Michigan	State Program	5	9947	01-31-18
Nevada	State Program	9	CA00044	07-31-16
New Jersey	NELAP	2	CA005	06-30-17
New York	NELAP	2	11666	04-01-17
Oregon	NELAP	10	4040	01-29-17
Pennsylvania	NELAP	3	68-01272	03-31-17
Texas	NELAP	6	T104704399	07-31-17
US Fish & Wildlife	Federal		LE148388-0	10-31-16
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-16
Utah	NELAP	8	CA00044	02-28-17
Virginia	NELAP	3	460278	03-14-17
Washington	State Program	10	C581	05-05-17
West Virginia (DW)	State Program	3	9930C	12-31-16
Wyoming	State Program	8	8TMS-L	01-29-17

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-2

Method	Method Description	Protocol	Laboratory
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL SAC
8290	Dioxins and Furans (HRGC/HRMS)	SW846	TAL SAC
6010B	Metals (ICP)	SW846	TAL SAC
D 2216	Percent Moisture	ASTM	TAL SAC

Protocol References:

ASTM = ASTM International

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-72689-1	1278EX101[0.5]	Solid	06/06/16 10:39	06/06/16 16:57
720-72689-2	1278EX102[0.5]	Solid	06/06/16 10:34	06/06/16 16:57
720-72689-3	1278PS101[0.5]	Solid	06/06/16 10:05	06/06/16 16:57
720-72689-4	1278PS102[0.5]	Solid	06/06/16 10:12	06/06/16 16:57
720-72689-5	1278PS103[0.5]	Solid	06/06/16 10:21	06/06/16 16:57
720-72689-6	1278PS104[0.5]	Solid	06/06/16 10:25	06/06/16 16:57
720-72689-9	1279PS101[0.5]	Solid	06/06/16 11:15	06/06/16 16:57
720-72689-10	1279PS102[1.0]	Solid	06/06/16 11:21	06/06/16 16:57
720-72689-11	1279PS103[0.5]	Solid	06/06/16 11:26	06/06/16 16:57
720-72689-12	1279PS104[0.5]	Solid	06/06/16 11:30	06/06/16 16:57
720-72689-14	1279PS105[1.0]	Solid	06/06/16 11:40	06/06/16 16:57
720-72689-15	1279PS106[1.0]	Solid	06/06/16 11:45	06/06/16 16:57
720-72689-20	1259PS102[0.5]	Solid	06/06/16 13:12	06/06/16 16:57
720-72689-23	1259PS103[0.5]	Solid	06/06/16 13:25	06/06/16 16:57

720-72689-2

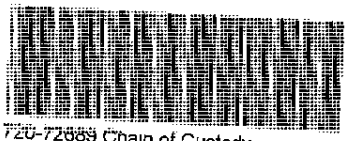
Sharma, Dimple

From: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Sent: Monday, June 13, 2016 5:13 PM
To: Sharma, Dimple
Subject: RE: TestAmerica EDD and report files from 720-72689-1 Presidio

Next round for this set:

1. Run 1259PS102[0.5] for Lead dry weight corrected
2. Run 1259PS103[0.5] for Lead dry weight corrected
3. Run 1278EX101[0.5] for As, Ba, Cu, Zn, PAHs (8270)
4. Run 1278EX102[0.5] for As, Ba, Cu, Zn, PAHs (8270), and Dioxins and Furans
5. Run 1278PS101[0.5] for As, Ba, Cu, Zn, PAHs (8270),
6. Run 1278PS102[0.5] for As, Ba, Cu, Zn, PAHs (8270),
7. Run 1278PS103[0.5] for As, Ba, Cu, Zn, PAHs (8270),
8. Run 1278PS104[0.5] for As, Ba, Cu, Zn, PAHs (8270),
9. Run 1279PS101[0.5] for As, Ba, Cu, Zn, PAHs (8270),
10. Run 1279PS102[1.0] for As, Ba, Cu, Zn, PAHs (8270),
11. Run 1279PS103[0.5] for As, Ba, Cu, Zn, PAHs (8270), and Dioxins and Furans
12. Run 1279PS104[0.5] for As, Ba, Cu, Zn, PAHs (8270),
13. Run 1279PS105[1.0] for As, Ba, Cu, Zn, PAHs (8270),
14. Run 1279PS106[1.0] for As, Ba, Cu, Zn, PAHs (8270),

Standard TAT for all of these, Thanks
Justin


720-72689 Chain of Custody

Justin Hanzel-Durbin
Senior Engineer/Project Manager
Environmental/Remediation

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415.644.3050 | F: 415.434.2321 | Cell: 415.209.3326

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JHanzel-Durbin@trcsolutions.com

From: Sharma, Dimple [mailto:dimple.sharma@testamericainc.com]
Sent: Monday, June 13, 2016 4:06 PM
To: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Subject: TestAmerica EDD and report files from 720-72689-1 Presidio

Hello,

Attached please find the EDD and report files for job 720-72689-1; Presidio

Please feel free to contact me if you have any questions.

Thank you.

720-72689-3

Sharma, Dimple

From: Boecher, Caroline <CBoecher@trcsolutions.com>
Sent: Thursday, June 16, 2016 4:43 PM
To: Sharma, Dimple
Cc: ALISON YOUNG SIM; Hanzel-Durbin, Justin
Subject: Additional Analyses - Lendrum Court

Hi Dimple,

Please authorize the following samples for analysis:

720-72655-1:

- 1257PS101[0.5] – Total Lead dry weight corrected

720-72689-1:

- 1259PS104[0.5] – Total Lead dry weight corrected

Please let me know if you have any questions—thanks!

Carrie Boecher
Project Engineer

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415.644.3002 | F: 415.434.2321 | C: 651.249.6543

LinkedIn | Twitter | Blog | Flickr | www.trcsolutions.com

720-72689 Chain of Custody

Sharma, Dimple

From: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Sent: Monday, June 20, 2016 2:55 PM
To: Caparas, Criselda; Sharma, Dimple
Cc: Boecher, Caroline; Salimpour, Afsaneh; Sharma, Dimple
Subject: RE: Additional Analyses

Ok so to get through this without losing any samples to hold time issues please log in all samples listed below today and get us results in the highlighted ones as soon as possible. In addition, please log in the following samples for PAH analyses only on standard TAT and just don't report them until we have reviewed the previous sample results.

J72725

- SLCPS104[1.0] 40
- SLCPS105[1.5] 42
- SLCPS106[1.5] 44
- SLCPS107[1.5] 46
- SLCPS108[1.0] 47 a
- SLCPS110[0.5] 49 a

720-72689-4

J72689

- 1279PS104[1.0] 13
- 1279PS106[2.0] 16

Please give me a ring if you have questions and sorry for all the confusion
Thanks
Justin

720-72689 Chain of Custody

Justin Hanzel-Durbin
Senior Engineer/Project Manager
Environmental/Remediation

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415.644.3050 | F: 415.434.2321 | Cell: 415.209.3326

Follow us on LinkedIn or Twitter | www.trcsolutions.com
JHanzel-Durbin@trcsolutions.com

From: Caparas, Criselda [mailto:Criselda.Caparas@testamericainc.com]
Sent: Friday, June 17, 2016 5:44 PM
To: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>; Sharma, Dimple <Dimple.Sharma@testamericainc.com>
Cc: Boecher, Caroline <CBoecher@trcsolutions.com>; Salimpour, Afsaneh <Afsaneh.Salimpour@testamericainc.com>; Sharma, Dimple <Dimple.Sharma@testamericainc.com>
Subject: RE: Additional Analyses

Justin.
We can log the highlighted samples but we cannot guarantee results on Monday.
Hold time is on the 21st for 8270, we would extract before HT but most likely standard TAT.

Afsaneh left you a message regarding this.

Thank you.

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Phone (925) 484-1919 Fax (925) 600-3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sharma, Dimple	Carrier Tracking No(s):	COC No: 720-29355.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: dimple.sharma@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Analysis Requested		Job #: 720-72689-2
Address: 880 Riverside Parkway, ,	Due Date Requested: 6/23/2016			Preservation Codes:
City: West Sacramento	TAT Requested (days):			A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - ph 4-5 L - EDA Z - other (specify) Other:
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Presidio	Project #: 72010678			
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Moisture/ (MOD) Local Method	6010B/3050B Lead	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
1259PS102[0.5] (720-72689-20)	6/6/16	13:12 Pacific		Solid			X	X	1	
1259PS103[0.5] (720-72689-23)	6/6/16	13:25 Pacific		Solid			X	X	1	

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	6/14/16 1845	TA	[signature]	6-14-16 1845	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: Yes

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-72689-2

Login Number: 72689
List Number: 1
Creator: Arauz, Dennis

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-72689-2

Login Number: 72689
List Number: 2
Creator: Shockley, Wesley S

List Source: TestAmerica Sacramento
List Creation: 06/08/16 10:14 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-72689-2

Login Number: 72689
List Number: 3
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 06/14/16 08:12 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-72689-2

Login Number: 72689
List Number: 4
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 06/14/16 08:15 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-72689-3
Client Project/Site: Presidio

For:
TRC Solutions, Inc.
10680 White Rock Road
Suite 100
Rancho Cordova, California 95670

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
6/22/2016 5:54:16 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

Review your project results through TotalAccess

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-72689-3

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-72689-3

Comments
No additional comments.

Receipt
The samples were received on 6/6/2016 4:57 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.0º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-3

Client Sample ID: 1259PS104[0.5] **Lab Sample ID: 720-72689-26**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	120		2.1		mg/Kg	4	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-3

Client Sample ID: 1259PS104[0.5]
Date Collected: 06/06/16 13:35
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-26
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.4		0.1		%			06/20/16 10:09	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-3

Client Sample ID: 1259PS104[0.5]
Date Collected: 06/06/16 13:35
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-26
Matrix: Solid
Percent Solids: 81.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	120		2.1		mg/Kg	☼	06/21/16 14:15	06/22/16 13:55	4

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-3

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-204640/1-A
Matrix: Solid
Analysis Batch: 204732

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 204640

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50		mg/Kg		06/20/16 19:01	06/21/16 19:01	1

Lab Sample ID: LCS 720-204640/2-A
Matrix: Solid
Analysis Batch: 204732

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 204640

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	48.3		mg/Kg		97	80 - 120

Lab Sample ID: LCSSRM 720-204640/3-A
Matrix: Solid
Analysis Batch: 204732

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 204640

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	302	255		mg/Kg		85	62 - 113

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-3

Metals

Prep Batch: 204640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-26	1259PS104[0.5]	Total/NA	Solid	3050B	
LCS 720-204640/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 720-204640/3-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 720-204640/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 204732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-204640/2-A	Lab Control Sample	Total/NA	Solid	6010B	204640
LCSSRM 720-204640/3-A	Lab Control Sample	Total/NA	Solid	6010B	204640
MB 720-204640/1-A	Method Blank	Total/NA	Solid	6010B	204640

Analysis Batch: 204785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-26	1259PS104[0.5]	Total/NA	Solid	6010B	204640

General Chemistry

Analysis Batch: 204589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-26	1259PS104[0.5]	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-3

Client Sample ID: 1259PS104[0.5] — **Lab Sample ID: 720-72689-26**
Date Collected: 06/06/16 13:35 — **Matrix: Solid**
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	204589	06/20/16 10:09	NVP	TAL PLS

Client Sample ID: 1259PS104[0.5] — **Lab Sample ID: 720-72689-26**
Date Collected: 06/06/16 13:35 — **Matrix: Solid**
Date Received: 06/06/16 16:57 — **Percent Solids: 81.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			204640	06/21/16 14:15	MJD	TAL PLS
Total/NA	Analysis	6010B		4	204785	06/22/16 13:55	SLK	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-3

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-3

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-72689-26	1259PS104[0.5]	Solid	06/06/16 13:35	06/06/16 16:57

Sharma, Dimple 720-72689-3

From: Boecher, Caroline <CBoecher@trcsolutions.com>
Sent: Thursday, June 16, 2016 4:43 PM
To: Sharma, Dimple
Cc: ALISON YOUNG SIM; Hanzel-Durbin, Justin
Subject: Additional Analyses - Lendrum Court

Hi Dimple,

Please authorize the following samples for analysis:

720-72655-1:

- 1257PS101[0.5] – Total Lead dry weight corrected

720-72689-1:

- 1259PS104[0.5] – Total Lead dry weight corrected

Please let me know if you have any questions—thanks!

Carrie Boecher
Project Engineer

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415.644.3002 | F: 415.434.2321 | C: 651.249.6543

LinkedIn | Twitter | Blog | Flickr | www.trcsolutions.com

720-72689 Chain of Custody

Sharma, Dimple

From: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Sent: Monday, June 20, 2016 2:55 PM
To: Caparas, Criselda; Sharma, Dimple
Cc: Boecher, Caroline; Salimpour, Afsaneh; Sharma, Dimple
Subject: RE: Additional Analyses

Ok so to get through this without losing any samples to hold time issues please log in all samples listed below today and get us results in the highlighted ones as soon as possible. In addition, please log in the following samples for PAH analyses only on standard TAT and just don't report them until we have reviewed the previous sample results.

J72725

- SLCPS104[1.0] 40
- SLCPS105[1.5] 42
- SLCPS106[1.5] 44
- SLCPS107[1.5] 46
- SLCPS108[1.0] 47 a
- SLCPS110[0.5] 49 a

720-72689-4

J72689

- 1279PS104[1.0] 13
- 1279PS106[2.0] 16

Please give me a ring if you have questions and sorry for all the confusion
Thanks
Justin

720-72689 Chain of Custody

Justin Hanzel-Durbin
Senior Engineer/Project Manager
Environmental/Remediation

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415.644.3050 | F: 415.434.2321 | Cell: 415.209.3326

Follow us on LinkedIn or Twitter | www.trcsolutions.com
JHanzel-Durbin@trcsolutions.com

From: Caparas, Criselda [mailto:Criselda.Caparas@testamericainc.com]
Sent: Friday, June 17, 2016 5:44 PM
To: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>; Sharma, Dimple <Dimple.Sharma@testamericainc.com>
Cc: Boecher, Caroline <CBoecher@trcsolutions.com>; Salimpour, Afsaneh <Afsaneh.Salimpour@testamericainc.com>; Sharma, Dimple <Dimple.Sharma@testamericainc.com>
Subject: RE: Additional Analyses

Justin.
We can log the highlighted samples but we cannot guarantee results on Monday.
Hold time is on the 21st for 8270, we would extract before HT but most likely standard TAT.

Afsaneh left you a message regarding this.

Thank you.

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-72689-3

Login Number: 72689

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Arauz, Dennis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-72689-4
Client Project/Site: Presidio

For:
TRC Solutions, Inc.
10680 White Rock Road
Suite 100
Rancho Cordova, California 95670

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
6/22/2016 4:45:18 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-4

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-72689-4

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-72689-4

Comments
No additional comments.

Receipt
The samples were received on 6/6/2016 4:57 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.0º C.

GC/MS Semi VOA
Method 8270C SIM: The following sample was diluted due to the abundance of non-target analytes: (720-72926-A-3-E). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-4

Client Sample ID: 1279PS104[1.0] — Lab Sample ID: 720-72689-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	6.0		5.7		ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	8.5		5.7		ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	5.9		5.7		ug/Kg	1	☼	8270C SIM	Total/NA

Client Sample ID: 1279PS106[2.0] — Lab Sample ID: 720-72689-16

No Detections.

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-4

Client Sample ID: 1279PS104[1.0]
Date Collected: 06/06/16 11:35
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-13
Matrix: Solid
Percent Solids: 86.2

Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 22:55	1
Acenaphthylene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 22:55	1
Anthracene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 22:55	1
Benzo[a]anthracene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 22:55	1
Benzo[a]pyrene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 22:55	1
Benzo[b]fluoranthene	**6.0**		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 22:55	1
Benzo[g,h,i]perylene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 22:55	1
Benzo[k]fluoranthene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 22:55	1
Chrysene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 22:55	1
Dibenz(a,h)anthracene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 22:55	1
Fluoranthene	**8.5**		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 22:55	1
Fluorene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 22:55	1
Indeno[1,2,3-cd]pyrene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 22:55	1
Naphthalene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 22:55	1
Phenanthrene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 22:55	1
Pyrene	**5.9**		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 22:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*76*		*33 - 120*	*06/20/16 16:24*	*06/20/16 22:55*	*1*
Terphenyl-d14	*72*		*35 - 146*	*06/20/16 16:24*	*06/20/16 22:55*	*1*

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-4

Client Sample ID: 1279PS106[2.0]
Date Collected: 06/06/16 11:50
Date Received: 06/06/16 16:57

Lab Sample ID: 720-72689-16
Matrix: Solid
Percent Solids: 86.8

Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 23:19	1
Acenaphthylene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 23:19	1
Anthracene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 23:19	1
Benzo[a]anthracene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 23:19	1
Benzo[a]pyrene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 23:19	1
Benzo[b]fluoranthene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 23:19	1
Benzo[g,h,i]perylene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 23:19	1
Benzo[k]fluoranthene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 23:19	1
Chrysene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 23:19	1
Dibenz(a,h)anthracene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 23:19	1
Fluoranthene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 23:19	1
Fluorene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 23:19	1
Indeno[1,2,3-cd]pyrene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 23:19	1
Naphthalene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 23:19	1
Phenanthrene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 23:19	1
Pyrene	ND		5.7		ug/Kg	☼	06/20/16 16:24	06/20/16 23:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*83*		*33 - 120*	*06/20/16 16:24*	*06/20/16 23:19*	*1*
Terphenyl-d14	*80*		*35 - 146*	*06/20/16 16:24*	*06/20/16 23:19*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**13.2**		0.1		%			06/21/16 07:56	1

Surrogate Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-4

Method: 8270C SIM - PAHs by GCMS (SIM)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
		FBP	TPH						
Lab Sample ID	Client Sample ID	(33-120)	(35-146)						
720-72689-13	1279PS104[1.0]	76	72						
720-72689-16	1279PS106[2.0]	83	80						
LCS 720-204612/2-A	Lab Control Sample	83	84						
MB 720-204612/1-A	Method Blank	89	84						

Surrogate Legend

FBP = 2-Fluorobiphenyl

TPH = Terphenyl-d14

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-4

Method: 8270C SIM - PAHs by GCMS (SIM)

Lab Sample ID: MB 720-204612/1-A
Matrix: Solid
Analysis Batch: 204586

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 204612

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		06/20/16 12:37	06/20/16 22:31	1
Acenaphthylene	ND		5.0		ug/Kg		06/20/16 12:37	06/20/16 22:31	1
Anthracene	ND		5.0		ug/Kg		06/20/16 12:37	06/20/16 22:31	1
Benzo[a]anthracene	ND		5.0		ug/Kg		06/20/16 12:37	06/20/16 22:31	1
Benzo[a]pyrene	ND		5.0		ug/Kg		06/20/16 12:37	06/20/16 22:31	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		06/20/16 12:37	06/20/16 22:31	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		06/20/16 12:37	06/20/16 22:31	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		06/20/16 12:37	06/20/16 22:31	1
Chrysene	ND		5.0		ug/Kg		06/20/16 12:37	06/20/16 22:31	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		06/20/16 12:37	06/20/16 22:31	1
Fluoranthene	ND		5.0		ug/Kg		06/20/16 12:37	06/20/16 22:31	1
Fluorene	ND		5.0		ug/Kg		06/20/16 12:37	06/20/16 22:31	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		06/20/16 12:37	06/20/16 22:31	1
Naphthalene	ND		5.0		ug/Kg		06/20/16 12:37	06/20/16 22:31	1
Phenanthrene	ND		5.0		ug/Kg		06/20/16 12:37	06/20/16 22:31	1
Pyrene	ND		5.0		ug/Kg		06/20/16 12:37	06/20/16 22:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*89*		*33 - 120*	*06/20/16 12:37*	*06/20/16 22:31*	*1*
Terphenyl-d14	*84*		*35 - 146*	*06/20/16 12:37*	*06/20/16 22:31*	*1*

Lab Sample ID: LCS 720-204612/2-A
Matrix: Solid
Analysis Batch: 204586

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 204612

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	333	249		ug/Kg		75	43 - 120
Acenaphthylene	333	290		ug/Kg		87	46 - 120
Anthracene	333	313		ug/Kg		94	55 - 120
Benzo[a]anthracene	333	310		ug/Kg		93	65 - 120
Benzo[a]pyrene	333	313		ug/Kg		94	62 - 120
Benzo[b]fluoranthene	333	291		ug/Kg		87	60 - 120
Benzo[g,h,i]perylene	333	257		ug/Kg		77	42 - 120
Benzo[k]fluoranthene	333	304		ug/Kg		91	63 - 120
Chrysene	333	298		ug/Kg		89	54 - 120
Dibenz(a,h)anthracene	333	282		ug/Kg		85	51 - 120
Fluoranthene	333	307		ug/Kg		92	59 - 120
Fluorene	333	269		ug/Kg		81	47 - 120
Indeno[1,2,3-cd]pyrene	333	275		ug/Kg		82	50 - 120
Naphthalene	333	271		ug/Kg		81	42 - 120
Phenanthrene	333	291		ug/Kg		87	51 - 120
Pyrene	333	269		ug/Kg		81	58 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*83*		*33 - 120*
Terphenyl-d14	*84*		*35 - 146*

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-4

GC/MS Semi VOA

Analysis Batch: 204586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-13	1279PS104[1.0]	Total/NA	Solid	8270C SIM	204612
720-72689-16	1279PS106[2.0]	Total/NA	Solid	8270C SIM	204612
LCS 720-204612/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	204612
MB 720-204612/1-A	Method Blank	Total/NA	Solid	8270C SIM	204612

Prep Batch: 204612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-13	1279PS104[1.0]	Total/NA	Solid	3546	
720-72689-16	1279PS106[2.0]	Total/NA	Solid	3546	
LCS 720-204612/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 720-204612/1-A	Method Blank	Total/NA	Solid	3546	

General Chemistry

Analysis Batch: 204654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72689-16	1279PS106[2.0]	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-4

Client Sample ID: 1279PS104[1.0]

Lab Sample ID: 720-72689-13
Date Collected: 06/06/16 11:35
Matrix: Solid
Date Received: 06/06/16 16:57
Percent Solids: 86.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			204612	06/20/16 16:24	KMK	TAL PLS
Total/NA	Analysis	8270C SIM		1	204586	06/20/16 22:55	MQL	TAL PLS

Client Sample ID: 1279PS106[2.0]

Lab Sample ID: 720-72689-16
Date Collected: 06/06/16 11:50
Matrix: Solid
Date Received: 06/06/16 16:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	204654	06/21/16 07:56	NVP	TAL PLS

Client Sample ID: 1279PS106[2.0]

Lab Sample ID: 720-72689-16
Date Collected: 06/06/16 11:50
Matrix: Solid
Date Received: 06/06/16 16:57
Percent Solids: 86.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			204612	06/20/16 16:24	KMK	TAL PLS
Total/NA	Analysis	8270C SIM		1	204586	06/20/16 23:19	MQL	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-4

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-4

Method	Method Description	Protocol	Laboratory
8270C SIM	PAHs by GCMS (SIM)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72689-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-72689-13	1279PS104[1.0]	Solid	06/06/16 11:35	06/06/16 16:57
720-72689-16	1279PS106[2.0]	Solid	06/06/16 11:50	06/06/16 16:57

Sharma, Dimple

From: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Sent: Monday, June 20, 2016 2:55 PM
To: Caparas, Criselda; Sharma, Dimple
Cc: Boecher, Caroline; Salimpour, Afsaneh; Sharma, Dimple
Subject: RE: Additional Analyses

Ok so to get through this without losing any samples to hold time issues please log in all samples listed below today and get us results in the highlighted ones as soon as possible. In addition, please log in the following samples for PAH analyses only on standard TAT and just don't report them until we have reviewed the previous sample results.
J72725

- SLCPS104[1.0] 40
- SLCPS105[1.5] 42
- SLCPS106[1.5] 44
- SLCPS107[1.5] 46
- SLCPS108[1.0] 47 a
- SLCPS110[0.5] 49 a

720-72689-4

J72689

- 1279PS104[1.0] 13
- 1279PS106[2.0] 16

Please give me a ring if you have questions and sorry for all the confusion
Thanks
Justin

720-72689 Chain of Custody

Justin Hanzel-Durbin
Senior Engineer/Project Manager
Environmental/Remediation

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415.644.3050 | F: 415.434.2321 | Cell: 415.209.3326

Follow us on LinkedIn or Twitter | www.trcsolutions.com
JHanzel-Durbin@trcsolutions.com

From: Caparas, Criselda [mailto:Criselda.Caparas@testamericainc.com]
Sent: Friday, June 17, 2016 5:44 PM
To: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>; Sharma, Dimple <Dimple.Sharma@testamericainc.com>
Cc: Boecher, Caroline <CBoecher@trcsolutions.com>; Salimpour, Afsaneh <Afsaneh.Salimpour@testamericainc.com>; Sharma, Dimple <Dimple.Sharma@testamericainc.com>
Subject: RE: Additional Analyses

Justin.
We can log the highlighted samples but we cannot guarantee results on Monday.
Hold time is on the 21st for 8270, we would extract before HT but most likely standard TAT.

Afsaneh left you a message regarding this.

Thank you.

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-72689-4

Login Number: 72689

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Arauz, Dennis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-72725-1
Client Project/Site: Presidio
Revision: 1

For:
TRC Solutions, Inc.
10680 White Rock Road
Suite 100
Rancho Cordova, California 95670

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
6/27/2016 6:01:50 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-72725-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-72725-1

Comments
No additional comments.

Receipt
The samples were received on 6/8/2016 9:24 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.3° C.

Receipt Exceptions

The container label for the following samples did not match the information listed on the Chain-of-Custody (COC): 1258EX105[1.5] (720-72725-6), 1258EX201[0.0] (720-72725-7), 1258EX202[0.0] (720-72725-8), 1258EX203[0.0] (720-72725-9), 1258EX204[0.0] (720-72725-10), SLCPS101[1.0] (720-72725-26), SLCPS101[1.5] (720-72725-27), SLCPS102[1.0] (720-72725-29), SLCPS102[1.5] (720-72725-30), SLCPS103[1.0] (720-72725-32), SLCPS103[1.5] (720-72725-33), SLCPS104[1.0] (720-72725-40), SLCPS105[1.5] (720-72725-42), SLCPS106[1.5] (720-72725-44), SLCPS107[1.5] (720-72725-46) and SLCEX103[0.5] (720-72725-52). Received these samples not listed on coc which are on hold but #52 not listed on original coc.

The following sample(s) was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): #52 SLXEX103[0.5] (Field container) Logged on hold until further notice.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1258EX101[0.0] — Lab Sample ID: 720-72725-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	32	F1	1.3		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1258EX102[0.0] — Lab Sample ID: 720-72725-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	41		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1258EX103[0.0] — Lab Sample ID: 720-72725-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	65		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1258EX104[0.0] — Lab Sample ID: 720-72725-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	92		1.1		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1258EX105[0.5] — Lab Sample ID: 720-72725-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	110		1.1		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: DUP060716-1 — Lab Sample ID: 720-72725-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	8.5		0.68		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: DUP060716-2 — Lab Sample ID: 720-72725-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	9.9		1.1		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1259EX101[0.5] — Lab Sample ID: 720-72725-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	50		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1259EX102[0.5] — Lab Sample ID: 720-72725-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	33		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1259EX103[0.5] — Lab Sample ID: 720-72725-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	71		1.4		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1259EX104[3.0] — Lab Sample ID: 720-72725-16

This Detection Summary does not include radiochemical test results.

Client Sample ID: 1259EX104[3.0] (Continued) — Lab Sample ID: 720-72725-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	9.5		0.96		mg/Kg	1	☼	6010B	Total/NA
Barium	95		0.96		mg/Kg	1	☼	6010B	Total/NA
Arsenic	3.6		1.9		mg/Kg	1	☼	6010B	Total/NA
Copper	15		1.4		mg/Kg	1	☼	6010B	Total/NA
Zinc	32		1.9		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1259EX105[2.0] — Lab Sample ID: 720-72725-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	500		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1259EX106[3.0] — Lab Sample ID: 720-72725-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	4.4		1.4		mg/Kg	1	☼	6010B	Total/NA
Barium	110		1.4		mg/Kg	1	☼	6010B	Total/NA
Copper	29		2.1		mg/Kg	1	☼	6010B	Total/NA
Zinc	34		2.8		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1259PS106[2.0] — Lab Sample ID: 720-72725-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	110		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1259PS107[2.5] — Lab Sample ID: 720-72725-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	5.7		1.2		mg/Kg	1	☼	6010B	Total/NA
Barium	110		1.2		mg/Kg	1	☼	6010B	Total/NA
Arsenic	3.3		2.4		mg/Kg	1	☼	6010B	Total/NA
Copper	22		1.8		mg/Kg	1	☼	6010B	Total/NA
Zinc	35		2.4		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1259PS108[2.0] — Lab Sample ID: 720-72725-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	130		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1259PS109[1.0] — Lab Sample ID: 720-72725-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	260		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: SLCEX101[0.5] — Lab Sample ID: 720-72725-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	82		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: SLCEX102[0.5] — Lab Sample ID: 720-72725-24

This Detection Summary does not include radiochemical test results.

Client Sample ID: SLCEX102[0.5] (Continued) — Lab Sample ID: 720-72725-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	86		1.2		mg/Kg	1	☼	6010B	Total/NA
Barium	75		1.2		mg/Kg	1	☼	6010B	Total/NA
Copper	16		1.9		mg/Kg	1	☼	6010B	Total/NA
Zinc	58		2.5		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: SLCPS101[0.0] — Lab Sample ID: 720-72725-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	330		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: SLCPS102[0.0] — Lab Sample ID: 720-72725-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	320		1.3		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: SLCPS103[0.0] — Lab Sample ID: 720-72725-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	100		1.5		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: DUP-060716-3 — Lab Sample ID: 720-72725-34

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	42		0.97		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: DUP-060716-4 — Lab Sample ID: 720-72725-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	130		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: DUP-060716-5 — Lab Sample ID: 720-72725-36

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	210		1.4		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: SLCEX104[1.0] — Lab Sample ID: 720-72725-37

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	100		1.1		mg/Kg	1	☼	6010B	Total/NA
Barium	54		1.1		mg/Kg	1	☼	6010B	Total/NA
Copper	19		1.7		mg/Kg	1	☼	6010B	Total/NA
Zinc	58		2.3		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: SLCEX105[1.0] — Lab Sample ID: 720-72725-38

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	35		1.1		mg/Kg	1	☼	6010B	Total/NA
Barium	37		1.1		mg/Kg	1	☼	6010B	Total/NA
Arsenic	2.3		2.2		mg/Kg	1	☼	6010B	Total/NA
Copper	11		1.6		mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SLCEX105[1.0] (Continued) — Lab Sample ID: 720-72725-38

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	37		2.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: SLCPS104[0.0] — Lab Sample ID: 720-72725-39

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	400		1.4		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: SLCPS105[0.5] — Lab Sample ID: 720-72725-41

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	30		1.1		mg/Kg	1	☼	6010B	Total/NA
Barium	34		1.1		mg/Kg	1	☼	6010B	Total/NA
Copper	14		1.6		mg/Kg	1	☼	6010B	Total/NA
Zinc	30		2.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: SLCPS106[0.5] — Lab Sample ID: 720-72725-43

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	43		1.0		mg/Kg	1	☼	6010B	Total/NA
Barium	35		1.0		mg/Kg	1	☼	6010B	Total/NA
Arsenic	2.6		2.1		mg/Kg	1	☼	6010B	Total/NA
Copper	12		1.5		mg/Kg	1	☼	6010B	Total/NA
Zinc	39		2.1		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: SLCPS107[0.5] — Lab Sample ID: 720-72725-45

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	26		1.1		mg/Kg	1	☼	6010B	Total/NA
Barium	53		1.1		mg/Kg	1	☼	6010B	Total/NA
Arsenic	3.0		2.2		mg/Kg	1	☼	6010B	Total/NA
Copper	9.9		1.7		mg/Kg	1	☼	6010B	Total/NA
Zinc	38		2.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: SLCPS108[0.0] — Lab Sample ID: 720-72725-47

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	34		1.1		mg/Kg	1	☼	6010B	Total/NA
Barium	49		1.1		mg/Kg	1	☼	6010B	Total/NA
Copper	8.6		1.6		mg/Kg	1	☼	6010B	Total/NA
Zinc	33		2.1		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: SLCPS109[0.5] — Lab Sample ID: 720-72725-48

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	43		1.1		mg/Kg	1	☼	6010B	Total/NA
Barium	34		1.1		mg/Kg	1	☼	6010B	Total/NA
Arsenic	2.5		2.1		mg/Kg	1	☼	6010B	Total/NA
Copper	11		1.6		mg/Kg	1	☼	6010B	Total/NA
Zinc	37		2.1		mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: SLCPS110[0.5] — Lab Sample ID: 720-72725-49

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	44		0.99		mg/Kg	1	☼	6010B	Total/NA
Barium	40		0.99		mg/Kg	1	☼	6010B	Total/NA
Arsenic	2.3		2.0		mg/Kg	1	☼	6010B	Total/NA
Copper	11		1.5		mg/Kg	1	☼	6010B	Total/NA
Zinc	37		2.0		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: DUP060716-6 — Lab Sample ID: 720-72725-50

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	130		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1258EX201RB202 — Lab Sample ID: 720-72725-51

No Detections.

Client Sample ID: SLCEX103[0.5] — Lab Sample ID: 720-72725-52

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	74		1.2		mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1258EX101[0.0]
Date Collected: 06/07/16 11:12
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-1
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24.8		0.1		%			06/11/16 12:41	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1258EX101[0.0]
Date Collected: 06/07/16 11:12
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-1
Matrix: Solid
Percent Solids: 75.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	32	F1	1.3		mg/Kg	☼	06/14/16 07:45	06/14/16 22:37	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1258EX102[0.0]
Date Collected: 06/07/16 11:13
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-2
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.9		0.1		%			06/11/16 12:41	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1258EX102[0.0]
Date Collected: 06/07/16 11:13
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-2
Matrix: Solid
Percent Solids: 84.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	41		1.2		mg/Kg	☼	06/14/16 07:45	06/14/16 22:57	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1258EX103[0.0]
Date Collected: 06/07/16 11:00
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-3
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.6		0.1		%			06/11/16 12:41	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1258EX103[0.0]
Date Collected: 06/07/16 11:00
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-3
Matrix: Solid
Percent Solids: 83.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	65		1.2		mg/Kg	☼	06/14/16 07:45	06/14/16 23:00	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1258EX104[0.0]
Date Collected: 06/07/16 10:53
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-4
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.4		0.1		%			06/11/16 12:41	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1258EX104[0.0]
Date Collected: 06/07/16 10:53
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-4
Matrix: Solid
Percent Solids: 89.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	92		1.1		mg/Kg	☼	06/14/16 07:45	06/14/16 23:03	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1258EX105[0.5]
Date Collected: 06/07/16 11:05
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-5
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.5		0.1		%			06/11/16 12:41	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1258EX105[0.5]
Date Collected: 06/07/16 11:05
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-5
Matrix: Solid
Percent Solids: 88.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	110		1.1		mg/Kg	☼	06/14/16 07:45	06/14/16 23:06	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: DUP060716-1
Date Collected: 06/07/16 00:00
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-11
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	28.2		0.1		%			06/11/16 12:41	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: DUP060716-1
Date Collected: 06/07/16 00:00
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-11
Matrix: Solid
Percent Solids: 71.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	8.5		0.68		mg/Kg	☼	06/14/16 07:45	06/14/16 23:09	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: DUP060716-2
Date Collected: 06/07/16 00:00
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-12
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.1		0.1		%			06/11/16 12:41	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: DUP060716-2
Date Collected: 06/07/16 00:00
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-12
Matrix: Solid
Percent Solids: 86.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	9.9		1.1		mg/Kg	☼	06/14/16 07:45	06/14/16 23:12	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1259EX101[0.5]
Date Collected: 06/07/16 08:39
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-13
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22.3		0.1		%			06/11/16 12:41	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1259EX101[0.5]
Date Collected: 06/07/16 08:39
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-13
Matrix: Solid
Percent Solids: 77.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	50		1.2		mg/Kg	☼	06/14/16 07:45	06/14/16 23:21	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1259EX102[0.5]
Date Collected: 06/07/16 08:43
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-14
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.9		0.1		%			06/11/16 12:41	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1259EX102[0.5]
Date Collected: 06/07/16 08:43
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-14
Matrix: Solid
Percent Solids: 81.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	33		1.2		mg/Kg	☼	06/14/16 07:45	06/14/16 23:24	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1259EX103[0.5]
Date Collected: 06/07/16 08:45
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-15
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	26.6		0.1		%			06/11/16 12:41	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1259EX103[0.5]
Date Collected: 06/07/16 08:45
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-15
Matrix: Solid
Percent Solids: 73.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	71		1.4		mg/Kg	☼	06/14/16 07:45	06/14/16 23:27	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1259EX104[3.0]
Date Collected: 06/07/16 09:59
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-16
Matrix: Solid
Percent Solids: 73.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	9.5		0.96		mg/Kg	☼	06/14/16 07:45	06/14/16 23:30	1
Barium	95		0.96		mg/Kg	☼	06/14/16 07:45	06/14/16 23:30	1
Arsenic	3.6		1.9		mg/Kg	☼	06/14/16 07:45	06/14/16 23:30	1
Copper	15		1.4		mg/Kg	☼	06/14/16 07:45	06/14/16 23:30	1
Zinc	32		1.9		mg/Kg	☼	06/14/16 07:45	06/14/16 23:30	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	26.7		0.1		%			06/11/16 12:41	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1259EX105[2.0]
Date Collected: 06/07/16 10:10
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-17
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.3		0.1		%			06/11/16 12:41	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1259EX105[2.0]
Date Collected: 06/07/16 10:10
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-17
Matrix: Solid
Percent Solids: 82.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	500		1.2		mg/Kg	☼	06/14/16 07:45	06/14/16 23:33	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1259EX106[3.0]
Date Collected: 06/07/16 10:25
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-18
Matrix: Solid
Percent Solids: 70.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	4.4		1.4		mg/Kg	☼	06/14/16 07:45	06/14/16 23:36	1
Barium	110		1.4		mg/Kg	☼	06/14/16 07:45	06/14/16 23:36	1
Arsenic	ND		2.8		mg/Kg	☼	06/14/16 07:45	06/14/16 23:36	1
Copper	29		2.1		mg/Kg	☼	06/14/16 07:45	06/14/16 23:36	1
Zinc	34		2.8		mg/Kg	☼	06/14/16 07:45	06/14/16 23:36	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	29.4		0.1		%			06/11/16 12:41	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1259PS106[2.0]
Date Collected: 06/07/16 10:27
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-19
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.1		0.1		%			06/11/16 12:41	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1259PS106[2.0]
Date Collected: 06/07/16 10:27
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-19
Matrix: Solid
Percent Solids: 83.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	110		1.2		mg/Kg	☼	06/14/16 07:45	06/14/16 23:39	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1259PS107[2.5]
Date Collected: 06/07/16 09:15
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-20
Matrix: Solid
Percent Solids: 79.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	5.7		1.2		mg/Kg	☼	06/14/16 07:45	06/14/16 23:42	1
Barium	110		1.2		mg/Kg	☼	06/14/16 07:45	06/14/16 23:42	1
Arsenic	3.3		2.4		mg/Kg	☼	06/14/16 07:45	06/14/16 23:42	1
Copper	22		1.8		mg/Kg	☼	06/14/16 07:45	06/14/16 23:42	1
Zinc	35		2.4		mg/Kg	☼	06/14/16 07:45	06/14/16 23:42	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.3		0.1		%			06/11/16 12:41	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1259PS108[2.0]
Date Collected: 06/07/16 09:23
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-21
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.2		0.1		%			06/11/16 12:41	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1259PS108[2.0]
Date Collected: 06/07/16 09:23
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-21
Matrix: Solid
Percent Solids: 80.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	130		1.2		mg/Kg	☼	06/14/16 07:45	06/14/16 23:45	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1259PS109[1.0]
Date Collected: 06/07/16 09:36
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-22
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.3		0.1		%			06/11/16 12:41	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1259PS109[1.0]
Date Collected: 06/07/16 09:36
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-22
Matrix: Solid
Percent Solids: 85.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	260		1.2		mg/Kg	☼	06/14/16 07:45	06/14/16 23:48	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: SLCEX101[0.5]
Date Collected: 06/07/16 14:24
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-23
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.2		0.1		%			06/11/16 12:41	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: SLCEX101[0.5]
Date Collected: 06/07/16 14:24
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-23
Matrix: Solid
Percent Solids: 85.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	82		1.2		mg/Kg	☼	06/14/16 07:45	06/14/16 23:57	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: SLCEX102[0.5]
Date Collected: 06/07/16 14:17
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-24
Matrix: Solid
Percent Solids: 80.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	86		1.2		mg/Kg	☼	06/14/16 07:45	06/15/16 00:00	1
Barium	75		1.2		mg/Kg	☼	06/14/16 07:45	06/15/16 00:00	1
Arsenic	ND		2.5		mg/Kg	☼	06/14/16 07:45	06/15/16 00:00	1
Copper	16		1.9		mg/Kg	☼	06/14/16 07:45	06/15/16 00:00	1
Zinc	58		2.5		mg/Kg	☼	06/14/16 07:45	06/15/16 00:00	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.1		0.1		%			06/11/16 13:04	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: SLCPS101[0.0]
Date Collected: 06/07/16 14:01
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-25
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.8		0.1		%			06/11/16 13:04	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: SLCPS101[0.0]
Date Collected: 06/07/16 14:01
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-25
Matrix: Solid
Percent Solids: 82.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	330		1.2		mg/Kg	☼	06/14/16 07:45	06/15/16 00:03	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: SLCPS102[0.0]
Date Collected: 06/07/16 13:47
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-28
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	27.2		0.1		%			06/11/16 13:04	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: SLCPS102[0.0]
Date Collected: 06/07/16 13:47
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-28
Matrix: Solid
Percent Solids: 72.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	320		1.3		mg/Kg	☼	06/14/16 07:45	06/15/16 00:06	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: SLCPS103[0.0]
Date Collected: 06/07/16 13:48
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-31
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	28.8		0.1		%			06/11/16 13:04	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: SLCPS103[0.0]
Date Collected: 06/07/16 13:48
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-31
Matrix: Solid
Percent Solids: 71.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	100		1.5		mg/Kg	☼	06/14/16 07:45	06/15/16 00:21	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: DUP-060716-3
Date Collected: 06/07/16 00:00
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-34
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	2.2		0.1		%			06/11/16 13:04	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: DUP-060716-3
Date Collected: 06/07/16 00:00
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-34
Matrix: Solid
Percent Solids: 97.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	42		0.97		mg/Kg	☼	06/14/16 07:45	06/15/16 00:24	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: DUP-060716-4
Date Collected: 06/07/16 00:00
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-35
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.8		0.1		%			06/11/16 13:04	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: DUP-060716-4
Date Collected: 06/07/16 00:00
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-35
Matrix: Solid
Percent Solids: 83.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	130		1.2		mg/Kg	☼	06/14/16 07:45	06/15/16 00:33	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: DUP-060716-5
Date Collected: 06/07/16 00:00
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-36
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	27.9		0.1		%			06/11/16 13:04	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: DUP-060716-5
Date Collected: 06/07/16 00:00
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-36
Matrix: Solid
Percent Solids: 72.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	210		1.4		mg/Kg	☼	06/14/16 07:45	06/15/16 00:36	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: SLCEX104[1.0]
Date Collected: 06/07/16 13:38
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-37
Matrix: Solid
Percent Solids: 85.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	100		1.1		mg/Kg	☼	06/14/16 07:45	06/15/16 00:39	1
Barium	54		1.1		mg/Kg	☼	06/14/16 07:45	06/15/16 00:39	1
Arsenic	ND		2.3		mg/Kg	☼	06/14/16 07:45	06/15/16 00:39	1
Copper	19		1.7		mg/Kg	☼	06/14/16 07:45	06/15/16 00:39	1
Zinc	58		2.3		mg/Kg	☼	06/14/16 07:45	06/15/16 00:39	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.5		0.1		%			06/11/16 13:04	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: SLCEX105[1.0]
Date Collected: 06/07/16 13:18
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-38
Matrix: Solid
Percent Solids: 96.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	35		1.1		mg/Kg	☼	06/14/16 07:45	06/15/16 00:42	1
Barium	37		1.1		mg/Kg	☼	06/14/16 07:45	06/15/16 00:42	1
Arsenic	2.3		2.2		mg/Kg	☼	06/14/16 07:45	06/15/16 00:42	1
Copper	11		1.6		mg/Kg	☼	06/14/16 07:45	06/15/16 00:42	1
Zinc	37		2.2		mg/Kg	☼	06/14/16 07:45	06/15/16 00:42	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.7		0.1		%			06/11/16 13:04	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: SLCPS104[0.0]
Date Collected: 06/07/16 13:24
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-39
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24.9		0.1		%			06/11/16 13:04	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: SLCPS104[0.0]
Date Collected: 06/07/16 13:24
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-39
Matrix: Solid
Percent Solids: 75.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	400		1.4		mg/Kg	☼	06/14/16 07:45	06/15/16 00:45	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: SLCPS105[0.5]
Date Collected: 06/07/16 13:27
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-41
Matrix: Solid
Percent Solids: 88.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	30		1.1		mg/Kg	☼	06/14/16 07:45	06/15/16 00:48	1
Barium	34		1.1		mg/Kg	☼	06/14/16 07:45	06/15/16 00:48	1
Arsenic	ND		2.2		mg/Kg	☼	06/14/16 07:45	06/15/16 00:48	1
Copper	14		1.6		mg/Kg	☼	06/14/16 07:45	06/15/16 00:48	1
Zinc	30		2.2		mg/Kg	☼	06/14/16 07:45	06/15/16 00:48	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.5		0.1		%			06/11/16 13:04	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: SLCPS106[0.5]
Date Collected: 06/07/16 12:59
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-43
Matrix: Solid
Percent Solids: 92.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	43		1.0		mg/Kg	☼	06/14/16 07:45	06/15/16 00:51	1
Barium	35		1.0		mg/Kg	☼	06/14/16 07:45	06/15/16 00:51	1
Arsenic	2.6		2.1		mg/Kg	☼	06/14/16 07:45	06/15/16 00:51	1
Copper	12		1.5		mg/Kg	☼	06/14/16 07:45	06/15/16 00:51	1
Zinc	39		2.1		mg/Kg	☼	06/14/16 07:45	06/15/16 00:51	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.7		0.1		%			06/11/16 13:04	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: SLCPS107[0.5]
Date Collected: 06/07/16 12:51
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-45
Matrix: Solid
Percent Solids: 89.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	26		1.1		mg/Kg	☼	06/14/16 07:45	06/15/16 00:54	1
Barium	53		1.1		mg/Kg	☼	06/14/16 07:45	06/15/16 00:54	1
Arsenic	3.0		2.2		mg/Kg	☼	06/14/16 07:45	06/15/16 00:54	1
Copper	9.9		1.7		mg/Kg	☼	06/14/16 07:45	06/15/16 00:54	1
Zinc	38		2.2		mg/Kg	☼	06/14/16 07:45	06/15/16 00:54	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.7		0.1		%			06/11/16 13:04	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: SLCPS108[0.0]
Date Collected: 06/07/16 12:55
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-47
Matrix: Solid
Percent Solids: 96.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	34		1.1		mg/Kg	☼	06/14/16 07:45	06/15/16 00:57	1
Barium	49		1.1		mg/Kg	☼	06/14/16 07:45	06/15/16 00:57	1
Arsenic	ND		2.1		mg/Kg	☼	06/14/16 07:45	06/15/16 00:57	1
Copper	8.6		1.6		mg/Kg	☼	06/14/16 07:45	06/15/16 00:57	1
Zinc	33		2.1		mg/Kg	☼	06/14/16 07:45	06/15/16 00:57	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.9		0.1		%			06/11/16 13:04	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: SLCPS109[0.5]
Date Collected: 06/07/16 12:38
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-48
Matrix: Solid
Percent Solids: 97.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	43		1.1		mg/Kg	☼	06/14/16 07:45	06/15/16 01:00	1
Barium	34		1.1		mg/Kg	☼	06/14/16 07:45	06/15/16 01:00	1
Arsenic	2.5		2.1		mg/Kg	☼	06/14/16 07:45	06/15/16 01:00	1
Copper	11		1.6		mg/Kg	☼	06/14/16 07:45	06/15/16 01:00	1
Zinc	37		2.1		mg/Kg	☼	06/14/16 07:45	06/15/16 01:00	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	2.1		0.1		%			06/11/16 13:04	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: SLCPS110[0.5]
Date Collected: 06/07/16 12:39
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-49
Matrix: Solid
Percent Solids: 97.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	44		0.99		mg/Kg	☼	06/14/16 07:45	06/15/16 01:09	1
Barium	40		0.99		mg/Kg	☼	06/14/16 07:45	06/15/16 01:09	1
Arsenic	2.3		2.0		mg/Kg	☼	06/14/16 07:45	06/15/16 01:09	1
Copper	11		1.5		mg/Kg	☼	06/14/16 07:45	06/15/16 01:09	1
Zinc	37		2.0		mg/Kg	☼	06/14/16 07:45	06/15/16 01:09	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	2.9		0.1		%			06/11/16 13:04	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: DUP060716-6
Date Collected: 06/07/16 00:00
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-50
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.0		0.1		%			06/11/16 13:04	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: DUP060716-6
Date Collected: 06/07/16 00:00
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-50
Matrix: Solid
Percent Solids: 82.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	130		1.2		mg/Kg	☼	06/14/16 07:45	06/15/16 01:12	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1258EX201RB202
Date Collected: 06/07/16 11:28
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-51
Matrix: Water

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0050		mg/L		06/09/16 08:30	06/09/16 17:32	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: SLCEX103[0.5]
Date Collected: 06/07/16 14:16
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-52
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.2		0.1		%			06/11/16 13:04	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: SLCEX103[0.5]
Date Collected: 06/07/16 14:16
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-52
Matrix: Solid
Percent Solids: 81.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	74		1.2		mg/Kg	☼	06/14/16 07:45	06/15/16 01:15	1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 320-113127/1-A
Matrix: Water
Analysis Batch: 113260

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 113127

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0050		mg/L		06/09/16 08:30	06/09/16 16:50	1

Lab Sample ID: LCS 320-113127/2-A
Matrix: Water
Analysis Batch: 113260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 113127

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.500	0.506		mg/L		101	80 - 120

Lab Sample ID: MB 320-113672/1-A
Matrix: Solid
Analysis Batch: 113846

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 113672

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.0		mg/Kg		06/14/16 07:45	06/14/16 18:12	1
Barium	ND		1.0		mg/Kg		06/14/16 07:45	06/14/16 18:12	1
Arsenic	ND		2.0		mg/Kg		06/14/16 07:45	06/14/16 18:12	1
Copper	ND		1.5		mg/Kg		06/14/16 07:45	06/14/16 18:12	1
Zinc	ND		2.0		mg/Kg		06/14/16 07:45	06/14/16 18:12	1

Lab Sample ID: LCS 320-113672/2-A
Matrix: Solid
Analysis Batch: 113846

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 113672

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	49.3		mg/Kg		99	80 - 120
Barium	200	189		mg/Kg		94	80 - 120
Arsenic	200	196		mg/Kg		98	80 - 120
Copper	25.0	24.1		mg/Kg		97	80 - 120
Zinc	50.0	48.1		mg/Kg		96	80 - 120

Lab Sample ID: 720-72725-1 MS
Matrix: Solid
Analysis Batch: 113846

Client Sample ID: 1258EX101[0.0]
Prep Type: Total/NA
Prep Batch: 113672

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	32	F1	64.5	88.4		mg/Kg	☼	88	80 - 120
Barium	95		258	324		mg/Kg	☼	89	80 - 120
Arsenic	3.5		258	226		mg/Kg	☼	86	80 - 120
Copper	16		32.3	46.6		mg/Kg	☼	96	80 - 120
Zinc	38		64.5	95.9		mg/Kg	☼	90	80 - 120

Lab Sample ID: 720-72725-1 MSD
Matrix: Solid
Analysis Batch: 113846

Client Sample ID: 1258EX101[0.0]
Prep Type: Total/NA
Prep Batch: 113672

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	32	F1	69.2	86.3	F1	mg/Kg	☼	79	80 - 120	2	35
Barium	95		277	357		mg/Kg	☼	95	80 - 120	10	35

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 720-72725-1 MSD — **Client Sample ID: 1258EX101[0.0]**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 113846 — **Prep Batch: 113672**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	3.5		277	243		mg/Kg	☼	86	80 - 120	7	35
Copper	16		34.6	47.0		mg/Kg	☼	90	80 - 120	1	35
Zinc	38		69.2	97.2		mg/Kg	☼	86	80 - 120	1	35

Lab Sample ID: MB 320-113673/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 113846 — **Prep Batch: 113673**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.0		mg/Kg		06/14/16 07:45	06/14/16 18:18	1
Barium	ND		1.0		mg/Kg		06/14/16 07:45	06/14/16 18:18	1
Arsenic	ND		2.0		mg/Kg		06/14/16 07:45	06/14/16 18:18	1
Copper	ND		1.5		mg/Kg		06/14/16 07:45	06/14/16 18:18	1
Zinc	ND		2.0		mg/Kg		06/14/16 07:45	06/14/16 18:18	1

Lab Sample ID: LCS 320-113673/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 113846 — **Prep Batch: 113673**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	49.0		mg/Kg		98	80 - 120
Barium	200	189		mg/Kg		94	80 - 120
Arsenic	200	197		mg/Kg		99	80 - 120
Copper	25.0	24.3		mg/Kg		97	80 - 120
Zinc	50.0	48.2		mg/Kg		96	80 - 120

Lab Sample ID: 720-72725-28 MS — **Client Sample ID: SLCPS102[0.0]**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 113846 — **Prep Batch: 113673**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	320		67.3	391	4	mg/Kg	☼	98	80 - 120
Barium	72		269	313		mg/Kg	☼	90	80 - 120
Arsenic	ND		269	235		mg/Kg	☼	87	80 - 120
Copper	21		33.6	53.6		mg/Kg	☼	96	80 - 120
Zinc	86		67.3	155		mg/Kg	☼	104	80 - 120

Lab Sample ID: 720-72725-28 MSD — **Client Sample ID: SLCPS102[0.0]**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 113846 — **Prep Batch: 113673**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	320		70.0	430	4	mg/Kg	☼	150	80 - 120	10	35
Barium	72		280	308		mg/Kg	☼	84	80 - 120	2	35
Arsenic	ND		280	239		mg/Kg	☼	85	80 - 120	2	35
Copper	21		35.0	55.3		mg/Kg	☼	97	80 - 120	3	35
Zinc	86		70.0	162		mg/Kg	☼	109	80 - 120	4	35

Metals

Prep Batch: 113127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72725-51	1258EX201RB202	Total/NA	Water	3010A	
LCS 320-113127/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 320-113127/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 113260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72725-51	1258EX201RB202	Total/NA	Water	6010B	113127
LCS 320-113127/2-A	Lab Control Sample	Total/NA	Water	6010B	113127
MB 320-113127/1-A	Method Blank	Total/NA	Water	6010B	113127

Prep Batch: 113672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72725-1	1258EX101[0.0]	Total/NA	Solid	3050B	
720-72725-1 MS	1258EX101[0.0]	Total/NA	Solid	3050B	
720-72725-1 MSD	1258EX101[0.0]	Total/NA	Solid	3050B	
720-72725-2	1258EX102[0.0]	Total/NA	Solid	3050B	
720-72725-3	1258EX103[0.0]	Total/NA	Solid	3050B	
720-72725-4	1258EX104[0.0]	Total/NA	Solid	3050B	
720-72725-5	1258EX105[0.5]	Total/NA	Solid	3050B	
720-72725-11	DUP060716-1	Total/NA	Solid	3050B	
720-72725-12	DUP060716-2	Total/NA	Solid	3050B	
720-72725-13	1259EX101[0.5]	Total/NA	Solid	3050B	
720-72725-14	1259EX102[0.5]	Total/NA	Solid	3050B	
720-72725-15	1259EX103[0.5]	Total/NA	Solid	3050B	
720-72725-16	1259EX104[3.0]	Total/NA	Solid	3050B	
720-72725-17	1259EX105[2.0]	Total/NA	Solid	3050B	
720-72725-18	1259EX106[3.0]	Total/NA	Solid	3050B	
720-72725-19	1259PS106[2.0]	Total/NA	Solid	3050B	
720-72725-20	1259PS107[2.5]	Total/NA	Solid	3050B	
720-72725-21	1259PS108[2.0]	Total/NA	Solid	3050B	
720-72725-22	1259PS109[1.0]	Total/NA	Solid	3050B	
720-72725-23	SLCEX101[0.5]	Total/NA	Solid	3050B	
720-72725-24	SLCEX102[0.5]	Total/NA	Solid	3050B	
720-72725-25	SLCPS101[0.0]	Total/NA	Solid	3050B	
LCS 320-113672/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 320-113672/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 113673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72725-28	SLCPS102[0.0]	Total/NA	Solid	3050B	
720-72725-28 MS	SLCPS102[0.0]	Total/NA	Solid	3050B	
720-72725-28 MSD	SLCPS102[0.0]	Total/NA	Solid	3050B	
720-72725-31	SLCPS103[0.0]	Total/NA	Solid	3050B	
720-72725-34	DUP-060716-3	Total/NA	Solid	3050B	
720-72725-35	DUP-060716-4	Total/NA	Solid	3050B	
720-72725-36	DUP-060716-5	Total/NA	Solid	3050B	
720-72725-37	SLCEX104[1.0]	Total/NA	Solid	3050B	
720-72725-38	SLCEX105[1.0]	Total/NA	Solid	3050B	
720-72725-39	SLCPS104[0.0]	Total/NA	Solid	3050B	
720-72725-41	SLCPS105[0.5]	Total/NA	Solid	3050B	
720-72725-43	SLCPS106[0.5]	Total/NA	Solid	3050B	

Metals (Continued)

Prep Batch: 113673 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72725-45	SLCPS107[0.5]	Total/NA	Solid	3050B	
720-72725-47	SLCPS108[0.0]	Total/NA	Solid	3050B	
720-72725-48	SLCPS109[0.5]	Total/NA	Solid	3050B	
720-72725-49	SLCPS110[0.5]	Total/NA	Solid	3050B	
720-72725-50	DUP060716-6	Total/NA	Solid	3050B	
720-72725-52	SLCEX103[0.5]	Total/NA	Solid	3050B	
LCS 320-113673/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 320-113673/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 113846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72725-1	1258EX101[0.0]	Total/NA	Solid	6010B	113672
720-72725-1 MS	1258EX101[0.0]	Total/NA	Solid	6010B	113672
720-72725-1 MSD	1258EX101[0.0]	Total/NA	Solid	6010B	113672
720-72725-2	1258EX102[0.0]	Total/NA	Solid	6010B	113672
720-72725-3	1258EX103[0.0]	Total/NA	Solid	6010B	113672
720-72725-4	1258EX104[0.0]	Total/NA	Solid	6010B	113672
720-72725-5	1258EX105[0.5]	Total/NA	Solid	6010B	113672
720-72725-11	DUP060716-1	Total/NA	Solid	6010B	113672
720-72725-12	DUP060716-2	Total/NA	Solid	6010B	113672
720-72725-13	1259EX101[0.5]	Total/NA	Solid	6010B	113672
720-72725-14	1259EX102[0.5]	Total/NA	Solid	6010B	113672
720-72725-15	1259EX103[0.5]	Total/NA	Solid	6010B	113672
720-72725-16	1259EX104[3.0]	Total/NA	Solid	6010B	113672
720-72725-17	1259EX105[2.0]	Total/NA	Solid	6010B	113672
720-72725-18	1259EX106[3.0]	Total/NA	Solid	6010B	113672
720-72725-19	1259PS106[2.0]	Total/NA	Solid	6010B	113672
720-72725-20	1259PS107[2.5]	Total/NA	Solid	6010B	113672
720-72725-21	1259PS108[2.0]	Total/NA	Solid	6010B	113672
720-72725-22	1259PS109[1.0]	Total/NA	Solid	6010B	113672
720-72725-23	SLCEX101[0.5]	Total/NA	Solid	6010B	113672
720-72725-24	SLCEX102[0.5]	Total/NA	Solid	6010B	113672
720-72725-25	SLCPS101[0.0]	Total/NA	Solid	6010B	113672
720-72725-28	SLCPS102[0.0]	Total/NA	Solid	6010B	113673
720-72725-28 MS	SLCPS102[0.0]	Total/NA	Solid	6010B	113673
720-72725-28 MSD	SLCPS102[0.0]	Total/NA	Solid	6010B	113673
720-72725-31	SLCPS103[0.0]	Total/NA	Solid	6010B	113673
720-72725-34	DUP-060716-3	Total/NA	Solid	6010B	113673
720-72725-35	DUP-060716-4	Total/NA	Solid	6010B	113673
720-72725-36	DUP-060716-5	Total/NA	Solid	6010B	113673
720-72725-37	SLCEX104[1.0]	Total/NA	Solid	6010B	113673
720-72725-38	SLCEX105[1.0]	Total/NA	Solid	6010B	113673
720-72725-39	SLCPS104[0.0]	Total/NA	Solid	6010B	113673
720-72725-41	SLCPS105[0.5]	Total/NA	Solid	6010B	113673
720-72725-43	SLCPS106[0.5]	Total/NA	Solid	6010B	113673
720-72725-45	SLCPS107[0.5]	Total/NA	Solid	6010B	113673
720-72725-47	SLCPS108[0.0]	Total/NA	Solid	6010B	113673
720-72725-48	SLCPS109[0.5]	Total/NA	Solid	6010B	113673
720-72725-49	SLCPS110[0.5]	Total/NA	Solid	6010B	113673
720-72725-50	DUP060716-6	Total/NA	Solid	6010B	113673
720-72725-52	SLCEX103[0.5]	Total/NA	Solid	6010B	113673

Metals (Continued)

Analysis Batch: 113846 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 320-113672/2-A	Lab Control Sample	Total/NA	Solid	6010B	113672
LCS 320-113673/2-A	Lab Control Sample	Total/NA	Solid	6010B	113673
MB 320-113672/1-A	Method Blank	Total/NA	Solid	6010B	113672
MB 320-113673/1-A	Method Blank	Total/NA	Solid	6010B	113673

General Chemistry

Analysis Batch: 113414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72725-1	1258EX101[0.0]	Total/NA	Solid	D 2216	
720-72725-2	1258EX102[0.0]	Total/NA	Solid	D 2216	
720-72725-3	1258EX103[0.0]	Total/NA	Solid	D 2216	
720-72725-4	1258EX104[0.0]	Total/NA	Solid	D 2216	
720-72725-5	1258EX105[0.5]	Total/NA	Solid	D 2216	
720-72725-11	DUP060716-1	Total/NA	Solid	D 2216	
720-72725-12	DUP060716-2	Total/NA	Solid	D 2216	
720-72725-13	1259EX101[0.5]	Total/NA	Solid	D 2216	
720-72725-14	1259EX102[0.5]	Total/NA	Solid	D 2216	
720-72725-15	1259EX103[0.5]	Total/NA	Solid	D 2216	
720-72725-16	1259EX104[3.0]	Total/NA	Solid	D 2216	
720-72725-17	1259EX105[2.0]	Total/NA	Solid	D 2216	
720-72725-18	1259EX106[3.0]	Total/NA	Solid	D 2216	
720-72725-19	1259PS106[2.0]	Total/NA	Solid	D 2216	
720-72725-20	1259PS107[2.5]	Total/NA	Solid	D 2216	
720-72725-21	1259PS108[2.0]	Total/NA	Solid	D 2216	
720-72725-22	1259PS109[1.0]	Total/NA	Solid	D 2216	
720-72725-23	SLCEX101[0.5]	Total/NA	Solid	D 2216	

Analysis Batch: 113420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72725-24	SLCEX102[0.5]	Total/NA	Solid	D 2216	
720-72725-25	SLCPS101[0.0]	Total/NA	Solid	D 2216	
720-72725-28	SLCPS102[0.0]	Total/NA	Solid	D 2216	
720-72725-31	SLCPS103[0.0]	Total/NA	Solid	D 2216	
720-72725-34	DUP-060716-3	Total/NA	Solid	D 2216	
720-72725-35	DUP-060716-4	Total/NA	Solid	D 2216	
720-72725-36	DUP-060716-5	Total/NA	Solid	D 2216	
720-72725-37	SLCEX104[1.0]	Total/NA	Solid	D 2216	
720-72725-38	SLCEX105[1.0]	Total/NA	Solid	D 2216	
720-72725-39	SLCPS104[0.0]	Total/NA	Solid	D 2216	
720-72725-41	SLCPS105[0.5]	Total/NA	Solid	D 2216	
720-72725-43	SLCPS106[0.5]	Total/NA	Solid	D 2216	
720-72725-45	SLCPS107[0.5]	Total/NA	Solid	D 2216	
720-72725-47	SLCPS108[0.0]	Total/NA	Solid	D 2216	
720-72725-48	SLCPS109[0.5]	Total/NA	Solid	D 2216	
720-72725-49	SLCPS110[0.5]	Total/NA	Solid	D 2216	
720-72725-50	DUP060716-6	Total/NA	Solid	D 2216	
720-72725-52	SLCEX103[0.5]	Total/NA	Solid	D 2216	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: 1258EX101[0.0] — **Lab Sample ID: 720-72725-1**
Date Collected: 06/07/16 11:12 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113414	06/11/16 12:41	JMD	TAL SAC

Client Sample ID: 1258EX101[0.0] — **Lab Sample ID: 720-72725-1**
Date Collected: 06/07/16 11:12 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 75.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113672	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/14/16 22:37	CV1	TAL SAC

Client Sample ID: 1258EX102[0.0] — **Lab Sample ID: 720-72725-2**
Date Collected: 06/07/16 11:13 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113414	06/11/16 12:41	JMD	TAL SAC

Client Sample ID: 1258EX102[0.0] — **Lab Sample ID: 720-72725-2**
Date Collected: 06/07/16 11:13 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 84.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113672	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/14/16 22:57	CV1	TAL SAC

Client Sample ID: 1258EX103[0.0] — **Lab Sample ID: 720-72725-3**
Date Collected: 06/07/16 11:00 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113414	06/11/16 12:41	JMD	TAL SAC

Client Sample ID: 1258EX103[0.0] — **Lab Sample ID: 720-72725-3**
Date Collected: 06/07/16 11:00 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 83.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113672	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/14/16 23:00	CV1	TAL SAC

Client Sample ID: 1258EX104[0.0] — **Lab Sample ID: 720-72725-4**
Date Collected: 06/07/16 10:53 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113414	06/11/16 12:41	JMD	TAL SAC

Client Sample ID: 1258EX104[0.0] — **Lab Sample ID: 720-72725-4**
Date Collected: 06/07/16 10:53 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 89.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113672	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/14/16 23:03	CV1	TAL SAC

Client Sample ID: 1258EX105[0.5] — **Lab Sample ID: 720-72725-5**
Date Collected: 06/07/16 11:05 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113414	06/11/16 12:41	JMD	TAL SAC

Client Sample ID: 1258EX105[0.5] — **Lab Sample ID: 720-72725-5**
Date Collected: 06/07/16 11:05 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 88.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113672	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/14/16 23:06	CV1	TAL SAC

Client Sample ID: DUP060716-1 — **Lab Sample ID: 720-72725-11**
Date Collected: 06/07/16 00:00 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113414	06/11/16 12:41	JMD	TAL SAC

Client Sample ID: DUP060716-1 — **Lab Sample ID: 720-72725-11**
Date Collected: 06/07/16 00:00 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 71.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113672	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/14/16 23:09	CV1	TAL SAC

Client Sample ID: DUP060716-2 — **Lab Sample ID: 720-72725-12**
Date Collected: 06/07/16 00:00 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113414	06/11/16 12:41	JMD	TAL SAC

Client Sample ID: DUP060716-2 — **Lab Sample ID: 720-72725-12**
Date Collected: 06/07/16 00:00 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 86.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113672	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/14/16 23:12	CV1	TAL SAC

Client Sample ID: 1259EX101[0.5] — **Lab Sample ID: 720-72725-13**
Date Collected: 06/07/16 08:39 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113414	06/11/16 12:41	JMD	TAL SAC

Client Sample ID: 1259EX101[0.5] — **Lab Sample ID: 720-72725-13**
Date Collected: 06/07/16 08:39 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 77.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113672	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/14/16 23:21	CV1	TAL SAC

Client Sample ID: 1259EX102[0.5] — **Lab Sample ID: 720-72725-14**
Date Collected: 06/07/16 08:43 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113414	06/11/16 12:41	JMD	TAL SAC

Client Sample ID: 1259EX102[0.5] — **Lab Sample ID: 720-72725-14**
Date Collected: 06/07/16 08:43 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 81.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113672	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/14/16 23:24	CV1	TAL SAC

Client Sample ID: 1259EX103[0.5] — **Lab Sample ID: 720-72725-15**
Date Collected: 06/07/16 08:45 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113414	06/11/16 12:41	JMD	TAL SAC

Client Sample ID: 1259EX103[0.5] — **Lab Sample ID: 720-72725-15**
Date Collected: 06/07/16 08:45 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 73.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113672	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/14/16 23:27	CV1	TAL SAC

Client Sample ID: 1259EX104[3.0] — **Lab Sample ID: 720-72725-16**
Date Collected: 06/07/16 09:59 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113414	06/11/16 12:41	JMD	TAL SAC

Client Sample ID: 1259EX104[3.0] — **Lab Sample ID: 720-72725-16**
Date Collected: 06/07/16 09:59 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 73.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113672	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/14/16 23:30	CV1	TAL SAC

Client Sample ID: 1259EX105[2.0] — **Lab Sample ID: 720-72725-17**
Date Collected: 06/07/16 10:10 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113414	06/11/16 12:41	JMD	TAL SAC

Client Sample ID: 1259EX105[2.0] — **Lab Sample ID: 720-72725-17**
Date Collected: 06/07/16 10:10 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 82.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113672	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/14/16 23:33	CV1	TAL SAC

Client Sample ID: 1259EX106[3.0] — **Lab Sample ID: 720-72725-18**
Date Collected: 06/07/16 10:25 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113414	06/11/16 12:41	JMD	TAL SAC

Client Sample ID: 1259EX106[3.0] — **Lab Sample ID: 720-72725-18**
Date Collected: 06/07/16 10:25 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 70.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113672	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/14/16 23:36	CV1	TAL SAC

Client Sample ID: 1259PS106[2.0] — **Lab Sample ID: 720-72725-19**
Date Collected: 06/07/16 10:27 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113414	06/11/16 12:41	JMD	TAL SAC

Client Sample ID: 1259PS106[2.0] — **Lab Sample ID: 720-72725-19**
Date Collected: 06/07/16 10:27 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 83.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113672	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/14/16 23:39	CV1	TAL SAC

Client Sample ID: 1259PS107[2.5] — **Lab Sample ID: 720-72725-20**
Date Collected: 06/07/16 09:15 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113414	06/11/16 12:41	JMD	TAL SAC

Client Sample ID: 1259PS107[2.5] — **Lab Sample ID: 720-72725-20**
Date Collected: 06/07/16 09:15 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 79.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113672	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/14/16 23:42	CV1	TAL SAC

Client Sample ID: 1259PS108[2.0] — **Lab Sample ID: 720-72725-21**
Date Collected: 06/07/16 09:23 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113414	06/11/16 12:41	JMD	TAL SAC

Client Sample ID: 1259PS108[2.0] — **Lab Sample ID: 720-72725-21**
Date Collected: 06/07/16 09:23 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 80.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113672	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/14/16 23:45	CV1	TAL SAC

Client Sample ID: 1259PS109[1.0] — **Lab Sample ID: 720-72725-22**
Date Collected: 06/07/16 09:36 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113414	06/11/16 12:41	JMD	TAL SAC

Client Sample ID: 1259PS109[1.0] — **Lab Sample ID: 720-72725-22**
Date Collected: 06/07/16 09:36 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 85.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113672	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/14/16 23:48	CV1	TAL SAC

Client Sample ID: SLCEX101[0.5] — **Lab Sample ID: 720-72725-23**
Date Collected: 06/07/16 14:24 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113414	06/11/16 12:41	JMD	TAL SAC

Client Sample ID: SLCEX101[0.5] — **Lab Sample ID: 720-72725-23**
Date Collected: 06/07/16 14:24 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 85.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113672	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/14/16 23:57	CV1	TAL SAC

Client Sample ID: SLCEX102[0.5] — **Lab Sample ID: 720-72725-24**
Date Collected: 06/07/16 14:17 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113420	06/11/16 13:04	JMD	TAL SAC

Client Sample ID: SLCEX102[0.5] — **Lab Sample ID: 720-72725-24**
Date Collected: 06/07/16 14:17 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 80.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113672	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/15/16 00:00	CV1	TAL SAC

Client Sample ID: SLCPS101[0.0] — **Lab Sample ID: 720-72725-25**
Date Collected: 06/07/16 14:01 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113420	06/11/16 13:04	JMD	TAL SAC

Client Sample ID: SLCPS101[0.0] — **Lab Sample ID: 720-72725-25**
Date Collected: 06/07/16 14:01 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 82.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113672	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/15/16 00:03	CV1	TAL SAC

Client Sample ID: SLCPS102[0.0] — **Lab Sample ID: 720-72725-28**
Date Collected: 06/07/16 13:47 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113420	06/11/16 13:04	JMD	TAL SAC

Client Sample ID: SLCPS102[0.0] — **Lab Sample ID: 720-72725-28**
Date Collected: 06/07/16 13:47 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 72.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113673	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/15/16 00:06	CV1	TAL SAC

Client Sample ID: SLCPS103[0.0] — **Lab Sample ID: 720-72725-31**
Date Collected: 06/07/16 13:48 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113420	06/11/16 13:04	JMD	TAL SAC

Client Sample ID: SLCPS103[0.0] — **Lab Sample ID: 720-72725-31**
Date Collected: 06/07/16 13:48 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 71.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113673	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/15/16 00:21	CV1	TAL SAC

Client Sample ID: DUP-060716-3 — **Lab Sample ID: 720-72725-34**
Date Collected: 06/07/16 00:00 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113420	06/11/16 13:04	JMD	TAL SAC

Client Sample ID: DUP-060716-3 — **Lab Sample ID: 720-72725-34**
Date Collected: 06/07/16 00:00 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 97.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113673	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/15/16 00:24	CV1	TAL SAC

Client Sample ID: DUP-060716-4 — **Lab Sample ID: 720-72725-35**
Date Collected: 06/07/16 00:00 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113420	06/11/16 13:04	JMD	TAL SAC

Client Sample ID: DUP-060716-4 — **Lab Sample ID: 720-72725-35**
Date Collected: 06/07/16 00:00 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 83.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113673	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/15/16 00:33	CV1	TAL SAC

Client Sample ID: DUP-060716-5 — **Lab Sample ID: 720-72725-36**
Date Collected: 06/07/16 00:00 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113420	06/11/16 13:04	JMD	TAL SAC

Client Sample ID: DUP-060716-5 — **Lab Sample ID: 720-72725-36**
Date Collected: 06/07/16 00:00 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 72.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113673	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/15/16 00:36	CV1	TAL SAC

Client Sample ID: SLCEX104[1.0] — **Lab Sample ID: 720-72725-37**
Date Collected: 06/07/16 13:38 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113420	06/11/16 13:04	JMD	TAL SAC

Client Sample ID: SLCEX104[1.0] — **Lab Sample ID: 720-72725-37**
Date Collected: 06/07/16 13:38 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 85.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113673	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/15/16 00:39	CV1	TAL SAC

Client Sample ID: SLCEX105[1.0] — **Lab Sample ID: 720-72725-38**
Date Collected: 06/07/16 13:18 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113420	06/11/16 13:04	JMD	TAL SAC

Client Sample ID: SLCEX105[1.0] — **Lab Sample ID: 720-72725-38**
Date Collected: 06/07/16 13:18 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 96.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113673	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/15/16 00:42	CV1	TAL SAC

Client Sample ID: SLCPS104[0.0] — **Lab Sample ID: 720-72725-39**
Date Collected: 06/07/16 13:24 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113420	06/11/16 13:04	JMD	TAL SAC

Client Sample ID: SLCPS104[0.0] — **Lab Sample ID: 720-72725-39**
Date Collected: 06/07/16 13:24 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 75.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113673	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/15/16 00:45	CV1	TAL SAC

Client Sample ID: SLCPS105[0.5] — **Lab Sample ID: 720-72725-41**
Date Collected: 06/07/16 13:27 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113420	06/11/16 13:04	JMD	TAL SAC

Client Sample ID: SLCPS105[0.5] — **Lab Sample ID: 720-72725-41**
Date Collected: 06/07/16 13:27 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 88.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113673	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/15/16 00:48	CV1	TAL SAC

Client Sample ID: SLCPS106[0.5] — **Lab Sample ID: 720-72725-43**
Date Collected: 06/07/16 12:59 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113420	06/11/16 13:04	JMD	TAL SAC

Client Sample ID: SLCPS106[0.5] — **Lab Sample ID: 720-72725-43**
Date Collected: 06/07/16 12:59 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 92.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113673	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/15/16 00:51	CV1	TAL SAC

Client Sample ID: SLCPS107[0.5] — **Lab Sample ID: 720-72725-45**
Date Collected: 06/07/16 12:51 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113420	06/11/16 13:04	JMD	TAL SAC

Client Sample ID: SLCPS107[0.5] — **Lab Sample ID: 720-72725-45**
Date Collected: 06/07/16 12:51 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 89.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113673	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/15/16 00:54	CV1	TAL SAC

Client Sample ID: SLCPS108[0.0] — **Lab Sample ID: 720-72725-47**
Date Collected: 06/07/16 12:55 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113420	06/11/16 13:04	JMD	TAL SAC

Client Sample ID: SLCPS108[0.0] — **Lab Sample ID: 720-72725-47**
Date Collected: 06/07/16 12:55 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 96.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113673	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/15/16 00:57	CV1	TAL SAC

Client Sample ID: SLCPS109[0.5] — **Lab Sample ID: 720-72725-48**
Date Collected: 06/07/16 12:38 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113420	06/11/16 13:04	JMD	TAL SAC

Client Sample ID: SLCPS109[0.5] — **Lab Sample ID: 720-72725-48**
Date Collected: 06/07/16 12:38 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 97.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113673	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/15/16 01:00	CV1	TAL SAC

Client Sample ID: SLCPS110[0.5] — **Lab Sample ID: 720-72725-49**
Date Collected: 06/07/16 12:39 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113420	06/11/16 13:04	JMD	TAL SAC

Client Sample ID: SLCPS110[0.5] — **Lab Sample ID: 720-72725-49**
Date Collected: 06/07/16 12:39 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 97.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113673	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/15/16 01:09	CV1	TAL SAC

Client Sample ID: DUP060716-6 — **Lab Sample ID: 720-72725-50**
Date Collected: 06/07/16 00:00 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113420	06/11/16 13:04	JMD	TAL SAC

Client Sample ID: DUP060716-6 — **Lab Sample ID: 720-72725-50**
Date Collected: 06/07/16 00:00 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 82.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113673	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/15/16 01:12	CV1	TAL SAC

Client Sample ID: 1258EX201RB202 — **Lab Sample ID: 720-72725-51**
Date Collected: 06/07/16 11:28 — **Matrix: Water**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			113127	06/09/16 08:30	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113260	06/09/16 17:32	CV1	TAL SAC

Client Sample ID: SLCEX103[0.5] — **Lab Sample ID: 720-72725-52**
Date Collected: 06/07/16 14:16 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	113420	06/11/16 13:04	JMD	TAL SAC

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Client Sample ID: SLCEX103[0.5]
Date Collected: 06/07/16 14:16
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-52
Matrix: Solid
Percent Solids: 81.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			113673	06/14/16 07:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	113846	06/15/16 01:15	CV1	TAL SAC

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Laboratory: TestAmerica Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-17
Alaska (UST)	State Program	10	UST-055	12-18-16
Arizona	State Program	9	AZ0708	08-11-16
Arkansas DEQ	State Program	6	88-0691	06-17-17
California	State Program	9	2897	01-31-17
Colorado	State Program	8	CA00044	08-31-16
Connecticut	State Program	1	PH-0691	06-30-17
Florida	NELAP	4	E87570	06-30-17
Hawaii	State Program	9	N/A	01-31-17
Illinois	NELAP	5	200060	03-17-17
Kansas	NELAP	7	E-10375	07-31-16
Louisiana	NELAP	6	30612	06-30-17
Maine	State Program	1	CA0004	04-18-18
Michigan	State Program	5	9947	01-31-18
Nevada	State Program	9	CA00044	07-31-16
New Jersey	NELAP	2	CA005	06-30-16
New York	NELAP	2	11666	04-01-17
Oregon	NELAP	10	4040	01-29-17
Pennsylvania	NELAP	3	68-01272	03-31-17
Texas	NELAP	6	T104704399	07-31-17
US Fish & Wildlife	Federal		LE148388-0	10-31-16
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-16
Utah	NELAP	8	CA00044	02-28-17
Virginia	NELAP	3	460278	03-14-17
Washington	State Program	10	C581	05-05-17
West Virginia (DW)	State Program	3	9930C	12-31-16
Wyoming	State Program	8	8TMS-L	01-29-17

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL SAC
D 2216	Percent Moisture	ASTM	TAL SAC

Protocol References:

ASTM = ASTM International

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-72725-1	1258EX101[0.0]	Solid	06/07/16 11:12	06/08/16 09:24
720-72725-2	1258EX102[0.0]	Solid	06/07/16 11:13	06/08/16 09:24
720-72725-3	1258EX103[0.0]	Solid	06/07/16 11:00	06/08/16 09:24
720-72725-4	1258EX104[0.0]	Solid	06/07/16 10:53	06/08/16 09:24
720-72725-5	1258EX105[0.5]	Solid	06/07/16 11:05	06/08/16 09:24
720-72725-11	DUP060716-1	Solid	06/07/16 00:00	06/08/16 09:24
720-72725-12	DUP060716-2	Solid	06/07/16 00:00	06/08/16 09:24
720-72725-13	1259EX101[0.5]	Solid	06/07/16 08:39	06/08/16 09:24
720-72725-14	1259EX102[0.5]	Solid	06/07/16 08:43	06/08/16 09:24
720-72725-15	1259EX103[0.5]	Solid	06/07/16 08:45	06/08/16 09:24
720-72725-16	1259EX104[3.0]	Solid	06/07/16 09:59	06/08/16 09:24
720-72725-17	1259EX105[2.0]	Solid	06/07/16 10:10	06/08/16 09:24
720-72725-18	1259EX106[3.0]	Solid	06/07/16 10:25	06/08/16 09:24
720-72725-19	1259PS106[2.0]	Solid	06/07/16 10:27	06/08/16 09:24
720-72725-20	1259PS107[2.5]	Solid	06/07/16 09:15	06/08/16 09:24
720-72725-21	1259PS108[2.0]	Solid	06/07/16 09:23	06/08/16 09:24
720-72725-22	1259PS109[1.0]	Solid	06/07/16 09:36	06/08/16 09:24
720-72725-23	SLCEX101[0.5]	Solid	06/07/16 14:24	06/08/16 09:24
720-72725-24	SLCEX102[0.5]	Solid	06/07/16 14:17	06/08/16 09:24
720-72725-25	SLCPS101[0.0]	Solid	06/07/16 14:01	06/08/16 09:24
720-72725-28	SLCPS102[0.0]	Solid	06/07/16 13:47	06/08/16 09:24
720-72725-31	SLCPS103[0.0]	Solid	06/07/16 13:48	06/08/16 09:24
720-72725-34	DUP-060716-3	Solid	06/07/16 00:00	06/08/16 09:24
720-72725-35	DUP-060716-4	Solid	06/07/16 00:00	06/08/16 09:24
720-72725-36	DUP-060716-5	Solid	06/07/16 00:00	06/08/16 09:24
720-72725-37	SLCEX104[1.0]	Solid	06/07/16 13:38	06/08/16 09:24
720-72725-38	SLCEX105[1.0]	Solid	06/07/16 13:18	06/08/16 09:24
720-72725-39	SLCPS104[0.0]	Solid	06/07/16 13:24	06/08/16 09:24
720-72725-41	SLCPS105[0.5]	Solid	06/07/16 13:27	06/08/16 09:24
720-72725-43	SLCPS106[0.5]	Solid	06/07/16 12:59	06/08/16 09:24
720-72725-45	SLCPS107[0.5]	Solid	06/07/16 12:51	06/08/16 09:24
720-72725-47	SLCPS108[0.0]	Solid	06/07/16 12:55	06/08/16 09:24
720-72725-48	SLCPS109[0.5]	Solid	06/07/16 12:38	06/08/16 09:24
720-72725-49	SLCPS110[0.5]	Solid	06/07/16 12:39	06/08/16 09:24
720-72725-50	DUP060716-6	Solid	06/07/16 00:00	06/08/16 09:24
720-72725-51	1258EX201RB202	Water	06/07/16 11:28	06/08/16 09:24
720-72725-52	SLCEX103[0.5]	Solid	06/07/16 14:16	06/08/16 09:24

169179

TestAmerica Pleasanton 720-72725
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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

6/27/2016

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date: 6/7/16	COC No:
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	1 of 5 COCs
505 Sansome Street Suite 1600	**Analysis Turnaround Time**			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(415) 644-3000 Phone	TAT if different from Below _____			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☑ 1 week			
Site: Presidio of San Francisco	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

720-72725 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA 6020) 6010	As, Ba, Cu, Zn (USEPA 6020)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes:
1258Ex101[0.0]	6/7/16	1112	G	S	1			X				2.3
1258Ex102[0.0]		1113						X				
1258Ex103[0.0]		1100						X				
1258Ex104[0.0]		1053						X				
1258Ex105[0.5]		1105						X				
1258Ex105[1.5]		1120						X				HOLD
1258Ex201[0.0]		1121						X				HOLD
1258Ex202[0.0]		1137						X				HOLD
1258Ex203[0.0]		1140						X				HOLD
1258Ex204[0.0]		1130						X				HOLD
DUP060716-1		—						X				
DUP060716-2	↓	—	↓	↓	↓			X				

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected

Please save excess soil for potential future analysis

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TRC	6/8/16 0924			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TestAmerica	Date/Time: 6/8/16 0924

Form No. CA-C-WI-002, Rev. 4.9, dated 2/2/2016

169179

TestAmerica Pleasanton
1220 Quarry Lane

Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date: 6/7/16	COC No:
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	2 of 5 COCs
505 Sansome Street Suite 1600	**Analysis Turnaround Time**			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(415) 644-3000 Phone	TAT if different from Below _____			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☑ 1 week			
Site: Presidio of San Francisco	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Lead (USEPA 6020) 6010 TC	As, Ba, Cu, Zn (USEPA 6020)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes:
1259EX101[0.5]	6/7/16	0839	G	S	1			X				2.3°C
1259EX102[0.5]		0843						X				
1259EX103[0.5]		0845						X				
1259EX104[3.0]		0959						X				
1259EX105[2.0]		1010						X				
1259EX106[3.0]		1025						X				
1259PS106[2.0]		1027						X				
1259PS107[2.5]		0915						X				
1259PS108[2.0]		0923						X				
1259PS109[1.0]		0936						X				
SLCEX101[0.5]		1424						X				
SLCEX102[0.5]		1417						X				

Preservation Used: 1=Ice, 2=HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6=Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected

Please save excess soil for potential future analysis

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____		Therm ID No.: _____
Relinquished by:	Company: TRC	Date/Time: 6/8/16 0929	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TestAmerica	Date/Time: 6/8/16 0924

Form No. CA-C-WI-002, Rev. 4.9, dated 2/2/2016

6/27/2016

169179

TestAmerica Pleasanton
1220 Quarry Lane

Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

6/27/2016

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date: 6/7/16	COC No:
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	3 of 5 COCs
505 Sansome Street Suite 1600	Analysis Turnaround Time			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(415) 644-3000 Phone	TAT if different from Below			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☑ 1 week			
Site: Presidio of San Francisco	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA ~~6010~~ 6010 5c)	As, Ba, Cu, Zn (USEPA 6020)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes:
SLCPS101[0.0]	6/7/16	1401	G	S	1			X				2.3°C
SLCPS101[1.0]	"	1409	G	"	"			"				HOLD
SLCPS101[1.5]		1410										HOLD
SLCPS102[0.0]		1347										
SLCPS102[1.0]		1351										HOLD
SLCPS102[1.5]		1358										HOLD
SLCPS103[0.0]		1348										
SLCPS103[1.0]		1350										HOLD
SLCPS103[1.5]		1352										HOLD
DUP060716-3		—										
DUP060716-4		—										
DUP060716-5		—										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected
Please hold excess soil for potential future analysis

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd. _____		Therm ID No.: _____
Relinquished by:	Company: TRC	Date/Time: 6/8/16 0924	Received by:	Company	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TestAmerica	Date/Time: 6/8/16 0924

Form No. CA-C-WI-002, Rev. 4.9, dated 2/2/2016

169179

Chain of Custody Record

TestAmerica Pleasanton
1220 Quarry Lane

Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

6/27/2016

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date: 6/7/16	COC No:
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	4 of 5 COCs
505 Sansome Street Suite 1600	Analysis Turnaround Time			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(415) 644-3000 Phone	TAT if different from Below _____			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☑ 1 week			Job / SDG No.:
Site: Presidio of San Francisco	☐ 2 days			
P O #	☐ 1 day			2,3,7 Sample Specific Notes:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Lead (USEPA 6020) 6010 7471	As, Ba, Cu, Zn (USEPA 6020)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes
SLCEX104[1.0]	6/7/16	1338	G	S	1			X				
SLCEX105[1.0]		1318										
SLCPS104[0.0]		1324										
SLCPS104[1.0]		1328										HOLD
SLCPS105[0.5]		1327										
SLCPS105[1.5]		1330										HOLD
SLCPS106[0.5]		1259										
SLCPS106[1.5]		1302										HOLD
SLCPS107[0.5]		1251										
SLCPS107[1.5]		1254										HOLD
SLCPS108[0.0]		1255										
SLCPS109[0.5]	↓	1238	↓	↓	↓			↓				

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected
Please hold all soil for potential future analysis

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No : | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

Relinquished by:	Company: JRC	Date/Time: 6/8/16 0924	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TestAmerica	Date/Time: 6/8/16 0924

169179

TestAmerica Pleasanton
1220 Quarry Lane

Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

6/27/2016

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date: 6/7/16	COC No:
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	5 of 5 COCs
505 Sansome Street Suite 1600	Analysis Turnaround Time			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(415) 644-3000 Phone	TAT if different from Below			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☑ 1 week			
Site: Presidio of San Francisco	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA ~~6020~~ 6010B)	As, Ba, Cu, Zn (USEPA 6020)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes:
PS110(0.5)	6/7/16	1239	G	S	1			X				2.3°C
DUP66716-6	6/7/16	—	G	S	1			X				
~~1258E~~ CB												
1258EX201RB202	6/7/16	1128	G	W	3			X				

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected
Please hold all soil and groundwater for potential future analysis

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:	Corr'd:	Therm ID No.:
Relinquished by:	Company: TRC	Date/Time: 6/8/16 0924	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TestAmerica	Date/Time: 6/8/16 0924

Form No. CA-C-WI-002, Rev. 4.9, dated 2/2/2016

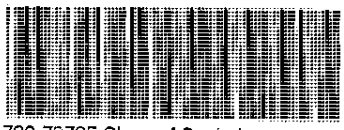
Sharma, Dimple 720-72725-Rev

From: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Sent: Thursday, June 09, 2016 3:21 PM
To: Sharma, Dimple
Cc: Boecher, Caroline
Subject: RE: TestAmerica Sample Login Confirmation files from 720-72725 Presidio

Dimple, thanks for working with us on this and sorry for the errors. Please see below for my instructions on these issues, several of them we already discussed:

- SLXEX103[0.5] should be SLCEX103[0.5] – please analyze this sample for lead
- Your sample numbers 23 and 24 should start with SLC not SLX
- Sample number 49 "PS110[0.5]" should actually be "SLCPS110[0.5]", we entered this incorrectly on the COC and sample label.

I think that is it and we appreciate the help with this.
Justin


720-72725 Chain of Custody

Justin Hanzel-Durbin
Senior Engineer/Project Manager
Environmental/Remediation

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415.644.3050 | F: 415.434.2321 | Cell: 415.209.3326

Follow us on LinkedIn or Twitter | www.trcsolutions.com
JHanzel-Durbin@trcsolutions.com

From: Sharma, Dimple [mailto:dimple.sharma@testamericainc.com]
Sent: Thursday, June 09, 2016 2:26 PM
To: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Subject: TestAmerica Sample Login Confirmation files from 720-72725 Presidio

Hello,

Attached, please find the Sample Confirmation files for job 720-72725; Presidio.
The container label for the following samples did not match the information listed on the Chain-of-Custody (COC): 1258EX105[1.5] (720-72725-6), 1258EX201[0.0] (720-72725-7), 1258EX202[0.0] (720-72725-8), 1258EX203[0.0] (720-72725-9), 1258EX204[0.0] (720-72725-10), SLCPS101[1.0] (720-72725-26), SLCPS101[1.5] (720-72725-27), SLCPS102[1.0] (720-72725-29), SLCPS102[1.5] (720-72725-30), SLCPS103[1.0] (720-72725-32), SLCPS103[1.5] (720-72725-33), SLCPS104[1.0] (720-72725-40), SLCPS105[1.5] (720-72725-42), SLCPS106[1.5] (720-72725-44), SLCPS107[1.5] (720-72725-46) and SLCEX103[0.5] (720-72725-52). Received these samples not listed on coc which are on hold but #52 not listed on original coc.
The following sample(s) was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): #52 SLXEX103[0.5] (Field container) Logged on hold until further notice.

Please feel free to contact me if you have any questions.

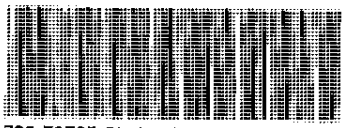
Sharma, Dimple 720-72725-Rev

From: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Sent: Thursday, June 09, 2016 3:21 PM
To: Sharma, Dimple
Cc: Boecher, Caroline
Subject: RE: TestAmerica Sample Login Confirmation files from 720-72725 Presidio

Dimple, thanks for working with us on this and sorry for the errors. Please see below for my instructions on these issues, several of them we already discussed:

- SLXEX103[0.5] should be SLCEX103[0.5] – please analyze this sample for lead
- Your sample numbers 23 and 24 should start with SLC not SLX
- Sample number 49 "PS110[0.5]" should actually be "SLCPS110[0.5]", we entered this incorrectly on the COC and sample label.

I think that is it and we appreciate the help with this.
Justin


720-72725 Chain of Custody

Justin Hanzel-Durbin
Senior Engineer/Project Manager
Environmental/Remediation

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415 644.3050 | F: 415.434.2321 | Cell: 415.209.3326

Follow us on LinkedIn or Twitter | www.trcsolutions.com
JHanzel-Durbin@trcsolutions.com

From: Sharma, Dimple [mailto:dimple.sharma@testamericainc.com]
Sent: Thursday, June 09, 2016 2:26 PM
To: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Subject: TestAmerica Sample Login Confirmation files from 720-72725 Presidio

Hello,

Attached, please find the Sample Confirmation files for job 720-72725; Presidio.
The container label for the following samples did not match the information listed on the Chain-of-Custody (COC): 1258EX105[1.5] (720-72725-6), 1258EX201[0.0] (720-72725-7), 1258EX202[0.0] (720-72725-8), 1258EX203[0.0] (720-72725-9), 1258EX204[0.0] (720-72725-10), SLCPS101[1.0] (720-72725-26), SLCPS101[1.5] (720-72725-27), SLCPS102[1.0] (720-72725-29), SLCPS102[1.5] (720-72725-30), SLCPS103[1.0] (720-72725-32), SLCPS103[1.5] (720-72725-33), SLCPS104[1.0] (720-72725-40), SLCPS105[1.5] (720-72725-42), SLCPS106[1.5] (720-72725-44), SLCPS107[1.5] (720-72725-46) and SLCEX103[0.5] (720-72725-52). Received these samples not listed on coc which are on hold but #52 not listed on original coc.
The following sample(s) was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): #52 SLXEX103[0.5] (Field container) Logged on hold until further notice.

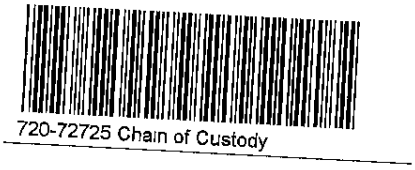
Please feel free to contact me if you have any questions.

J-720-72725-2

Caparas, Criselda

From: Hanzel-Durbin, Justin [JHanzel-Durbin@trcsolutions.com]
Sent: Friday, June 17, 2016 4:44 PM
To: Caparas, Criselda; Sharma, Dimple
Cc: Boecher, Caroline
Subject: FW: Additional Analyses

Based on review of the las sample data set we received please run the following samples and analyses, Highlighted samples should be on rush TAT for receipt of results on Monday if at all possible so that we can make decisions on the other hold samples before the 14 day PAH hold time is passed.
Thanks
Justin



- 1258EX101[0.0] – Dioxin & furans
- 1258EX105[1.5] – Lead dry weight corrected
- 1259EX102[0.5] – Dioxin & furans
- 1259EX104[3.0] – As, Ba, Cu, Zn, PAHs (8270)
- 1259EX106[3.0] – As, Ba, Cu, Zn, PAHs (8270), Dioxins and furans
- 1259PS107[2.5] - As, Ba, Cu, Zn, PAHs (8270)
- SLCEX102[0.5] - Dioxin & furans
- SLCPS101[1.0] - Lead dry weight corrected
- SLCPS102[1.0] - Lead dry weight corrected
- SLCEX104[1.0] - As, Ba, Cu, Zn, PAHs (8270)
- SLCEX105[1.0] - As, Ba, Cu, Zn, PAHs (8270)
- SLCPS104[1.0] - Lead dry weight corrected
- SLCPS105[0.5] - As, Ba, Cu, Zn, PAHs (8270)
- SLCPS106[0.5] - As, Ba, Cu, Zn, PAHs (8270)
- SLCPS107[0.5] - As, Ba, Cu, Zn, PAHs (8270), dioxins and furans
- SLCPS108[0.0] - As, Ba, Cu, Zn, PAHs (8270)
- SLCPS109[0.5] - As, Ba, Cu, Zn, PAHs (8270)
- SLCPS110[0.5] - As, Ba, Cu, Zn, PAHs (8270)

Justin Hanzel-Durbin
Senior Engineer/Project Manager
Environmental/Remediation

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415.644.3050 | F: 415.434.2321 | Cell: 415.209.3326

Follow us on LinkedIn or Twitter | www.trcsolutions.com
JHanzel-Durbin@trcsolutions.com

From: Boecher, Caroline
Sent: Friday, June 17, 2016 1:17 PM
To: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>; Sim, Alison <ASim@trcsolutions.com>
Cc: Woods, Patrick <PWoods@trcsolutions.com>

Subject: Additional Analyses

Justin,

Please find attached the draft tables for soil samples.

From this, we've put together a list of additional analyses from this latest data group. After your QC, please send to the lab. Alison is also double checking this list.

- 1258EX101[0.0] – Dioxin & furans
- 1258EX105[1.5] – Lead dry weight corrected
- 1259EX102[0.5] – Dioxin & furans
- 1259EX104[3.0] – As, Ba, Cu, Zn, PAHs (8270)
- 1259EX106 - As, Ba, Cu, Zn, PAHs (8270), Dioxins and furans
- 1259PS107[2.5] - As, Ba, Cu, Zn, PAHs (8270)
- SLCEX102[0.5] - Dioxin & furans
- SLCPS101[1.0] - Lead dry weight corrected
- SLCPS102[1.0] - Lead dry weight corrected
- SLCEX104[1.0] - As, Ba, Cu, Zn, PAHs (8270)
- SLCEX105[1.0] - As, Ba, Cu, Zn, PAHs (8270)
- SLCPS104[1.0] - Lead dry weight corrected
- SLCPS105[0.5] - As, Ba, Cu, Zn, PAHs (8270)
- SLCPS106[0.5] - As, Ba, Cu, Zn, PAHs (8270)
- SLCPS107[0.5] - As, Ba, Cu, Zn, PAHs (8270), dioxins and furans
- SLCPS108[0.0] - As, Ba, Cu, Zn, PAHs (8270)
- SLCPS109[0.5] - As, Ba, Cu, Zn, PAHs (8270)
- SLCPS110[0.5] - As, Ba, Cu, Zn, PAHs (8270)

I've also attached a color-coded chart I developed to help us track all analyses:

- Green = sample is clean for analyte(s)
- Yellow = pending analysis
- Red = exceeds SL
- Purple indicates locations where additional sample collection may be required, as we don't have deeper samples or step-out samples.

Carrie Boecher
Project Engineer

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Phone (925) 484-1919 Fax (925) 600-3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sharma, Dimple	Carrier Tracking No(s):	COC No: 720-29258.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: dimple.sharma@testamericainc.com		Page: Page 1 of 4
Company: TestAmerica Laboratories, Inc.		**Analysis Requested**		Job #: 720-72725-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 6/14/2016			Preservation Codes:
City: West Sacramento	TAT Requested (days):			A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - ph 4-5 L - EDA Z - other (specify) Other:
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Presidio	Project #: 72010678			
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Moisture/ (MOD) Local Method	6010B/3050B Lead	6010B/3010A Lead	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
1258EX101[0.0] (720-72725-1)	6/7/16	11:12 Pacific		Solid			X	X		1	
1258EX102[0.0] (720-72725-2)	6/7/16	11:13 Pacific		Solid			X	X		1	
1258EX103[0.0] (720-72725-3)	6/7/16	11:00 Pacific		Solid			X	X		1	
1258EX104[0.0] (720-72725-4)	6/7/16	10:53 Pacific		Solid			X	X		1	
1258EX105[0.5] (720-72725-5)	6/7/16	11:05 Pacific		Solid			X	X		1	
DUP060716-1 (720-72725-11)	6/7/16	Pacific		Solid			X	X		1	
DUP060716-2 (720-72725-12)	6/7/16	Pacific		Solid			X	X		1	
1259EX101[0.5] (720-72725-13)	6/7/16	08:39 Pacific		Solid			X	X		1	
1259EX102[0.5] (720-72725-14)	6/7/16	08:43 Pacific		Solid			X	X		1	
1259EX103[0.5] (720-72725-15)	6/7/16	08:45 Pacific		Solid			X	X		1	
1259EX104[3.0] (720-72725-16)	6/7/16	09:59 Pacific		Solid			X	X		1	

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/8/16 1810	TA	[signature]	6-8-16 1810	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.6

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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sharma, Dimple	Carrier Tracking No(s):	COC No: 720-29258.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: dimple.sharma@testamericainc.com		Page: Page 2 of 4
Company: TestAmerica Laboratories, Inc.				Job #: 720-72725-1
Address: 880 Riverside Parkway,	Due Date Requested: 6/14/2016			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Presidio	Project #: 72010678			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Moisture/ (MOD) Local Method	6010B/3050B Lead	6010B/3010A Lead	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
1259EX105[2.0] (720-72725-17)	6/7/16	10:10 Pacific		Solid			X	X		1	
1259EX106[3.0] (720-72725-18)	6/7/16	10:25 Pacific		Solid			X	X		1	
1259PS106[2.0] (720-72725-19)	6/7/16	10:27 Pacific		Solid			X	X		1	
1259PS107[2.5] (720-72725-20)	6/7/16	09:15 Pacific		Solid			X	X		1	
1259PS108[2.0] (720-72725-21)	6/7/16	09:23 Pacific		Solid			X	X		1	
1259PS109[1.0] (720-72725-22)	6/7/16	09:36 Pacific		Solid			X	X		1	
SLXEX101[0.5] (720-72725-23)	6/7/16	14:24 Pacific		Solid			X	X		1	
SLXEX102[0.5] (720-72725-24)	6/7/16	14:17 Pacific		Solid			X	X		1	
SLCPS101[0.0] (720-72725-25)	6/7/16	14:01 Pacific		Solid			X	X		1	
SLCPS102[0.0] (720-72725-28)	6/7/16	13:47 Pacific		Solid			X	X		1	
SLCPS103[0.0] (720-72725-31)	6/7/16	13:48 Pacific		Solid			X	X		1	

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/8/16 1810	TA	[signature]	6-8-16 1810	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sharma, Dimple	Carrier Tracking No(s):	COC No: 720-29258.3
Client Contact: Shipping/Receiving	Phone:	E-Mail: dimple.sharma@testamericainc.com		Page: Page 3 of 4
Company: TestAmerica Laboratories, Inc.				Job #: 720-72725-1
Address: 880 Riverside Parkway,	Due Date Requested: 6/14/2016			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Presidio	Project #: 72010678			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Moisture/ (MOD) Local Method	6010B/3050B Lead	6010B/3010A Lead	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
DUP-060716-3 (720-72725-34)	6/7/16	Pacific		Solid			X	X		1	
DUP-060716-4 (720-72725-35)	6/7/16	Pacific		Solid			X	X		1	
DUP-060716-5 (720-72725-36)	6/7/16	Pacific		Solid			X	X		1	
SLCEX104[1.0] (720-72725-37)	6/7/16	13:38 Pacific		Solid			X	X		1	
SLCEX105[1.0] (720-72725-38)	6/7/16	13:18 Pacific		Solid			X	X		1	
SLCPS104[0.0] (720-72725-39)	6/7/16	13:24 Pacific		Solid			X	X		1	
SLCPS105[0.5] (720-72725-41)	6/7/16	13:27 Pacific		Solid			X	X		1	
SLCPS106[0.5] (720-72725-43)	6/7/16	12:59 Pacific		Solid			X	X		1	
SLCPS107[0.5] (720-72725-45)	6/7/16	12:51 Pacific		Solid			X	X		1	
SLCPS108[0.0] (720-72725-47)	6/7/16	12:55 Pacific		Solid			X	X		1	
SLCPS109[0.5] (720-72725-48)	6/7/16	12:38 Pacific		Solid			X	X		1	

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	6/8/16 1810	TA	[signature]	6-8-16 1850	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sharma, Dimple	Carrier Tracking No(s):	COC No: 720-29258.4
Client Contact: Shipping/Receiving	Phone:	E-Mail: dimple.sharma@testamericainc.com		Page: Page 4 of 4
Company: TestAmerica Laboratories, Inc.				Job #: 720-72725-1
Address: 880 Riverside Parkway,	Due Date Requested: 6/14/2016			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Presidio	Project #: 72010678			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Moisture/ (MOD) Local Method	6010B/3050B Lead	6010B/3010A Lead	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
PS110[0.5] (720-72725-49)	6/7/16	12:39 Pacific		Solid			X	X		1	
DUP060716-6 (720-72725-50)	6/7/16	Pacific		Solid			X	X		1	
1258EX201RB202 (720-72725-51)	6/7/16	11:28 Pacific		Water					X	1	

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/8/16 1810	TA	[signature]	6-8-16 1810	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-72725-1

Login Number: 72725

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Arauz, Dennis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-72725-1

Login Number: 72725
List Number: 2
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 06/08/16 07:27 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-72725-2
Client Project/Site: Presidio
Revision: 1

For:
TRC Solutions, Inc.
10680 White Rock Road
Suite 100
Rancho Cordova, California 95670

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
7/14/2016 12:07:06 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

Dioxin

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
q	The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-72725-2

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-72725-2

Comments
No additional comments.

Receipt
The samples were received on 6/8/2016 9:24 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.3º C.

Receipt Exceptions

GC/MS Semi VOA
Method 8270C SIM: The following samples were diluted due to the nature of the sample matrix: 1259PS107[2.5] (720-72725-20), SLCEX104[1.0] (720-72725-37), SLCEX105[1.0] (720-72725-38), SLCPS104[1.0] (720-72725-40), SLCPS105[0.5] (720-72725-41), SLCPS105[1.5] (720-72725-42), SLCPS106[0.5] (720-72725-43), SLCPS106[1.5] (720-72725-44), SLCPS107[0.5] (720-72725-45), SLCPS107[1.5] (720-72725-46), SLCPS108[0.0] (720-72725-47), SLCPS109[0.5] (720-72725-48), SLCPS110[0.5] (720-72725-49), (720-72725-A-40-C MS) and (720-72725-A-40-D MSD). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Dioxin
Method 8290, 8290A: The bracketing continuing calibration verification (CCV062816I) associated with batch 320-116227 has an analyte with percent difference value that is between the method criteria of 30% to 35% deviation from the initial calibration curve. Per method guidelines, an average relative response factor (RRF) is calculated from the bracketing CCV and is used to quantitate the Isotope Dilution Analyte (IDA) recovery in the associated samples.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Dioxin Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: 1258EX101[0.0] — Lab Sample ID: 720-72725-1

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
OCDD	34		13		pg/g	1	☼	8290	Total/NA
Total TCDF	1.3	q	1.3		pg/g	1	☼	8290	Total/NA
Total HpCDD	8.2		6.7		pg/g	1	☼	8290	Total/NA

Client Sample ID: 1258EX105[1.5] — Lab Sample ID: 720-72725-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	5.5		0.65		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1259EX102[0.5] — Lab Sample ID: 720-72725-14

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	1.8		1.2		pg/g	1	☼	8290	Total/NA
OCDD	31		12		pg/g	1	☼	8290	Total/NA
Total TCDD	15	q	1.2		pg/g	1	☼	8290	Total/NA
Total TCDF	11	q	1.2		pg/g	1	☼	8290	Total/NA
Total PeCDF	8.8	q	6.1		pg/g	1	☼	8290	Total/NA
Total HpCDD	8.3		6.1		pg/g	1	☼	8290	Total/NA

Client Sample ID: 1259EX104[3.0] — Lab Sample ID: 720-72725-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	12		6.7		ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	15		6.7		ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	21		6.7		ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	12		6.7		ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[k]fluoranthene	7.9		6.7		ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	16		6.7		ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	17		6.7		ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	12		6.7		ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	16		6.7		ug/Kg	1	☼	8270C SIM	Total/NA

Client Sample ID: 1259EX106[3.0] — Lab Sample ID: 720-72725-18

No Detections.

Client Sample ID: 1259PS107[2.5] — Lab Sample ID: 720-72725-20

No Detections.

Client Sample ID: SLCEX102[0.5] — Lab Sample ID: 720-72725-24

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDD	3.5		1.2		pg/g	1	☼	8290	Total/NA
2,3,7,8-TCDF	2.6		1.2		pg/g	1	☼	8290	Total/NA
1,2,3,4,6,7,8-HpCDD	33		5.9		pg/g	1	☼	8290	Total/NA
1,2,3,4,6,7,8-HpCDF	7.3		5.9		pg/g	1	☼	8290	Total/NA
OCDD	230		12		pg/g	1	☼	8290	Total/NA
OCDF	14		12		pg/g	1	☼	8290	Total/NA
Total TCDD	12	q	1.2		pg/g	1	☼	8290	Total/NA
Total TCDF	32		1.2		pg/g	1	☼	8290	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SLCEX102[0.5] (Continued) — Lab Sample ID: 720-72725-24

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
Total PeCDD	12	q	5.9		pg/g	1	☼	8290	Total/NA
Total PeCDF	41		5.9		pg/g	1	☼	8290	Total/NA
Total HxCDD	24		5.9		pg/g	1	☼	8290	Total/NA
Total HxCDF	30		5.9		pg/g	1	☼	8290	Total/NA
Total HpCDD	60		5.9		pg/g	1	☼	8290	Total/NA
Total HpCDF	16		5.9		pg/g	1	☼	8290	Total/NA

Client Sample ID: SLCPS101[1.0] — Lab Sample ID: 720-72725-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	29		1.1		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: SLCPS102[1.0] — Lab Sample ID: 720-72725-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	78		1.1		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: SLCEX104[1.0] — Lab Sample ID: 720-72725-37

No Detections.

Client Sample ID: SLCEX105[1.0] — Lab Sample ID: 720-72725-38

No Detections.

Client Sample ID: SLCPS104[1.0] — Lab Sample ID: 720-72725-40

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	50		1.2		mg/Kg	1	☼	6010B	Total/NA
Barium	53		1.2		mg/Kg	1	☼	6010B	Total/NA
Arsenic	7.2		2.4		mg/Kg	1	☼	6010B	Total/NA
Copper	17		1.8		mg/Kg	1	☼	6010B	Total/NA
Zinc	43		2.4		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: SLCPS105[0.5] — Lab Sample ID: 720-72725-41

No Detections.

Client Sample ID: SLCPS105[1.5] — Lab Sample ID: 720-72725-42

No Detections.

Client Sample ID: SLCPS106[0.5] — Lab Sample ID: 720-72725-43

No Detections.

Client Sample ID: SLCPS106[1.5] — Lab Sample ID: 720-72725-44

No Detections.

Client Sample ID: SLCPS107[0.5] — Lab Sample ID: 720-72725-45

This Detection Summary does not include radiochemical test results.

Client Sample ID: SLCPS107[0.5] (Continued) — Lab Sample ID: 720-72725-45

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	12		5.6		pg/g	1	☼	8290	Total/NA
OCDD	120		11		pg/g	1	☼	8290	Total/NA
Total TCDF	5.3	q	1.1		pg/g	1	☼	8290	Total/NA
Total PeCDF	11		5.6		pg/g	1	☼	8290	Total/NA
Total HxCDF	8.6	q	5.6		pg/g	1	☼	8290	Total/NA
Total HpCDD	20		5.6		pg/g	1	☼	8290	Total/NA
Total HpCDF	7.9		5.6		pg/g	1	☼	8290	Total/NA

Client Sample ID: SLCPS107[1.5] — Lab Sample ID: 720-72725-46

No Detections.

Client Sample ID: SLCPS108[0.0] — Lab Sample ID: 720-72725-47

No Detections.

Client Sample ID: SLCPS109[0.5] — Lab Sample ID: 720-72725-48

No Detections.

Client Sample ID: SLCPS110[0.5] — Lab Sample ID: 720-72725-49

No Detections.

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: 1258EX101[0.0]
Date Collected: 06/07/16 11:12
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-1
Matrix: Solid
Percent Solids: 75.2

Method: 8290 - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.3		pg/g	☼	06/23/16 10:34	06/30/16 21:27	1
2,3,7,8-TCDF	ND		1.3		pg/g	☼	06/23/16 10:34	06/30/16 21:27	1
1,2,3,7,8-PeCDD	ND		6.7		pg/g	☼	06/23/16 10:34	06/30/16 21:27	1
1,2,3,7,8-PeCDF	ND		6.7		pg/g	☼	06/23/16 10:34	06/30/16 21:27	1
2,3,4,7,8-PeCDF	ND		6.7		pg/g	☼	06/23/16 10:34	06/30/16 21:27	1
1,2,3,4,7,8-HxCDD	ND		6.7		pg/g	☼	06/23/16 10:34	06/30/16 21:27	1
1,2,3,6,7,8-HxCDD	ND		6.7		pg/g	☼	06/23/16 10:34	06/30/16 21:27	1
1,2,3,7,8,9-HxCDD	ND		6.7		pg/g	☼	06/23/16 10:34	06/30/16 21:27	1
1,2,3,4,7,8-HxCDF	ND		6.7		pg/g	☼	06/23/16 10:34	06/30/16 21:27	1
1,2,3,6,7,8-HxCDF	ND		6.7		pg/g	☼	06/23/16 10:34	06/30/16 21:27	1
2,3,4,6,7,8-HxCDF	ND		6.7		pg/g	☼	06/23/16 10:34	06/30/16 21:27	1
1,2,3,7,8,9-HxCDF	ND		6.7		pg/g	☼	06/23/16 10:34	06/30/16 21:27	1
1,2,3,4,6,7,8-HpCDD	ND		6.7		pg/g	☼	06/23/16 10:34	06/30/16 21:27	1
1,2,3,4,6,7,8-HpCDF	ND		6.7		pg/g	☼	06/23/16 10:34	06/30/16 21:27	1
1,2,3,4,7,8,9-HpCDF	ND	*	6.7		pg/g	☼	06/23/16 10:34	06/30/16 21:27	1
OCDD	**34**		13		pg/g	☼	06/23/16 10:34	06/30/16 21:27	1
OCDF	ND		13		pg/g	☼	06/23/16 10:34	06/30/16 21:27	1
Total TCDD	ND		1.3		pg/g	☼	06/23/16 10:34	06/30/16 21:27	1
Total TCDF	**1.3**	**q**	1.3		pg/g	☼	06/23/16 10:34	06/30/16 21:27	1
Total PeCDD	ND		6.7		pg/g	☼	06/23/16 10:34	06/30/16 21:27	1
Total PeCDF	ND		6.7		pg/g	☼	06/23/16 10:34	06/30/16 21:27	1
Total HxCDD	ND		6.7		pg/g	☼	06/23/16 10:34	06/30/16 21:27	1
Total HxCDF	ND		6.7		pg/g	☼	06/23/16 10:34	06/30/16 21:27	1
Total HpCDD	**8.2**		6.7		pg/g	☼	06/23/16 10:34	06/30/16 21:27	1
Total HpCDF	ND		6.7		pg/g	☼	06/23/16 10:34	06/30/16 21:27	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*83*		*40 - 135*	*06/23/16 10:34*	*06/30/16 21:27*	*1*
13C-2,3,7,8-TCDF	*79*		*40 - 135*	*06/23/16 10:34*	*06/30/16 21:27*	*1*
13C-1,2,3,7,8-PeCDD	*83*		*40 - 135*	*06/23/16 10:34*	*06/30/16 21:27*	*1*
13C-1,2,3,7,8-PeCDF	*80*		*40 - 135*	*06/23/16 10:34*	*06/30/16 21:27*	*1*
13C-1,2,3,6,7,8-HxCDD	*87*		*40 - 135*	*06/23/16 10:34*	*06/30/16 21:27*	*1*
13C-1,2,3,4,7,8-HxCDF	*84*		*40 - 135*	*06/23/16 10:34*	*06/30/16 21:27*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*100*		*40 - 135*	*06/23/16 10:34*	*06/30/16 21:27*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*92*		*40 - 135*	*06/23/16 10:34*	*06/30/16 21:27*	*1*
13C-OCDD	*83*		*40 - 135*	*06/23/16 10:34*	*06/30/16 21:27*	*1*

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: 1258EX105[1.5]
Date Collected: 06/07/16 11:20
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-6
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.4		0.1		%			06/21/16 16:29	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: 1258EX105[1.5]
Date Collected: 06/07/16 11:20
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-6
Matrix: Solid
Percent Solids: 84.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	5.5		0.65		mg/Kg	☼	06/21/16 07:00	06/21/16 18:33	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: 1259EX102[0.5]
Date Collected: 06/07/16 08:43
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-14
Matrix: Solid
Percent Solids: 81.1

Method: 8290 - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	**1.8**		1.2		pg/g	☼	06/23/16 10:34	06/30/16 22:13	1
2,3,7,8-TCDF	ND		1.2		pg/g	☼	06/23/16 10:34	07/02/16 02:13	1
1,2,3,7,8-PeCDD	ND		6.1		pg/g	☼	06/23/16 10:34	06/30/16 22:13	1
1,2,3,7,8-PeCDF	ND		6.1		pg/g	☼	06/23/16 10:34	06/30/16 22:13	1
2,3,4,7,8-PeCDF	ND		6.1		pg/g	☼	06/23/16 10:34	06/30/16 22:13	1
1,2,3,4,7,8-HxCDD	ND		6.1		pg/g	☼	06/23/16 10:34	06/30/16 22:13	1
1,2,3,6,7,8-HxCDD	ND		6.1		pg/g	☼	06/23/16 10:34	06/30/16 22:13	1
1,2,3,7,8,9-HxCDD	ND		6.1		pg/g	☼	06/23/16 10:34	06/30/16 22:13	1
1,2,3,4,7,8-HxCDF	ND		6.1		pg/g	☼	06/23/16 10:34	06/30/16 22:13	1
1,2,3,6,7,8-HxCDF	ND		6.1		pg/g	☼	06/23/16 10:34	06/30/16 22:13	1
2,3,4,6,7,8-HxCDF	ND		6.1		pg/g	☼	06/23/16 10:34	06/30/16 22:13	1
1,2,3,7,8,9-HxCDF	ND		6.1		pg/g	☼	06/23/16 10:34	06/30/16 22:13	1
1,2,3,4,6,7,8-HpCDD	ND		6.1		pg/g	☼	06/23/16 10:34	06/30/16 22:13	1
1,2,3,4,6,7,8-HpCDF	ND		6.1		pg/g	☼	06/23/16 10:34	06/30/16 22:13	1
1,2,3,4,7,8,9-HpCDF	ND	*	6.1		pg/g	☼	06/23/16 10:34	06/30/16 22:13	1
OCDD	**31**		12		pg/g	☼	06/23/16 10:34	06/30/16 22:13	1
OCDF	ND		12		pg/g	☼	06/23/16 10:34	06/30/16 22:13	1
Total TCDD	**15**	**q**	1.2		pg/g	☼	06/23/16 10:34	06/30/16 22:13	1
Total TCDF	**11**	**q**	1.2		pg/g	☼	06/23/16 10:34	06/30/16 22:13	1
Total PeCDD	ND		6.1		pg/g	☼	06/23/16 10:34	06/30/16 22:13	1
Total PeCDF	**8.8**	**q**	6.1		pg/g	☼	06/23/16 10:34	06/30/16 22:13	1
Total HxCDD	ND		6.1		pg/g	☼	06/23/16 10:34	06/30/16 22:13	1
Total HxCDF	ND		6.1		pg/g	☼	06/23/16 10:34	06/30/16 22:13	1
Total HpCDD	**8.3**		6.1		pg/g	☼	06/23/16 10:34	06/30/16 22:13	1
Total HpCDF	ND		6.1		pg/g	☼	06/23/16 10:34	06/30/16 22:13	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*81*		*40 - 135*	*06/23/16 10:34*	*06/30/16 22:13*	*1*
13C-2,3,7,8-TCDD	*85*		*40 - 135*	*06/23/16 10:34*	*07/02/16 02:13*	*1*
13C-2,3,7,8-TCDF	*78*		*40 - 135*	*06/23/16 10:34*	*06/30/16 22:13*	*1*
13C-2,3,7,8-TCDF	*90*		*40 - 135*	*06/23/16 10:34*	*07/02/16 02:13*	*1*
13C-1,2,3,7,8-PeCDD	*82*		*40 - 135*	*06/23/16 10:34*	*06/30/16 22:13*	*1*
13C-1,2,3,7,8-PeCDF	*79*		*40 - 135*	*06/23/16 10:34*	*06/30/16 22:13*	*1*
13C-1,2,3,6,7,8-HxCDD	*91*		*40 - 135*	*06/23/16 10:34*	*06/30/16 22:13*	*1*
13C-1,2,3,4,7,8-HxCDF	*82*		*40 - 135*	*06/23/16 10:34*	*06/30/16 22:13*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*99*		*40 - 135*	*06/23/16 10:34*	*06/30/16 22:13*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*90*		*40 - 135*	*06/23/16 10:34*	*06/30/16 22:13*	*1*
13C-OCDD	*82*		*40 - 135*	*06/23/16 10:34*	*06/30/16 22:13*	*1*

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: 1259EX104[3.0]
Date Collected: 06/07/16 09:59
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-16
Matrix: Solid
Percent Solids: 73.3

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		6.7		ug/Kg	☼	06/21/16 11:06	06/23/16 12:59	1
Acenaphthylene	ND		6.7		ug/Kg	☼	06/21/16 11:06	06/23/16 12:59	1
Anthracene	ND		6.7		ug/Kg	☼	06/21/16 11:06	06/23/16 12:59	1
Benzo[a]anthracene	**12**		6.7		ug/Kg	☼	06/21/16 11:06	06/23/16 12:59	1
Benzo[a]pyrene	**15**		6.7		ug/Kg	☼	06/21/16 11:06	06/23/16 12:59	1
Benzo[b]fluoranthene	**21**		6.7		ug/Kg	☼	06/21/16 11:06	06/23/16 12:59	1
Benzo[g,h,i]perylene	**12**		6.7		ug/Kg	☼	06/21/16 11:06	06/23/16 12:59	1
Benzo[k]fluoranthene	**7.9**		6.7		ug/Kg	☼	06/21/16 11:06	06/23/16 12:59	1
Chrysene	**16**		6.7		ug/Kg	☼	06/21/16 11:06	06/23/16 12:59	1
Dibenz(a,h)anthracene	ND		6.7		ug/Kg	☼	06/21/16 11:06	06/23/16 12:59	1
Fluoranthene	**17**		6.7		ug/Kg	☼	06/21/16 11:06	06/23/16 12:59	1
Fluorene	ND		6.7		ug/Kg	☼	06/21/16 11:06	06/23/16 12:59	1
Indeno[1,2,3-cd]pyrene	**12**		6.7		ug/Kg	☼	06/21/16 11:06	06/23/16 12:59	1
Naphthalene	ND		6.7		ug/Kg	☼	06/21/16 11:06	06/23/16 12:59	1
Phenanthrene	ND		6.7		ug/Kg	☼	06/21/16 11:06	06/23/16 12:59	1
Pyrene	**16**		6.7		ug/Kg	☼	06/21/16 11:06	06/23/16 12:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*77*		*53 - 113*	*06/21/16 11:06*	*06/23/16 12:59*	*1*
Terphenyl-d14	*81*		*70 - 144*	*06/21/16 11:06*	*06/23/16 12:59*	*1*
2-Fluorobiphenyl (Surr)	*82*		*53 - 113*	*06/21/16 11:06*	*06/23/16 12:59*	*1*

Client Sample ID: 1259EX106[3.0]
Date Collected: 06/07/16 10:25
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-18
Matrix: Solid
Percent Solids: 70.6

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		7.4		ug/Kg	☼	06/21/16 11:06	06/23/16 13:29	1
Acenaphthylene	ND		7.4		ug/Kg	☼	06/21/16 11:06	06/23/16 13:29	1
Anthracene	ND		7.4		ug/Kg	☼	06/21/16 11:06	06/23/16 13:29	1
Benzo[a]anthracene	ND		7.4		ug/Kg	☼	06/21/16 11:06	06/23/16 13:29	1
Benzo[a]pyrene	ND		7.4		ug/Kg	☼	06/21/16 11:06	06/23/16 13:29	1
Benzo[b]fluoranthene	ND		7.4		ug/Kg	☼	06/21/16 11:06	06/23/16 13:29	1
Benzo[g,h,i]perylene	ND		7.4		ug/Kg	☼	06/21/16 11:06	06/23/16 13:29	1
Benzo[k]fluoranthene	ND		7.4		ug/Kg	☼	06/21/16 11:06	06/23/16 13:29	1
Chrysene	ND		7.4		ug/Kg	☼	06/21/16 11:06	06/23/16 13:29	1
Dibenz(a,h)anthracene	ND		7.4		ug/Kg	☼	06/21/16 11:06	06/23/16 13:29	1
Fluoranthene	ND		7.4		ug/Kg	☼	06/21/16 11:06	06/23/16 13:29	1
Fluorene	ND		7.4		ug/Kg	☼	06/21/16 11:06	06/23/16 13:29	1
Indeno[1,2,3-cd]pyrene	ND		7.4		ug/Kg	☼	06/21/16 11:06	06/23/16 13:29	1
Naphthalene	ND		7.4		ug/Kg	☼	06/21/16 11:06	06/23/16 13:29	1
Phenanthrene	ND		7.4		ug/Kg	☼	06/21/16 11:06	06/23/16 13:29	1
Pyrene	ND		7.4		ug/Kg	☼	06/21/16 11:06	06/23/16 13:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*79*		*53 - 113*	*06/21/16 11:06*	*06/23/16 13:29*	*1*
Terphenyl-d14	*83*		*70 - 144*	*06/21/16 11:06*	*06/23/16 13:29*	*1*
2-Fluorobiphenyl (Surr)	*78*		*53 - 113*	*06/21/16 11:06*	*06/23/16 13:29*	*1*

Method: 8290 - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.4		pg/g	☼	06/23/16 10:34	06/30/16 22:59	1
2,3,7,8-TCDF	ND		1.4		pg/g	☼	06/23/16 10:34	06/30/16 22:59	1
1,2,3,7,8-PeCDD	ND		6.9		pg/g	☼	06/23/16 10:34	06/30/16 22:59	1
1,2,3,7,8-PeCDF	ND		6.9		pg/g	☼	06/23/16 10:34	06/30/16 22:59	1
2,3,4,7,8-PeCDF	ND		6.9		pg/g	☼	06/23/16 10:34	06/30/16 22:59	1
1,2,3,4,7,8-HxCDD	ND		6.9		pg/g	☼	06/23/16 10:34	06/30/16 22:59	1
1,2,3,6,7,8-HxCDD	ND		6.9		pg/g	☼	06/23/16 10:34	06/30/16 22:59	1
1,2,3,7,8,9-HxCDD	ND		6.9		pg/g	☼	06/23/16 10:34	06/30/16 22:59	1
1,2,3,4,7,8-HxCDF	ND		6.9		pg/g	☼	06/23/16 10:34	06/30/16 22:59	1
1,2,3,6,7,8-HxCDF	ND		6.9		pg/g	☼	06/23/16 10:34	06/30/16 22:59	1
2,3,4,6,7,8-HxCDF	ND		6.9		pg/g	☼	06/23/16 10:34	06/30/16 22:59	1
1,2,3,7,8,9-HxCDF	ND		6.9		pg/g	☼	06/23/16 10:34	06/30/16 22:59	1
1,2,3,4,6,7,8-HpCDD	ND		6.9		pg/g	☼	06/23/16 10:34	06/30/16 22:59	1
1,2,3,4,6,7,8-HpCDF	ND		6.9		pg/g	☼	06/23/16 10:34	06/30/16 22:59	1
1,2,3,4,7,8,9-HpCDF	ND	*	6.9		pg/g	☼	06/23/16 10:34	06/30/16 22:59	1
OCDD	ND		14		pg/g	☼	06/23/16 10:34	06/30/16 22:59	1
OCDF	ND		14		pg/g	☼	06/23/16 10:34	06/30/16 22:59	1
Total TCDD	ND		1.4		pg/g	☼	06/23/16 10:34	06/30/16 22:59	1
Total TCDF	ND		1.4		pg/g	☼	06/23/16 10:34	06/30/16 22:59	1
Total PeCDD	ND		6.9		pg/g	☼	06/23/16 10:34	06/30/16 22:59	1
Total PeCDF	ND		6.9		pg/g	☼	06/23/16 10:34	06/30/16 22:59	1
Total HxCDD	ND		6.9		pg/g	☼	06/23/16 10:34	06/30/16 22:59	1
Total HxCDF	ND		6.9		pg/g	☼	06/23/16 10:34	06/30/16 22:59	1
Total HpCDD	ND		6.9		pg/g	☼	06/23/16 10:34	06/30/16 22:59	1
Total HpCDF	ND		6.9		pg/g	☼	06/23/16 10:34	06/30/16 22:59	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: 1259EX106[3.0]
Date Collected: 06/07/16 10:25
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-18
Matrix: Solid
Percent Solids: 70.6

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	85		40 - 135	06/23/16 10:34	06/30/16 22:59	1
13C-2,3,7,8-TCDF	81		40 - 135	06/23/16 10:34	06/30/16 22:59	1
13C-1,2,3,7,8-PeCDD	85		40 - 135	06/23/16 10:34	06/30/16 22:59	1
13C-1,2,3,7,8-PeCDF	82		40 - 135	06/23/16 10:34	06/30/16 22:59	1
13C-1,2,3,6,7,8-HxCDD	93		40 - 135	06/23/16 10:34	06/30/16 22:59	1
13C-1,2,3,4,7,8-HxCDF	85		40 - 135	06/23/16 10:34	06/30/16 22:59	1
13C-1,2,3,4,6,7,8-HpCDD	100		40 - 135	06/23/16 10:34	06/30/16 22:59	1
13C-1,2,3,4,6,7,8-HpCDF	92		40 - 135	06/23/16 10:34	06/30/16 22:59	1
13C-OCDD	81		40 - 135	06/23/16 10:34	06/30/16 22:59	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: 1259PS107[2.5]
Date Collected: 06/07/16 09:15
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-20
Matrix: Solid
Percent Solids: 79.7

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		59		ug/Kg	☼	06/21/16 11:06	06/23/16 13:58	10
Acenaphthylene	ND		59		ug/Kg	☼	06/21/16 11:06	06/23/16 13:58	10
Anthracene	ND		59		ug/Kg	☼	06/21/16 11:06	06/23/16 13:58	10
Benzo[a]anthracene	ND		59		ug/Kg	☼	06/21/16 11:06	06/23/16 13:58	10
Benzo[a]pyrene	ND		59		ug/Kg	☼	06/21/16 11:06	06/23/16 13:58	10
Benzo[b]fluoranthene	ND		59		ug/Kg	☼	06/21/16 11:06	06/23/16 13:58	10
Benzo[g,h,i]perylene	ND		59		ug/Kg	☼	06/21/16 11:06	06/23/16 13:58	10
Benzo[k]fluoranthene	ND		59		ug/Kg	☼	06/21/16 11:06	06/23/16 13:58	10
Chrysene	ND		59		ug/Kg	☼	06/21/16 11:06	06/23/16 13:58	10
Dibenz(a,h)anthracene	ND		59		ug/Kg	☼	06/21/16 11:06	06/23/16 13:58	10
Fluoranthene	ND		59		ug/Kg	☼	06/21/16 11:06	06/23/16 13:58	10
Fluorene	ND		59		ug/Kg	☼	06/21/16 11:06	06/23/16 13:58	10
Indeno[1,2,3-cd]pyrene	ND		59		ug/Kg	☼	06/21/16 11:06	06/23/16 13:58	10
Naphthalene	ND		59		ug/Kg	☼	06/21/16 11:06	06/23/16 13:58	10
Phenanthrene	ND		59		ug/Kg	☼	06/21/16 11:06	06/23/16 13:58	10
Pyrene	ND		59		ug/Kg	☼	06/21/16 11:06	06/23/16 13:58	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*92*		*53 - 113*	*06/21/16 11:06*	*06/23/16 13:58*	*10*
Terphenyl-d14	*91*		*70 - 144*	*06/21/16 11:06*	*06/23/16 13:58*	*10*
2-Fluorobiphenyl (Surr)	*91*		*53 - 113*	*06/21/16 11:06*	*06/23/16 13:58*	*10*

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: SLCEX102[0.5]
Date Collected: 06/07/16 14:17
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-24
Matrix: Solid
Percent Solids: 80.9

Method: 8290 - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	**3.5**		1.2		pg/g	☼	06/23/16 10:34	06/30/16 23:46	1
2,3,7,8-TCDF	**2.6**		1.2		pg/g	☼	06/23/16 10:34	07/02/16 02:51	1
1,2,3,7,8-PeCDD	ND		5.9		pg/g	☼	06/23/16 10:34	06/30/16 23:46	1
1,2,3,7,8-PeCDF	ND		5.9		pg/g	☼	06/23/16 10:34	06/30/16 23:46	1
2,3,4,7,8-PeCDF	ND		5.9		pg/g	☼	06/23/16 10:34	06/30/16 23:46	1
1,2,3,4,7,8-HxCDD	ND		5.9		pg/g	☼	06/23/16 10:34	06/30/16 23:46	1
1,2,3,6,7,8-HxCDD	ND		5.9		pg/g	☼	06/23/16 10:34	06/30/16 23:46	1
1,2,3,7,8,9-HxCDD	ND		5.9		pg/g	☼	06/23/16 10:34	06/30/16 23:46	1
1,2,3,4,7,8-HxCDF	ND		5.9		pg/g	☼	06/23/16 10:34	06/30/16 23:46	1
1,2,3,6,7,8-HxCDF	ND		5.9		pg/g	☼	06/23/16 10:34	06/30/16 23:46	1
2,3,4,6,7,8-HxCDF	ND		5.9		pg/g	☼	06/23/16 10:34	06/30/16 23:46	1
1,2,3,7,8,9-HxCDF	ND		5.9		pg/g	☼	06/23/16 10:34	06/30/16 23:46	1
1,2,3,4,6,7,8-HpCDD	**33**		5.9		pg/g	☼	06/23/16 10:34	06/30/16 23:46	1
1,2,3,4,6,7,8-HpCDF	**7.3**		5.9		pg/g	☼	06/23/16 10:34	06/30/16 23:46	1
1,2,3,4,7,8,9-HpCDF	ND	*	5.9		pg/g	☼	06/23/16 10:34	06/30/16 23:46	1
OCDD	**230**		12		pg/g	☼	06/23/16 10:34	06/30/16 23:46	1
OCDF	**14**		12		pg/g	☼	06/23/16 10:34	06/30/16 23:46	1
Total TCDD	**12**	**q**	1.2		pg/g	☼	06/23/16 10:34	06/30/16 23:46	1
Total TCDF	**32**		1.2		pg/g	☼	06/23/16 10:34	06/30/16 23:46	1
Total PeCDD	**12**	**q**	5.9		pg/g	☼	06/23/16 10:34	06/30/16 23:46	1
Total PeCDF	**41**		5.9		pg/g	☼	06/23/16 10:34	06/30/16 23:46	1
Total HxCDD	**24**		5.9		pg/g	☼	06/23/16 10:34	06/30/16 23:46	1
Total HxCDF	**30**		5.9		pg/g	☼	06/23/16 10:34	06/30/16 23:46	1
Total HpCDD	**60**		5.9		pg/g	☼	06/23/16 10:34	06/30/16 23:46	1
Total HpCDF	**16**		5.9		pg/g	☼	06/23/16 10:34	06/30/16 23:46	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*86*		*40 - 135*	*06/23/16 10:34*	*06/30/16 23:46*	*1*
13C-2,3,7,8-TCDD	*86*		*40 - 135*	*06/23/16 10:34*	*07/02/16 02:51*	*1*
13C-2,3,7,8-TCDF	*81*		*40 - 135*	*06/23/16 10:34*	*06/30/16 23:46*	*1*
13C-2,3,7,8-TCDF	*94*		*40 - 135*	*06/23/16 10:34*	*07/02/16 02:51*	*1*
13C-1,2,3,7,8-PeCDD	*88*		*40 - 135*	*06/23/16 10:34*	*06/30/16 23:46*	*1*
13C-1,2,3,7,8-PeCDF	*83*		*40 - 135*	*06/23/16 10:34*	*06/30/16 23:46*	*1*
13C-1,2,3,6,7,8-HxCDD	*89*		*40 - 135*	*06/23/16 10:34*	*06/30/16 23:46*	*1*
13C-1,2,3,4,7,8-HxCDF	*86*		*40 - 135*	*06/23/16 10:34*	*06/30/16 23:46*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*97*		*40 - 135*	*06/23/16 10:34*	*06/30/16 23:46*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*89*		*40 - 135*	*06/23/16 10:34*	*06/30/16 23:46*	*1*
13C-OCDD	*83*		*40 - 135*	*06/23/16 10:34*	*06/30/16 23:46*	*1*

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: SLCPS101[1.0]
Date Collected: 06/07/16 14:09
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-26
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.8		0.1		%			06/21/16 16:29	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: SLCPS101[1.0]
Date Collected: 06/07/16 14:09
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-26
Matrix: Solid
Percent Solids: 90.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	29		1.1		mg/Kg	☼	06/21/16 07:00	06/21/16 18:36	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: SLCPS102[1.0]
Date Collected: 06/07/16 13:51
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-29
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.2		0.1		%			06/21/16 16:29	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: SLCPS102[1.0]
Date Collected: 06/07/16 13:51
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-29
Matrix: Solid
Percent Solids: 88.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	78		1.1		mg/Kg	☼	06/21/16 07:00	06/21/16 18:46	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: SLCEX104[1.0]
Date Collected: 06/07/16 13:38
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-37
Matrix: Solid
Percent Solids: 85.5

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		63		ug/Kg	☼	06/21/16 11:06	06/23/16 14:27	10
Acenaphthylene	ND		63		ug/Kg	☼	06/21/16 11:06	06/23/16 14:27	10
Anthracene	ND		63		ug/Kg	☼	06/21/16 11:06	06/23/16 14:27	10
Benzo[a]anthracene	ND		63		ug/Kg	☼	06/21/16 11:06	06/23/16 14:27	10
Benzo[a]pyrene	ND		63		ug/Kg	☼	06/21/16 11:06	06/23/16 14:27	10
Benzo[b]fluoranthene	ND		63		ug/Kg	☼	06/21/16 11:06	06/23/16 14:27	10
Benzo[g,h,i]perylene	ND		63		ug/Kg	☼	06/21/16 11:06	06/23/16 14:27	10
Benzo[k]fluoranthene	ND		63		ug/Kg	☼	06/21/16 11:06	06/23/16 14:27	10
Chrysene	ND		63		ug/Kg	☼	06/21/16 11:06	06/23/16 14:27	10
Dibenz(a,h)anthracene	ND		63		ug/Kg	☼	06/21/16 11:06	06/23/16 14:27	10
Fluoranthene	ND		63		ug/Kg	☼	06/21/16 11:06	06/23/16 14:27	10
Fluorene	ND		63		ug/Kg	☼	06/21/16 11:06	06/23/16 14:27	10
Indeno[1,2,3-cd]pyrene	ND		63		ug/Kg	☼	06/21/16 11:06	06/23/16 14:27	10
Naphthalene	ND		63		ug/Kg	☼	06/21/16 11:06	06/23/16 14:27	10
Phenanthrene	ND		63		ug/Kg	☼	06/21/16 11:06	06/23/16 14:27	10
Pyrene	ND		63		ug/Kg	☼	06/21/16 11:06	06/23/16 14:27	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*83*		*53 - 113*	*06/21/16 11:06*	*06/23/16 14:27*	*10*
Terphenyl-d14	*89*		*70 - 144*	*06/21/16 11:06*	*06/23/16 14:27*	*10*
2-Fluorobiphenyl (Surr)	*95*		*53 - 113*	*06/21/16 11:06*	*06/23/16 14:27*	*10*

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: SLCEX105[1.0]
Date Collected: 06/07/16 13:18
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-38
Matrix: Solid
Percent Solids: 96.3

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		97		ug/Kg	☼	06/21/16 11:06	06/23/16 14:56	20
Acenaphthylene	ND		97		ug/Kg	☼	06/21/16 11:06	06/23/16 14:56	20
Anthracene	ND		97		ug/Kg	☼	06/21/16 11:06	06/23/16 14:56	20
Benzo[a]anthracene	ND		97		ug/Kg	☼	06/21/16 11:06	06/23/16 14:56	20
Benzo[a]pyrene	ND		97		ug/Kg	☼	06/21/16 11:06	06/23/16 14:56	20
Benzo[b]fluoranthene	ND		97		ug/Kg	☼	06/21/16 11:06	06/23/16 14:56	20
Benzo[g,h,i]perylene	ND		97		ug/Kg	☼	06/21/16 11:06	06/23/16 14:56	20
Benzo[k]fluoranthene	ND		97		ug/Kg	☼	06/21/16 11:06	06/23/16 14:56	20
Chrysene	ND		97		ug/Kg	☼	06/21/16 11:06	06/23/16 14:56	20
Dibenz(a,h)anthracene	ND		97		ug/Kg	☼	06/21/16 11:06	06/23/16 14:56	20
Fluoranthene	ND		97		ug/Kg	☼	06/21/16 11:06	06/23/16 14:56	20
Fluorene	ND		97		ug/Kg	☼	06/21/16 11:06	06/23/16 14:56	20
Indeno[1,2,3-cd]pyrene	ND		97		ug/Kg	☼	06/21/16 11:06	06/23/16 14:56	20
Naphthalene	ND		97		ug/Kg	☼	06/21/16 11:06	06/23/16 14:56	20
Phenanthrene	ND		97		ug/Kg	☼	06/21/16 11:06	06/23/16 14:56	20
Pyrene	ND		97		ug/Kg	☼	06/21/16 11:06	06/23/16 14:56	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*79*		*53 - 113*	*06/21/16 11:06*	*06/23/16 14:56*	*20*
Terphenyl-d14	*95*		*70 - 144*	*06/21/16 11:06*	*06/23/16 14:56*	*20*
2-Fluorobiphenyl (Surr)	*97*		*53 - 113*	*06/21/16 11:06*	*06/23/16 14:56*	*20*

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: SLCPS104[1.0]
Date Collected: 06/07/16 13:28
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-40
Matrix: Solid
Percent Solids: 84.4

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		58		ug/Kg	☼	06/21/16 11:06	06/23/16 15:25	10
Acenaphthylene	ND		58		ug/Kg	☼	06/21/16 11:06	06/23/16 15:25	10
Anthracene	ND		58		ug/Kg	☼	06/21/16 11:06	06/23/16 15:25	10
Benzo[a]anthracene	ND		58		ug/Kg	☼	06/21/16 11:06	06/23/16 15:25	10
Benzo[a]pyrene	ND		58		ug/Kg	☼	06/21/16 11:06	06/23/16 15:25	10
Benzo[b]fluoranthene	ND		58		ug/Kg	☼	06/21/16 11:06	06/23/16 15:25	10
Benzo[g,h,i]perylene	ND		58		ug/Kg	☼	06/21/16 11:06	06/23/16 15:25	10
Benzo[k]fluoranthene	ND		58		ug/Kg	☼	06/21/16 11:06	06/23/16 15:25	10
Chrysene	ND		58		ug/Kg	☼	06/21/16 11:06	06/23/16 15:25	10
Dibenz(a,h)anthracene	ND		58		ug/Kg	☼	06/21/16 11:06	06/23/16 15:25	10
Fluoranthene	ND		58		ug/Kg	☼	06/21/16 11:06	06/23/16 15:25	10
Fluorene	ND		58		ug/Kg	☼	06/21/16 11:06	06/23/16 15:25	10
Indeno[1,2,3-cd]pyrene	ND		58		ug/Kg	☼	06/21/16 11:06	06/23/16 15:25	10
Naphthalene	ND		58		ug/Kg	☼	06/21/16 11:06	06/23/16 15:25	10
Phenanthrene	ND		58		ug/Kg	☼	06/21/16 11:06	06/23/16 15:25	10
Pyrene	ND		58		ug/Kg	☼	06/21/16 11:06	06/23/16 15:25	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*77*		*53 - 113*	*06/21/16 11:06*	*06/23/16 15:25*	*10*
Terphenyl-d14	*90*		*70 - 144*	*06/21/16 11:06*	*06/23/16 15:25*	*10*
2-Fluorobiphenyl (Surr)	*86*		*53 - 113*	*06/21/16 11:06*	*06/23/16 15:25*	*10*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**50**		1.2		mg/Kg	☼	06/21/16 07:00	06/21/16 18:49	1
Barium	**53**		1.2		mg/Kg	☼	06/21/16 07:00	06/21/16 18:49	1
Arsenic	**7.2**		2.4		mg/Kg	☼	06/21/16 07:00	06/21/16 18:49	1
Copper	**17**		1.8		mg/Kg	☼	06/21/16 07:00	06/21/16 18:49	1
Zinc	**43**		2.4		mg/Kg	☼	06/21/16 07:00	06/21/16 18:49	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**15.6**		0.1		%			06/21/16 16:29	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: SLCPS105[0.5]
Date Collected: 06/07/16 13:27
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-41
Matrix: Solid
Percent Solids: 88.5

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		120		ug/Kg	☼	06/21/16 11:06	06/23/16 16:52	20
Acenaphthylene	ND		120		ug/Kg	☼	06/21/16 11:06	06/23/16 16:52	20
Anthracene	ND		120		ug/Kg	☼	06/21/16 11:06	06/23/16 16:52	20
Benzo[a]anthracene	ND		120		ug/Kg	☼	06/21/16 11:06	06/23/16 16:52	20
Benzo[a]pyrene	ND		120		ug/Kg	☼	06/21/16 11:06	06/23/16 16:52	20
Benzo[b]fluoranthene	ND		120		ug/Kg	☼	06/21/16 11:06	06/23/16 16:52	20
Benzo[g,h,i]perylene	ND		120		ug/Kg	☼	06/21/16 11:06	06/23/16 16:52	20
Benzo[k]fluoranthene	ND		120		ug/Kg	☼	06/21/16 11:06	06/23/16 16:52	20
Chrysene	ND		120		ug/Kg	☼	06/21/16 11:06	06/23/16 16:52	20
Dibenz(a,h)anthracene	ND		120		ug/Kg	☼	06/21/16 11:06	06/23/16 16:52	20
Fluoranthene	ND		120		ug/Kg	☼	06/21/16 11:06	06/23/16 16:52	20
Fluorene	ND		120		ug/Kg	☼	06/21/16 11:06	06/23/16 16:52	20
Indeno[1,2,3-cd]pyrene	ND		120		ug/Kg	☼	06/21/16 11:06	06/23/16 16:52	20
Naphthalene	ND		120		ug/Kg	☼	06/21/16 11:06	06/23/16 16:52	20
Phenanthrene	ND		120		ug/Kg	☼	06/21/16 11:06	06/23/16 16:52	20
Pyrene	ND		120		ug/Kg	☼	06/21/16 11:06	06/23/16 16:52	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*99*		*53 - 113*	*06/21/16 11:06*	*06/23/16 16:52*	*20*
Terphenyl-d14	*98*		*70 - 144*	*06/21/16 11:06*	*06/23/16 16:52*	*20*
2-Fluorobiphenyl (Surr)	*96*		*53 - 113*	*06/21/16 11:06*	*06/23/16 16:52*	*20*

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: SLCPS105[1.5]
Date Collected: 06/07/16 13:30
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-42
Matrix: Solid
Percent Solids: 82.5

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		60		ug/Kg	☼	06/21/16 11:06	06/23/16 17:21	10
Acenaphthylene	ND		60		ug/Kg	☼	06/21/16 11:06	06/23/16 17:21	10
Anthracene	ND		60		ug/Kg	☼	06/21/16 11:06	06/23/16 17:21	10
Benzo[a]anthracene	ND		60		ug/Kg	☼	06/21/16 11:06	06/23/16 17:21	10
Benzo[a]pyrene	ND		60		ug/Kg	☼	06/21/16 11:06	06/23/16 17:21	10
Benzo[b]fluoranthene	ND		60		ug/Kg	☼	06/21/16 11:06	06/23/16 17:21	10
Benzo[g,h,i]perylene	ND		60		ug/Kg	☼	06/21/16 11:06	06/23/16 17:21	10
Benzo[k]fluoranthene	ND		60		ug/Kg	☼	06/21/16 11:06	06/23/16 17:21	10
Chrysene	ND		60		ug/Kg	☼	06/21/16 11:06	06/23/16 17:21	10
Dibenz(a,h)anthracene	ND		60		ug/Kg	☼	06/21/16 11:06	06/23/16 17:21	10
Fluoranthene	ND		60		ug/Kg	☼	06/21/16 11:06	06/23/16 17:21	10
Fluorene	ND		60		ug/Kg	☼	06/21/16 11:06	06/23/16 17:21	10
Indeno[1,2,3-cd]pyrene	ND		60		ug/Kg	☼	06/21/16 11:06	06/23/16 17:21	10
Naphthalene	ND		60		ug/Kg	☼	06/21/16 11:06	06/23/16 17:21	10
Phenanthrene	ND		60		ug/Kg	☼	06/21/16 11:06	06/23/16 17:21	10
Pyrene	ND		60		ug/Kg	☼	06/21/16 11:06	06/23/16 17:21	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*73*		*53 - 113*	*06/21/16 11:06*	*06/23/16 17:21*	*10*
Terphenyl-d14	*78*		*70 - 144*	*06/21/16 11:06*	*06/23/16 17:21*	*10*
2-Fluorobiphenyl (Surr)	*76*		*53 - 113*	*06/21/16 11:06*	*06/23/16 17:21*	*10*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**17.5**		0.1		%			06/21/16 16:29	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: SLCPS106[0.5]
Date Collected: 06/07/16 12:59
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-43
Matrix: Solid
Percent Solids: 92.3

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		50		ug/Kg	☼	06/21/16 11:06	06/23/16 17:50	10
Acenaphthylene	ND		50		ug/Kg	☼	06/21/16 11:06	06/23/16 17:50	10
Anthracene	ND		50		ug/Kg	☼	06/21/16 11:06	06/23/16 17:50	10
Benzo[a]anthracene	ND		50		ug/Kg	☼	06/21/16 11:06	06/23/16 17:50	10
Benzo[a]pyrene	ND		50		ug/Kg	☼	06/21/16 11:06	06/23/16 17:50	10
Benzo[b]fluoranthene	ND		50		ug/Kg	☼	06/21/16 11:06	06/23/16 17:50	10
Benzo[g,h,i]perylene	ND		50		ug/Kg	☼	06/21/16 11:06	06/23/16 17:50	10
Benzo[k]fluoranthene	ND		50		ug/Kg	☼	06/21/16 11:06	06/23/16 17:50	10
Chrysene	ND		50		ug/Kg	☼	06/21/16 11:06	06/23/16 17:50	10
Dibenz(a,h)anthracene	ND		50		ug/Kg	☼	06/21/16 11:06	06/23/16 17:50	10
Fluoranthene	ND		50		ug/Kg	☼	06/21/16 11:06	06/23/16 17:50	10
Fluorene	ND		50		ug/Kg	☼	06/21/16 11:06	06/23/16 17:50	10
Indeno[1,2,3-cd]pyrene	ND		50		ug/Kg	☼	06/21/16 11:06	06/23/16 17:50	10
Naphthalene	ND		50		ug/Kg	☼	06/21/16 11:06	06/23/16 17:50	10
Phenanthrene	ND		50		ug/Kg	☼	06/21/16 11:06	06/23/16 17:50	10
Pyrene	ND		50		ug/Kg	☼	06/21/16 11:06	06/23/16 17:50	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*86*		*53 - 113*	*06/21/16 11:06*	*06/23/16 17:50*	*10*
Terphenyl-d14	*91*		*70 - 144*	*06/21/16 11:06*	*06/23/16 17:50*	*10*
2-Fluorobiphenyl (Surr)	*93*		*53 - 113*	*06/21/16 11:06*	*06/23/16 17:50*	*10*

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: SLCPS106[1.5]
Date Collected: 06/07/16 13:02
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-44
Matrix: Solid
Percent Solids: 96.1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		49		ug/Kg	☼	06/21/16 11:06	06/23/16 18:19	10
Acenaphthylene	ND		49		ug/Kg	☼	06/21/16 11:06	06/23/16 18:19	10
Anthracene	ND		49		ug/Kg	☼	06/21/16 11:06	06/23/16 18:19	10
Benzo[a]anthracene	ND		49		ug/Kg	☼	06/21/16 11:06	06/23/16 18:19	10
Benzo[a]pyrene	ND		49		ug/Kg	☼	06/21/16 11:06	06/23/16 18:19	10
Benzo[b]fluoranthene	ND		49		ug/Kg	☼	06/21/16 11:06	06/23/16 18:19	10
Benzo[g,h,i]perylene	ND		49		ug/Kg	☼	06/21/16 11:06	06/23/16 18:19	10
Benzo[k]fluoranthene	ND		49		ug/Kg	☼	06/21/16 11:06	06/23/16 18:19	10
Chrysene	ND		49		ug/Kg	☼	06/21/16 11:06	06/23/16 18:19	10
Dibenz(a,h)anthracene	ND		49		ug/Kg	☼	06/21/16 11:06	06/23/16 18:19	10
Fluoranthene	ND		49		ug/Kg	☼	06/21/16 11:06	06/23/16 18:19	10
Fluorene	ND		49		ug/Kg	☼	06/21/16 11:06	06/23/16 18:19	10
Indeno[1,2,3-cd]pyrene	ND		49		ug/Kg	☼	06/21/16 11:06	06/23/16 18:19	10
Naphthalene	ND		49		ug/Kg	☼	06/21/16 11:06	06/23/16 18:19	10
Phenanthrene	ND		49		ug/Kg	☼	06/21/16 11:06	06/23/16 18:19	10
Pyrene	ND		49		ug/Kg	☼	06/21/16 11:06	06/23/16 18:19	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*77*		*53 - 113*	*06/21/16 11:06*	*06/23/16 18:19*	*10*
Terphenyl-d14	*87*		*70 - 144*	*06/21/16 11:06*	*06/23/16 18:19*	*10*
2-Fluorobiphenyl (Surr)	*87*		*53 - 113*	*06/21/16 11:06*	*06/23/16 18:19*	*10*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**3.9**		0.1		%			06/21/16 16:29	1

Client Sample ID: SLCPS107[0.5]
Date Collected: 06/07/16 12:51
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-45
Matrix: Solid
Percent Solids: 89.3

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		110		ug/Kg	☼	06/21/16 11:06	06/23/16 18:49	20
Acenaphthylene	ND		110		ug/Kg	☼	06/21/16 11:06	06/23/16 18:49	20
Anthracene	ND		110		ug/Kg	☼	06/21/16 11:06	06/23/16 18:49	20
Benzo[a]anthracene	ND		110		ug/Kg	☼	06/21/16 11:06	06/23/16 18:49	20
Benzo[a]pyrene	ND		110		ug/Kg	☼	06/21/16 11:06	06/23/16 18:49	20
Benzo[b]fluoranthene	ND		110		ug/Kg	☼	06/21/16 11:06	06/23/16 18:49	20
Benzo[g,h,i]perylene	ND		110		ug/Kg	☼	06/21/16 11:06	06/23/16 18:49	20
Benzo[k]fluoranthene	ND		110		ug/Kg	☼	06/21/16 11:06	06/23/16 18:49	20
Chrysene	ND		110		ug/Kg	☼	06/21/16 11:06	06/23/16 18:49	20
Dibenz(a,h)anthracene	ND		110		ug/Kg	☼	06/21/16 11:06	06/23/16 18:49	20
Fluoranthene	ND		110		ug/Kg	☼	06/21/16 11:06	06/23/16 18:49	20
Fluorene	ND		110		ug/Kg	☼	06/21/16 11:06	06/23/16 18:49	20
Indeno[1,2,3-cd]pyrene	ND		110		ug/Kg	☼	06/21/16 11:06	06/23/16 18:49	20
Naphthalene	ND		110		ug/Kg	☼	06/21/16 11:06	06/23/16 18:49	20
Phenanthrene	ND		110		ug/Kg	☼	06/21/16 11:06	06/23/16 18:49	20
Pyrene	ND		110		ug/Kg	☼	06/21/16 11:06	06/23/16 18:49	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*94*		*53 - 113*	*06/21/16 11:06*	*06/23/16 18:49*	*20*
Terphenyl-d14	*90*		*70 - 144*	*06/21/16 11:06*	*06/23/16 18:49*	*20*
2-Fluorobiphenyl (Surr)	*93*		*53 - 113*	*06/21/16 11:06*	*06/23/16 18:49*	*20*

Method: 8290 - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.1		pg/g	☼	06/23/16 10:34	07/01/16 00:32	1
2,3,7,8-TCDF	ND		1.1		pg/g	☼	06/23/16 10:34	07/01/16 00:32	1
1,2,3,7,8-PeCDD	ND		5.6		pg/g	☼	06/23/16 10:34	07/01/16 00:32	1
1,2,3,7,8-PeCDF	ND		5.6		pg/g	☼	06/23/16 10:34	07/01/16 00:32	1
2,3,4,7,8-PeCDF	ND		5.6		pg/g	☼	06/23/16 10:34	07/01/16 00:32	1
1,2,3,4,7,8-HxCDD	ND		5.6		pg/g	☼	06/23/16 10:34	07/01/16 00:32	1
1,2,3,6,7,8-HxCDD	ND		5.6		pg/g	☼	06/23/16 10:34	07/01/16 00:32	1
1,2,3,7,8,9-HxCDD	ND		5.6		pg/g	☼	06/23/16 10:34	07/01/16 00:32	1
1,2,3,4,7,8-HxCDF	ND		5.6		pg/g	☼	06/23/16 10:34	07/01/16 00:32	1
1,2,3,6,7,8-HxCDF	ND		5.6		pg/g	☼	06/23/16 10:34	07/01/16 00:32	1
2,3,4,6,7,8-HxCDF	ND		5.6		pg/g	☼	06/23/16 10:34	07/01/16 00:32	1
1,2,3,7,8,9-HxCDF	ND		5.6		pg/g	☼	06/23/16 10:34	07/01/16 00:32	1
1,2,3,4,6,7,8-HpCDD	**12**		5.6		pg/g	☼	06/23/16 10:34	07/01/16 00:32	1
1,2,3,4,6,7,8-HpCDF	ND		5.6		pg/g	☼	06/23/16 10:34	07/01/16 00:32	1
1,2,3,4,7,8,9-HpCDF	ND	*	5.6		pg/g	☼	06/23/16 10:34	07/01/16 00:32	1
OCDD	**120**		11		pg/g	☼	06/23/16 10:34	07/01/16 00:32	1
OCDF	ND		11		pg/g	☼	06/23/16 10:34	07/01/16 00:32	1
Total TCDD	ND		1.1		pg/g	☼	06/23/16 10:34	07/01/16 00:32	1
Total TCDF	**5.3**	**q**	1.1		pg/g	☼	06/23/16 10:34	07/01/16 00:32	1
Total PeCDD	ND		5.6		pg/g	☼	06/23/16 10:34	07/01/16 00:32	1
Total PeCDF	**11**		5.6		pg/g	☼	06/23/16 10:34	07/01/16 00:32	1
Total HxCDD	ND		5.6		pg/g	☼	06/23/16 10:34	07/01/16 00:32	1
Total HxCDF	**8.6**	**q**	5.6		pg/g	☼	06/23/16 10:34	07/01/16 00:32	1
Total HpCDD	**20**		5.6		pg/g	☼	06/23/16 10:34	07/01/16 00:32	1
Total HpCDF	**7.9**		5.6		pg/g	☼	06/23/16 10:34	07/01/16 00:32	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: SLCPS107[0.5]
Date Collected: 06/07/16 12:51
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-45
Matrix: Solid
Percent Solids: 89.3

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	90		40 - 135	06/23/16 10:34	07/01/16 00:32	1
13C-2,3,7,8-TCDF	85		40 - 135	06/23/16 10:34	07/01/16 00:32	1
13C-1,2,3,7,8-PeCDD	94		40 - 135	06/23/16 10:34	07/01/16 00:32	1
13C-1,2,3,7,8-PeCDF	88		40 - 135	06/23/16 10:34	07/01/16 00:32	1
13C-1,2,3,6,7,8-HxCDD	92		40 - 135	06/23/16 10:34	07/01/16 00:32	1
13C-1,2,3,4,7,8-HxCDF	90		40 - 135	06/23/16 10:34	07/01/16 00:32	1
13C-1,2,3,4,6,7,8-HpCDD	96		40 - 135	06/23/16 10:34	07/01/16 00:32	1
13C-1,2,3,4,6,7,8-HpCDF	88		40 - 135	06/23/16 10:34	07/01/16 00:32	1
13C-OCDD	76		40 - 135	06/23/16 10:34	07/01/16 00:32	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: SLCPS107[1.5]
Date Collected: 06/07/16 12:54
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-46
Matrix: Solid
Percent Solids: 89.1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		53		ug/Kg	☼	06/21/16 11:06	06/23/16 19:18	10
Acenaphthylene	ND		53		ug/Kg	☼	06/21/16 11:06	06/23/16 19:18	10
Anthracene	ND		53		ug/Kg	☼	06/21/16 11:06	06/23/16 19:18	10
Benzo[a]anthracene	ND		53		ug/Kg	☼	06/21/16 11:06	06/23/16 19:18	10
Benzo[a]pyrene	ND		53		ug/Kg	☼	06/21/16 11:06	06/23/16 19:18	10
Benzo[b]fluoranthene	ND		53		ug/Kg	☼	06/21/16 11:06	06/23/16 19:18	10
Benzo[g,h,i]perylene	ND		53		ug/Kg	☼	06/21/16 11:06	06/23/16 19:18	10
Benzo[k]fluoranthene	ND		53		ug/Kg	☼	06/21/16 11:06	06/23/16 19:18	10
Chrysene	ND		53		ug/Kg	☼	06/21/16 11:06	06/23/16 19:18	10
Dibenz(a,h)anthracene	ND		53		ug/Kg	☼	06/21/16 11:06	06/23/16 19:18	10
Fluoranthene	ND		53		ug/Kg	☼	06/21/16 11:06	06/23/16 19:18	10
Fluorene	ND		53		ug/Kg	☼	06/21/16 11:06	06/23/16 19:18	10
Indeno[1,2,3-cd]pyrene	ND		53		ug/Kg	☼	06/21/16 11:06	06/23/16 19:18	10
Naphthalene	ND		53		ug/Kg	☼	06/21/16 11:06	06/23/16 19:18	10
Phenanthrene	ND		53		ug/Kg	☼	06/21/16 11:06	06/23/16 19:18	10
Pyrene	ND		53		ug/Kg	☼	06/21/16 11:06	06/23/16 19:18	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*89*		*53 - 113*	*06/21/16 11:06*	*06/23/16 19:18*	*10*
Terphenyl-d14	*78*		*70 - 144*	*06/21/16 11:06*	*06/23/16 19:18*	*10*
2-Fluorobiphenyl (Surr)	*90*		*53 - 113*	*06/21/16 11:06*	*06/23/16 19:18*	*10*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**10.9**		0.1		%			06/21/16 16:29	1

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: SLCPS108[0.0]
Date Collected: 06/07/16 12:55
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-47
Matrix: Solid
Percent Solids: 96.1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		52		ug/Kg	☼	06/21/16 11:06	06/23/16 19:47	10
Acenaphthylene	ND		52		ug/Kg	☼	06/21/16 11:06	06/23/16 19:47	10
Anthracene	ND		52		ug/Kg	☼	06/21/16 11:06	06/23/16 19:47	10
Benzo[a]anthracene	ND		52		ug/Kg	☼	06/21/16 11:06	06/23/16 19:47	10
Benzo[a]pyrene	ND		52		ug/Kg	☼	06/21/16 11:06	06/23/16 19:47	10
Benzo[b]fluoranthene	ND		52		ug/Kg	☼	06/21/16 11:06	06/23/16 19:47	10
Benzo[g,h,i]perylene	ND		52		ug/Kg	☼	06/21/16 11:06	06/23/16 19:47	10
Benzo[k]fluoranthene	ND		52		ug/Kg	☼	06/21/16 11:06	06/23/16 19:47	10
Chrysene	ND		52		ug/Kg	☼	06/21/16 11:06	06/23/16 19:47	10
Dibenz(a,h)anthracene	ND		52		ug/Kg	☼	06/21/16 11:06	06/23/16 19:47	10
Fluoranthene	ND		52		ug/Kg	☼	06/21/16 11:06	06/23/16 19:47	10
Fluorene	ND		52		ug/Kg	☼	06/21/16 11:06	06/23/16 19:47	10
Indeno[1,2,3-cd]pyrene	ND		52		ug/Kg	☼	06/21/16 11:06	06/23/16 19:47	10
Naphthalene	ND		52		ug/Kg	☼	06/21/16 11:06	06/23/16 19:47	10
Phenanthrene	ND		52		ug/Kg	☼	06/21/16 11:06	06/23/16 19:47	10
Pyrene	ND		52		ug/Kg	☼	06/21/16 11:06	06/23/16 19:47	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*92*		*53 - 113*	*06/21/16 11:06*	*06/23/16 19:47*	*10*
Terphenyl-d14	*99*		*70 - 144*	*06/21/16 11:06*	*06/23/16 19:47*	*10*
2-Fluorobiphenyl (Surr)	*97*		*53 - 113*	*06/21/16 11:06*	*06/23/16 19:47*	*10*

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: SLCPS109[0.5]
Date Collected: 06/07/16 12:38
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-48
Matrix: Solid
Percent Solids: 97.9

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		47		ug/Kg	☼	06/21/16 11:06	06/23/16 20:16	10
Acenaphthylene	ND		47		ug/Kg	☼	06/21/16 11:06	06/23/16 20:16	10
Anthracene	ND		47		ug/Kg	☼	06/21/16 11:06	06/23/16 20:16	10
Benzo[a]anthracene	ND		47		ug/Kg	☼	06/21/16 11:06	06/23/16 20:16	10
Benzo[a]pyrene	ND		47		ug/Kg	☼	06/21/16 11:06	06/23/16 20:16	10
Benzo[b]fluoranthene	ND		47		ug/Kg	☼	06/21/16 11:06	06/23/16 20:16	10
Benzo[g,h,i]perylene	ND		47		ug/Kg	☼	06/21/16 11:06	06/23/16 20:16	10
Benzo[k]fluoranthene	ND		47		ug/Kg	☼	06/21/16 11:06	06/23/16 20:16	10
Chrysene	ND		47		ug/Kg	☼	06/21/16 11:06	06/23/16 20:16	10
Dibenz(a,h)anthracene	ND		47		ug/Kg	☼	06/21/16 11:06	06/23/16 20:16	10
Fluoranthene	ND		47		ug/Kg	☼	06/21/16 11:06	06/23/16 20:16	10
Fluorene	ND		47		ug/Kg	☼	06/21/16 11:06	06/23/16 20:16	10
Indeno[1,2,3-cd]pyrene	ND		47		ug/Kg	☼	06/21/16 11:06	06/23/16 20:16	10
Naphthalene	ND		47		ug/Kg	☼	06/21/16 11:06	06/23/16 20:16	10
Phenanthrene	ND		47		ug/Kg	☼	06/21/16 11:06	06/23/16 20:16	10
Pyrene	ND		47		ug/Kg	☼	06/21/16 11:06	06/23/16 20:16	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*68*		*53 - 113*	*06/21/16 11:06*	*06/23/16 20:16*	*10*
Terphenyl-d14	*83*		*70 - 144*	*06/21/16 11:06*	*06/23/16 20:16*	*10*
2-Fluorobiphenyl (Surr)	*84*		*53 - 113*	*06/21/16 11:06*	*06/23/16 20:16*	*10*

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: SLCPS110[0.5]
Date Collected: 06/07/16 12:39
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-49
Matrix: Solid
Percent Solids: 97.1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		48		ug/Kg	☼	06/21/16 11:06	06/23/16 20:45	10
Acenaphthylene	ND		48		ug/Kg	☼	06/21/16 11:06	06/23/16 20:45	10
Anthracene	ND		48		ug/Kg	☼	06/21/16 11:06	06/23/16 20:45	10
Benzo[a]anthracene	ND		48		ug/Kg	☼	06/21/16 11:06	06/23/16 20:45	10
Benzo[a]pyrene	ND		48		ug/Kg	☼	06/21/16 11:06	06/23/16 20:45	10
Benzo[b]fluoranthene	ND		48		ug/Kg	☼	06/21/16 11:06	06/23/16 20:45	10
Benzo[g,h,i]perylene	ND		48		ug/Kg	☼	06/21/16 11:06	06/23/16 20:45	10
Benzo[k]fluoranthene	ND		48		ug/Kg	☼	06/21/16 11:06	06/23/16 20:45	10
Chrysene	ND		48		ug/Kg	☼	06/21/16 11:06	06/23/16 20:45	10
Dibenz(a,h)anthracene	ND		48		ug/Kg	☼	06/21/16 11:06	06/23/16 20:45	10
Fluoranthene	ND		48		ug/Kg	☼	06/21/16 11:06	06/23/16 20:45	10
Fluorene	ND		48		ug/Kg	☼	06/21/16 11:06	06/23/16 20:45	10
Indeno[1,2,3-cd]pyrene	ND		48		ug/Kg	☼	06/21/16 11:06	06/23/16 20:45	10
Naphthalene	ND		48		ug/Kg	☼	06/21/16 11:06	06/23/16 20:45	10
Phenanthrene	ND		48		ug/Kg	☼	06/21/16 11:06	06/23/16 20:45	10
Pyrene	ND		48		ug/Kg	☼	06/21/16 11:06	06/23/16 20:45	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*83*		*53 - 113*	*06/21/16 11:06*	*06/23/16 20:45*	*10*
Terphenyl-d14	*84*		*70 - 144*	*06/21/16 11:06*	*06/23/16 20:45*	*10*
2-Fluorobiphenyl (Surr)	*88*		*53 - 113*	*06/21/16 11:06*	*06/23/16 20:45*	*10*

Surrogate Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		NBZ	TPH	FBP
Lab Sample ID	Client Sample ID	(53-113)	(70-144)	(53-113)
720-72725-16	1259EX104[3.0]	77	81	82
720-72725-18	1259EX106[3.0]	79	83	78
720-72725-20	1259PS107[2.5]	92	91	91
720-72725-37	SLCEX104[1.0]	83	89	95
720-72725-38	SLCEX105[1.0]	79	95	97
720-72725-40	SLCPS104[1.0]	77	90	86
720-72725-40 MS	SLCPS104[1.0]	94	95	99
720-72725-40 MSD	SLCPS104[1.0]	81	92	94
720-72725-41	SLCPS105[0.5]	99	98	96
720-72725-42	SLCPS105[1.5]	73	78	76
720-72725-43	SLCPS106[0.5]	86	91	93
720-72725-44	SLCPS106[1.5]	77	87	87
720-72725-45	SLCPS107[0.5]	94	90	93
720-72725-46	SLCPS107[1.5]	89	78	90
720-72725-47	SLCPS108[0.0]	92	99	97
720-72725-48	SLCPS109[0.5]	68	83	84
720-72725-49	SLCPS110[0.5]	83	84	88
LCS 320-114644/2-A	Lab Control Sample	80	87	81
MB 320-114644/1-A	Method Blank	75	84	77

Surrogate Legend

NBZ = Nitrobenzene-d5
TPH = Terphenyl-d14
FBP = 2-Fluorobiphenyl (Surr)

Isotope Dilution Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Method: 8290 - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	TCDD (40-135)	TCDF (40-135)	PeCDD (40-135)	PeCDF1 (40-135)	HxCDD2 (40-135)	HxCDF1 (40-135)	HpCDD (40-135)	HpCDF1 (40-135)
720-72725-1	1258EX101[0.0]	83	79	83	80	87	84	100	92
720-72725-14	1259EX102[0.5]	81	78	82	79	91	82	99	90
720-72725-14	1259EX102[0.5]	85	90						
720-72725-18	1259EX106[3.0]	85	81	85	82	93	85	100	92
720-72725-24	SLCEX102[0.5]	86	81	88	83	89	86	97	89
720-72725-24	SLCEX102[0.5]	86	94						
720-72725-45	SLCPS107[0.5]	90	85	94	88	92	90	96	88
LCS 320-115025/2-A	Lab Control Sample	82	78	87	81	87	79	97	86
LCSD 320-115025/3-A	Lab Control Sample Dup	86	81	89	82	87	81	96	87
MB 320-115025/1-A	Method Blank	77	89	76	88	82	85	77	87

		Percent Isotope Dilution Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	OCDD (40-135)
720-72725-1	1258EX101[0.0]	83
720-72725-14	1259EX102[0.5]	82
720-72725-14	1259EX102[0.5]	
720-72725-18	1259EX106[3.0]	81
720-72725-24	SLCEX102[0.5]	83
720-72725-24	SLCEX102[0.5]	
720-72725-45	SLCPS107[0.5]	76
LCS 320-115025/2-A	Lab Control Sample	107
LCSD 320-115025/3-A	Lab Control Sample Dup	107
MB 320-115025/1-A	Method Blank	66

Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD
TCDF = 13C-2,3,7,8-TCDF
PeCDD = 13C-1,2,3,7,8-PeCDD
PeCDF1 = 13C-1,2,3,7,8-PeCDF
HxCDD2 = 13C-1,2,3,6,7,8-HxCDD
HxCDF1 = 13C-1,2,3,4,7,8-HxCDF
HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
HpCDF1 = 13C-1,2,3,4,6,7,8-HpCDF
OCDD = 13C-OCDD

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 320-114644/1-A
Matrix: Solid
Analysis Batch: 115019

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 114644

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		06/21/16 11:06	06/23/16 12:01	1
Acenaphthylene	ND		5.0		ug/Kg		06/21/16 11:06	06/23/16 12:01	1
Anthracene	ND		5.0		ug/Kg		06/21/16 11:06	06/23/16 12:01	1
Benzo[a]anthracene	ND		5.0		ug/Kg		06/21/16 11:06	06/23/16 12:01	1
Benzo[a]pyrene	ND		5.0		ug/Kg		06/21/16 11:06	06/23/16 12:01	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		06/21/16 11:06	06/23/16 12:01	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		06/21/16 11:06	06/23/16 12:01	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		06/21/16 11:06	06/23/16 12:01	1
Chrysene	ND		5.0		ug/Kg		06/21/16 11:06	06/23/16 12:01	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		06/21/16 11:06	06/23/16 12:01	1
Fluoranthene	ND		5.0		ug/Kg		06/21/16 11:06	06/23/16 12:01	1
Fluorene	ND		5.0		ug/Kg		06/21/16 11:06	06/23/16 12:01	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		06/21/16 11:06	06/23/16 12:01	1
Naphthalene	ND		5.0		ug/Kg		06/21/16 11:06	06/23/16 12:01	1
Phenanthrene	ND		5.0		ug/Kg		06/21/16 11:06	06/23/16 12:01	1
Pyrene	ND		5.0		ug/Kg		06/21/16 11:06	06/23/16 12:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*75*		*53 - 113*	*06/21/16 11:06*	*06/23/16 12:01*	*1*
Terphenyl-d14	*84*		*70 - 144*	*06/21/16 11:06*	*06/23/16 12:01*	*1*
2-Fluorobiphenyl (Surr)	*77*		*53 - 113*	*06/21/16 11:06*	*06/23/16 12:01*	*1*

Lab Sample ID: LCS 320-114644/2-A
Matrix: Solid
Analysis Batch: 115019

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114644

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	25.0	18.2		ug/Kg		73	51 - 111
Acenaphthylene	25.0	17.9		ug/Kg		72	51 - 111
Anthracene	25.0	19.5		ug/Kg		78	54 - 114
Benzo[a]anthracene	25.0	19.9		ug/Kg		80	66 - 126
Benzo[a]pyrene	25.0	18.9		ug/Kg		76	64 - 124
Benzo[b]fluoranthene	25.0	19.8		ug/Kg		79	65 - 125
Benzo[g,h,i]perylene	25.0	18.8		ug/Kg		75	54 - 134
Benzo[k]fluoranthene	25.0	20.0		ug/Kg		80	69 - 129
Chrysene	25.0	20.9		ug/Kg		84	67 - 127
Dibenz(a,h)anthracene	25.0	20.0		ug/Kg		80	58 - 128
Fluoranthene	25.0	20.7		ug/Kg		83	67 - 127
Fluorene	25.0	18.8		ug/Kg		75	54 - 114
Indeno[1,2,3-cd]pyrene	25.0	18.5		ug/Kg		74	59 - 133
Naphthalene	25.0	17.8		ug/Kg		71	52 - 112
Phenanthrene	25.0	18.8		ug/Kg		75	59 - 119
Pyrene	25.0	20.5		ug/Kg		82	71 - 131

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*80*		*53 - 113*
Terphenyl-d14	*87*		*70 - 144*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 320-114644/2-A
Matrix: Solid
Analysis Batch: 115019

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114644

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	81		53 - 113

Lab Sample ID: 720-72725-40 MS
Matrix: Solid
Analysis Batch: 115019

Client Sample ID: SLCPS104[1.0]
Prep Type: Total/NA
Prep Batch: 114644

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	ND		31.4	ND		ug/Kg	☼	88	51 - 111
Acenaphthylene	ND		31.4	ND		ug/Kg	☼	89	51 - 111
Anthracene	ND		31.4	ND		ug/Kg	☼	91	54 - 114
Benzo[a]anthracene	ND		31.4	ND		ug/Kg	☼	96	66 - 126
Benzo[a]pyrene	ND		31.4	ND		ug/Kg	☼	87	64 - 124
Benzo[b]fluoranthene	ND		31.4	ND		ug/Kg	☼	111	65 - 125
Benzo[g,h,i]perylene	ND		31.4	ND		ug/Kg	☼	120	54 - 134
Benzo[k]fluoranthene	ND		31.4	ND		ug/Kg	☼	86	69 - 129
Chrysene	ND		31.4	ND		ug/Kg	☼	94	67 - 127
Dibenz(a,h)anthracene	ND		31.4	ND		ug/Kg	☼	85	58 - 128
Fluoranthene	ND		31.4	ND		ug/Kg	☼	111	67 - 127
Fluorene	ND		31.4	ND		ug/Kg	☼	87	54 - 114
Indeno[1,2,3-cd]pyrene	ND		31.4	ND		ug/Kg	☼	94	59 - 133
Naphthalene	ND		31.4	ND		ug/Kg	☼	80	52 - 112
Phenanthrene	ND		31.4	ND		ug/Kg	☼	78	59 - 119
Pyrene	ND		31.4	ND		ug/Kg	☼	93	71 - 131

Surrogate	MS %Recovery	MS Qualifier	Limits
Nitrobenzene-d5	94		53 - 113
Terphenyl-d14	95		70 - 144
2-Fluorobiphenyl (Surr)	99		53 - 113

Lab Sample ID: 720-72725-40 MSD
Matrix: Solid
Analysis Batch: 115019

Client Sample ID: SLCPS104[1.0]
Prep Type: Total/NA
Prep Batch: 114644

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	ND		29.9	ND		ug/Kg	☼	81	51 - 111	13	30
Acenaphthylene	ND		29.9	ND		ug/Kg	☼	85	51 - 111	10	30
Anthracene	ND		29.9	ND		ug/Kg	☼	90	54 - 114	5	30
Benzo[a]anthracene	ND		29.9	ND		ug/Kg	☼	95	66 - 126	7	30
Benzo[a]pyrene	ND		29.9	ND		ug/Kg	☼	90	64 - 124	1	30
Benzo[b]fluoranthene	ND		29.9	ND		ug/Kg	☼	115	65 - 125	1	30
Benzo[g,h,i]perylene	ND		29.9	ND		ug/Kg	☼	128	54 - 134	2	30
Benzo[k]fluoranthene	ND		29.9	ND		ug/Kg	☼	84	69 - 129	8	30
Chrysene	ND		29.9	ND		ug/Kg	☼	104	67 - 127	4	30
Dibenz(a,h)anthracene	ND		29.9	ND		ug/Kg	☼	85	58 - 128	5	30
Fluoranthene	ND		29.9	ND		ug/Kg	☼	114	67 - 127	3	30
Fluorene	ND		29.9	ND		ug/Kg	☼	91	54 - 114	1	30
Indeno[1,2,3-cd]pyrene	ND		29.9	ND		ug/Kg	☼	95	59 - 133	4	30
Naphthalene	ND		29.9	ND		ug/Kg	☼	75	52 - 112	12	30

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 720-72725-40 MSD
Matrix: Solid
Analysis Batch: 115019

Client Sample ID: SLCPS104[1.0]
Prep Type: Total/NA
Prep Batch: 114644

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenanthrene	ND		29.9	ND		ug/Kg	☼	83	59 - 119	1	30
Pyrene	ND		29.9	ND		ug/Kg	☼	99	71 - 131	1	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Nitrobenzene-d5	*81*		*53 - 113*
Terphenyl-d14	*92*		*70 - 144*
2-Fluorobiphenyl (Surr)	*94*		*53 - 113*

Method: 8290 - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 320-115025/1-A
Matrix: Solid
Analysis Batch: 117051

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 115025

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.0		pg/g		06/23/16 10:34	07/07/16 20:00	1
2,3,7,8-TCDF	ND		1.0		pg/g		06/23/16 10:34	07/07/16 20:00	1
1,2,3,7,8-PeCDD	ND		5.0		pg/g		06/23/16 10:34	07/07/16 20:00	1
1,2,3,7,8-PeCDF	ND		5.0		pg/g		06/23/16 10:34	07/07/16 20:00	1
2,3,4,7,8-PeCDF	ND		5.0		pg/g		06/23/16 10:34	07/07/16 20:00	1
1,2,3,4,7,8-HxCDD	ND		5.0		pg/g		06/23/16 10:34	07/07/16 20:00	1
1,2,3,6,7,8-HxCDD	ND		5.0		pg/g		06/23/16 10:34	07/07/16 20:00	1
1,2,3,7,8,9-HxCDD	ND		5.0		pg/g		06/23/16 10:34	07/07/16 20:00	1
1,2,3,4,7,8-HxCDF	ND		5.0		pg/g		06/23/16 10:34	07/07/16 20:00	1
1,2,3,6,7,8-HxCDF	ND		5.0		pg/g		06/23/16 10:34	07/07/16 20:00	1
2,3,4,6,7,8-HxCDF	ND		5.0		pg/g		06/23/16 10:34	07/07/16 20:00	1
1,2,3,7,8,9-HxCDF	ND		5.0		pg/g		06/23/16 10:34	07/07/16 20:00	1
1,2,3,4,6,7,8-HpCDD	ND		5.0		pg/g		06/23/16 10:34	07/07/16 20:00	1
1,2,3,4,6,7,8-HpCDF	ND		5.0		pg/g		06/23/16 10:34	07/07/16 20:00	1
1,2,3,4,7,8,9-HpCDF	ND		5.0		pg/g		06/23/16 10:34	07/07/16 20:00	1
OCDD	ND		10		pg/g		06/23/16 10:34	07/07/16 20:00	1
OCDF	ND		10		pg/g		06/23/16 10:34	07/07/16 20:00	1
Total TCDD	ND		1.0		pg/g		06/23/16 10:34	07/07/16 20:00	1
Total TCDF	ND		1.0		pg/g		06/23/16 10:34	07/07/16 20:00	1
Total PeCDD	ND		5.0		pg/g		06/23/16 10:34	07/07/16 20:00	1
Total PeCDF	ND		5.0		pg/g		06/23/16 10:34	07/07/16 20:00	1
Total HxCDD	ND		5.0		pg/g		06/23/16 10:34	07/07/16 20:00	1
Total HxCDF	ND		5.0		pg/g		06/23/16 10:34	07/07/16 20:00	1
Total HpCDD	ND		5.0		pg/g		06/23/16 10:34	07/07/16 20:00	1
Total HpCDF	ND		5.0		pg/g		06/23/16 10:34	07/07/16 20:00	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*77*		*40 - 135*	*06/23/16 10:34*	*07/07/16 20:00*	*1*
13C-2,3,7,8-TCDF	*89*		*40 - 135*	*06/23/16 10:34*	*07/07/16 20:00*	*1*
13C-1,2,3,7,8-PeCDD	*76*		*40 - 135*	*06/23/16 10:34*	*07/07/16 20:00*	*1*
13C-1,2,3,7,8-PeCDF	*88*		*40 - 135*	*06/23/16 10:34*	*07/07/16 20:00*	*1*
13C-1,2,3,6,7,8-HxCDD	*82*		*40 - 135*	*06/23/16 10:34*	*07/07/16 20:00*	*1*
13C-1,2,3,4,7,8-HxCDF	*85*		*40 - 135*	*06/23/16 10:34*	*07/07/16 20:00*	*1*

Method: 8290 - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-115025/1-A
Matrix: Solid
Analysis Batch: 117051

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 115025

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDD	77		40 - 135	06/23/16 10:34	07/07/16 20:00	1
13C-1,2,3,4,6,7,8-HpCDF	87		40 - 135	06/23/16 10:34	07/07/16 20:00	1
13C-OCDD	66		40 - 135	06/23/16 10:34	07/07/16 20:00	1

Lab Sample ID: LCS 320-115025/2-A
Matrix: Solid
Analysis Batch: 115836

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 115025

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,7,8-TCDD	20.0	23.1		pg/g		115	60 - 138
2,3,7,8-TCDF	20.0	23.6		pg/g		118	56 - 158
1,2,3,7,8-PeCDD	100	114		pg/g		114	70 - 122
1,2,3,7,8-PeCDF	100	118		pg/g		118	69 - 134
2,3,4,7,8-PeCDF	100	116		pg/g		116	70 - 131
1,2,3,4,7,8-HxCDD	100	108		pg/g		108	60 - 138
1,2,3,6,7,8-HxCDD	100	118		pg/g		118	68 - 136
1,2,3,7,8,9-HxCDD	100	115		pg/g		115	68 - 138
1,2,3,4,7,8-HxCDF	100	118		pg/g		118	74 - 128
1,2,3,6,7,8-HxCDF	100	122		pg/g		122	67 - 140
2,3,4,6,7,8-HxCDF	100	121		pg/g		121	71 - 137
1,2,3,7,8,9-HxCDF	100	120		pg/g		120	72 - 134
1,2,3,4,6,7,8-HpCDD	100	117		pg/g		117	71 - 128
1,2,3,4,6,7,8-HpCDF	100	118		pg/g		118	71 - 134
1,2,3,4,7,8,9-HpCDF	100	130	*	pg/g		130	68 - 129
OCDD	200	249		pg/g		124	70 - 128
OCDF	200	229		pg/g		115	63 - 141

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C-2,3,7,8-TCDD	82		40 - 135
13C-2,3,7,8-TCDF	78		40 - 135
13C-1,2,3,7,8-PeCDD	87		40 - 135
13C-1,2,3,7,8-PeCDF	81		40 - 135
13C-1,2,3,6,7,8-HxCDD	87		40 - 135
13C-1,2,3,4,7,8-HxCDF	79		40 - 135
13C-1,2,3,4,6,7,8-HpCDD	97		40 - 135
13C-1,2,3,4,6,7,8-HpCDF	86		40 - 135
13C-OCDD	107		40 - 135

Lab Sample ID: LCSD 320-115025/3-A
Matrix: Solid
Analysis Batch: 115836

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 115025

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,3,7,8-TCDD	20.0	22.7		pg/g		114	60 - 138	2	20
2,3,7,8-TCDF	20.0	23.1		pg/g		115	56 - 158	3	20
1,2,3,7,8-PeCDD	100	113		pg/g		113	70 - 122	1	20
1,2,3,7,8-PeCDF	100	116		pg/g		116	69 - 134	2	20
2,3,4,7,8-PeCDF	100	115		pg/g		115	70 - 131	0	20
1,2,3,4,7,8-HxCDD	100	115		pg/g		115	60 - 138	6	20

Method: 8290 - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCSD 320-115025/3-A
Matrix: Solid
Analysis Batch: 115836

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 115025

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3,6,7,8-HxCDD			100	116		pg/g		116	68 - 136	2	20
1,2,3,7,8,9-HxCDD			100	116		pg/g		116	68 - 138	1	20
1,2,3,4,7,8-HxCDF			100	118		pg/g		118	74 - 128	0	20
1,2,3,6,7,8-HxCDF			100	120		pg/g		120	67 - 140	2	20
2,3,4,6,7,8-HxCDF			100	120		pg/g		120	71 - 137	0	20
1,2,3,7,8,9-HxCDF			100	121		pg/g		121	72 - 134	1	20
1,2,3,4,6,7,8-HpCDD			100	114		pg/g		114	71 - 128	2	20
1,2,3,4,6,7,8-HpCDF			100	116		pg/g		116	71 - 134	2	20
1,2,3,4,7,8,9-HpCDF			100	127		pg/g		127	68 - 129	3	20
OCDD			200	245		pg/g		122	70 - 128	2	20
OCDF			200	227		pg/g		113	63 - 141	1	20

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C-2,3,7,8-TCDD	*86*		*40 - 135*
13C-2,3,7,8-TCDF	*81*		*40 - 135*
13C-1,2,3,7,8-PeCDD	*89*		*40 - 135*
13C-1,2,3,7,8-PeCDF	*82*		*40 - 135*
13C-1,2,3,6,7,8-HxCDD	*87*		*40 - 135*
13C-1,2,3,4,7,8-HxCDF	*81*		*40 - 135*
13C-1,2,3,4,6,7,8-HpCDD	*96*		*40 - 135*
13C-1,2,3,4,6,7,8-HpCDF	*87*		*40 - 135*
13C-OCDD	*107*		*40 - 135*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 320-114587/1-A
Matrix: Solid
Analysis Batch: 114795

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 114587

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.0		mg/Kg		06/21/16 07:00	06/21/16 15:07	1
Barium	ND		1.0		mg/Kg		06/21/16 07:00	06/21/16 15:07	1
Arsenic	ND		2.0		mg/Kg		06/21/16 07:00	06/21/16 15:07	1
Copper	ND		1.5		mg/Kg		06/21/16 07:00	06/21/16 15:07	1
Zinc	ND		2.0		mg/Kg		06/21/16 07:00	06/21/16 15:07	1

Lab Sample ID: LCS 320-114587/2-A
Matrix: Solid
Analysis Batch: 114795

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114587

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead			50.0	49.6		mg/Kg		99	80 - 120
Barium			200	196		mg/Kg		98	80 - 120
Arsenic			200	187		mg/Kg		93	80 - 120
Copper			25.0	24.6		mg/Kg		99	80 - 120
Zinc			50.0	49.3		mg/Kg		99	80 - 120

GC/MS Semi VOA

Prep Batch: 114644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72725-16	1259EX104[3.0]	Total/NA	Solid	3550B	
720-72725-18	1259EX106[3.0]	Total/NA	Solid	3550B	
720-72725-20	1259PS107[2.5]	Total/NA	Solid	3550B	
720-72725-37	SLCEX104[1.0]	Total/NA	Solid	3550B	
720-72725-38	SLCEX105[1.0]	Total/NA	Solid	3550B	
720-72725-40	SLCPS104[1.0]	Total/NA	Solid	3550B	
720-72725-40 MS	SLCPS104[1.0]	Total/NA	Solid	3550B	
720-72725-40 MSD	SLCPS104[1.0]	Total/NA	Solid	3550B	
720-72725-41	SLCPS105[0.5]	Total/NA	Solid	3550B	
720-72725-42	SLCPS105[1.5]	Total/NA	Solid	3550B	
720-72725-43	SLCPS106[0.5]	Total/NA	Solid	3550B	
720-72725-44	SLCPS106[1.5]	Total/NA	Solid	3550B	
720-72725-45	SLCPS107[0.5]	Total/NA	Solid	3550B	
720-72725-46	SLCPS107[1.5]	Total/NA	Solid	3550B	
720-72725-47	SLCPS108[0.0]	Total/NA	Solid	3550B	
720-72725-48	SLCPS109[0.5]	Total/NA	Solid	3550B	
720-72725-49	SLCPS110[0.5]	Total/NA	Solid	3550B	
LCS 320-114644/2-A	Lab Control Sample	Total/NA	Solid	3550B	
MB 320-114644/1-A	Method Blank	Total/NA	Solid	3550B	

Analysis Batch: 115019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72725-16	1259EX104[3.0]	Total/NA	Solid	8270C SIM	114644
720-72725-18	1259EX106[3.0]	Total/NA	Solid	8270C SIM	114644
720-72725-20	1259PS107[2.5]	Total/NA	Solid	8270C SIM	114644
720-72725-37	SLCEX104[1.0]	Total/NA	Solid	8270C SIM	114644
720-72725-38	SLCEX105[1.0]	Total/NA	Solid	8270C SIM	114644
720-72725-40	SLCPS104[1.0]	Total/NA	Solid	8270C SIM	114644
720-72725-40 MS	SLCPS104[1.0]	Total/NA	Solid	8270C SIM	114644
720-72725-40 MSD	SLCPS104[1.0]	Total/NA	Solid	8270C SIM	114644
720-72725-41	SLCPS105[0.5]	Total/NA	Solid	8270C SIM	114644
720-72725-42	SLCPS105[1.5]	Total/NA	Solid	8270C SIM	114644
720-72725-43	SLCPS106[0.5]	Total/NA	Solid	8270C SIM	114644
720-72725-44	SLCPS106[1.5]	Total/NA	Solid	8270C SIM	114644
720-72725-45	SLCPS107[0.5]	Total/NA	Solid	8270C SIM	114644
720-72725-46	SLCPS107[1.5]	Total/NA	Solid	8270C SIM	114644
720-72725-47	SLCPS108[0.0]	Total/NA	Solid	8270C SIM	114644
720-72725-48	SLCPS109[0.5]	Total/NA	Solid	8270C SIM	114644
720-72725-49	SLCPS110[0.5]	Total/NA	Solid	8270C SIM	114644
LCS 320-114644/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	114644
MB 320-114644/1-A	Method Blank	Total/NA	Solid	8270C SIM	114644

Specialty Organics

Prep Batch: 115025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72725-1	1258EX101[0.0]	Total/NA	Solid	8290	
720-72725-14	1259EX102[0.5]	Total/NA	Solid	8290	
720-72725-18	1259EX106[3.0]	Total/NA	Solid	8290	
720-72725-24	SLCEX102[0.5]	Total/NA	Solid	8290	

Specialty Organics (Continued)

Prep Batch: 115025 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72725-45	SLCPS107[0.5]	Total/NA	Solid	8290	
LCS 320-115025/2-A	Lab Control Sample	Total/NA	Solid	8290	
LCSD 320-115025/3-A	Lab Control Sample Dup	Total/NA	Solid	8290	
MB 320-115025/1-A	Method Blank	Total/NA	Solid	8290	

Analysis Batch: 115836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 320-115025/2-A	Lab Control Sample	Total/NA	Solid	8290	115025
LCSD 320-115025/3-A	Lab Control Sample Dup	Total/NA	Solid	8290	115025

Analysis Batch: 116227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72725-1	1258EX101[0.0]	Total/NA	Solid	8290	115025
720-72725-14	1259EX102[0.5]	Total/NA	Solid	8290	115025
720-72725-18	1259EX106[3.0]	Total/NA	Solid	8290	115025
720-72725-24	SLCEX102[0.5]	Total/NA	Solid	8290	115025
720-72725-45	SLCPS107[0.5]	Total/NA	Solid	8290	115025

Analysis Batch: 116418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72725-14	1259EX102[0.5]	Total/NA	Solid	8290	115025
720-72725-24	SLCEX102[0.5]	Total/NA	Solid	8290	115025

Analysis Batch: 117051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 320-115025/1-A	Method Blank	Total/NA	Solid	8290	115025

Metals

Prep Batch: 114587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72725-6	1258EX105[1.5]	Total/NA	Solid	3050B	
720-72725-26	SLCPS101[1.0]	Total/NA	Solid	3050B	
720-72725-29	SLCPS102[1.0]	Total/NA	Solid	3050B	
720-72725-40	SLCPS104[1.0]	Total/NA	Solid	3050B	
LCS 320-114587/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 320-114587/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 114795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72725-6	1258EX105[1.5]	Total/NA	Solid	6010B	114587
720-72725-26	SLCPS101[1.0]	Total/NA	Solid	6010B	114587
720-72725-29	SLCPS102[1.0]	Total/NA	Solid	6010B	114587
720-72725-40	SLCPS104[1.0]	Total/NA	Solid	6010B	114587
LCS 320-114587/2-A	Lab Control Sample	Total/NA	Solid	6010B	114587
MB 320-114587/1-A	Method Blank	Total/NA	Solid	6010B	114587

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

General Chemistry

Analysis Batch: 114756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72725-6	1258EX105[1.5]	Total/NA	Solid	D 2216	
720-72725-26	SLCPS101[1.0]	Total/NA	Solid	D 2216	
720-72725-29	SLCPS102[1.0]	Total/NA	Solid	D 2216	
720-72725-40	SLCPS104[1.0]	Total/NA	Solid	D 2216	
720-72725-42	SLCPS105[1.5]	Total/NA	Solid	D 2216	
720-72725-44	SLCPS106[1.5]	Total/NA	Solid	D 2216	
720-72725-46	SLCPS107[1.5]	Total/NA	Solid	D 2216	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: 1258EX101[0.0]
Date Collected: 06/07/16 11:12
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-1
Matrix: Solid
Percent Solids: 75.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8290			115025	06/23/16 10:34	DXD	TAL SAC
Total/NA	Analysis	8290		1	116227	06/30/16 21:27	SMA	TAL SAC

Client Sample ID: 1258EX105[1.5]
Date Collected: 06/07/16 11:20
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	114756	06/21/16 16:29	JMD	TAL SAC

Client Sample ID: 1258EX105[1.5]
Date Collected: 06/07/16 11:20
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-6
Matrix: Solid
Percent Solids: 84.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			114587	06/21/16 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1	114795	06/21/16 18:33	CV1	TAL SAC

Client Sample ID: 1259EX102[0.5]
Date Collected: 06/07/16 08:43
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-14
Matrix: Solid
Percent Solids: 81.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8290			115025	06/23/16 10:34	DXD	TAL SAC
Total/NA	Analysis	8290		1	116227	06/30/16 22:13	SMA	TAL SAC
Total/NA	Prep	8290			115025	06/23/16 10:34	DXD	TAL SAC
Total/NA	Analysis	8290		1	116418	07/02/16 02:13	ALM	TAL SAC

Client Sample ID: 1259EX104[3.0]
Date Collected: 06/07/16 09:59
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-16
Matrix: Solid
Percent Solids: 73.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			114644	06/21/16 11:06	NGK	TAL SAC
Total/NA	Analysis	8270C SIM		1	115019	06/23/16 12:59	ONL	TAL SAC

Client Sample ID: 1259EX106[3.0]
Date Collected: 06/07/16 10:25
Date Received: 06/08/16 09:24

Lab Sample ID: 720-72725-18
Matrix: Solid
Percent Solids: 70.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			114644	06/21/16 11:06	NGK	TAL SAC

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: 1259EX106[3.0]

Lab Sample ID: 720-72725-18
Date Collected: 06/07/16 10:25
Matrix: Solid
Date Received: 06/08/16 09:24
Percent Solids: 70.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270C SIM		1	115019	06/23/16 13:29	ONL	TAL SAC
Total/NA	Prep	8290			115025	06/23/16 10:34	DXD	TAL SAC
Total/NA	Analysis	8290		1	116227	06/30/16 22:59	SMA	TAL SAC

Client Sample ID: 1259PS107[2.5]

Lab Sample ID: 720-72725-20
Date Collected: 06/07/16 09:15
Matrix: Solid
Date Received: 06/08/16 09:24
Percent Solids: 79.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			114644	06/21/16 11:06	NGK	TAL SAC
Total/NA	Analysis	8270C SIM		10	115019	06/23/16 13:58	ONL	TAL SAC

Client Sample ID: SLCEX102[0.5]

Lab Sample ID: 720-72725-24
Date Collected: 06/07/16 14:17
Matrix: Solid
Date Received: 06/08/16 09:24
Percent Solids: 80.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8290			115025	06/23/16 10:34	DXD	TAL SAC
Total/NA	Analysis	8290		1	116227	06/30/16 23:46	SMA	TAL SAC
Total/NA	Prep	8290			115025	06/23/16 10:34	DXD	TAL SAC
Total/NA	Analysis	8290		1	116418	07/02/16 02:51	ALM	TAL SAC

Client Sample ID: SLCPS101[1.0]

Lab Sample ID: 720-72725-26
Date Collected: 06/07/16 14:09
Matrix: Solid
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	114756	06/21/16 16:29	JMD	TAL SAC

Client Sample ID: SLCPS101[1.0]

Lab Sample ID: 720-72725-26
Date Collected: 06/07/16 14:09
Matrix: Solid
Date Received: 06/08/16 09:24
Percent Solids: 90.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			114587	06/21/16 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1	114795	06/21/16 18:36	CV1	TAL SAC

Client Sample ID: SLCPS102[1.0] — **Lab Sample ID: 720-72725-29**
Date Collected: 06/07/16 13:51 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	114756	06/21/16 16:29	JMD	TAL SAC

Client Sample ID: SLCPS102[1.0] — **Lab Sample ID: 720-72725-29**
Date Collected: 06/07/16 13:51 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 88.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			114587	06/21/16 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1	114795	06/21/16 18:46	CV1	TAL SAC

Client Sample ID: SLCEX104[1.0] — **Lab Sample ID: 720-72725-37**
Date Collected: 06/07/16 13:38 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 85.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			114644	06/21/16 11:06	NGK	TAL SAC
Total/NA	Analysis	8270C SIM		10	115019	06/23/16 14:27	ONL	TAL SAC

Client Sample ID: SLCEX105[1.0] — **Lab Sample ID: 720-72725-38**
Date Collected: 06/07/16 13:18 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 96.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			114644	06/21/16 11:06	NGK	TAL SAC
Total/NA	Analysis	8270C SIM		20	115019	06/23/16 14:56	ONL	TAL SAC

Client Sample ID: SLCPS104[1.0] — **Lab Sample ID: 720-72725-40**
Date Collected: 06/07/16 13:28 — **Matrix: Solid**
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	114756	06/21/16 16:29	JMD	TAL SAC

Client Sample ID: SLCPS104[1.0] — **Lab Sample ID: 720-72725-40**
Date Collected: 06/07/16 13:28 — **Matrix: Solid**
Date Received: 06/08/16 09:24 — **Percent Solids: 84.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			114644	06/21/16 11:06	NGK	TAL SAC
Total/NA	Analysis	8270C SIM		10	115019	06/23/16 15:25	ONL	TAL SAC
Total/NA	Prep	3050B			114587	06/21/16 07:00	NIM	TAL SAC
Total/NA	Analysis	6010B		1	114795	06/21/16 18:49	CV1	TAL SAC

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Client Sample ID: SLCPS105[0.5]
Lab Sample ID: 720-72725-41
Date Collected: 06/07/16 13:27
Matrix: Solid
Date Received: 06/08/16 09:24
Percent Solids: 88.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			114644	06/21/16 11:06	NGK	TAL SAC
Total/NA	Analysis	8270C SIM		20	115019	06/23/16 16:52	ONL	TAL SAC

Client Sample ID: SLCPS105[1.5]
Lab Sample ID: 720-72725-42
Date Collected: 06/07/16 13:30
Matrix: Solid
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	114756	06/21/16 16:29	JMD	TAL SAC

Client Sample ID: SLCPS105[1.5]
Lab Sample ID: 720-72725-42
Date Collected: 06/07/16 13:30
Matrix: Solid
Date Received: 06/08/16 09:24
Percent Solids: 82.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			114644	06/21/16 11:06	NGK	TAL SAC
Total/NA	Analysis	8270C SIM		10	115019	06/23/16 17:21	ONL	TAL SAC

Client Sample ID: SLCPS106[0.5]
Lab Sample ID: 720-72725-43
Date Collected: 06/07/16 12:59
Matrix: Solid
Date Received: 06/08/16 09:24
Percent Solids: 92.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			114644	06/21/16 11:06	NGK	TAL SAC
Total/NA	Analysis	8270C SIM		10	115019	06/23/16 17:50	ONL	TAL SAC

Client Sample ID: SLCPS106[1.5]
Lab Sample ID: 720-72725-44
Date Collected: 06/07/16 13:02
Matrix: Solid
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	114756	06/21/16 16:29	JMD	TAL SAC

Client Sample ID: SLCPS106[1.5]
Lab Sample ID: 720-72725-44
Date Collected: 06/07/16 13:02
Matrix: Solid
Date Received: 06/08/16 09:24
Percent Solids: 96.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			114644	06/21/16 11:06	NGK	TAL SAC
Total/NA	Analysis	8270C SIM		10	115019	06/23/16 18:19	ONL	TAL SAC

Client Sample ID: SLCPS107[0.5]

Lab Sample ID: 720-72725-45
Date Collected: 06/07/16 12:51
Matrix: Solid
Date Received: 06/08/16 09:24
Percent Solids: 89.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			114644	06/21/16 11:06	NGK	TAL SAC
Total/NA	Analysis	8270C SIM		20	115019	06/23/16 18:49	ONL	TAL SAC
Total/NA	Prep	8290			115025	06/23/16 10:34	DXD	TAL SAC
Total/NA	Analysis	8290		1	116227	07/01/16 00:32	SMA	TAL SAC

Client Sample ID: SLCPS107[1.5]

Lab Sample ID: 720-72725-46
Date Collected: 06/07/16 12:54
Matrix: Solid
Date Received: 06/08/16 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	114756	06/21/16 16:29	JMD	TAL SAC

Client Sample ID: SLCPS107[1.5]

Lab Sample ID: 720-72725-46
Date Collected: 06/07/16 12:54
Matrix: Solid
Date Received: 06/08/16 09:24
Percent Solids: 89.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			114644	06/21/16 11:06	NGK	TAL SAC
Total/NA	Analysis	8270C SIM		10	115019	06/23/16 19:18	ONL	TAL SAC

Client Sample ID: SLCPS108[0.0]

Lab Sample ID: 720-72725-47
Date Collected: 06/07/16 12:55
Matrix: Solid
Date Received: 06/08/16 09:24
Percent Solids: 96.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			114644	06/21/16 11:06	NGK	TAL SAC
Total/NA	Analysis	8270C SIM		10	115019	06/23/16 19:47	ONL	TAL SAC

Client Sample ID: SLCPS109[0.5]

Lab Sample ID: 720-72725-48
Date Collected: 06/07/16 12:38
Matrix: Solid
Date Received: 06/08/16 09:24
Percent Solids: 97.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			114644	06/21/16 11:06	NGK	TAL SAC
Total/NA	Analysis	8270C SIM		10	115019	06/23/16 20:16	ONL	TAL SAC

Client Sample ID: SLCPS110[0.5]

Lab Sample ID: 720-72725-49
Date Collected: 06/07/16 12:39
Matrix: Solid
Date Received: 06/08/16 09:24
Percent Solids: 97.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			114644	06/21/16 11:06	NGK	TAL SAC
Total/NA	Analysis	8270C SIM		10	115019	06/23/16 20:45	ONL	TAL SAC

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Laboratory: TestAmerica Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-17
Alaska (UST)	State Program	10	UST-055	12-18-16
Arizona	State Program	9	AZ0708	08-11-16 *
Arkansas DEQ	State Program	6	88-0691	06-17-17
California	State Program	9	2897	01-31-17
Colorado	State Program	8	CA00044	08-31-16
Connecticut	State Program	1	PH-0691	06-30-17
Florida	NELAP	4	E87570	06-30-17
Hawaii	State Program	9	N/A	01-31-17
Illinois	NELAP	5	200060	03-17-17
Kansas	NELAP	7	E-10375	07-31-16 *
Louisiana	NELAP	6	30612	06-30-17
Maine	State Program	1	CA0004	04-18-18
Michigan	State Program	5	9947	01-31-18
Nevada	State Program	9	CA00044	07-31-16 *
New Jersey	NELAP	2	CA005	06-30-17
New York	NELAP	2	11666	04-01-17
Oregon	NELAP	10	4040	01-29-17
Pennsylvania	NELAP	3	68-01272	03-31-17
Texas	NELAP	6	T104704399	07-31-17
US Fish & Wildlife	Federal		LE148388-0	10-31-16
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-16
Utah	NELAP	8	CA00044	02-28-17
Virginia	NELAP	3	460278	03-14-17
Washington	State Program	10	C581	05-05-17
West Virginia (DW)	State Program	3	9930C	12-31-16
Wyoming	State Program	8	8TMS-L	01-29-17

* Certification renewal pending - certification considered valid.

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Method	Method Description	Protocol	Laboratory
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL SAC
8290	Dioxins and Furans (HRGC/HRMS)	SW846	TAL SAC
6010B	Metals (ICP)	SW846	TAL SAC
D 2216	Percent Moisture	ASTM	TAL SAC

Protocol References:

ASTM = ASTM International

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Presidio

TestAmerica Job ID: 720-72725-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-72725-1	1258EX101[0.0]	Solid	06/07/16 11:12	06/08/16 09:24
720-72725-6	1258EX105[1.5]	Solid	06/07/16 11:20	06/08/16 09:24
720-72725-14	1259EX102[0.5]	Solid	06/07/16 08:43	06/08/16 09:24
720-72725-16	1259EX104[3.0]	Solid	06/07/16 09:59	06/08/16 09:24
720-72725-18	1259EX106[3.0]	Solid	06/07/16 10:25	06/08/16 09:24
720-72725-20	1259PS107[2.5]	Solid	06/07/16 09:15	06/08/16 09:24
720-72725-24	SLCEX102[0.5]	Solid	06/07/16 14:17	06/08/16 09:24
720-72725-26	SLCPS101[1.0]	Solid	06/07/16 14:09	06/08/16 09:24
720-72725-29	SLCPS102[1.0]	Solid	06/07/16 13:51	06/08/16 09:24
720-72725-37	SLCEX104[1.0]	Solid	06/07/16 13:38	06/08/16 09:24
720-72725-38	SLCEX105[1.0]	Solid	06/07/16 13:18	06/08/16 09:24
720-72725-40	SLCPS104[1.0]	Solid	06/07/16 13:28	06/08/16 09:24
720-72725-41	SLCPS105[0.5]	Solid	06/07/16 13:27	06/08/16 09:24
720-72725-42	SLCPS105[1.5]	Solid	06/07/16 13:30	06/08/16 09:24
720-72725-43	SLCPS106[0.5]	Solid	06/07/16 12:59	06/08/16 09:24
720-72725-44	SLCPS106[1.5]	Solid	06/07/16 13:02	06/08/16 09:24
720-72725-45	SLCPS107[0.5]	Solid	06/07/16 12:51	06/08/16 09:24
720-72725-46	SLCPS107[1.5]	Solid	06/07/16 12:54	06/08/16 09:24
720-72725-47	SLCPS108[0.0]	Solid	06/07/16 12:55	06/08/16 09:24
720-72725-48	SLCPS109[0.5]	Solid	06/07/16 12:38	06/08/16 09:24
720-72725-49	SLCPS110[0.5]	Solid	06/07/16 12:39	06/08/16 09:24

Sharma, Dimple

From: Boecher, Caroline <CBoecher@trcsolutions.com>
Sent: Wednesday, July 13, 2016 8:55 AM
To: Sharma, Dimple
Cc: Hanzel-Durbin, Justin
Subject: Additional Analyses - Presidio

Good morning Dimple,

Can you run the following samples for the analyses listed below?

a. 1257PS103[1.0] for Lead (Job no. 72655)
b. SLCPS104[1.0] for As, Ba, Cu, Zn (Job no. 72725)

Thank you,

Carrie Boecher
Project Engineer

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415.644.3002 | F: 415.434.2321 | C: 651.249.6543

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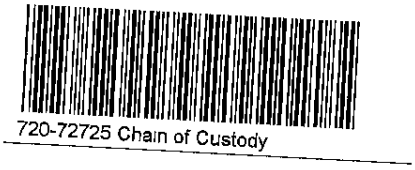
J-720-72725-2

Caparas, Criselda

From: Hanzel-Durbin, Justin [JHanzel-Durbin@trcsolutions.com]
Sent: Friday, June 17, 2016 4:44 PM
To: Caparas, Criselda; Sharma, Dimple
Cc: Boecher, Caroline
Subject: FW: Additional Analyses

Based on review of the las sample data set we received please run the following samples and analyses, Highlighted samples should be on rush TAT for receipt of results on Monday if at all possible so that we can make decisions on the other hold samples before the 14 day PAH hold time is passed.
Thanks
Justin



- 1258EX101[0.0] – Dioxin & furans
- 1258EX105[1.5] – Lead dry weight corrected
- 1259EX102[0.5] – Dioxin & furans
- 1259EX104[3.0] – As, Ba, Cu, Zn, PAHs (8270)
- 1259EX106[3.0] – As, Ba, Cu, Zn, PAHs (8270), Dioxins and furans
- 1259PS107[2.5] - As, Ba, Cu, Zn, PAHs (8270)
- SLCEX102[0.5] - Dioxin & furans
- SLCPS101[1.0] - Lead dry weight corrected
- SLCPS102[1.0] - Lead dry weight corrected
- SLCEX104[1.0] - As, Ba, Cu, Zn, PAHs (8270)
- SLCEX105[1.0] - As, Ba, Cu, Zn, PAHs (8270)
- SLCPS104[1.0] - Lead dry weight corrected
- SLCPS105[0.5] - As, Ba, Cu, Zn, PAHs (8270)
- SLCPS106[0.5] - As, Ba, Cu, Zn, PAHs (8270)
- SLCPS107[0.5] - As, Ba, Cu, Zn, PAHs (8270), dioxins and furans
- SLCPS108[0.0] - As, Ba, Cu, Zn, PAHs (8270)
- SLCPS109[0.5] - As, Ba, Cu, Zn, PAHs (8270)
- SLCPS110[0.5] - As, Ba, Cu, Zn, PAHs (8270)

Justin Hanzel-Durbin
Senior Engineer/Project Manager
Environmental/Remediation

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415.644.3050 | F: 415.434.2321 | Cell: 415.209.3326

Follow us on LinkedIn or Twitter | www.trcsolutions.com
JHanzel-Durbin@trcsolutions.com

From: Boecher, Caroline
Sent: Friday, June 17, 2016 1:17 PM
To: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>; Sim, Alison <ASim@trcsolutions.com>
Cc: Woods, Patrick <PWoods@trcsolutions.com>

Subject: Additional Analyses

Justin,

Please find attached the draft tables for soil samples.

From this, we've put together a list of additional analyses from this latest data group. After your QC, please send to the lab. Alison is also double checking this list.

- 1258EX101[0.0] – Dioxin & furans
- 1258EX105[1.5] – Lead dry weight corrected
- 1259EX102[0.5] – Dioxin & furans
- 1259EX104[3.0] – As, Ba, Cu, Zn, PAHs (8270)
- 1259EX106 - As, Ba, Cu, Zn, PAHs (8270), Dioxins and furans
- 1259PS107[2.5] - As, Ba, Cu, Zn, PAHs (8270)
- SLCEX102[0.5] - Dioxin & furans
- SLCPS101[1.0] - Lead dry weight corrected
- SLCPS102[1.0] - Lead dry weight corrected
- SLCEX104[1.0] - As, Ba, Cu, Zn, PAHs (8270)
- SLCEX105[1.0] - As, Ba, Cu, Zn, PAHs (8270)
- SLCPS104[1.0] - Lead dry weight corrected
- SLCPS105[0.5] - As, Ba, Cu, Zn, PAHs (8270)
- SLCPS106[0.5] - As, Ba, Cu, Zn, PAHs (8270)
- SLCPS107[0.5] - As, Ba, Cu, Zn, PAHs (8270), dioxins and furans
- SLCPS108[0.0] - As, Ba, Cu, Zn, PAHs (8270)
- SLCPS109[0.5] - As, Ba, Cu, Zn, PAHs (8270)
- SLCPS110[0.5] - As, Ba, Cu, Zn, PAHs (8270)

I've also attached a color-coded chart I developed to help us track all analyses:

- Green = sample is clean for analyte(s)
- Yellow = pending analysis
- Red = exceeds SL
- Purple indicates locations where additional sample collection may be required, as we don't have deeper samples or step-out samples.

Carrie Boecher
Project Engineer

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415.644.3002 | F: 415.434.2321 | C: 651.249.6543

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Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-72725-2

Login Number: 72725
List Number: 1
Creator: Arauz, Dennis

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-72725-2

Login Number: 72725
List Number: 2
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 06/08/16 07:27 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-73079-1
Client Project/Site: Lendrum Ct.

For:
TRC Solutions, Inc.
505 Sansome Street
Suite 1600
San Francisco, California 94111

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
6/28/2016 1:41:22 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct.

TestAmerica Job ID: 720-73079-1

Qualifiers

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-73079-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-73079-1

Comments
No additional comments.

Receipt
The samples were received on 6/24/2016 6:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct.

TestAmerica Job ID: 720-73079-1

Client Sample ID: 1259PS110[0.0] **Lab Sample ID: 720-73079-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	160	F1 F2	2.1		mg/Kg	4	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct.

TestAmerica Job ID: 720-73079-1

Client Sample ID: 1259PS110[0.0]
Date Collected: 06/24/16 14:42
Date Received: 06/24/16 18:30

Lab Sample ID: 720-73079-1
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	25.9		0.1		%			06/27/16 09:05	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct.

TestAmerica Job ID: 720-73079-1

Client Sample ID: 1259PS110[0.0]
Date Collected: 06/24/16 14:42
Date Received: 06/24/16 18:30

Lab Sample ID: 720-73079-1
Matrix: Solid
Percent Solids: 74.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	160	F1 F2	2.1		mg/Kg	☼	06/27/16 12:25	06/27/16 20:36	4

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-205031/1-A
Matrix: Solid
Analysis Batch: 205097

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 205031

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50		mg/Kg		06/27/16 12:25	06/27/16 19:59	1

Lab Sample ID: LCS 720-205031/2-A
Matrix: Solid
Analysis Batch: 205097

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 205031

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	48.5		mg/Kg		97	80 - 120

Lab Sample ID: LCSSRM 720-205031/3-A
Matrix: Solid
Analysis Batch: 205097

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 205031

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	302	259		mg/Kg		86	62 - 113

Lab Sample ID: 720-73079-1 MS
Matrix: Solid
Analysis Batch: 205097

Client Sample ID: 1259PS110[0.0]
Prep Type: Total/NA
Prep Batch: 205031

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	160	F1 F2	58.1	231		mg/Kg	☼	121	75 - 125

Lab Sample ID: 720-73079-1 MSD
Matrix: Solid
Analysis Batch: 205097

Client Sample ID: 1259PS110[0.0]
Prep Type: Total/NA
Prep Batch: 205031

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	160	F1 F2	66.8	160	F1 F2	mg/Kg	☼	-0.7	75 - 125	36	20

Method: Moisture - Percent Moisture

Lab Sample ID: 720-73079-1 DU
Matrix: Solid
Analysis Batch: 205011

Client Sample ID: 1259PS110[0.0]
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	25.9		31.1		%		18	20

Metals

Prep Batch: 205031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73079-1	1259PS110[0.0]	Total/NA	Solid	3050B	
720-73079-1 MS	1259PS110[0.0]	Total/NA	Solid	3050B	
720-73079-1 MSD	1259PS110[0.0]	Total/NA	Solid	3050B	
LCS 720-205031/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 720-205031/3-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 720-205031/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 205097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73079-1	1259PS110[0.0]	Total/NA	Solid	6010B	205031
720-73079-1 MS	1259PS110[0.0]	Total/NA	Solid	6010B	205031
720-73079-1 MSD	1259PS110[0.0]	Total/NA	Solid	6010B	205031
LCS 720-205031/2-A	Lab Control Sample	Total/NA	Solid	6010B	205031
LCSSRM 720-205031/3-A	Lab Control Sample	Total/NA	Solid	6010B	205031
MB 720-205031/1-A	Method Blank	Total/NA	Solid	6010B	205031

General Chemistry

Analysis Batch: 205011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73079-1	1259PS110[0.0]	Total/NA	Solid	Moisture	
720-73079-1 DU	1259PS110[0.0]	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct.

TestAmerica Job ID: 720-73079-1

Client Sample ID: 1259PS110[0.0] — **Lab Sample ID: 720-73079-1**
Date Collected: 06/24/16 14:42 — **Matrix: Solid**
Date Received: 06/24/16 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	205011	06/27/16 09:05	NVP	TAL PLS

Client Sample ID: 1259PS110[0.0] — **Lab Sample ID: 720-73079-1**
Date Collected: 06/24/16 14:42 — **Matrix: Solid**
Date Received: 06/24/16 18:30 — **Percent Solids: 74.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			205031	06/27/16 12:25	BRB	TAL PLS
Total/NA	Analysis	6010B		4	205097	06/27/16 20:36	SLK	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct.

TestAmerica Job ID: 720-73079-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct.

TestAmerica Job ID: 720-73079-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct.

TestAmerica Job ID: 720-73079-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-73079-1	1259PS110[0.0]	Solid	06/24/16 14:42	06/24/16 18:30

wo # 1609538

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

720-73079

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

6/28/2016

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date:	COC No:
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	1 of 1 COCs
505 Sansome Street Suite 1600	**Analysis Turnaround Time**			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(415) 644-3000 Phone	TAT if different from Below 24			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☑ 1 week			
Site: Presidio of San Francisco	☑ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Lead (USEPA 8260)	As, Ba, Cu, Zn (USEPA 8260)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes:
1259 PS110 [0.0]	6/24/16	1442	G	S	1			X				
1259 PS111 [0.0]	6/24/16	1448	G	S	1			X				

720-73079 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected
Please hold excess soil for potential future analysis 1.8 °C

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:	Corr'd:	Therm ID No.:
Relinquished by:	Company: TRC	Date/Time: 6/24/16 1510	Received by:	Company: TA	Date/Time: 6/24/16 1510
Relinquished by:	Company: TA	Date/Time: 6/24/16 1530	Received by:	Company: TA	Date/Time: 6/24/16 1530
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

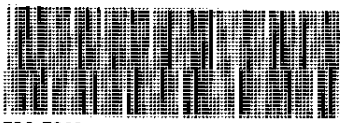
Form No. CA-C-WI-002, Rev. 4.9, dated 2/2/2016

Sharma, Dimple 720-73079-rev

From: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Sent: Monday, June 27, 2016 11:55 AM
To: Sharma, Dimple; Boecher, Caroline
Subject: RE: TestAmerica Sample Login Confirmation files from 720-73079 Lendrum Ct.

For this one 1259PS111[0.0] should be placed on hold and 110 should be analyzed on rush TAT if possible 1-2 days.

Thanks
Justin


720-73079 Chain of Custody

Justin Hanzel-Durbin
Senior Engineer/Project Manager
Environmental/Remediation

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415.644.3050 | F: 415.434.2321 | Cell: 415.209.3326

Follow us on LinkedIn or Twitter | www.trcsolutions.com
JHanzel-Durbin@trcsolutions.com

From: Sharma, Dimple [mailto:dimple.sharma@testamericainc.com]
Sent: Monday, June 27, 2016 11:46 AM
To: Boecher, Caroline <CBoecher@trcsolutions.com>; Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Subject: TestAmerica Sample Login Confirmation files from 720-73079 Lendrum Ct.

Hello,

Attached, please find the Sample Confirmation files for job 720-73079; Lendrum Ct.

Please feel free to contact me if you have any questions.

Thank you.

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

DIMPLE SHARMA
Senior Project Manager

TestAmerica Pleasanton
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 925.484.1919
www.testamericainc.com

Reference: [219620]
Attachments: 3

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-73079-1

Login Number: 73079

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Arauz, Dennis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-73530-1
Client Project/Site: Lendrum Ct. Data Gap Investigation

For:
TRC Solutions, Inc.
505 Sansome Street
Suite 1600
San Francisco, California 94111

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
7/28/2016 4:23:39 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

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Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-1

Job ID: 720-73530-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-73530-1

Comments
The samples were analyzed using method 6010B for lead per project history.

Receipt
The samples were received on 7/21/2016 5:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.4° C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-1

Client Sample ID: 1257PS108[0.0] **Lab Sample ID: 720-73530-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	370		1.5		mg/Kg	4	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-1

Client Sample ID: 1257PS108[0.0]
Date Collected: 07/20/16 10:40
Date Received: 07/21/16 17:30

Lab Sample ID: 720-73530-1
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.6		0.1		%			07/25/16 11:35	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-1

Client Sample ID: 1257PS108[0.0]
Date Collected: 07/20/16 10:40
Date Received: 07/21/16 17:30

Lab Sample ID: 720-73530-1
Matrix: Solid
Percent Solids: 91.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	370		1.5		mg/Kg	☼	07/26/16 15:05	07/28/16 13:37	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-206580/1-A
Matrix: Solid
Analysis Batch: 206660

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 206580

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50		mg/Kg		07/26/16 15:05	07/27/16 13:56	1

Lab Sample ID: LCS 720-206580/2-A
Matrix: Solid
Analysis Batch: 206660

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 206580

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	46.7		mg/Kg		93	80 - 120

Lab Sample ID: LCSSRM 720-206580/3-A
Matrix: Solid
Analysis Batch: 206660

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 206580

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	302	254		mg/Kg		84	62 - 113

Method: Moisture - Percent Moisture

Lab Sample ID: 720-73530-1 DU
Matrix: Solid
Analysis Batch: 206480

Client Sample ID: 1257PS108[0.0]
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	8.6		8.8		%		3	20

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-1

Metals

Prep Batch: 206580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73530-1	1257PS108[0.0]	Total/NA	Solid	3050B	
MB 720-206580/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 720-206580/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 720-206580/3-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 206660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-206580/1-A	Method Blank	Total/NA	Solid	6010B	206580
LCS 720-206580/2-A	Lab Control Sample	Total/NA	Solid	6010B	206580
LCSSRM 720-206580/3-A	Lab Control Sample	Total/NA	Solid	6010B	206580

Analysis Batch: 206742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73530-1	1257PS108[0.0]	Total/NA	Solid	6010B	206580

General Chemistry

Analysis Batch: 206480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73530-1	1257PS108[0.0]	Total/NA	Solid	Moisture	
720-73530-1 DU	1257PS108[0.0]	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-1

Client Sample ID: 1257PS108[0.0] — **Lab Sample ID: 720-73530-1**
Date Collected: 07/20/16 10:40 — **Matrix: Solid**
Date Received: 07/21/16 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	206480	07/25/16 11:35	NVP	TAL PLS

Client Sample ID: 1257PS108[0.0] — **Lab Sample ID: 720-73530-1**
Date Collected: 07/20/16 10:40 — **Matrix: Solid**
Date Received: 07/21/16 17:30 — **Percent Solids: 91.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			206580	07/26/16 15:05	BRB	TAL PLS
Total/NA	Analysis	6010B		4	206742	07/28/16 13:37	CAM	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-73530-1	1257PS108[0.0]	Solid	07/20/16 10:40	07/21/16 17:30

Chain of Custody Record

720-73530

11 9988

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date:	COC No:
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	1 of 1 COCs
505 Sansome Street Suite 1600	Analysis Turnaround Time			Sampler: Patrick Woods
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(415) 644-3000 Phone	TAT if different from Below			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☑ 1 week			
Site: Presidio of San Francisco	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

720-73530 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA 6020)	As, Ba, Cu, Zn (USEPA 6020)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes:
1257 PS 108 [0.0]	7/20/16	1040	G		1			X				
1257 PS 108 [0.5]	7/20/16	1041	G		1			X				HOLD
1257 PS 108 [1.0]	7/20/16	1043	G		1			X				HOLD
1257 PS 109 [0.0]	7/20/16	1046	G		1			X				HOLD
1257 PS 109 [0.5]	7/20/16	1048	G		1			X				HOLD
1257 PS 109 [1.0]	7/20/16	1050	G		1			X				HOLD

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
All samples to be dry weight corrected

1.4 °C

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:	Corr'd:	Therm ID No.:
Relinquished by:	Company: TRC	Date/Time: 7-21-16 1210	Received by:	Company: TT	Date/Time: 7.21.16 12:10
Relinquished by:	Company: TT	Date/Time: 7/21/16 1730	Received by:	Company: FA	Date/Time: 7/21/16 1730
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.9, dated 2/2/2016

7/28/2016

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-73530-1

Login Number: 73530

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Arauz, Dennis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-73530-2
Client Project/Site: Lendrum Ct. Data Gap Investigation

For:
TRC Solutions, Inc.
505 Sansome Street
Suite 1600
San Francisco, California 94111

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
8/4/2016 10:50:19 AM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

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Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-2

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-2

Job ID: 720-73530-2

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-73530-2

Comments
No additional comments.

Receipt
The samples were received on 7/21/2016 5:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.4° C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-2

Client Sample ID: 1257PS108[0.5] — Lab Sample ID: 720-73530-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	560		1.7		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1257PS109[0.0] — Lab Sample ID: 720-73530-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	270		2.0		mg/Kg	4	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-2

Client Sample ID: 1257PS108[0.5]
Date Collected: 07/20/16 10:41
Date Received: 07/21/16 17:30

Lab Sample ID: 720-73530-2
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.5		0.1		%			07/29/16 11:44	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-2

Client Sample ID: 1257PS108[0.5]
Date Collected: 07/20/16 10:41
Date Received: 07/21/16 17:30

Lab Sample ID: 720-73530-2
Matrix: Solid
Percent Solids: 90.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	560		1.7		mg/Kg	☼	08/01/16 14:26	08/03/16 14:09	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-2

Client Sample ID: 1257PS109[0.0]
Date Collected: 07/20/16 10:46
Date Received: 07/21/16 17:30

Lab Sample ID: 720-73530-4
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.0		0.1		%			07/29/16 11:44	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-2

Client Sample ID: 1257PS109[0.0]
Date Collected: 07/20/16 10:46
Date Received: 07/21/16 17:30

Lab Sample ID: 720-73530-4
Matrix: Solid
Percent Solids: 87.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	270		2.0		mg/Kg	☼	08/01/16 15:42	08/02/16 20:26	4

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-206921/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 207077 — **Prep Batch: 206921**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50		mg/Kg		08/01/16 14:26	08/03/16 12:53	1

Lab Sample ID: LCS 720-206921/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 207077 — **Prep Batch: 206921**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	50.3		mg/Kg		101	80 - 120

Lab Sample ID: LCSSRM 720-206921/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 207077 — **Prep Batch: 206921**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	302	284		mg/Kg		94	62 - 113

Lab Sample ID: MB 720-206929/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 207046 — **Prep Batch: 206929**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50		mg/Kg		08/01/16 15:42	08/02/16 19:38	1

Lab Sample ID: LCS 720-206929/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 207046 — **Prep Batch: 206929**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	46.5		mg/Kg		93	80 - 120

Lab Sample ID: LCSSRM 720-206929/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 207046 — **Prep Batch: 206929**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	302	272		mg/Kg		90	62 - 113

Lab Sample ID: 720-73530-4 MS — **Client Sample ID: 1257PS109[0.0]**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 207046 — **Prep Batch: 206929**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	270		49.5	352	4	mg/Kg	☼	162	75 - 125

Lab Sample ID: 720-73530-4 MSD — **Client Sample ID: 1257PS109[0.0]**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 207046 — **Prep Batch: 206929**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	270		50.4	333	4	mg/Kg	☼	121	75 - 125	6	20

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-2

Method: Moisture - Percent Moisture

Lab Sample ID: 720-73530-2 DU
Matrix: Solid
Analysis Batch: 206800

Client Sample ID: 1257PS108[0.5]
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	9.5			9.7		%				2	20

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-2

Metals

Prep Batch: 206921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73530-2	1257PS108[0.5]	Total/NA	Solid	3050B	
MB 720-206921/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 720-206921/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 720-206921/3-A	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 206929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73530-4	1257PS109[0.0]	Total/NA	Solid	3050B	
MB 720-206929/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 720-206929/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 720-206929/3-A	Lab Control Sample	Total/NA	Solid	3050B	
720-73530-4 MS	1257PS109[0.0]	Total/NA	Solid	3050B	
720-73530-4 MSD	1257PS109[0.0]	Total/NA	Solid	3050B	

Analysis Batch: 207046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73530-4	1257PS109[0.0]	Total/NA	Solid	6010B	206929
MB 720-206929/1-A	Method Blank	Total/NA	Solid	6010B	206929
LCS 720-206929/2-A	Lab Control Sample	Total/NA	Solid	6010B	206929
LCSSRM 720-206929/3-A	Lab Control Sample	Total/NA	Solid	6010B	206929
720-73530-4 MS	1257PS109[0.0]	Total/NA	Solid	6010B	206929
720-73530-4 MSD	1257PS109[0.0]	Total/NA	Solid	6010B	206929

Analysis Batch: 207077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73530-2	1257PS108[0.5]	Total/NA	Solid	6010B	206921
MB 720-206921/1-A	Method Blank	Total/NA	Solid	6010B	206921
LCS 720-206921/2-A	Lab Control Sample	Total/NA	Solid	6010B	206921
LCSSRM 720-206921/3-A	Lab Control Sample	Total/NA	Solid	6010B	206921

General Chemistry

Analysis Batch: 206800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73530-2	1257PS108[0.5]	Total/NA	Solid	Moisture	
720-73530-4	1257PS109[0.0]	Total/NA	Solid	Moisture	
720-73530-2 DU	1257PS108[0.5]	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-2

Client Sample ID: 1257PS108[0.5] — **Lab Sample ID: 720-73530-2**
Date Collected: 07/20/16 10:41 — **Matrix: Solid**
Date Received: 07/21/16 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	206800	07/29/16 11:44	NVP	TAL PLS

Client Sample ID: 1257PS108[0.5] — **Lab Sample ID: 720-73530-2**
Date Collected: 07/20/16 10:41 — **Matrix: Solid**
Date Received: 07/21/16 17:30 — **Percent Solids: 90.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			206921	08/01/16 14:26	BRB	TAL PLS
Total/NA	Analysis	6010B		4	207077	08/03/16 14:09	SLK	TAL PLS

Client Sample ID: 1257PS109[0.0] — **Lab Sample ID: 720-73530-4**
Date Collected: 07/20/16 10:46 — **Matrix: Solid**
Date Received: 07/21/16 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	206800	07/29/16 11:44	NVP	TAL PLS

Client Sample ID: 1257PS109[0.0] — **Lab Sample ID: 720-73530-4**
Date Collected: 07/20/16 10:46 — **Matrix: Solid**
Date Received: 07/21/16 17:30 — **Percent Solids: 87.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			206929	08/01/16 15:42	OBI	TAL PLS
Total/NA	Analysis	6010B		4	207046	08/02/16 20:26	SLK	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-2

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-73530-2	1257PS108[0.5]	Solid	07/20/16 10:41	07/21/16 17:30
720-73530-4	1257PS109[0.0]	Solid	07/20/16 10:46	07/21/16 17:30

720-73530

Sharma, Dimple

From: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Sent: Thursday, July 28, 2016 4:57 PM
To: Sharma, Dimple; Boecher, Caroline
Subject: RE: TestAmerica EDD and report files from 720-73530-1 Lendrum Ct. Data Gap Investigation

Thank you please analyze 109@0.0 and 108@0.5 please, standard TAT.
Thanks
Justin

Lead Moisture

Justin Hanzel-Durbin
Senior Engineer/Project Manager
Environmental/Remediation

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415.644.3050 | F: 415.434.2321 | Cell: 415.209.3326

Follow us on LinkedIn or Twitter | www.trcsolutions.com
JHanzel-Durbin@trcsolutions.com

From: Sharma, Dimple [mailto:dimple.sharma@testamericainc.com]
Sent: Thursday, July 28, 2016 4:26 PM
To: Boecher, Caroline <CBoecher@trcsolutions.com>; Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Subject: TestAmerica EDD and report files from 720-73530-1 Lendrum Ct. Data Gap Investigation

Hello,

Attached please find the EDD and report files for job 720-73530-1; Lendrum Ct. Data Gap Investigation

Please feel free to contact me if you have any questions.

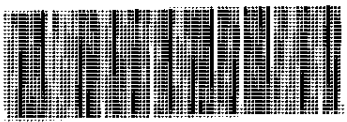
Thank you.

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

DIMPLE SHARMA
Senior Project Manager

TestAmerica Pleasanton
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 925.484.1919
www.testamericainc.com


720-73530 Chain of Custody

Reference: [222060]
Attachments: 2

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-73530-2

Login Number: 73530

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Arauz, Dennis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-73530-3
Client Project/Site: Lendrum Ct. Data Gap Investigation

For:
TRC Solutions, Inc.
505 Sansome Street
Suite 1600
San Francisco, California 94111

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
8/19/2016 3:40:15 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-3

Qualifiers

Metals

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-3

Job ID: 720-73530-3

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-73530-3

Comments
No additional comments.

Receipt
The samples were received on 7/21/2016 5:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.4° C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-3

Client Sample ID: 1257PS108[1.0] — Lab Sample ID: 720-73530-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	28	F2	1.9		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1257PS109[0.5] — Lab Sample ID: 720-73530-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	50		2.1		mg/Kg	4	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-3

Client Sample ID: 1257PS108[1.0]
Date Collected: 07/20/16 10:43
Date Received: 07/21/16 17:30

Lab Sample ID: 720-73530-3
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.6		0.1		%			08/16/16 08:37	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-3

Client Sample ID: 1257PS108[1.0]
Date Collected: 07/20/16 10:43
Date Received: 07/21/16 17:30

Lab Sample ID: 720-73530-3
Matrix: Solid
Percent Solids: 90.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	28	F2	1.9		mg/Kg	☼	08/16/16 18:40	08/18/16 17:17	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-3

Client Sample ID: 1257PS109[0.5]
Date Collected: 07/20/16 10:48
Date Received: 07/21/16 17:30

Lab Sample ID: 720-73530-5
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.9		0.1		%			08/16/16 08:37	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-3

Client Sample ID: 1257PS109[0.5]
Date Collected: 07/20/16 10:48
Date Received: 07/21/16 17:30

Lab Sample ID: 720-73530-5
Matrix: Solid
Percent Solids: 91.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	50		2.1		mg/Kg	☼	08/16/16 18:40	08/18/16 17:22	4

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-207739/1-A
Matrix: Solid
Analysis Batch: 207891

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 207739

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50		mg/Kg		08/16/16 18:40	08/18/16 16:43	1

Lab Sample ID: LCS 720-207739/2-A
Matrix: Solid
Analysis Batch: 207891

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 207739

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	49.1		mg/Kg		98	80 - 120

Lab Sample ID: LCSSRM 720-207739/3-A
Matrix: Solid
Analysis Batch: 207891

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 207739

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	302	273		mg/Kg		90	62 - 113

Lab Sample ID: 720-73530-3 MS
Matrix: Solid
Analysis Batch: 207891

Client Sample ID: 1257PS108[1.0]
Prep Type: Total/NA
Prep Batch: 207739

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	28	F2	29.7	51.1		mg/Kg	☼	77	75 - 125

Lab Sample ID: 720-73530-3 MSD
Matrix: Solid
Analysis Batch: 207891

Client Sample ID: 1257PS108[1.0]
Prep Type: Total/NA
Prep Batch: 207739

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	28	F2	48.1	73.9	F2	mg/Kg	☼	95	75 - 125	36	20

Method: Moisture - Percent Moisture

Lab Sample ID: 720-73530-3 DU
Matrix: Solid
Analysis Batch: 207685

Client Sample ID: 1257PS108[1.0]
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	9.6		9.4		%		2	20

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-3

Metals

Prep Batch: 207739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73530-3	1257PS108[1.0]	Total/NA	Solid	3050B	
720-73530-5	1257PS109[0.5]	Total/NA	Solid	3050B	
MB 720-207739/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 720-207739/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 720-207739/3-A	Lab Control Sample	Total/NA	Solid	3050B	
720-73530-3 MS	1257PS108[1.0]	Total/NA	Solid	3050B	
720-73530-3 MSD	1257PS108[1.0]	Total/NA	Solid	3050B	

Analysis Batch: 207891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73530-3	1257PS108[1.0]	Total/NA	Solid	6010B	207739
720-73530-5	1257PS109[0.5]	Total/NA	Solid	6010B	207739
MB 720-207739/1-A	Method Blank	Total/NA	Solid	6010B	207739
LCS 720-207739/2-A	Lab Control Sample	Total/NA	Solid	6010B	207739
LCSSRM 720-207739/3-A	Lab Control Sample	Total/NA	Solid	6010B	207739
720-73530-3 MS	1257PS108[1.0]	Total/NA	Solid	6010B	207739
720-73530-3 MSD	1257PS108[1.0]	Total/NA	Solid	6010B	207739

General Chemistry

Analysis Batch: 207685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73530-3	1257PS108[1.0]	Total/NA	Solid	Moisture	
720-73530-5	1257PS109[0.5]	Total/NA	Solid	Moisture	
720-73530-3 DU	1257PS108[1.0]	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-3

Client Sample ID: 1257PS108[1.0]

Lab Sample ID: 720-73530-3
Date Collected: 07/20/16 10:43
Matrix: Solid
Date Received: 07/21/16 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	207685	08/16/16 08:37	NVP	TAL PLS

Client Sample ID: 1257PS108[1.0]

Lab Sample ID: 720-73530-3
Date Collected: 07/20/16 10:43
Matrix: Solid
Date Received: 07/21/16 17:30
Percent Solids: 90.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			207739	08/16/16 18:40	BRB	TAL PLS
Total/NA	Analysis	6010B		4	207891	08/18/16 17:17	ASB	TAL PLS

Client Sample ID: 1257PS109[0.5]

Lab Sample ID: 720-73530-5
Date Collected: 07/20/16 10:48
Matrix: Solid
Date Received: 07/21/16 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	207685	08/16/16 08:37	NVP	TAL PLS

Client Sample ID: 1257PS109[0.5]

Lab Sample ID: 720-73530-5
Date Collected: 07/20/16 10:48
Matrix: Solid
Date Received: 07/21/16 17:30
Percent Solids: 91.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			207739	08/16/16 18:40	BRB	TAL PLS
Total/NA	Analysis	6010B		4	207891	08/18/16 17:22	ASB	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-3

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-3

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73530-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-73530-3	1257PS108[1.0]	Solid	07/20/16 10:43	07/21/16 17:30
720-73530-5	1257PS109[0.5]	Solid	07/20/16 10:48	07/21/16 17:30

Add on ✓ 73530-3

Caparas, Criselda

From: Boecher, Caroline [CBoecher@trcsolutions.com]
Sent: Monday, August 15, 2016 8:17 AM
To: Caparas, Criselda
Subject: FW: TestAmerica EDD and report files from 720-73530-2 Lendrum Ct. Data Gap Investigation

Hi Criselda,

Can you please run samples 1257PS108[1.0] and 1257PS109[0.5] for lead (dry weight corrected)?

Thanks!

Carrie

From: Boecher, Caroline
Sent: Monday, August 15, 2016 8:15 AM
To: 'dimple.sharma@testamericainc.com' <dimple.sharma@testamericainc.com>; Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Subject: RE: TestAmerica EDD and report files from 720-73530-2 Lendrum Ct. Data Gap Investigation

Hi Dimple,

Can you please run samples 1257PS108[1.0] and 1257PS109[0.5]?

Thank you,
Carrie

720-73530 Chain of Custody

From: Sharma, Dimple [mailto:dimple.sharma@testamericainc.com]
Sent: Thursday, August 04, 2016 10:56 AM
To: Boecher, Caroline <CBoecher@trcsolutions.com>; Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Subject: TestAmerica EDD and report files from 720-73530-2 Lendrum Ct. Data Gap Investigation

Hello,

Attached please find the EDD and report files for job 720-73530-2; Lendrum Ct. Data Gap Investigation

Please feel free to contact me if you have any questions.

Thank you.

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

DIMPLE SHARMA
Senior Project Manager

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-73530-3

Login Number: 73530
List Number: 1
Creator: Arauz, Dennis

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-73552-1
Client Project/Site: Lendrum Ct. Data Gap Investigation

For:
TRC Solutions, Inc.
505 Sansome Street
Suite 1600
San Francisco, California 94111

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
7/29/2016 1:48:56 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-73552-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-73552-1

Comments
No additional comments.

Receipt
The samples were received on 7/22/2016 4:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.0º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73552-1

Client Sample ID: 1257PS103[1.5] — Lab Sample ID: 720-73552-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	170		1.6		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1279SB505[0.5] — Lab Sample ID: 720-73552-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	32		1.6		mg/Kg	4	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73552-1

Client Sample ID: 1257PS103[1.5]
Date Collected: 07/21/16 11:48
Date Received: 07/22/16 16:15

Lab Sample ID: 720-73552-1
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.5		0.1		%			07/28/16 14:22	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73552-1

Client Sample ID: 1257PS103[1.5]
Date Collected: 07/21/16 11:48
Date Received: 07/22/16 16:15

Lab Sample ID: 720-73552-1
Matrix: Solid
Percent Solids: 90.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	170		1.6		mg/Kg	☼	07/27/16 17:05	07/28/16 20:05	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73552-1

Client Sample ID: 1279SB505[0.5]
Date Collected: 07/21/16 12:13
Date Received: 07/22/16 16:15

Lab Sample ID: 720-73552-3
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.9		0.1		%			07/28/16 14:22	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73552-1

Client Sample ID: 1279SB505[0.5]
Date Collected: 07/21/16 12:13
Date Received: 07/22/16 16:15

Lab Sample ID: 720-73552-3
Matrix: Solid
Percent Solids: 96.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	32		1.6		mg/Kg	☼	07/27/16 17:05	07/28/16 20:10	4

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-206665/1-A
Matrix: Solid
Analysis Batch: 206731

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 206665

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50		mg/Kg		07/27/16 15:28	07/28/16 11:32	1

Lab Sample ID: LCS 720-206665/2-A
Matrix: Solid
Analysis Batch: 206731

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 206665

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	45.1		mg/Kg		90	80 - 120

Lab Sample ID: LCSSRM 720-206665/3-A
Matrix: Solid
Analysis Batch: 206731

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 206665

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	302	261		mg/Kg		86	62 - 113

Method: Moisture - Percent Moisture

Lab Sample ID: 720-73552-3 DU
Matrix: Solid
Analysis Batch: 206735

Client Sample ID: 1279SB505[0.5]
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	3.9		3.5		%		13	20

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73552-1

Metals

Prep Batch: 206665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73552-1	1257PS103[1.5]	Total/NA	Solid	3050B	
720-73552-3	1279SB505[0.5]	Total/NA	Solid	3050B	
MB 720-206665/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 720-206665/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 720-206665/3-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 206731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-206665/1-A	Method Blank	Total/NA	Solid	6010B	206665
LCS 720-206665/2-A	Lab Control Sample	Total/NA	Solid	6010B	206665
LCSSRM 720-206665/3-A	Lab Control Sample	Total/NA	Solid	6010B	206665

Analysis Batch: 206791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73552-1	1257PS103[1.5]	Total/NA	Solid	6010B	206665
720-73552-3	1279SB505[0.5]	Total/NA	Solid	6010B	206665

General Chemistry

Analysis Batch: 206735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73552-1	1257PS103[1.5]	Total/NA	Solid	Moisture	
720-73552-3	1279SB505[0.5]	Total/NA	Solid	Moisture	
720-73552-3 DU	1279SB505[0.5]	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73552-1

Client Sample ID: 1257PS103[1.5]

Lab Sample ID: 720-73552-1
Date Collected: 07/21/16 11:48
Matrix: Solid
Date Received: 07/22/16 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	206735	07/28/16 14:22	NVP	TAL PLS

Client Sample ID: 1257PS103[1.5]

Lab Sample ID: 720-73552-1
Date Collected: 07/21/16 11:48
Matrix: Solid
Date Received: 07/22/16 16:15
Percent Solids: 90.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			206665	07/27/16 17:05	BRB	TAL PLS
Total/NA	Analysis	6010B		4	206791	07/28/16 20:05	SLK	TAL PLS

Client Sample ID: 1279SB505[0.5]

Lab Sample ID: 720-73552-3
Date Collected: 07/21/16 12:13
Matrix: Solid
Date Received: 07/22/16 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	206735	07/28/16 14:22	NVP	TAL PLS

Client Sample ID: 1279SB505[0.5]

Lab Sample ID: 720-73552-3
Date Collected: 07/21/16 12:13
Matrix: Solid
Date Received: 07/22/16 16:15
Percent Solids: 96.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			206665	07/27/16 17:05	BRB	TAL PLS
Total/NA	Analysis	6010B		4	206791	07/28/16 20:10	SLK	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73552-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73552-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73552-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-73552-1	1257PS103[1.5]	Solid	07/21/16 11:48	07/22/16 16:15
720-73552-3	1279SB505[0.5]	Solid	07/21/16 12:13	07/22/16 16:15

wo# ~~[illegible]~~ 170015

Chain of Custody Record

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

720-73552

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date:	COC No:
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	1 of 1 COCs
505 Sansome Street Suite 1600	Analysis Turnaround Time			Sampler: Patricia Woods
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(415) 644-3000 Phone	TAT if different from Below _____			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☑ 1 week			Job / SDG No.:
Site: Presidio of San Francisco	☐ 2 days			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA 6020)	As, Ba, Cu, Zn (USEPA 6020)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes:
1257 PS 103 [1.5]	7/21/16	1148	G		1			X				
1257 PS 103 [2.0]	7/21/16	1150	G		1			X				HOLD
1279 SB 505 [0.5]	7/21/16	1213	G		1			X				
1279 SB 505 [1.0]	7/21/16	1215	G		1			X				HOLD
1279 SB 505 [1.5]	7/21/16	1218	G		1			X				HOLD
1279 SB 505 [2.0]	7/21/16	1220	G		1			X				HOLD

720-73552 Chain of Custody

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____		Therm ID No.:
Relinquished by:	Company: TRC	Date/Time: 7/22/16 1220	Received by:	Company: TA	Date/Time: 7/22/16 1340
Relinquished by:	Company: TA	Date/Time: 7/22/16 1615	Received by:	Company: TA	Date/Time: 7/22/16 1615
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.9, dated 2/2/2016

4.0 °C

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-73552-1

Login Number: 73552
List Number: 1
Creator: Arauz, Dennis

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-73608-1
Client Project/Site: Lendrum Ct. Data Gap Investigation

For:
TRC Solutions, Inc.
505 Sansome Street
Suite 1600
San Francisco, California 94111

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
7/29/2016 1:51:49 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73608-1

Job ID: 720-73608-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-73608-1

Comments
No additional comments.

Receipt
The samples were received on 7/27/2016 1:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.2º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73608-1

Client Sample ID: 1259PS205[0.0] — Lab Sample ID: 720-73608-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	5.7		2.5		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1259PS206[0.0] — Lab Sample ID: 720-73608-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	27		1.3		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1259EX205[0.0] — Lab Sample ID: 720-73608-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	45		2.4		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1259PS208[0.0] — Lab Sample ID: 720-73608-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	220		1.5		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1259EX204[0.0] — Lab Sample ID: 720-73608-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	71		1.5		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1259PS209[0.0] — Lab Sample ID: 720-73608-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	130		1.3		mg/Kg	4	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73608-1

Client Sample ID: 1259PS205[0.0]
Date Collected: 07/26/16 10:27
Date Received: 07/27/16 13:00

Lab Sample ID: 720-73608-1
Matrix: Solid
Percent Solids: 52.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	5.7		2.5		mg/Kg	☼	07/27/16 15:28	07/28/16 12:09	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	47.2		0.1		%			07/28/16 14:22	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73608-1

Client Sample ID: 1259PS206[0.0]
Date Collected: 07/26/16 10:50
Date Received: 07/27/16 13:00

Lab Sample ID: 720-73608-3
Matrix: Solid
Percent Solids: 78.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	27		1.3		mg/Kg	☼	07/27/16 15:28	07/28/16 12:15	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21.5		0.1		%			07/28/16 14:22	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73608-1

Client Sample ID: 1259EX205[0.0]
Date Collected: 07/26/16 11:06
Date Received: 07/27/16 13:00

Lab Sample ID: 720-73608-5
Matrix: Solid
Percent Solids: 80.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	45		2.4		mg/Kg	☼	07/27/16 15:28	07/28/16 12:20	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.7		0.1		%			07/28/16 14:22	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73608-1

Client Sample ID: 1259PS208[0.0]
Date Collected: 07/26/16 11:54
Date Received: 07/27/16 13:00

Lab Sample ID: 720-73608-7
Matrix: Solid
Percent Solids: 75.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	220		1.5		mg/Kg	☼	07/27/16 15:28	07/28/16 12:36	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24.4		0.1		%			07/28/16 14:22	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73608-1

Client Sample ID: 1259EX204[0.0]
Date Collected: 07/26/16 12:13
Date Received: 07/27/16 13:00

Lab Sample ID: 720-73608-9
Matrix: Solid
Percent Solids: 79.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	71		1.5		mg/Kg	☼	07/27/16 15:28	07/28/16 12:42	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.6		0.1		%			07/28/16 14:22	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73608-1

Client Sample ID: 1259PS209[0.0]
Date Collected: 07/26/16 12:31
Date Received: 07/27/16 13:00

Lab Sample ID: 720-73608-11
Matrix: Solid
Percent Solids: 83.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	130		1.3		mg/Kg	☼	07/27/16 15:28	07/28/16 12:47	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.9		0.1		%			07/28/16 14:22	1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-206665/1-A
Matrix: Solid
Analysis Batch: 206731

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 206665

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50		mg/Kg		07/27/16 15:28	07/28/16 11:32	1

Lab Sample ID: LCS 720-206665/2-A
Matrix: Solid
Analysis Batch: 206731

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 206665

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	45.1		mg/Kg		90	80 - 120

Lab Sample ID: LCSSRM 720-206665/3-A
Matrix: Solid
Analysis Batch: 206731

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 206665

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	302	261		mg/Kg		86	62 - 113

Lab Sample ID: 720-73608-1 MS
Matrix: Solid
Analysis Batch: 206731

Client Sample ID: 1259PS205[0.0]
Prep Type: Total/NA
Prep Batch: 206665

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	5.7		72.3	72.7		mg/Kg	☼	93	75 - 125

Lab Sample ID: 720-73608-1 MSD
Matrix: Solid
Analysis Batch: 206731

Client Sample ID: 1259PS205[0.0]
Prep Type: Total/NA
Prep Batch: 206665

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	5.7		81.6	81.0		mg/Kg	☼	92	75 - 125	11	20

Metals

Prep Batch: 206665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73608-1	1259PS205[0.0]	Total/NA	Solid	3050B	
720-73608-3	1259PS206[0.0]	Total/NA	Solid	3050B	
720-73608-5	1259EX205[0.0]	Total/NA	Solid	3050B	
720-73608-7	1259PS208[0.0]	Total/NA	Solid	3050B	
720-73608-9	1259EX204[0.0]	Total/NA	Solid	3050B	
720-73608-11	1259PS209[0.0]	Total/NA	Solid	3050B	
MB 720-206665/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 720-206665/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 720-206665/3-A	Lab Control Sample	Total/NA	Solid	3050B	
720-73608-1 MS	1259PS205[0.0]	Total/NA	Solid	3050B	
720-73608-1 MSD	1259PS205[0.0]	Total/NA	Solid	3050B	

Analysis Batch: 206731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73608-1	1259PS205[0.0]	Total/NA	Solid	6010B	206665
720-73608-3	1259PS206[0.0]	Total/NA	Solid	6010B	206665
720-73608-5	1259EX205[0.0]	Total/NA	Solid	6010B	206665
720-73608-7	1259PS208[0.0]	Total/NA	Solid	6010B	206665
720-73608-9	1259EX204[0.0]	Total/NA	Solid	6010B	206665
720-73608-11	1259PS209[0.0]	Total/NA	Solid	6010B	206665
MB 720-206665/1-A	Method Blank	Total/NA	Solid	6010B	206665
LCS 720-206665/2-A	Lab Control Sample	Total/NA	Solid	6010B	206665
LCSSRM 720-206665/3-A	Lab Control Sample	Total/NA	Solid	6010B	206665
720-73608-1 MS	1259PS205[0.0]	Total/NA	Solid	6010B	206665
720-73608-1 MSD	1259PS205[0.0]	Total/NA	Solid	6010B	206665

General Chemistry

Analysis Batch: 206735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73608-1	1259PS205[0.0]	Total/NA	Solid	Moisture	
720-73608-3	1259PS206[0.0]	Total/NA	Solid	Moisture	
720-73608-5	1259EX205[0.0]	Total/NA	Solid	Moisture	
720-73608-7	1259PS208[0.0]	Total/NA	Solid	Moisture	
720-73608-9	1259EX204[0.0]	Total/NA	Solid	Moisture	
720-73608-11	1259PS209[0.0]	Total/NA	Solid	Moisture	

Client Sample ID: 1259PS205[0.0] — **Lab Sample ID: 720-73608-1**
Date Collected: 07/26/16 10:27 — **Matrix: Solid**
Date Received: 07/27/16 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	206735	07/28/16 14:22	NVP	TAL PLS

Client Sample ID: 1259PS205[0.0] — **Lab Sample ID: 720-73608-1**
Date Collected: 07/26/16 10:27 — **Matrix: Solid**
Date Received: 07/27/16 13:00 — **Percent Solids: 52.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			206665	07/27/16 15:28	BRB	TAL PLS
Total/NA	Analysis	6010B		4	206731	07/28/16 12:09	CAM	TAL PLS

Client Sample ID: 1259PS206[0.0] — **Lab Sample ID: 720-73608-3**
Date Collected: 07/26/16 10:50 — **Matrix: Solid**
Date Received: 07/27/16 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	206735	07/28/16 14:22	NVP	TAL PLS

Client Sample ID: 1259PS206[0.0] — **Lab Sample ID: 720-73608-3**
Date Collected: 07/26/16 10:50 — **Matrix: Solid**
Date Received: 07/27/16 13:00 — **Percent Solids: 78.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			206665	07/27/16 15:28	BRB	TAL PLS
Total/NA	Analysis	6010B		4	206731	07/28/16 12:15	CAM	TAL PLS

Client Sample ID: 1259EX205[0.0] — **Lab Sample ID: 720-73608-5**
Date Collected: 07/26/16 11:06 — **Matrix: Solid**
Date Received: 07/27/16 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	206735	07/28/16 14:22	NVP	TAL PLS

Client Sample ID: 1259EX205[0.0] — **Lab Sample ID: 720-73608-5**
Date Collected: 07/26/16 11:06 — **Matrix: Solid**
Date Received: 07/27/16 13:00 — **Percent Solids: 80.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			206665	07/27/16 15:28	BRB	TAL PLS
Total/NA	Analysis	6010B		4	206731	07/28/16 12:20	CAM	TAL PLS

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73608-1

Client Sample ID: 1259PS208[0.0] — **Lab Sample ID: 720-73608-7**
Date Collected: 07/26/16 11:54 — **Matrix: Solid**
Date Received: 07/27/16 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	206735	07/28/16 14:22	NVP	TAL PLS

Client Sample ID: 1259PS208[0.0] — **Lab Sample ID: 720-73608-7**
Date Collected: 07/26/16 11:54 — **Matrix: Solid**
Date Received: 07/27/16 13:00 — **Percent Solids: 75.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			206665	07/27/16 15:28	BRB	TAL PLS
Total/NA	Analysis	6010B		4	206731	07/28/16 12:36	CAM	TAL PLS

Client Sample ID: 1259EX204[0.0] — **Lab Sample ID: 720-73608-9**
Date Collected: 07/26/16 12:13 — **Matrix: Solid**
Date Received: 07/27/16 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	206735	07/28/16 14:22	NVP	TAL PLS

Client Sample ID: 1259EX204[0.0] — **Lab Sample ID: 720-73608-9**
Date Collected: 07/26/16 12:13 — **Matrix: Solid**
Date Received: 07/27/16 13:00 — **Percent Solids: 79.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			206665	07/27/16 15:28	BRB	TAL PLS
Total/NA	Analysis	6010B		4	206731	07/28/16 12:42	CAM	TAL PLS

Client Sample ID: 1259PS209[0.0] — **Lab Sample ID: 720-73608-11**
Date Collected: 07/26/16 12:31 — **Matrix: Solid**
Date Received: 07/27/16 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	206735	07/28/16 14:22	NVP	TAL PLS

Client Sample ID: 1259PS209[0.0] — **Lab Sample ID: 720-73608-11**
Date Collected: 07/26/16 12:31 — **Matrix: Solid**
Date Received: 07/27/16 13:00 — **Percent Solids: 83.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			206665	07/27/16 15:28	BRB	TAL PLS
Total/NA	Analysis	6010B		4	206731	07/28/16 12:47	CAM	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73608-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73608-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73608-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-73608-1	1259PS205[0.0]	Solid	07/26/16 10:27	07/27/16 13:00
720-73608-3	1259PS206[0.0]	Solid	07/26/16 10:50	07/27/16 13:00
720-73608-5	1259EX205[0.0]	Solid	07/26/16 11:06	07/27/16 13:00
720-73608-7	1259PS208[0.0]	Solid	07/26/16 11:54	07/27/16 13:00
720-73608-9	1259EX204[0.0]	Solid	07/26/16 12:13	07/27/16 13:00
720-73608-11	1259PS209[0.0]	Solid	07/26/16 12:31	07/27/16 13:00

17cc74

Chain of Custody Record

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

720-73608

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

7/29/2016

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date:	COC No:
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	1 of 1 COCs
505 Sansome Street Suite 1600	Analysis Turnaround Time			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(415) 644-3000 Phone	TAT if different from Below			lk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☐ 1 week			/ SDG No.:
Site: Presidio of San Francisco	☐ 2 days			
P O #	☑ 1 day			

720-73608 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA 6020)	As, Ba, Cu, Zn (USEPA 6020)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes:
1259PS205 [0.0]	7/26/16	1027	G		1			✓				
1259PS205 [0.5]	7/26/16	1033	G		1							HOLD
1259PS206 [0.0]	7/26/16	1050	G		1			✓				
1259PS206 [0.5]	7/26/16	1055	G		1							HOLD
1259EX205 [0.0]	7/26/16	1108	G		1			✓				
1259EX205 [0.5]	7/26/16	1113	G		1							HOLD
1259PS208 [0.0]	7/26/16	1154	G		1			✓				
1259PS208 [0.5]	7/26/16	1200	G		1							HOLD
1259EX204 [0.0]	7/26/16	1213	G		1			✓				
1259EX204 [0.5]	7/26/16	1218	G		1							HOLD
1259PS209 [0.0]	7/26/16	1231	G		1			✓				
1259PS209 [0.5]	7/26/16	1238	G		1							HOLD

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected

5.2°C

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:	Corr'd:	Therm ID No.:
Relinquished by: Carrie Boecker	Company: TRC	Date/Time: 7/27/16 1104	Received by:	Company: TA	Date/Time: 7/27/16 1104
Relinquished by:	Company: TA	Date/Time: 7/27/16 1300	Received by:	Company:	Date/Time: 7/27/16 1300
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.9, dated 2/2/2016

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-73608-1

Login Number: 73608

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Arauz, Dennis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-73608-2
Client Project/Site: Lendrum Ct. Data Gap Investigation

For:
TRC Solutions, Inc.
505 Sansome Street
Suite 1600
San Francisco, California 94111

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
8/3/2016 4:39:41 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-73608-2

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-73608-2

Comments
No additional comments.

Receipt
The samples were received on 7/27/2016 1:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.2º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73608-2

Client Sample ID: 1259PS208[0.5] — Lab Sample ID: 720-73608-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	95		2.0		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1259PS209[0.5] — Lab Sample ID: 720-73608-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	100		2.3		mg/Kg	4	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73608-2

Client Sample ID: 1259PS208[0.5]
Date Collected: 07/26/16 12:00
Date Received: 07/27/16 13:00

Lab Sample ID: 720-73608-8
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.2		0.1		%			08/01/16 12:18	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73608-2

Client Sample ID: 1259PS208[0.5]
Date Collected: 07/26/16 12:00
Date Received: 07/27/16 13:00

Lab Sample ID: 720-73608-8
Matrix: Solid
Percent Solids: 82.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	95		2.0		mg/Kg	☼	08/01/16 15:42	08/02/16 20:31	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73608-2

Client Sample ID: 1259PS209[0.5]
Date Collected: 07/26/16 12:38
Date Received: 07/27/16 13:00

Lab Sample ID: 720-73608-12
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21.6		0.1		%			08/01/16 12:18	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73608-2

Client Sample ID: 1259PS209[0.5]
Date Collected: 07/26/16 12:38
Date Received: 07/27/16 13:00

Lab Sample ID: 720-73608-12
Matrix: Solid
Percent Solids: 78.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	100		2.3		mg/Kg	☼	08/01/16 15:42	08/02/16 20:37	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73608-2

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-206929/1-A
Matrix: Solid
Analysis Batch: 207046

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 206929

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50		mg/Kg		08/01/16 15:42	08/02/16 19:38	1

Lab Sample ID: LCS 720-206929/2-A
Matrix: Solid
Analysis Batch: 207046

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 206929

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	46.5		mg/Kg		93	80 - 120

Lab Sample ID: LCSSRM 720-206929/3-A
Matrix: Solid
Analysis Batch: 207046

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 206929

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	302	272		mg/Kg		90	62 - 113

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73608-2

Metals

Prep Batch: 206929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73608-8	1259PS208[0.5]	Total/NA	Solid	3050B	
720-73608-12	1259PS209[0.5]	Total/NA	Solid	3050B	
MB 720-206929/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 720-206929/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 720-206929/3-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 207046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73608-8	1259PS208[0.5]	Total/NA	Solid	6010B	206929
720-73608-12	1259PS209[0.5]	Total/NA	Solid	6010B	206929
MB 720-206929/1-A	Method Blank	Total/NA	Solid	6010B	206929
LCS 720-206929/2-A	Lab Control Sample	Total/NA	Solid	6010B	206929
LCSSRM 720-206929/3-A	Lab Control Sample	Total/NA	Solid	6010B	206929

General Chemistry

Analysis Batch: 206882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73608-8	1259PS208[0.5]	Total/NA	Solid	Moisture	
720-73608-12	1259PS209[0.5]	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73608-2

Client Sample ID: 1259PS208[0.5] — **Lab Sample ID: 720-73608-8**
Date Collected: 07/26/16 12:00 — **Matrix: Solid**
Date Received: 07/27/16 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	206882	08/01/16 12:18	NVP	TAL PLS

Client Sample ID: 1259PS208[0.5] — **Lab Sample ID: 720-73608-8**
Date Collected: 07/26/16 12:00 — **Matrix: Solid**
Date Received: 07/27/16 13:00 — **Percent Solids: 82.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			206929	08/01/16 15:42	OBI	TAL PLS
Total/NA	Analysis	6010B		4	207046	08/02/16 20:31	SLK	TAL PLS

Client Sample ID: 1259PS209[0.5] — **Lab Sample ID: 720-73608-12**
Date Collected: 07/26/16 12:38 — **Matrix: Solid**
Date Received: 07/27/16 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	206882	08/01/16 12:18	NVP	TAL PLS

Client Sample ID: 1259PS209[0.5] — **Lab Sample ID: 720-73608-12**
Date Collected: 07/26/16 12:38 — **Matrix: Solid**
Date Received: 07/27/16 13:00 — **Percent Solids: 78.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			206929	08/01/16 15:42	OBI	TAL PLS
Total/NA	Analysis	6010B		4	207046	08/02/16 20:37	SLK	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73608-2

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73608-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-73608-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-73608-8	1259PS208[0.5]	Solid	07/26/16 12:00	07/27/16 13:00
720-73608-12	1259PS209[0.5]	Solid	07/26/16 12:38	07/27/16 13:00

720-73608-2

Sharma, Dimple

From: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Sent: Monday, August 01, 2016 6:48 AM
To: Sharma, Dimple; Boecher, Caroline
Subject: RE: TestAmerica EDD and report files from 720-73608-1 Lendrum Ct. Data Gap Investigation

From THIs package can you please run the following hold samples on a rush 2 day TAT.
1259PS208[0.5]
1259PS209[0.5]

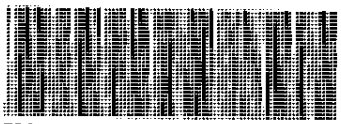
Thanks
Justin

RUSH

Justin Hanzel-Durbin
Senior Engineer/Project Manager
Environmental/Remediation

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415.644.3050 | F: 415.434.2321 | Cell: 415.209.3326

Follow us on LinkedIn or Twitter | www.trcsolutions.com
JHanzel-Durbin@trcsolutions.com



720-73608 Chain of Custody

From: Sharma, Dimple [mailto:dimple.sharma@testamericainc.com]
Sent: Friday, July 29, 2016 1:56 PM
To: Boecher, Caroline <CBoecher@trcsolutions.com>; Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Subject: TestAmerica EDD and report files from 720-73608-1 Lendrum Ct. Data Gap Investigation

Hello,

Attached please find the EDD and report files for job 720-73608-1; Lendrum Ct. Data Gap Investigation

Please feel free to contact me if you have any questions.

Thank you.

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

DIMPLE SHARMA
Senior Project Manager

TestAmerica Pleasanton
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 925.484.1919
www.testamericainc.com

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-73608-2

Login Number: 73608

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Arauz, Dennis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-74082-1
Client Project/Site: Lendrum Ct. Confirmation Sampling

For:
TRC Solutions, Inc.
505 Sansome Street
Suite 1600
San Francisco, California 94111

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
8/24/2016 4:59:30 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74082-1

Qualifiers

Metals

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-74082-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-74082-1

Comments
No additional comments.

Receipt
The samples were received on 8/23/2016 1:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.1º C.

Receipt Exceptions

Logged lead by 6010 per project history and confirmed.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74082-1

Client Sample ID: 1259PS308(0.25) — Lab Sample ID: 720-74082-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	260	F2	2.0		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1259PS309(0.25) — Lab Sample ID: 720-74082-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	16		1.6		mg/Kg	4	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74082-1

Client Sample ID: 1259PS308(0.25)
Date Collected: 08/22/16 14:15
Date Received: 08/23/16 13:00

Lab Sample ID: 720-74082-1
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.0		0.1		%			08/23/16 16:07	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74082-1

Client Sample ID: 1259PS308(0.25)
Date Collected: 08/22/16 14:15
Date Received: 08/23/16 13:00

Lab Sample ID: 720-74082-1
Matrix: Solid
Percent Solids: 83.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	260	F2	2.0		mg/Kg	☼	08/23/16 14:27	08/23/16 23:51	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74082-1

Client Sample ID: 1259PS309(0.25)
Date Collected: 08/22/16 14:30
Date Received: 08/23/16 13:00

Lab Sample ID: 720-74082-2
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.2		0.1		%			08/23/16 16:07	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74082-1

Client Sample ID: 1259PS309(0.25)
Date Collected: 08/22/16 14:30
Date Received: 08/23/16 13:00

Lab Sample ID: 720-74082-2
Matrix: Solid
Percent Solids: 83.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	16		1.6		mg/Kg	☼	08/23/16 14:27	08/23/16 23:56	4

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-208092/1-A
Matrix: Solid
Analysis Batch: 208146

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 208092

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50		mg/Kg		08/23/16 14:27	08/23/16 23:03	1

Lab Sample ID: LCS 720-208092/2-A
Matrix: Solid
Analysis Batch: 208146

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 208092

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			50.0	49.5		mg/Kg		99	80 - 120		

Lab Sample ID: LCSSRM 720-208092/3-A
Matrix: Solid
Analysis Batch: 208146

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 208092

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			302	273		mg/Kg		90	62 - 113		

Lab Sample ID: 720-74082-1 MS
Matrix: Solid
Analysis Batch: 208146

Client Sample ID: 1259PS308(0.25)
Prep Type: Total/NA
Prep Batch: 208092

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead	260	F2	37.7	280	4	mg/Kg	☼	53	75 - 125		

Lab Sample ID: 720-74082-1 MSD
Matrix: Solid
Analysis Batch: 208146

Client Sample ID: 1259PS308(0.25)
Prep Type: Total/NA
Prep Batch: 208092

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	260	F2	54.8	444	4 F2	mg/Kg	☼	337	75 - 125	45	20

Method: Moisture - Percent Moisture

Lab Sample ID: 720-74082-1 DU
Matrix: Solid
Analysis Batch: 208110

Client Sample ID: 1259PS308(0.25)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	17.0			16.5		%				3	20

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74082-1

Metals

Prep Batch: 208092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74082-1	1259PS308(0.25)	Total/NA	Solid	3050B	
720-74082-2	1259PS309(0.25)	Total/NA	Solid	3050B	
MB 720-208092/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 720-208092/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 720-208092/3-A	Lab Control Sample	Total/NA	Solid	3050B	
720-74082-1 MS	1259PS308(0.25)	Total/NA	Solid	3050B	
720-74082-1 MSD	1259PS308(0.25)	Total/NA	Solid	3050B	

Analysis Batch: 208146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74082-1	1259PS308(0.25)	Total/NA	Solid	6010B	208092
720-74082-2	1259PS309(0.25)	Total/NA	Solid	6010B	208092
MB 720-208092/1-A	Method Blank	Total/NA	Solid	6010B	208092
LCS 720-208092/2-A	Lab Control Sample	Total/NA	Solid	6010B	208092
LCSSRM 720-208092/3-A	Lab Control Sample	Total/NA	Solid	6010B	208092
720-74082-1 MS	1259PS308(0.25)	Total/NA	Solid	6010B	208092
720-74082-1 MSD	1259PS308(0.25)	Total/NA	Solid	6010B	208092

General Chemistry

Analysis Batch: 208110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74082-1	1259PS308(0.25)	Total/NA	Solid	Moisture	
720-74082-2	1259PS309(0.25)	Total/NA	Solid	Moisture	
720-74082-1 DU	1259PS308(0.25)	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74082-1

Client Sample ID: 1259PS308(0.25)
Date Collected: 08/22/16 14:15
Date Received: 08/23/16 13:00

Lab Sample ID: 720-74082-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	208110	08/23/16 16:07	EYT	TAL PLS

Client Sample ID: 1259PS308(0.25)
Date Collected: 08/22/16 14:15
Date Received: 08/23/16 13:00

Lab Sample ID: 720-74082-1
Matrix: Solid
Percent Solids: 83.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			208092	08/23/16 14:27	BRB	TAL PLS
Total/NA	Analysis	6010B		4	208146	08/23/16 23:51	ASB	TAL PLS

Client Sample ID: 1259PS309(0.25)
Date Collected: 08/22/16 14:30
Date Received: 08/23/16 13:00

Lab Sample ID: 720-74082-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	208110	08/23/16 16:07	EYT	TAL PLS

Client Sample ID: 1259PS309(0.25)
Date Collected: 08/22/16 14:30
Date Received: 08/23/16 13:00

Lab Sample ID: 720-74082-2
Matrix: Solid
Percent Solids: 83.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			208092	08/23/16 14:27	BRB	TAL PLS
Total/NA	Analysis	6010B		4	208146	08/23/16 23:56	ASB	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74082-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74082-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74082-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-74082-1	1259PS308(0.25)	Solid	08/22/16 14:15	08/23/16 13:00
720-74082-2	1259PS309(0.25)	Solid	08/22/16 14:30	08/23/16 13:00

TestAmerica Pleasanton
1220 Quarry Lane

Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

Chain of Custody Record

720-74082

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
170569
TestAmerica Laboratories, Inc.

8/24/2016

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date:	COC No:
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	1 of 1 COCs
505 Sansome Street Suite 1600	Analysis Turnaround Time			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(415) 644-3000 Phone	TAT if different from Below			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☐ 1 week			Job / SDG No.:
Site: Presidio of San Francisco	☐ 2 days			
P O #	☑ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA 6020)	As, Ba, Cu, Zn (USEPA 6020)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes:
1259PS308[0.25]	8/22/16	1415	G		1			X				
1259PS309[0.25]	8/22/16	1430	G		1			X				

720-74082 Chain of Custody

RUSH

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected

0.1c

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:	Corr'd:	Therm ID No.:
Relinquished by:	Company: TRC	Date/Time: 8/23/16 1030	Received by:	Company: TA	Date/Time: 8/23/16 1030
Relinquished by:	Company: TA	Date/Time: 8/23/16 1300	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 8-23-16 1300

Form No. CA-C-WI-002, Rev. 4.9, dated 2/2/2016

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-74082-1

Login Number: 74082
List Number: 1
Creator: Mullen, Joan

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-74083-1
Client Project/Site: Lendrum Ct. Confirmation Sampling

For:
TRC Solutions, Inc.
505 Sansome Street
Suite 1600
San Francisco, California 94111

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
8/24/2016 5:01:04 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74083-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-74083-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-74083-1

Comments
No additional comments.

Receipt
The samples were received on 8/23/2016 1:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.1º C.

Receipt Exceptions

Logged lead by 6010 per project history and confirmed.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74083-1

Client Sample ID: 1258EX101(0.75) — Lab Sample ID: 720-74083-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	41		1.3		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1258EX102(0.75) — Lab Sample ID: 720-74083-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	8.2		1.6		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1258EX103(0.75) — Lab Sample ID: 720-74083-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	320		1.4		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1258EX104(0.75) — Lab Sample ID: 720-74083-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	41		1.6		mg/Kg	4	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74083-1

Client Sample ID: 1258EX101(0.75)
Date Collected: 08/22/16 12:56
Date Received: 08/23/16 13:00

Lab Sample ID: 720-74083-1
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.3		0.1		%			08/23/16 16:07	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74083-1

Client Sample ID: 1258EX101(0.75)
Date Collected: 08/22/16 12:56
Date Received: 08/23/16 13:00

Lab Sample ID: 720-74083-1
Matrix: Solid
Percent Solids: 90.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	41		1.3		mg/Kg	☼	08/23/16 14:27	08/24/16 00:02	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74083-1

Client Sample ID: 1258EX102(0.75)
Date Collected: 08/22/16 13:35
Date Received: 08/23/16 13:00

Lab Sample ID: 720-74083-2
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.8		0.1		%			08/23/16 16:07	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74083-1

Client Sample ID: 1258EX102(0.75)
Date Collected: 08/22/16 13:35
Date Received: 08/23/16 13:00

Lab Sample ID: 720-74083-2
Matrix: Solid
Percent Solids: 85.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	8.2		1.6		mg/Kg	☼	08/23/16 14:27	08/24/16 00:07	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74083-1

Client Sample ID: 1258EX103(0.75)
Date Collected: 08/22/16 13:13
Date Received: 08/23/16 13:00

Lab Sample ID: 720-74083-3
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.4		0.1		%			08/23/16 16:07	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74083-1

Client Sample ID: 1258EX103(0.75)
Date Collected: 08/22/16 13:13
Date Received: 08/23/16 13:00

Lab Sample ID: 720-74083-3
Matrix: Solid
Percent Solids: 91.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	320		1.4		mg/Kg	☼	08/23/16 14:27	08/24/16 00:13	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74083-1

Client Sample ID: 1258EX104(0.75)
Date Collected: 08/22/16 13:11
Date Received: 08/23/16 13:00

Lab Sample ID: 720-74083-4
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12.7		0.1		%			08/23/16 16:07	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74083-1

Client Sample ID: 1258EX104(0.75)
Date Collected: 08/22/16 13:11
Date Received: 08/23/16 13:00

Lab Sample ID: 720-74083-4
Matrix: Solid
Percent Solids: 87.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	41		1.6		mg/Kg	☼	08/23/16 14:27	08/24/16 00:18	4

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-208092/1-A
Matrix: Solid
Analysis Batch: 208146

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 208092

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50		mg/Kg		08/23/16 14:27	08/23/16 23:03	1

Lab Sample ID: LCS 720-208092/2-A
Matrix: Solid
Analysis Batch: 208146

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 208092

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	49.5		mg/Kg		99	80 - 120

Lab Sample ID: LCSSRM 720-208092/3-A
Matrix: Solid
Analysis Batch: 208146

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 208092

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	302	273		mg/Kg		90	62 - 113

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74083-1

Metals

Prep Batch: 208092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74083-1	1258EX101(0.75)	Total/NA	Solid	3050B	
720-74083-2	1258EX102(0.75)	Total/NA	Solid	3050B	
720-74083-3	1258EX103(0.75)	Total/NA	Solid	3050B	
720-74083-4	1258EX104(0.75)	Total/NA	Solid	3050B	
MB 720-208092/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 720-208092/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 720-208092/3-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 208146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74083-1	1258EX101(0.75)	Total/NA	Solid	6010B	208092
720-74083-2	1258EX102(0.75)	Total/NA	Solid	6010B	208092
720-74083-3	1258EX103(0.75)	Total/NA	Solid	6010B	208092
720-74083-4	1258EX104(0.75)	Total/NA	Solid	6010B	208092
MB 720-208092/1-A	Method Blank	Total/NA	Solid	6010B	208092
LCS 720-208092/2-A	Lab Control Sample	Total/NA	Solid	6010B	208092
LCSSRM 720-208092/3-A	Lab Control Sample	Total/NA	Solid	6010B	208092

General Chemistry

Analysis Batch: 208110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74083-1	1258EX101(0.75)	Total/NA	Solid	Moisture	
720-74083-2	1258EX102(0.75)	Total/NA	Solid	Moisture	
720-74083-3	1258EX103(0.75)	Total/NA	Solid	Moisture	
720-74083-4	1258EX104(0.75)	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74083-1

Client Sample ID: 1258EX101(0.75) — **Lab Sample ID: 720-74083-1**
Date Collected: 08/22/16 12:56 — **Matrix: Solid**
Date Received: 08/23/16 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	208110	08/23/16 16:07	EYT	TAL PLS

Client Sample ID: 1258EX101(0.75) — **Lab Sample ID: 720-74083-1**
Date Collected: 08/22/16 12:56 — **Matrix: Solid**
Date Received: 08/23/16 13:00 — **Percent Solids: 90.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			208092	08/23/16 14:27	BRB	TAL PLS
Total/NA	Analysis	6010B		4	208146	08/24/16 00:02	ASB	TAL PLS

Client Sample ID: 1258EX102(0.75) — **Lab Sample ID: 720-74083-2**
Date Collected: 08/22/16 13:35 — **Matrix: Solid**
Date Received: 08/23/16 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	208110	08/23/16 16:07	EYT	TAL PLS

Client Sample ID: 1258EX102(0.75) — **Lab Sample ID: 720-74083-2**
Date Collected: 08/22/16 13:35 — **Matrix: Solid**
Date Received: 08/23/16 13:00 — **Percent Solids: 85.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			208092	08/23/16 14:27	BRB	TAL PLS
Total/NA	Analysis	6010B		4	208146	08/24/16 00:07	ASB	TAL PLS

Client Sample ID: 1258EX103(0.75) — **Lab Sample ID: 720-74083-3**
Date Collected: 08/22/16 13:13 — **Matrix: Solid**
Date Received: 08/23/16 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	208110	08/23/16 16:07	EYT	TAL PLS

Client Sample ID: 1258EX103(0.75) — **Lab Sample ID: 720-74083-3**
Date Collected: 08/22/16 13:13 — **Matrix: Solid**
Date Received: 08/23/16 13:00 — **Percent Solids: 91.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			208092	08/23/16 14:27	BRB	TAL PLS
Total/NA	Analysis	6010B		4	208146	08/24/16 00:13	ASB	TAL PLS

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74083-1

Client Sample ID: 1258EX104(0.75) — **Lab Sample ID: 720-74083-4**
Date Collected: 08/22/16 13:11 — **Matrix: Solid**
Date Received: 08/23/16 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	208110	08/23/16 16:07	EYT	TAL PLS

Client Sample ID: 1258EX104(0.75) — **Lab Sample ID: 720-74083-4**
Date Collected: 08/22/16 13:11 — **Matrix: Solid**
Date Received: 08/23/16 13:00 — **Percent Solids: 87.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			208092	08/23/16 14:27	BRB	TAL PLS
Total/NA	Analysis	6010B		4	208146	08/24/16 00:18	ASB	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74083-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74083-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74083-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-74083-1	1258EX101(0.75)	Solid	08/22/16 12:56	08/23/16 13:00
720-74083-2	1258EX102(0.75)	Solid	08/22/16 13:35	08/23/16 13:00
720-74083-3	1258EX103(0.75)	Solid	08/22/16 13:13	08/23/16 13:00
720-74083-4	1258EX104(0.75)	Solid	08/22/16 13:11	08/23/16 13:00

TestAmerica Pleasanton
1220 Quarry Lane

Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

Chain of Custody Record

720-74083

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other

TestAmerica
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TestAmerica Laboratories, Inc.

8/24/2016

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date:	COC No:
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	1 of 1 COCs
505 Sansome Street Suite 1600	Analysis Turnaround Time			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(415) 644-3000 Phone	TAT if different from Below			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☐ 1 week			
Site: Presidio of San Francisco	☐ 2 days			Job / SDG No.:
P O #	☑ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA 6020)	As, Ba, Cu, Zn (USEPA 6020)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes:
1258EX101 [0.75]	8/22/16	1256	G		1			X				
1258EX102 [0.75]	8/22/16	1335	G		1			X				
1258EX103 [0.75]	8/22/16	1313	G		1			X				
1258EX104 [0.75]	8/22/16	1311	G		1			X				

720-74083 Chain of Custody

PUSH

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected

0.12

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:	Corr'd:	Therm ID No.:
Relinquished by:	Company: TRC	Date/Time: 8/23/16 1030	Received by:	Company: TA	Date/Time: 8/23/16 1630
Relinquished by:	Company: TA	Date/Time: 8/23/16 1300	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TestAmerica	Date/Time: 8-23-16 1300

Form No. CA-C-WI-002, Rev. 4.9, dated 2/2/2016

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-74083-1

Login Number: 74083
List Number: 1
Creator: Mullen, Joan

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-74136-1
Client Project/Site: Lendrum Ct. Data Gap Investigation
Revision: 1

For:
TRC Solutions, Inc.
505 Sansome Street
Suite 1600
San Francisco, California 94111

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
11/16/2016 10:36:06 AM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74136-1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-74136-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-74136-1

Comments
No additional comments.

Receipt
The samples were received on 8/25/2016 2:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.7º C.

Receipt Exceptions

Logged for 6010 Lead instead of 6020 Lead per project history and confirmed.

Metals
Method 6010B: The serial dilution performed for the following sample associated with batch 720-208331 was outside control limits: (720-74136-A-1-C SD)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74136-1

Client Sample ID: SLCPS201[0.5] — Lab Sample ID: 720-74136-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	450		2.0		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: SLCPS202[0.5] — Lab Sample ID: 720-74136-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	360		1.8		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: SLCPS203[0.5] — Lab Sample ID: 720-74136-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	310		2.1		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: SLCPS204[0.5] — Lab Sample ID: 720-74136-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	99		1.5		mg/Kg	4	☼	6010B	Total/NA
Barium	61		1.5		mg/Kg	4	☼	6010B	Total/NA
Arsenic	4.9		3.0		mg/Kg	4	☼	6010B	Total/NA
Copper	11		4.5		mg/Kg	4	☼	6010B	Total/NA
Zinc	42		4.5		mg/Kg	4	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74136-1

Client Sample ID: SLCPS201[0.5]
Date Collected: 08/25/16 09:10
Date Received: 08/25/16 14:20

Lab Sample ID: 720-74136-1
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.1		0.1		%			08/25/16 16:37	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74136-1

Client Sample ID: SLCPS201[0.5]
Date Collected: 08/25/16 09:10
Date Received: 08/25/16 14:20

Lab Sample ID: 720-74136-1
Matrix: Solid
Percent Solids: 79.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	450		2.0		mg/Kg	☼	08/25/16 15:19	08/26/16 12:02	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74136-1

Client Sample ID: SLCPS202[0.5]
Date Collected: 08/25/16 09:21
Date Received: 08/25/16 14:20

Lab Sample ID: 720-74136-2
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.2		0.1		%			08/25/16 16:37	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74136-1

Client Sample ID: SLCPS202[0.5]
Date Collected: 08/25/16 09:21
Date Received: 08/25/16 14:20

Lab Sample ID: 720-74136-2
Matrix: Solid
Percent Solids: 80.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	360		1.8		mg/Kg	☼	08/25/16 15:19	08/26/16 12:08	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74136-1

Client Sample ID: SLCPS203[0.5]
Date Collected: 08/25/16 09:24
Date Received: 08/25/16 14:20

Lab Sample ID: 720-74136-3
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.5		0.1		%			08/25/16 16:37	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74136-1

Client Sample ID: SLCPS203[0.5]
Date Collected: 08/25/16 09:24
Date Received: 08/25/16 14:20

Lab Sample ID: 720-74136-3
Matrix: Solid
Percent Solids: 80.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	310		2.1		mg/Kg	☼	08/25/16 15:19	08/26/16 12:13	4

Client Sample ID: SLCPS204[0.5]
Date Collected: 08/25/16 09:27
Date Received: 08/25/16 14:20

Lab Sample ID: 720-74136-4
Matrix: Solid
Percent Solids: 93.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	99		1.5		mg/Kg	☼	08/25/16 15:19	08/26/16 12:29	4
Barium	61		1.5		mg/Kg	☼	08/25/16 15:19	08/26/16 12:29	4
Arsenic	4.9		3.0		mg/Kg	☼	08/25/16 15:19	08/26/16 12:29	4
Copper	11		4.5		mg/Kg	☼	08/25/16 15:19	08/26/16 12:29	4
Zinc	42		4.5		mg/Kg	☼	08/25/16 15:19	08/26/16 12:29	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	6.8		0.1		%			08/25/16 16:37	1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-208273/1-A
Matrix: Solid
Analysis Batch: 208331

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 208273

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50		mg/Kg		08/25/16 15:19	08/26/16 11:25	1
Barium	ND		0.50		mg/Kg		08/25/16 15:19	08/26/16 11:25	1
Arsenic	ND		1.0		mg/Kg		08/25/16 15:19	08/26/16 11:25	1
Copper	ND		1.5		mg/Kg		08/25/16 15:19	08/26/16 11:25	1
Zinc	ND		1.5		mg/Kg		08/25/16 15:19	08/26/16 11:25	1

Lab Sample ID: LCS 720-208273/2-A
Matrix: Solid
Analysis Batch: 208331

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 208273

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	48.7		mg/Kg		97	80 - 120
Barium	50.0	50.1		mg/Kg		100	80 - 120
Arsenic	50.0	46.8		mg/Kg		94	80 - 120
Copper	50.0	47.0		mg/Kg		94	80 - 120
Zinc	50.0	47.7		mg/Kg		95	80 - 120

Lab Sample ID: LCSSRM 720-208273/3-A
Matrix: Solid
Analysis Batch: 208331

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 208273

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	302	251		mg/Kg		83	62 - 113
Barium	579	466		mg/Kg		81	61 - 117
Arsenic	45.5	40.3		mg/Kg		88	69 - 119
Copper	130	113		mg/Kg		87	68 - 126
Zinc	388	327		mg/Kg		84	62 - 110

Lab Sample ID: 720-74136-1 MS
Matrix: Solid
Analysis Batch: 208331

Client Sample ID: SLCPS201[0.5]
Prep Type: Total/NA
Prep Batch: 208273

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	450		48.9	533	4	mg/Kg	☼	180	75 - 125
Barium	140	F1	48.9	180		mg/Kg	☼	85	75 - 125
Arsenic	5.3		48.9	60.8		mg/Kg	☼	113	75 - 125
Copper	29		48.9	85.0		mg/Kg	☼	114	75 - 125
Zinc	150		48.9	195		mg/Kg	☼	95	75 - 125

Lab Sample ID: 720-74136-1 MSD
Matrix: Solid
Analysis Batch: 208331

Client Sample ID: SLCPS201[0.5]
Prep Type: Total/NA
Prep Batch: 208273

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	450		48.5	503	4	mg/Kg	☼	120	75 - 125	6	20
Barium	140	F1	48.5	166	F1	mg/Kg	☼	56	75 - 125	8	20
Arsenic	5.3		48.5	54.1		mg/Kg	☼	100	75 - 125	12	20
Copper	29		48.5	78.1		mg/Kg	☼	100	75 - 125	8	20
Zinc	150		48.5	186		mg/Kg	☼	77	75 - 125	5	20

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74136-1

Method: Moisture - Percent Moisture

Lab Sample ID: 720-74136-4 DU
Matrix: Solid
Analysis Batch: 208280

Client Sample ID: SLCPS204[0.5]
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	6.8			6.9		%				2	20

Metals

Prep Batch: 208273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74136-1	SLCPS201[0.5]	Total/NA	Solid	3050B	
720-74136-2	SLCPS202[0.5]	Total/NA	Solid	3050B	
720-74136-3	SLCPS203[0.5]	Total/NA	Solid	3050B	
720-74136-4	SLCPS204[0.5]	Total/NA	Solid	3050B	
MB 720-208273/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 720-208273/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 720-208273/3-A	Lab Control Sample	Total/NA	Solid	3050B	
720-74136-1 MS	SLCPS201[0.5]	Total/NA	Solid	3050B	
720-74136-1 MSD	SLCPS201[0.5]	Total/NA	Solid	3050B	

Analysis Batch: 208331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74136-1	SLCPS201[0.5]	Total/NA	Solid	6010B	208273
720-74136-2	SLCPS202[0.5]	Total/NA	Solid	6010B	208273
720-74136-3	SLCPS203[0.5]	Total/NA	Solid	6010B	208273
720-74136-4	SLCPS204[0.5]	Total/NA	Solid	6010B	208273
MB 720-208273/1-A	Method Blank	Total/NA	Solid	6010B	208273
LCS 720-208273/2-A	Lab Control Sample	Total/NA	Solid	6010B	208273
LCSSRM 720-208273/3-A	Lab Control Sample	Total/NA	Solid	6010B	208273
720-74136-1 MS	SLCPS201[0.5]	Total/NA	Solid	6010B	208273
720-74136-1 MSD	SLCPS201[0.5]	Total/NA	Solid	6010B	208273

General Chemistry

Analysis Batch: 208280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74136-1	SLCPS201[0.5]	Total/NA	Solid	Moisture	
720-74136-2	SLCPS202[0.5]	Total/NA	Solid	Moisture	
720-74136-3	SLCPS203[0.5]	Total/NA	Solid	Moisture	
720-74136-4	SLCPS204[0.5]	Total/NA	Solid	Moisture	
720-74136-4 DU	SLCPS204[0.5]	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74136-1

Client Sample ID: SLCPS201[0.5] — **Lab Sample ID: 720-74136-1**
Date Collected: 08/25/16 09:10 — **Matrix: Solid**
Date Received: 08/25/16 14:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	208280	08/25/16 16:37	MEV	TAL PLS

Client Sample ID: SLCPS201[0.5] — **Lab Sample ID: 720-74136-1**
Date Collected: 08/25/16 09:10 — **Matrix: Solid**
Date Received: 08/25/16 14:20 — **Percent Solids: 79.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			208273	08/25/16 15:19	MJD	TAL PLS
Total/NA	Analysis	6010B		4	208331	08/26/16 12:02	ASB	TAL PLS

Client Sample ID: SLCPS202[0.5] — **Lab Sample ID: 720-74136-2**
Date Collected: 08/25/16 09:21 — **Matrix: Solid**
Date Received: 08/25/16 14:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	208280	08/25/16 16:37	MEV	TAL PLS

Client Sample ID: SLCPS202[0.5] — **Lab Sample ID: 720-74136-2**
Date Collected: 08/25/16 09:21 — **Matrix: Solid**
Date Received: 08/25/16 14:20 — **Percent Solids: 80.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			208273	08/25/16 15:19	MJD	TAL PLS
Total/NA	Analysis	6010B		4	208331	08/26/16 12:08	ASB	TAL PLS

Client Sample ID: SLCPS203[0.5] — **Lab Sample ID: 720-74136-3**
Date Collected: 08/25/16 09:24 — **Matrix: Solid**
Date Received: 08/25/16 14:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	208280	08/25/16 16:37	MEV	TAL PLS

Client Sample ID: SLCPS203[0.5] — **Lab Sample ID: 720-74136-3**
Date Collected: 08/25/16 09:24 — **Matrix: Solid**
Date Received: 08/25/16 14:20 — **Percent Solids: 80.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			208273	08/25/16 15:19	MJD	TAL PLS
Total/NA	Analysis	6010B		4	208331	08/26/16 12:13	ASB	TAL PLS

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74136-1

Client Sample ID: SLCPS204[0.5] — **Lab Sample ID: 720-74136-4**
Date Collected: 08/25/16 09:27 — **Matrix: Solid**
Date Received: 08/25/16 14:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	208280	08/25/16 16:37	MEV	TAL PLS

Client Sample ID: SLCPS204[0.5] — **Lab Sample ID: 720-74136-4**
Date Collected: 08/25/16 09:27 — **Matrix: Solid**
Date Received: 08/25/16 14:20 — **Percent Solids: 93.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			208273	08/25/16 15:19	MJD	TAL PLS
Total/NA	Analysis	6010B		4	208331	08/26/16 12:29	ASB	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74136-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74136-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74136-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-74136-1	SLCPS201[0.5]	Solid	08/25/16 09:10	08/25/16 14:20
720-74136-2	SLCPS202[0.5]	Solid	08/25/16 09:21	08/25/16 14:20
720-74136-3	SLCPS203[0.5]	Solid	08/25/16 09:24	08/25/16 14:20
720-74136-4	SLCPS204[0.5]	Solid	08/25/16 09:27	08/25/16 14:20

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

Chain of Custody Record

720-74136

170629

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TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date:	COC No:
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	____ of ____ COCs
505 Sansome Street Suite 1600	Analysis Turnaround Time			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(415) 644-3000 Phone	TAT if different from Below ____			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☐ 1 week			
Site: Presidio of San Francisco	☐ 2 days			Job / SDG No.:
P O #	☑ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA 6020)	As, Ba, Cu, Zn (USEPA 6020)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes:
SLCPS201 [0.5]	8/25/16	0910	G	S	1			X				
SLCPS202 [0.5]	8/25/16	0921	G	S	1			X				
SLCPS203 [0.5]	8/25/16	0921	G	S	1			X				
SLCPS204 [0.5]	8/25/16	0927	G	S	1			X				

720-74136 Chain of Custody

PCBs

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected

2.7°

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: ____ Corr'd: ____		Therm ID No.:
Relinquished by:	Company: TRC	Date/Time: 8/25/16 1200	Received by:	Company: TA	Date/Time: 8/25/16 1200
Relinquished by:	Company: TA	Date/Time: 8/25/16 1400	Received by:	Company:	Date/Time: 8/25/16 1420
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.9, dated 2/2/2016

11/16/2016

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-74136-1

Login Number: 74136
List Number: 1
Creator: Arauz, Dennis

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-74180-1
Client Project/Site: Lendrum Ct. Confirmation Sampling
Revision: 1

For:
TRC Solutions, Inc.
505 Sansome Street
Suite 1600
San Francisco, California 94111

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
11/14/2016 12:24:50 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-74180-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-74180-1

Comments
No additional comments.

Receipt
The samples were received on 8/29/2016 10:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 20.1° C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-1

Client Sample ID: 1259PS408(0.0) — Lab Sample ID: 720-74180-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	4.6		2.6		mg/Kg	4	☼	6010B	Total/NA
Barium	67		2.6		mg/Kg	4	☼	6010B	Total/NA
Arsenic	5.3		5.1		mg/Kg	4	☼	6010B	Total/NA
Copper	16		7.7		mg/Kg	4	☼	6010B	Total/NA
Zinc	41		7.7		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1258EX105(0.75) — Lab Sample ID: 720-74180-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	200		1.2		mg/Kg	4	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-1

Client Sample ID: 1259PS408(0.0)
Date Collected: 08/25/16 14:45
Date Received: 08/29/16 10:15

Lab Sample ID: 720-74180-1
Matrix: Solid
Percent Solids: 61.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	4.6		2.6		mg/Kg	☼	08/29/16 14:46	08/30/16 12:31	4
Barium	67		2.6		mg/Kg	☼	08/29/16 14:46	08/30/16 12:31	4
Arsenic	5.3		5.1		mg/Kg	☼	08/29/16 14:46	08/30/16 12:31	4
Copper	16		7.7		mg/Kg	☼	08/29/16 14:46	08/30/16 12:31	4
Zinc	41		7.7		mg/Kg	☼	08/29/16 14:46	08/30/16 12:31	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	38.3		0.1		%			08/29/16 15:57	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-1

Client Sample ID: 1258EX105(0.75)
Date Collected: 08/25/16 15:00
Date Received: 08/29/16 10:15

Lab Sample ID: 720-74180-5
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.1		0.1		%			08/29/16 15:57	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-1

Client Sample ID: 1258EX105(0.75)
Date Collected: 08/25/16 15:00
Date Received: 08/29/16 10:15

Lab Sample ID: 720-74180-5
Matrix: Solid
Percent Solids: 90.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	200		1.2		mg/Kg	☼	08/29/16 14:46	08/30/16 12:36	4

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-208416/1-A
Matrix: Solid
Analysis Batch: 208483

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 208416

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50		mg/Kg		08/29/16 14:46	08/30/16 11:53	1
Barium	ND		0.50		mg/Kg		08/29/16 14:46	08/30/16 11:53	1
Arsenic	ND		1.0		mg/Kg		08/29/16 14:46	08/30/16 11:53	1
Copper	ND		1.5		mg/Kg		08/29/16 14:46	08/30/16 11:53	1
Zinc	ND		1.5		mg/Kg		08/29/16 14:46	08/30/16 11:53	1

Lab Sample ID: LCS 720-208416/2-A
Matrix: Solid
Analysis Batch: 208483

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 208416

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	48.9		mg/Kg		98	80 - 120
Barium	50.0	51.6		mg/Kg		103	80 - 120
Arsenic	50.0	47.2		mg/Kg		94	80 - 120
Copper	50.0	48.5		mg/Kg		97	80 - 120
Zinc	50.0	47.7		mg/Kg		95	80 - 120

Lab Sample ID: LCSSRM 720-208416/3-A
Matrix: Solid
Analysis Batch: 208483

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 208416

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	302	272		mg/Kg		90	62 - 113
Barium	579	563		mg/Kg		97	61 - 117
Arsenic	45.5	42.0		mg/Kg		92	69 - 119
Copper	130	121		mg/Kg		93	68 - 126
Zinc	388	349		mg/Kg		90	62 - 110

Lab Sample ID: 720-74180-1 MS
Matrix: Solid
Analysis Batch: 208483

Client Sample ID: 1259PS408(0.0)
Prep Type: Total/NA
Prep Batch: 208416

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	4.6		78.0	74.7		mg/Kg	☼	90	75 - 125
Barium	67		78.0	128		mg/Kg	☼	78	75 - 125
Arsenic	5.3		78.0	78.6		mg/Kg	☼	94	75 - 125
Copper	16		78.0	92.5		mg/Kg	☼	98	75 - 125
Zinc	41		78.0	108		mg/Kg	☼	86	75 - 125

Lab Sample ID: 720-74180-1 MSD
Matrix: Solid
Analysis Batch: 208483

Client Sample ID: 1259PS408(0.0)
Prep Type: Total/NA
Prep Batch: 208416

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	4.6		70.5	67.3		mg/Kg	☼	89	75 - 125	10	20
Barium	67		70.5	129		mg/Kg	☼	89	75 - 125	1	20
Arsenic	5.3		70.5	72.2		mg/Kg	☼	95	75 - 125	9	20
Copper	16		70.5	86.7		mg/Kg	☼	100	75 - 125	6	20
Zinc	41		70.5	107		mg/Kg	☼	94	75 - 125	1	20

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-1

Metals

Prep Batch: 208416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74180-1	1259PS408(0.0)	Total/NA	Solid	3050B	
720-74180-5	1258EX105(0.75)	Total/NA	Solid	3050B	
MB 720-208416/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 720-208416/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 720-208416/3-A	Lab Control Sample	Total/NA	Solid	3050B	
720-74180-1 MS	1259PS408(0.0)	Total/NA	Solid	3050B	
720-74180-1 MSD	1259PS408(0.0)	Total/NA	Solid	3050B	

Analysis Batch: 208483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74180-1	1259PS408(0.0)	Total/NA	Solid	6010B	208416
720-74180-5	1258EX105(0.75)	Total/NA	Solid	6010B	208416
MB 720-208416/1-A	Method Blank	Total/NA	Solid	6010B	208416
LCS 720-208416/2-A	Lab Control Sample	Total/NA	Solid	6010B	208416
LCSSRM 720-208416/3-A	Lab Control Sample	Total/NA	Solid	6010B	208416
720-74180-1 MS	1259PS408(0.0)	Total/NA	Solid	6010B	208416
720-74180-1 MSD	1259PS408(0.0)	Total/NA	Solid	6010B	208416

General Chemistry

Analysis Batch: 208423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74180-1	1259PS408(0.0)	Total/NA	Solid	Moisture	
720-74180-5	1258EX105(0.75)	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-1

Client Sample ID: 1259PS408(0.0) — **Lab Sample ID: 720-74180-1**
Date Collected: 08/25/16 14:45 — **Matrix: Solid**
Date Received: 08/29/16 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	208423	08/29/16 15:57	EYT	TAL PLS

Client Sample ID: 1259PS408(0.0) — **Lab Sample ID: 720-74180-1**
Date Collected: 08/25/16 14:45 — **Matrix: Solid**
Date Received: 08/29/16 10:15 — **Percent Solids: 61.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			208416	08/29/16 14:46	BRB	TAL PLS
Total/NA	Analysis	6010B		4	208483	08/30/16 12:31	ASB	TAL PLS

Client Sample ID: 1258EX105(0.75) — **Lab Sample ID: 720-74180-5**
Date Collected: 08/25/16 15:00 — **Matrix: Solid**
Date Received: 08/29/16 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	208423	08/29/16 15:57	EYT	TAL PLS

Client Sample ID: 1258EX105(0.75) — **Lab Sample ID: 720-74180-5**
Date Collected: 08/25/16 15:00 — **Matrix: Solid**
Date Received: 08/29/16 10:15 — **Percent Solids: 90.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			208416	08/29/16 14:46	BRB	TAL PLS
Total/NA	Analysis	6010B		4	208483	08/30/16 12:36	ASB	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-74180-1	1259PS408(0.0)	Solid	08/25/16 14:45	08/29/16 10:15
720-74180-5	1258EX105(0.75)	Solid	08/25/16 15:00	08/29/16 10:15

TestAmerica Pleasanton
1220 Quarry Lane

Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

Chain of Custody Record

720- 74408 74180

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1706B
TestAmerica Laboratories, In

11/14/2016

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date: 8/25/16	COC No: 1
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	1 of 1 COCs
505 Sansome Street Suite 1600	Analysis Turnaround Time			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(415) 644-3000 Phone	TAT if different from Below _____			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling
Project Name: Lendrum Ct Confirmation Sampling	☐ 1 week			
Site: Presidio of San Francisco	☐ 2 days			Job / SDG No..
P O #	☒ 1 day 24-HR			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA 8260)	As, Ba, Cu, Zn (USEPA 8260)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes:
1259PS408 [0.0]	8/25/16	1445	G	S	1			X				
1259PS408 [0.5]	8/25/16	1450	G	S	1			X				HOLD
1259PS508 [0.0]	8/25/16	1454	G	S	1			X				HOLD
1259PS508 [0.5]	8/25/16	1458	G	S	1			X				HOLD
1258EX105 [0.75]	8/25/16	1500	G	S	1			X				
1258EX106 [0.75]	8/25/16	1513	G	S	1			X				HOLD
1258EX107 [0.75]	8/25/16	1529	G	S	1			X				HOLD

720-74180 Chain of Custody

RUSH

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected

20.1c

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____		Therm ID No.: _____
Relinquished by:	Company: TRC	Date/Time: 8/25/16 1610	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 8-29-16 1015

Sharma, Dimple 720-74180-4

From: Boecher, Caroline <CBoecher@trcsolutions.com>
Sent: Friday, November 11, 2016 12:48 PM
To: Sharma, Dimple
Cc: Hanzel-Durbin, Justin
Subject: Additional Samples

Dimple,

We are hoping to run the following samples from the Lendrum Ct job for additional analyses. All samples should be run for **As, Ba, Cu, Zn (6010)** and **PAHs (8270)**.

- 1259FX205[0.0] (Job ID 720-73608-1)
- 1259PS205[0.0] (Job ID 720-73608-1)
- 1259PS206[0.0] (Job ID 720-73608-1)
- 1259PS408[0.0] (Job ID 720-74180-1)
- 1259PS309[0.25] (Job ID 720-74082-1)

Please let me know if you still have sample volume available for these to complete the requested analyses.

Thanks,

Carrie Boecher
Project Engineer

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415.644.3002 | F: 415.434.2321 | C: 651.249.6543

LinkedIn | Twitter | Blog | Flickr | www.trcsolutions.com

720-74180 Chain of Custody

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-74180-1

Login Number: 74180

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Mullen, Joan

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-74180-2
Client Project/Site: Lendrum Ct. Confirmation Sampling

For:
TRC Solutions, Inc.
505 Sansome Street
Suite 1600
San Francisco, California 94111

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
8/31/2016 4:15:05 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-74180-2

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-74180-2

Comments
No additional comments.

Receipt
The samples were received on 8/29/2016 10:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 20.1º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-2

Client Sample ID: 1258EX106(0.75) **Lab Sample ID: 720-74180-6**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	83		1.5		mg/Kg	4	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-2

Client Sample ID: 1258EX106(0.75)
Date Collected: 08/25/16 15:18
Date Received: 08/29/16 10:15

Lab Sample ID: 720-74180-6
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.6		0.1		%			08/30/16 17:20	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-2

Client Sample ID: 1258EX106(0.75)
Date Collected: 08/25/16 15:18
Date Received: 08/29/16 10:15

Lab Sample ID: 720-74180-6
Matrix: Solid
Percent Solids: 89.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	83		1.5		mg/Kg	☼	08/30/16 16:05	08/31/16 12:54	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-2

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-208490/1-A
Matrix: Solid
Analysis Batch: 208573

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 208490

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50		mg/Kg		08/30/16 14:14	08/31/16 11:43	1

Lab Sample ID: LCS 720-208490/2-A
Matrix: Solid
Analysis Batch: 208573

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 208490

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	47.2		mg/Kg		94	80 - 120

Lab Sample ID: LCSSRM 720-208490/3-A
Matrix: Solid
Analysis Batch: 208573

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 208490

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	302	259		mg/Kg		86	62 - 113

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-2

Metals

Prep Batch: 208490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74180-6	1258EX106(0.75)	Total/NA	Solid	3050B	
MB 720-208490/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 720-208490/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 720-208490/3-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 208573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74180-6	1258EX106(0.75)	Total/NA	Solid	6010B	208490
MB 720-208490/1-A	Method Blank	Total/NA	Solid	6010B	208490
LCS 720-208490/2-A	Lab Control Sample	Total/NA	Solid	6010B	208490
LCSSRM 720-208490/3-A	Lab Control Sample	Total/NA	Solid	6010B	208490

General Chemistry

Analysis Batch: 208511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74180-6	1258EX106(0.75)	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-2

Client Sample ID: 1258EX106(0.75) — **Lab Sample ID: 720-74180-6**
Date Collected: 08/25/16 15:18 — **Matrix: Solid**
Date Received: 08/29/16 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	208511	08/30/16 17:20	MEV	TAL PLS

Client Sample ID: 1258EX106(0.75) — **Lab Sample ID: 720-74180-6**
Date Collected: 08/25/16 15:18 — **Matrix: Solid**
Date Received: 08/29/16 10:15 — **Percent Solids: 89.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			208490	08/30/16 16:05	BRB	TAL PLS
Total/NA	Analysis	6010B		4	208573	08/31/16 12:54	ASB	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-2

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-74180-6	1258EX106(0.75)	Solid	08/25/16 15:18	08/29/16 10:15

720-74180-2

Sharma, Dimple

From: Reed, Brandon <BReed@trcsolutions.com>
Sent: Tuesday, August 30, 2016 3:11 PM
To: Sharma, Dimple
Cc: Boecher, Caroline; Sharma, Dimple
Subject: FW: TestAmerica EDD and report files from 720-74180-1 Lendrum Ct. Confirmation Sampling
Attachments: J74180-1 UDS Level 2 Report Final Report.pdf; 720-74180-1_Std_Tal.csv

Hi Dimple

Based on the results of the attached lab report we need to run the sample "1258EX106[0.75]" currently on hold.

TestAmerica Job ID: 720-74180-1

Thanks,
Brandon

RUSH

From: Hanzel-Durbin, Justin
Sent: Tuesday, August 30, 2016 3:06 PM
To: Reed, Brandon; Boecher, Caroline
Subject: Fwd: TestAmerica EDD and report files from 720-74180-1 Lendrum Ct. Confirmation Sampling

Just came in, south of 1259 looks good but need to run the step out for 1258.
Please let lab know.
Justin

Sent from my Verizon Wireless 4G LTE smartphone

720-74180 Chain of Custody

-------- Original message --------
From: "Sharma, Dimple" <dimple.sharma@testamericainc.com>
Date: 8/30/16 3:01 PM (GMT-08:00)
To: "Boecher, Caroline" <CBoecher@trcsolutions.com>, "Hanzel-Durbin, Justin" <JHanzel-Durbin@trcsolutions.com>
Subject: TestAmerica EDD and report files from 720-74180-1 Lendrum Ct. Confirmation Sampling

Hello,

Attached please find the EDD and report files for job 720-74180-1; Lendrum Ct. Confirmation Sampling

Please feel free to contact me if you have any questions.

Thank you.

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-74180-2

Login Number: 74180

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Mullen, Joan

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-74180-3
Client Project/Site: Lendrum Ct. Confirmation Sampling

For:
TRC Solutions, Inc.
505 Sansome Street
Suite 1600
San Francisco, California 94111

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
9/7/2016 4:57:58 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-3

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-74180-3

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-74180-3

Comments
No additional comments.

Receipt
The samples were received on 8/29/2016 10:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 20.1º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-3

Client Sample ID: 1258EX107(0.75) **Lab Sample ID: 720-74180-7**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	64		1.5		mg/Kg	4	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-3

Client Sample ID: 1258EX107(0.75)
Date Collected: 08/25/16 15:29
Date Received: 08/29/16 10:15

Lab Sample ID: 720-74180-7
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.5		0.1		%			09/06/16 18:26	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-3

Client Sample ID: 1258EX107(0.75)
Date Collected: 08/25/16 15:29
Date Received: 08/29/16 10:15

Lab Sample ID: 720-74180-7
Matrix: Solid
Percent Solids: 91.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	64		1.5		mg/Kg	☼	09/06/16 18:01	09/07/16 12:34	4

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-208836/1-A
Matrix: Solid
Analysis Batch: 208883

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 208836

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50		mg/Kg		09/06/16 16:27	09/07/16 11:51	1

Lab Sample ID: LCS 720-208836/2-A
Matrix: Solid
Analysis Batch: 208883

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 208836

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	46.3		mg/Kg		93	80 - 120

Lab Sample ID: LCSSRM 720-208836/3-A
Matrix: Solid
Analysis Batch: 208883

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 208836

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	302	273		mg/Kg		90	62 - 113

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-3

Metals

Prep Batch: 208836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74180-7	1258EX107(0.75)	Total/NA	Solid	3050B	
MB 720-208836/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 720-208836/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 720-208836/3-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 208883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74180-7	1258EX107(0.75)	Total/NA	Solid	6010B	208836
MB 720-208836/1-A	Method Blank	Total/NA	Solid	6010B	208836
LCS 720-208836/2-A	Lab Control Sample	Total/NA	Solid	6010B	208836
LCSSRM 720-208836/3-A	Lab Control Sample	Total/NA	Solid	6010B	208836

General Chemistry

Analysis Batch: 208792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74180-7	1258EX107(0.75)	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-3

Client Sample ID: 1258EX107(0.75) — **Lab Sample ID: 720-74180-7**
Date Collected: 08/25/16 15:29 — **Matrix: Solid**
Date Received: 08/29/16 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	208792	09/06/16 18:26	NVP	TAL PLS

Client Sample ID: 1258EX107(0.75) — **Lab Sample ID: 720-74180-7**
Date Collected: 08/25/16 15:29 — **Matrix: Solid**
Date Received: 08/29/16 10:15 — **Percent Solids: 91.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			208836	09/06/16 18:01	BRB	TAL PLS
Total/NA	Analysis	6010B		4	208883	09/07/16 12:34	SLK	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-3

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-3

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-74180-7	1258EX107(0.75)	Solid	08/25/16 15:29	08/29/16 10:15

720-74180-3

Sharma, Dimple

From: Boecher, Caroline <CBoecher@trcsolutions.com>
Sent: Tuesday, September 06, 2016 5:21 PM
To: Sharma, Dimple
Subject: RE: TestAmerica EDD and report files from 720-74180-2 Lendrum Ct. Confirmation Sampling

Hi Dimple,

Please authorize sample 1258EX107[0.75] for analysis of lead (dry weight corrected).

Thank you!
Carrie

RUSH

From: Sharma, Dimple [mailto:dimple.sharma@testamericainc.com]
Sent: Wednesday, August 31, 2016 4:16 PM
To: Boecher, Caroline <CBoecher@trcsolutions.com>; Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Subject: TestAmerica EDD and report files from 720-74180-2 Lendrum Ct. Confirmation Sampling

Hello,

Attached please find the EDD and report files for job 720-74180-2; Lendrum Ct. Confirmation Sampling

Please feel free to contact me if you have any questions.

Thank you.

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

DIMPLE SHARMA
Senior Project Manager

TestAmerica Pleasanton
THE LEADER IN ENVIRONMENTAL TESTING

Tel. 925.484.1919
www.testamericainc.com

Reference: [224588]
Attachments: 2

720-74180 Chain of Custody

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-74180-3

Login Number: 74180
List Number: 1
Creator: Mullen, Joan

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-74180-4
Client Project/Site: Lendrum Ct. Confirmation Sampling

For:
TRC Solutions, Inc.
505 Sansome Street
Suite 1600
San Francisco, California 94111

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
11/17/2016 4:47:54 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-4

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-4

Job ID: 720-74180-4

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-74180-4

Comments
No additional comments.

Receipt
The samples were received on 8/29/2016 10:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 20.1º C.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-4

Client Sample ID: 1259PS408(0.0) **Lab Sample ID: 720-74180-1**

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: 1259PS408(0.0)
Date Collected: 08/25/16 14:45
Date Received: 08/29/16 10:15

Lab Sample ID: 720-74180-1
Matrix: Solid
Percent Solids: 61.7

Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	H	8.1		ug/Kg	☼	11/16/16 15:51	11/17/16 14:38	1
Acenaphthylene	ND	H	8.1		ug/Kg	☼	11/16/16 15:51	11/17/16 14:38	1
Anthracene	ND	H	8.1		ug/Kg	☼	11/16/16 15:51	11/17/16 14:38	1
Benzo[a]anthracene	ND	H	8.1		ug/Kg	☼	11/16/16 15:51	11/17/16 14:38	1
Benzo[a]pyrene	ND	H	8.1		ug/Kg	☼	11/16/16 15:51	11/17/16 14:38	1
Benzo[b]fluoranthene	ND	H	8.1		ug/Kg	☼	11/16/16 15:51	11/17/16 14:38	1
Benzo[g,h,i]perylene	ND	H	8.1		ug/Kg	☼	11/16/16 15:51	11/17/16 14:38	1
Benzo[k]fluoranthene	ND	H	8.1		ug/Kg	☼	11/16/16 15:51	11/17/16 14:38	1
Chrysene	ND	H	8.1		ug/Kg	☼	11/16/16 15:51	11/17/16 14:38	1
Dibenz(a,h)anthracene	ND	H	8.1		ug/Kg	☼	11/16/16 15:51	11/17/16 14:38	1
Fluoranthene	ND	H	8.1		ug/Kg	☼	11/16/16 15:51	11/17/16 14:38	1
Fluorene	ND	H	8.1		ug/Kg	☼	11/16/16 15:51	11/17/16 14:38	1
Indeno[1,2,3-cd]pyrene	ND	H	8.1		ug/Kg	☼	11/16/16 15:51	11/17/16 14:38	1
Naphthalene	ND	H	8.1		ug/Kg	☼	11/16/16 15:51	11/17/16 14:38	1
Phenanthrene	ND	H	8.1		ug/Kg	☼	11/16/16 15:51	11/17/16 14:38	1
Pyrene	ND	H	8.1		ug/Kg	☼	11/16/16 15:51	11/17/16 14:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*71*		*33 - 120*	*11/16/16 15:51*	*11/17/16 14:38*	*1*
Terphenyl-d14	*95*		*35 - 146*	*11/16/16 15:51*	*11/17/16 14:38*	*1*

Surrogate Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-4

Method: 8270C SIM - PAHs by GCMS (SIM)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
		FBP	TPH								
Lab Sample ID	Client Sample ID	(33-120)	(35-146)								
720-74180-1	1259PS408(0.0)	71	95								
LCS 720-213205/2-A	Lab Control Sample	78	94								
MB 720-213205/1-A	Method Blank	85	107								

Surrogate Legend

FBP = 2-Fluorobiphenyl

TPH = Terphenyl-d14

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-4

Method: 8270C SIM - PAHs by GCMS (SIM)

Lab Sample ID: MB 720-213205/1-A
Matrix: Solid
Analysis Batch: 213253

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 213205

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Acenaphthylene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Anthracene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Benzo[a]anthracene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Benzo[a]pyrene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Chrysene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Fluoranthene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Fluorene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Naphthalene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Phenanthrene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Pyrene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*85*		*33 - 120*	*11/16/16 15:47*	*11/17/16 12:40*	*1*
Terphenyl-d14	*107*		*35 - 146*	*11/16/16 15:47*	*11/17/16 12:40*	*1*

Lab Sample ID: LCS 720-213205/2-A
Matrix: Solid
Analysis Batch: 213253

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 213205

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	333	264		ug/Kg		79	43 - 120
Acenaphthylene	333	281		ug/Kg		84	46 - 120
Anthracene	333	278		ug/Kg		83	55 - 120
Benzo[a]anthracene	333	292		ug/Kg		88	65 - 120
Benzo[a]pyrene	333	285		ug/Kg		86	62 - 120
Benzo[b]fluoranthene	333	279		ug/Kg		84	60 - 120
Benzo[g,h,i]perylene	333	283		ug/Kg		85	42 - 120
Benzo[k]fluoranthene	333	272		ug/Kg		82	63 - 120
Chrysene	333	281		ug/Kg		84	54 - 120
Dibenz(a,h)anthracene	333	275		ug/Kg		82	51 - 120
Fluoranthene	333	281		ug/Kg		84	59 - 120
Fluorene	333	274		ug/Kg		82	47 - 120
Indeno[1,2,3-cd]pyrene	333	279		ug/Kg		84	50 - 120
Naphthalene	333	245		ug/Kg		74	42 - 120
Phenanthrene	333	272		ug/Kg		82	51 - 120
Pyrene	333	307		ug/Kg		92	58 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*78*		*33 - 120*
Terphenyl-d14	*94*		*35 - 146*

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-4

GC/MS Semi VOA

Prep Batch: 213205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74180-1	1259PS408(0.0)	Total/NA	Solid	3546	
MB 720-213205/1-A	Method Blank	Total/NA	Solid	3546	
LCS 720-213205/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 213253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74180-1	1259PS408(0.0)	Total/NA	Solid	8270C SIM	213205
MB 720-213205/1-A	Method Blank	Total/NA	Solid	8270C SIM	213205
LCS 720-213205/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	213205

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-4

Client Sample ID: 1259PS408(0.0)
Date Collected: 08/25/16 14:45
Date Received: 08/29/16 10:15

Lab Sample ID: 720-74180-1
Matrix: Solid
Percent Solids: 61.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			213205	11/16/16 15:51	NAW	TAL PLS
Total/NA	Analysis	8270C SIM		1	213253	11/17/16 14:38	MQL	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-4

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-4

Method	Method Description	Protocol	Laboratory
8270C SIM	PAHs by GCMS (SIM)	SW846	TAL PLS

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Confirmation Sampling

TestAmerica Job ID: 720-74180-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-74180-1	1259PS408(0.0)	Solid	08/25/16 14:45	08/29/16 10:15

Sharma, Dimple 720-74180-4

From: Boecher, Caroline <CBoecher@trcsolutions.com>
Sent: Friday, November 11, 2016 12:48 PM
To: Sharma, Dimple
Cc: Hanzel-Durbin, Justin
Subject: Additional Samples

Dimple,

We are hoping to run the following samples from the Lendrum Ct job for additional analyses. All samples should be run for **As, Ba, Cu, Zn (6010)** and **PAHs (8270)**.

- 1259FX205[0.0] (Job ID 720-73608-1)
- 1259PS205[0.0] (Job ID 720-73608-1)
- 1259PS206[0.0] (Job ID 720-73608-1)
- 1259PS408[0.0] (Job ID 720-74180-1)
- 1259PS309[0.25] (Job ID 720-74082-1)

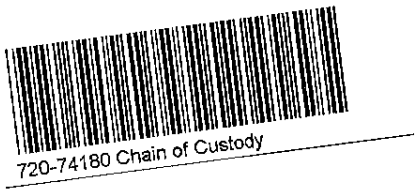
Please let me know if you still have sample volume available for these to complete the requested analyses.

Thanks,

Carrie Boecher
Project Engineer

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415.644.3002 | F: 415.434.2321 | C: 651.249.6543

LinkedIn | Twitter | Blog | Flickr | www.trcsolutions.com



Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-74180-4

Login Number: 74180

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Mullen, Joan

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-74359-1
Client Project/Site: Lendrum Ct., Presidio

For:
TRC Solutions, Inc.
505 Sansome Street
Suite 1600
San Francisco, California 94111

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
9/12/2016 4:17:25 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

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Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-74359-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-74359-1

Comments
No additional comments.

Receipt
The samples were received on 9/8/2016 5:32 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.6º C.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
Method 6010B: The serial dilution performed for the following sample associated with batch 720-209111 was outside control limits: (720-74359-A-1-C SD)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct., Presidio

TestAmerica Job ID: 720-74359-1

Client Sample ID: 1278EX103(1.0) — Lab Sample ID: 720-74359-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	12		6.7		ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[a]pyrene	15		6.7		ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[b]fluoranthene	30		6.7		ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[g,h,i]perylene	7.1		6.7		ug/Kg	1	☼	8270C SIM	Total/NA
Benzo[k]fluoranthene	9.3		6.7		ug/Kg	1	☼	8270C SIM	Total/NA
Chrysene	24		6.7		ug/Kg	1	☼	8270C SIM	Total/NA
Fluoranthene	27		6.7		ug/Kg	1	☼	8270C SIM	Total/NA
Fluorene	8.7		6.7		ug/Kg	1	☼	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	7.5		6.7		ug/Kg	1	☼	8270C SIM	Total/NA
Naphthalene	15		6.7		ug/Kg	1	☼	8270C SIM	Total/NA
Phenanthrene	21		6.7		ug/Kg	1	☼	8270C SIM	Total/NA
Pyrene	28		6.7		ug/Kg	1	☼	8270C SIM	Total/NA
Lead	190	F1	2.1		mg/Kg	4	☼	6010B	Total/NA
Barium	140	F1	2.1		mg/Kg	4	☼	6010B	Total/NA
Arsenic	8.1		4.2		mg/Kg	4	☼	6010B	Total/NA
Copper	34		6.3		mg/Kg	4	☼	6010B	Total/NA
Zinc	160	F1	6.3		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1278EX104(1.0) — Lab Sample ID: 720-74359-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	5.4		1.9		mg/Kg	4	☼	6010B	Total/NA
Barium	45		1.9		mg/Kg	4	☼	6010B	Total/NA
Arsenic	8.2		3.9		mg/Kg	4	☼	6010B	Total/NA
Copper	24		5.8		mg/Kg	4	☼	6010B	Total/NA
Zinc	33		5.8		mg/Kg	4	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 1278EX103(1.0)

Date Collected: 09/08/16 13:30
Date Received: 09/08/16 17:32

Lab Sample ID: 720-74359-1

Matrix: Solid
Percent Solids: 74.1

Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		6.7		ug/Kg	☼	09/09/16 17:35	09/10/16 14:45	1
Acenaphthylene	ND		6.7		ug/Kg	☼	09/09/16 17:35	09/10/16 14:45	1
Anthracene	ND		6.7		ug/Kg	☼	09/09/16 17:35	09/10/16 14:45	1
Benzo[a]anthracene	**12**		6.7		ug/Kg	☼	09/09/16 17:35	09/10/16 14:45	1
Benzo[a]pyrene	**15**		6.7		ug/Kg	☼	09/09/16 17:35	09/10/16 14:45	1
Benzo[b]fluoranthene	**30**		6.7		ug/Kg	☼	09/09/16 17:35	09/10/16 14:45	1
Benzo[g,h,i]perylene	**7.1**		6.7		ug/Kg	☼	09/09/16 17:35	09/10/16 14:45	1
Benzo[k]fluoranthene	**9.3**		6.7		ug/Kg	☼	09/09/16 17:35	09/10/16 14:45	1
Chrysene	**24**		6.7		ug/Kg	☼	09/09/16 17:35	09/10/16 14:45	1
Dibenz(a,h)anthracene	ND	F1	6.7		ug/Kg	☼	09/09/16 17:35	09/10/16 14:45	1
Fluoranthene	**27**		6.7		ug/Kg	☼	09/09/16 17:35	09/10/16 14:45	1
Fluorene	**8.7**		6.7		ug/Kg	☼	09/09/16 17:35	09/10/16 14:45	1
Indeno[1,2,3-cd]pyrene	**7.5**		6.7		ug/Kg	☼	09/09/16 17:35	09/10/16 14:45	1
Naphthalene	**15**		6.7		ug/Kg	☼	09/09/16 17:35	09/10/16 14:45	1
Phenanthrene	**21**		6.7		ug/Kg	☼	09/09/16 17:35	09/10/16 14:45	1
Pyrene	**28**		6.7		ug/Kg	☼	09/09/16 17:35	09/10/16 14:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*62*		*33 - 120*	*09/09/16 17:35*	*09/10/16 14:45*	*1*
Terphenyl-d14	*80*		*35 - 146*	*09/09/16 17:35*	*09/10/16 14:45*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**190**	**F1**	2.1		mg/Kg	☼	09/09/16 13:16	09/12/16 11:48	4
Barium	**140**	**F1**	2.1		mg/Kg	☼	09/09/16 13:16	09/12/16 11:48	4
Arsenic	**8.1**		4.2		mg/Kg	☼	09/09/16 13:16	09/12/16 11:48	4
Copper	**34**		6.3		mg/Kg	☼	09/09/16 13:16	09/12/16 11:48	4
Zinc	**160**	**F1**	6.3		mg/Kg	☼	09/09/16 13:16	09/12/16 11:48	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**25.9**		0.1		%			09/08/16 19:15	1

Client Sample ID: 1278EX104(1.0)

Date Collected: 09/08/16 13:40
Date Received: 09/08/16 17:32

Lab Sample ID: 720-74359-2

Matrix: Solid
Percent Solids: 78.7

Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		6.4		ug/Kg	☼	09/09/16 17:35	09/10/16 15:09	1
Acenaphthylene	ND		6.4		ug/Kg	☼	09/09/16 17:35	09/10/16 15:09	1
Anthracene	ND		6.4		ug/Kg	☼	09/09/16 17:35	09/10/16 15:09	1
Benzo[a]anthracene	ND		6.4		ug/Kg	☼	09/09/16 17:35	09/10/16 15:09	1
Benzo[a]pyrene	ND		6.4		ug/Kg	☼	09/09/16 17:35	09/10/16 15:09	1
Benzo[b]fluoranthene	ND		6.4		ug/Kg	☼	09/09/16 17:35	09/10/16 15:09	1
Benzo[g,h,i]perylene	ND		6.4		ug/Kg	☼	09/09/16 17:35	09/10/16 15:09	1
Benzo[k]fluoranthene	ND		6.4		ug/Kg	☼	09/09/16 17:35	09/10/16 15:09	1
Chrysene	ND		6.4		ug/Kg	☼	09/09/16 17:35	09/10/16 15:09	1
Dibenz(a,h)anthracene	ND		6.4		ug/Kg	☼	09/09/16 17:35	09/10/16 15:09	1
Fluoranthene	ND		6.4		ug/Kg	☼	09/09/16 17:35	09/10/16 15:09	1
Fluorene	ND		6.4		ug/Kg	☼	09/09/16 17:35	09/10/16 15:09	1
Indeno[1,2,3-cd]pyrene	ND		6.4		ug/Kg	☼	09/09/16 17:35	09/10/16 15:09	1
Naphthalene	ND		6.4		ug/Kg	☼	09/09/16 17:35	09/10/16 15:09	1
Phenanthrene	ND		6.4		ug/Kg	☼	09/09/16 17:35	09/10/16 15:09	1
Pyrene	ND		6.4		ug/Kg	☼	09/09/16 17:35	09/10/16 15:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*71*		*33 - 120*	*09/09/16 17:35*	*09/10/16 15:09*	*1*
Terphenyl-d14	*88*		*35 - 146*	*09/09/16 17:35*	*09/10/16 15:09*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**5.4**		1.9		mg/Kg	☼	09/09/16 13:16	09/12/16 11:53	4
Barium	**45**		1.9		mg/Kg	☼	09/09/16 13:16	09/12/16 11:53	4
Arsenic	**8.2**		3.9		mg/Kg	☼	09/09/16 13:16	09/12/16 11:53	4
Copper	**24**		5.8		mg/Kg	☼	09/09/16 13:16	09/12/16 11:53	4
Zinc	**33**		5.8		mg/Kg	☼	09/09/16 13:16	09/12/16 11:53	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**21.3**		0.1		%			09/08/16 19:15	1

Surrogate Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct., Presidio

TestAmerica Job ID: 720-74359-1

Method: 8270C SIM - PAHs by GCMS (SIM)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	FBP (33-120)	TPH (35-146)								
720-74359-1	1278EX103(1.0)	62	80								
720-74359-1 MS	1278EX103(1.0)	65	86								
720-74359-1 MSD	1278EX103(1.0)	63	82								
720-74359-2	1278EX104(1.0)	71	88								
LCS 720-209053/2-A	Lab Control Sample	84	103								
MB 720-209053/1-A	Method Blank	87	108								

Surrogate Legend

FBP = 2-Fluorobiphenyl
TPH = Terphenyl-d14

Method: 8270C SIM - PAHs by GCMS (SIM)

Lab Sample ID: MB 720-209053/1-A
Matrix: Solid
Analysis Batch: 209074

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 209053

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		09/09/16 17:35	09/10/16 13:34	1
Acenaphthylene	ND		5.0		ug/Kg		09/09/16 17:35	09/10/16 13:34	1
Anthracene	ND		5.0		ug/Kg		09/09/16 17:35	09/10/16 13:34	1
Benzo[a]anthracene	ND		5.0		ug/Kg		09/09/16 17:35	09/10/16 13:34	1
Benzo[a]pyrene	ND		5.0		ug/Kg		09/09/16 17:35	09/10/16 13:34	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		09/09/16 17:35	09/10/16 13:34	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		09/09/16 17:35	09/10/16 13:34	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		09/09/16 17:35	09/10/16 13:34	1
Chrysene	ND		5.0		ug/Kg		09/09/16 17:35	09/10/16 13:34	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		09/09/16 17:35	09/10/16 13:34	1
Fluoranthene	ND		5.0		ug/Kg		09/09/16 17:35	09/10/16 13:34	1
Fluorene	ND		5.0		ug/Kg		09/09/16 17:35	09/10/16 13:34	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		09/09/16 17:35	09/10/16 13:34	1
Naphthalene	ND		5.0		ug/Kg		09/09/16 17:35	09/10/16 13:34	1
Phenanthrene	ND		5.0		ug/Kg		09/09/16 17:35	09/10/16 13:34	1
Pyrene	ND		5.0		ug/Kg		09/09/16 17:35	09/10/16 13:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*33 - 120*	*09/09/16 17:35*	*09/10/16 13:34*	*1*
Terphenyl-d14	*108*		*35 - 146*	*09/09/16 17:35*	*09/10/16 13:34*	*1*

Lab Sample ID: LCS 720-209053/2-A
Matrix: Solid
Analysis Batch: 209074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 209053

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	333	275		ug/Kg		82	43 - 120
Acenaphthylene	333	294		ug/Kg		88	46 - 120
Anthracene	333	280		ug/Kg		84	55 - 120
Benzo[a]anthracene	333	272		ug/Kg		82	65 - 120
Benzo[a]pyrene	333	277		ug/Kg		83	62 - 120
Benzo[b]fluoranthene	333	300		ug/Kg		90	60 - 120
Benzo[g,h,i]perylene	333	232		ug/Kg		70	42 - 120
Benzo[k]fluoranthene	333	278		ug/Kg		83	63 - 120
Chrysene	333	255		ug/Kg		76	54 - 120
Dibenz(a,h)anthracene	333	230		ug/Kg		69	51 - 120
Fluoranthene	333	269		ug/Kg		81	59 - 120
Fluorene	333	273		ug/Kg		82	47 - 120
Indeno[1,2,3-cd]pyrene	333	233		ug/Kg		70	50 - 120
Naphthalene	333	268		ug/Kg		80	42 - 120
Phenanthrene	333	270		ug/Kg		81	51 - 120
Pyrene	333	294		ug/Kg		88	58 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*84*		*33 - 120*
Terphenyl-d14	*103*		*35 - 146*

Method: 8270C SIM - PAHs by GCMS (SIM) (Continued)

Lab Sample ID: 720-74359-1 MS
Matrix: Solid
Analysis Batch: 209074

Client Sample ID: 1278EX103(1.0)
Prep Type: Total/NA
Prep Batch: 209053

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	ND		447	290		ug/Kg	☼	65	33 - 120
Acenaphthylene	ND		447	312		ug/Kg	☼	69	28 - 120
Anthracene	ND		447	310		ug/Kg	☼	69	36 - 120
Benzo[a]anthracene	12		447	297		ug/Kg	☼	64	29 - 120
Benzo[a]pyrene	15		447	289		ug/Kg	☼	61	24 - 120
Benzo[b]fluoranthene	30		447	382		ug/Kg	☼	79	17 - 132
Benzo[g,h,i]perylene	7.1		447	158		ug/Kg	☼	34	21 - 120
Benzo[k]fluoranthene	9.3		447	281		ug/Kg	☼	61	35 - 120
Chrysene	24		447	294		ug/Kg	☼	60	29 - 120
Dibenz(a,h)anthracene	ND	F1	447	168		ug/Kg	☼	37	36 - 120
Fluoranthene	27		447	317		ug/Kg	☼	65	24 - 120
Fluorene	8.7		447	301		ug/Kg	☼	65	35 - 120
Indeno[1,2,3-cd]pyrene	7.5		447	170		ug/Kg	☼	36	20 - 126
Naphthalene	15		447	274		ug/Kg	☼	58	32 - 120
Phenanthrene	21		447	315		ug/Kg	☼	66	28 - 120
Pyrene	28		447	345		ug/Kg	☼	71	24 - 123

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*65*		*33 - 120*
Terphenyl-d14	*86*		*35 - 146*

Lab Sample ID: 720-74359-1 MSD
Matrix: Solid
Analysis Batch: 209074

Client Sample ID: 1278EX103(1.0)
Prep Type: Total/NA
Prep Batch: 209053

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	ND		448	283		ug/Kg	☼	63	33 - 120	2	20
Acenaphthylene	ND		448	308		ug/Kg	☼	67	28 - 120	1	20
Anthracene	ND		448	298		ug/Kg	☼	66	36 - 120	4	20
Benzo[a]anthracene	12		448	278		ug/Kg	☼	59	29 - 120	6	20
Benzo[a]pyrene	15		448	276		ug/Kg	☼	58	24 - 120	5	20
Benzo[b]fluoranthene	30		448	350		ug/Kg	☼	71	17 - 132	9	20
Benzo[g,h,i]perylene	7.1		448	142		ug/Kg	☼	30	21 - 120	11	20
Benzo[k]fluoranthene	9.3		448	287		ug/Kg	☼	62	35 - 120	2	20
Chrysene	24		448	273		ug/Kg	☼	56	29 - 120	7	20
Dibenz(a,h)anthracene	ND	F1	448	154	F1	ug/Kg	☼	34	36 - 120	9	20
Fluoranthene	27		448	292		ug/Kg	☼	59	24 - 120	8	20
Fluorene	8.7		448	287		ug/Kg	☼	62	35 - 120	5	20
Indeno[1,2,3-cd]pyrene	7.5		448	153		ug/Kg	☼	33	20 - 126	10	20
Naphthalene	15		448	271		ug/Kg	☼	57	32 - 120	1	20
Phenanthrene	21		448	296		ug/Kg	☼	61	28 - 120	6	20
Pyrene	28		448	320		ug/Kg	☼	65	24 - 123	7	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*63*		*33 - 120*
Terphenyl-d14	*82*		*35 - 146*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-209030/1-A
Matrix: Solid
Analysis Batch: 209111

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 209030

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50		mg/Kg		09/09/16 13:16	09/12/16 11:14	1
Barium	ND		0.50		mg/Kg		09/09/16 13:16	09/12/16 11:14	1
Arsenic	ND		1.0		mg/Kg		09/09/16 13:16	09/12/16 11:14	1
Copper	ND		1.5		mg/Kg		09/09/16 13:16	09/12/16 11:14	1
Zinc	ND		1.5		mg/Kg		09/09/16 13:16	09/12/16 11:14	1

Lab Sample ID: LCS 720-209030/2-A
Matrix: Solid
Analysis Batch: 209111

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 209030

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	45.7		mg/Kg		91	80 - 120
Barium	50.0	44.9		mg/Kg		90	80 - 120
Arsenic	50.0	45.5		mg/Kg		91	80 - 120
Copper	50.0	46.7		mg/Kg		93	80 - 120
Zinc	50.0	45.5		mg/Kg		91	80 - 120

Lab Sample ID: LCSSRM 720-209030/3-A
Matrix: Solid
Analysis Batch: 209111

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 209030

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	302	259		mg/Kg		86	62 - 113
Barium	579	481		mg/Kg		83	61 - 117
Arsenic	45.5	39.0		mg/Kg		86	69 - 119
Copper	130	117		mg/Kg		90	68 - 126
Zinc	388	315		mg/Kg		81	62 - 110

Lab Sample ID: 720-74359-1 MS
Matrix: Solid
Analysis Batch: 209111

Client Sample ID: 1278EX103(1.0)
Prep Type: Total/NA
Prep Batch: 209030

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	190	F1	53.5	226	F1	mg/Kg	☼	68	75 - 125
Barium	140	F1	53.5	216	F1	mg/Kg	☼	132	75 - 125
Arsenic	8.1		53.5	51.9		mg/Kg	☼	82	75 - 125
Copper	34		53.5	77.1		mg/Kg	☼	81	75 - 125
Zinc	160	F1	53.5	192	F1	mg/Kg	☼	50	75 - 125

Lab Sample ID: 720-74359-1 MSD
Matrix: Solid
Analysis Batch: 209111

Client Sample ID: 1278EX103(1.0)
Prep Type: Total/NA
Prep Batch: 209030

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	190	F1	52.7	205	F1	mg/Kg	☼	29	75 - 125	10	20
Barium	140	F1	52.7	192		mg/Kg	☼	89	75 - 125	12	20
Arsenic	8.1		52.7	54.6		mg/Kg	☼	88	75 - 125	5	20
Copper	34		52.7	80.4		mg/Kg	☼	88	75 - 125	4	20
Zinc	160	F1	52.7	203	F1	mg/Kg	☼	72	75 - 125	6	20

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct., Presidio

TestAmerica Job ID: 720-74359-1

GC/MS Semi VOA

Prep Batch: 209053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74359-1	1278EX103(1.0)	Total/NA	Solid	3546	
720-74359-2	1278EX104(1.0)	Total/NA	Solid	3546	
MB 720-209053/1-A	Method Blank	Total/NA	Solid	3546	
LCS 720-209053/2-A	Lab Control Sample	Total/NA	Solid	3546	
720-74359-1 MS	1278EX103(1.0)	Total/NA	Solid	3546	
720-74359-1 MSD	1278EX103(1.0)	Total/NA	Solid	3546	

Analysis Batch: 209074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74359-1	1278EX103(1.0)	Total/NA	Solid	8270C SIM	209053
720-74359-2	1278EX104(1.0)	Total/NA	Solid	8270C SIM	209053
MB 720-209053/1-A	Method Blank	Total/NA	Solid	8270C SIM	209053
LCS 720-209053/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	209053
720-74359-1 MS	1278EX103(1.0)	Total/NA	Solid	8270C SIM	209053
720-74359-1 MSD	1278EX103(1.0)	Total/NA	Solid	8270C SIM	209053

Metals

Prep Batch: 209030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74359-1	1278EX103(1.0)	Total/NA	Solid	3050B	
720-74359-2	1278EX104(1.0)	Total/NA	Solid	3050B	
MB 720-209030/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 720-209030/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 720-209030/3-A	Lab Control Sample	Total/NA	Solid	3050B	
720-74359-1 MS	1278EX103(1.0)	Total/NA	Solid	3050B	
720-74359-1 MSD	1278EX103(1.0)	Total/NA	Solid	3050B	

Analysis Batch: 209111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74359-1	1278EX103(1.0)	Total/NA	Solid	6010B	209030
720-74359-2	1278EX104(1.0)	Total/NA	Solid	6010B	209030
MB 720-209030/1-A	Method Blank	Total/NA	Solid	6010B	209030
LCS 720-209030/2-A	Lab Control Sample	Total/NA	Solid	6010B	209030
LCSSRM 720-209030/3-A	Lab Control Sample	Total/NA	Solid	6010B	209030
720-74359-1 MS	1278EX103(1.0)	Total/NA	Solid	6010B	209030
720-74359-1 MSD	1278EX103(1.0)	Total/NA	Solid	6010B	209030

General Chemistry

Analysis Batch: 208989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74359-1	1278EX103(1.0)	Total/NA	Solid	Moisture	
720-74359-2	1278EX104(1.0)	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct., Presidio

TestAmerica Job ID: 720-74359-1

Client Sample ID: 1278EX103(1.0)
Date Collected: 09/08/16 13:30
Date Received: 09/08/16 17:32

Lab Sample ID: 720-74359-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	208989	09/08/16 19:15	EYT	TAL PLS

Client Sample ID: 1278EX103(1.0)
Date Collected: 09/08/16 13:30
Date Received: 09/08/16 17:32

Lab Sample ID: 720-74359-1
Matrix: Solid
Percent Solids: 74.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			209053	09/09/16 17:35	BSY	TAL PLS
Total/NA	Analysis	8270C SIM		1	209074	09/10/16 14:45	MQL	TAL PLS
Total/NA	Prep	3050B			209030	09/09/16 13:16	MJD	TAL PLS
Total/NA	Analysis	6010B		4	209111	09/12/16 11:48	ASB	TAL PLS

Client Sample ID: 1278EX104(1.0)
Date Collected: 09/08/16 13:40
Date Received: 09/08/16 17:32

Lab Sample ID: 720-74359-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	208989	09/08/16 19:15	EYT	TAL PLS

Client Sample ID: 1278EX104(1.0)
Date Collected: 09/08/16 13:40
Date Received: 09/08/16 17:32

Lab Sample ID: 720-74359-2
Matrix: Solid
Percent Solids: 78.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			209053	09/09/16 17:35	BSY	TAL PLS
Total/NA	Analysis	8270C SIM		1	209074	09/10/16 15:09	MQL	TAL PLS
Total/NA	Prep	3050B			209030	09/09/16 13:16	MJD	TAL PLS
Total/NA	Analysis	6010B		4	209111	09/12/16 11:53	ASB	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct., Presidio

TestAmerica Job ID: 720-74359-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct., Presidio

TestAmerica Job ID: 720-74359-1

Method	Method Description	Protocol	Laboratory
8270C SIM	PAHs by GCMS (SIM)	SW846	TAL PLS
6010B	Metals (ICP)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct., Presidio

TestAmerica Job ID: 720-74359-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-74359-1	1278EX103(1.0)	Solid	09/08/16 13:30	09/08/16 17:32
720-74359-2	1278EX104(1.0)	Solid	09/08/16 13:40	09/08/16 17:32

170865

TestAmerica Pleasanton
1220 Quarry Lane

Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

Chain of Custody Record

720-74359

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TestAmerica Laboratories, Inc.

9/12/2016

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date: 9/8/16	COC No: 1
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	1 of 1 COCs
505 Sansome Street Suite 1600	**Analysis Turnaround Time**			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(415) 644-3000 Phone	TAT if different from Below _____			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☐ 1 week			
Site: Presidio of San Francisco	☑ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA 8260)	As, Ba, Cu, Zn (USEPA 8260)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes:
1278EX103 [1.0]	9/8/16	1330	G	S	1			X	X	X		
1278EX104 [1.0]	9/8/16	1340	G	S	1			X	X	X		

RUSH

720-74359 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected

5.6C

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____		Therm ID No.: _____
Relinquished by:	Company: TRC	Date/Time: 9/8/16 1450	Received by:	Company: Ultra Ex	Date/Time: 9-9-16 14:50
Relinquished by:	Company: Ultra Ex	Date/Time: 9/9/16 7:32	Received by:	Company:	Date/Time: 9/9/16 732
Relinquished by	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-74359-1

Login Number: 74359
List Number: 1
Creator: Mullen, Joan

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-74509-1
Client Project/Site: Lendrum Ct. Data Gap Investigation

For:
TRC Solutions, Inc.
505 Sansome Street
Suite 1600
San Francisco, California 94111

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
9/21/2016 4:33:46 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-74509-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-74509-1

Comments
No additional comments.

Receipt
The samples were received on 9/16/2016 3:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8º C.

Metals
Method 6010B: The following sample was diluted due to the abundance of non-target analytes: 1278EX105[1.5] (720-74509-3). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74509-1

Client Sample ID: 1259PS112[0.0] — Lab Sample ID: 720-74509-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	98		2.0		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1278EX105[1.5] — Lab Sample ID: 720-74509-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	23		2.5		mg/Kg	4	☼	6010B	Total/NA
Zinc	35		7.5		mg/Kg	4	☼	6010B	Total/NA
Lead	20		2.5		mg/Kg	4	☼	6010B	Total/NA
Copper	23		7.5		mg/Kg	4	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74509-1

Client Sample ID: 1259PS112[0.0]
Date Collected: 09/15/16 10:00
Date Received: 09/16/16 15:50

Lab Sample ID: 720-74509-1
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.5		0.1		%			09/19/16 09:04	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74509-1

Client Sample ID: 1259PS112[0.0]
Date Collected: 09/15/16 10:00
Date Received: 09/16/16 15:50

Lab Sample ID: 720-74509-1
Matrix: Solid
Percent Solids: 91.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	98		2.0		mg/Kg	☼	09/16/16 21:35	09/21/16 00:04	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74509-1

Client Sample ID: 1278EX105[1.5]
Date Collected: 09/15/16 10:34
Date Received: 09/16/16 15:50

Lab Sample ID: 720-74509-3
Matrix: Solid
Percent Solids: 56.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	23		2.5		mg/Kg	☼	09/16/16 21:35	09/20/16 23:58	4
Arsenic	ND		5.0		mg/Kg	☼	09/16/16 21:35	09/20/16 23:58	4
Zinc	35		7.5		mg/Kg	☼	09/16/16 21:35	09/20/16 23:58	4
Lead	20		2.5		mg/Kg	☼	09/16/16 21:35	09/20/16 23:58	4
Copper	23		7.5		mg/Kg	☼	09/16/16 21:35	09/20/16 23:58	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	43.5		0.1		%			09/19/16 09:04	1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-209466/1-A
Matrix: Solid
Analysis Batch: 209692

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 209466

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		0.50		mg/Kg		09/16/16 21:35	09/20/16 22:00	1
Arsenic	ND		1.0		mg/Kg		09/16/16 21:35	09/20/16 22:00	1
Zinc	ND		1.5		mg/Kg		09/16/16 21:35	09/20/16 22:00	1
Lead	ND		0.50		mg/Kg		09/16/16 21:35	09/20/16 22:00	1
Copper	ND		1.5		mg/Kg		09/16/16 21:35	09/20/16 22:00	1

Lab Sample ID: LCS 720-209466/2-A
Matrix: Solid
Analysis Batch: 209692

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 209466

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	50.0	49.8		mg/Kg		100	80 - 120
Arsenic	50.0	48.3		mg/Kg		97	80 - 120
Zinc	50.0	47.7		mg/Kg		95	80 - 120
Lead	50.0	49.6		mg/Kg		99	80 - 120
Copper	50.0	47.5		mg/Kg		95	80 - 120

Lab Sample ID: LCSSRM 720-209466/3-A
Matrix: Solid
Analysis Batch: 209692

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 209466

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	579	509		mg/Kg		88	61 - 117
Arsenic	45.5	41.0		mg/Kg		90	69 - 119
Zinc	388	330		mg/Kg		85	62 - 110
Lead	302	262		mg/Kg		87	62 - 113
Copper	130	115		mg/Kg		89	68 - 126

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74509-1

Metals

Prep Batch: 209466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74509-1	1259PS112[0.0]	Total/NA	Solid	3050B	
720-74509-3	1278EX105[1.5]	Total/NA	Solid	3050B	
MB 720-209466/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 720-209466/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 720-209466/3-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 209692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74509-1	1259PS112[0.0]	Total/NA	Solid	6010B	209466
720-74509-3	1278EX105[1.5]	Total/NA	Solid	6010B	209466
MB 720-209466/1-A	Method Blank	Total/NA	Solid	6010B	209466
LCS 720-209466/2-A	Lab Control Sample	Total/NA	Solid	6010B	209466
LCSSRM 720-209466/3-A	Lab Control Sample	Total/NA	Solid	6010B	209466

General Chemistry

Analysis Batch: 209508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74509-1	1259PS112[0.0]	Total/NA	Solid	Moisture	
720-74509-3	1278EX105[1.5]	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74509-1

Client Sample ID: 1259PS112[0.0] — **Lab Sample ID: 720-74509-1**
Date Collected: 09/15/16 10:00 — **Matrix: Solid**
Date Received: 09/16/16 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	209508	09/19/16 09:04	NVP	TAL PLS

Client Sample ID: 1259PS112[0.0] — **Lab Sample ID: 720-74509-1**
Date Collected: 09/15/16 10:00 — **Matrix: Solid**
Date Received: 09/16/16 15:50 — **Percent Solids: 91.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			209466	09/16/16 21:35	MJD	TAL PLS
Total/NA	Analysis	6010B		4	209692	09/21/16 00:04	SLK	TAL PLS

Client Sample ID: 1278EX105[1.5] — **Lab Sample ID: 720-74509-3**
Date Collected: 09/15/16 10:34 — **Matrix: Solid**
Date Received: 09/16/16 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	209508	09/19/16 09:04	NVP	TAL PLS

Client Sample ID: 1278EX105[1.5] — **Lab Sample ID: 720-74509-3**
Date Collected: 09/15/16 10:34 — **Matrix: Solid**
Date Received: 09/16/16 15:50 — **Percent Solids: 56.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			209466	09/16/16 21:35	MJD	TAL PLS
Total/NA	Analysis	6010B		4	209692	09/20/16 23:58	SLK	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74509-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74509-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74509-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-74509-1	1259PS112[0.0]	Solid	09/15/16 10:00	09/16/16 15:50
720-74509-3	1278EX105[1.5]	Solid	09/15/16 10:34	09/16/16 15:50

1760

Chain of Custody Record

720-74509

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

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TestAmerica Laboratories, Inc.

9/21/2016

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Patrick Woods	Date:	COC No:
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	1 of 1 COCs
505 Sansome Street Suite 1600	**Analysis Turnaround Time**			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(415) 644-3000 Phone	TAT if different from Below 3 days			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☐ 1 week			
Site: Presidio of San Francisco	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA 6020)	As, Ba, Cu, Zn (USEPA 6020)	Sample Specific Notes:
1259 PS 112 [0.0]	9/15/16	1000	G	Soil	1			X		
1259 PS 112 [0.5]	"	1003	"	"	"					HOLD
1278 EX 105 [1.5]		1034						X	X	
1278 EX 105 [2.0]		1035								HOLD
1278 EX 106 [1.5]		1051								HOLD
1278 EX 106 [2.0]	↓	1055	↓	↓	↓					HOLD

RUSH

720-74509 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected

2.8 °C

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____		Therm ID No.: _____
Relinquished by:	Company:	Date/Time: 9-16-16	Received by:	Company: TA	Date/Time: 9.16.16 12:22
Relinquished by:	Company: TA	Date/Time: 9.16.16 1550	Received by:	Company: TA	Date/Time: 9/16/16 1550
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.9, dated 2/2/2016

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-74509-1

Login Number: 74509

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Arauz, Dennis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-74509-2
Client Project/Site: Lendrum Ct. Data Gap Investigation

For:
TRC Solutions, Inc.
505 Sansome Street
Suite 1600
San Francisco, California 94111

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
11/18/2016 3:40:37 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

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Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74509-2

Job ID: 720-74509-2

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-74509-2

Comments
No additional comments.

Receipt
The samples were received on 9/16/2016 3:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8º C.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74509-2

Client Sample ID: 1278EX105[1.5] **Lab Sample ID: 720-74509-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	14	H	8.7		ug/Kg	1	☼	8270C SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 1278EX105[1.5]
Date Collected: 09/15/16 10:34
Date Received: 09/16/16 15:50

Lab Sample ID: 720-74509-3
Matrix: Solid
Percent Solids: 56.5

Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	H	8.7		ug/Kg	☼	11/16/16 15:47	11/17/16 22:07	1
Acenaphthylene	ND	H	8.7		ug/Kg	☼	11/16/16 15:47	11/17/16 22:07	1
Anthracene	ND	H	8.7		ug/Kg	☼	11/16/16 15:47	11/17/16 22:07	1
Benzo[a]anthracene	ND	H	8.7		ug/Kg	☼	11/16/16 15:47	11/17/16 22:07	1
Benzo[a]pyrene	ND	H	8.7		ug/Kg	☼	11/16/16 15:47	11/17/16 22:07	1
Benzo[b]fluoranthene	ND	H	8.7		ug/Kg	☼	11/16/16 15:47	11/17/16 22:07	1
Benzo[g,h,i]perylene	ND	H	8.7		ug/Kg	☼	11/16/16 15:47	11/17/16 22:07	1
Benzo[k]fluoranthene	ND	H	8.7		ug/Kg	☼	11/16/16 15:47	11/17/16 22:07	1
Chrysene	ND	H	8.7		ug/Kg	☼	11/16/16 15:47	11/17/16 22:07	1
Dibenz(a,h)anthracene	ND	H	8.7		ug/Kg	☼	11/16/16 15:47	11/17/16 22:07	1
Fluoranthene	ND	H	8.7		ug/Kg	☼	11/16/16 15:47	11/17/16 22:07	1
Fluorene	ND	H	8.7		ug/Kg	☼	11/16/16 15:47	11/17/16 22:07	1
Indeno[1,2,3-cd]pyrene	ND	H	8.7		ug/Kg	☼	11/16/16 15:47	11/17/16 22:07	1
Naphthalene	ND	H	8.7		ug/Kg	☼	11/16/16 15:47	11/17/16 22:07	1
Phenanthrene	**14**	**H**	8.7		ug/Kg	☼	11/16/16 15:47	11/17/16 22:07	1
Pyrene	ND	H	8.7		ug/Kg	☼	11/16/16 15:47	11/17/16 22:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*33 - 120*	*11/16/16 15:47*	*11/17/16 22:07*	*1*
Terphenyl-d14	*95*		*35 - 146*	*11/16/16 15:47*	*11/17/16 22:07*	*1*

Surrogate Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74509-2

Method: 8270C SIM - PAHs by GCMS (SIM)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
		FBP	TPH								
Lab Sample ID	Client Sample ID	(33-120)	(35-146)								
720-74509-3	1278EX105[1.5]	77	95								
LCS 720-213205/2-A	Lab Control Sample	78	94								
MB 720-213205/1-A	Method Blank	85	107								

Surrogate Legend

FBP = 2-Fluorobiphenyl

TPH = Terphenyl-d14

Method: 8270C SIM - PAHs by GCMS (SIM)

Lab Sample ID: MB 720-213205/1-A
Matrix: Solid
Analysis Batch: 213253

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 213205

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Acenaphthylene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Anthracene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Benzo[a]anthracene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Benzo[a]pyrene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Chrysene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Fluoranthene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Fluorene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Naphthalene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Phenanthrene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1
Pyrene	ND		5.0		ug/Kg		11/16/16 15:47	11/17/16 12:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*85*		*33 - 120*	*11/16/16 15:47*	*11/17/16 12:40*	*1*
Terphenyl-d14	*107*		*35 - 146*	*11/16/16 15:47*	*11/17/16 12:40*	*1*

Lab Sample ID: LCS 720-213205/2-A
Matrix: Solid
Analysis Batch: 213253

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 213205

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	333	264		ug/Kg		79	43 - 120
Acenaphthylene	333	281		ug/Kg		84	46 - 120
Anthracene	333	278		ug/Kg		83	55 - 120
Benzo[a]anthracene	333	292		ug/Kg		88	65 - 120
Benzo[a]pyrene	333	285		ug/Kg		86	62 - 120
Benzo[b]fluoranthene	333	279		ug/Kg		84	60 - 120
Benzo[g,h,i]perylene	333	283		ug/Kg		85	42 - 120
Benzo[k]fluoranthene	333	272		ug/Kg		82	63 - 120
Chrysene	333	281		ug/Kg		84	54 - 120
Dibenz(a,h)anthracene	333	275		ug/Kg		82	51 - 120
Fluoranthene	333	281		ug/Kg		84	59 - 120
Fluorene	333	274		ug/Kg		82	47 - 120
Indeno[1,2,3-cd]pyrene	333	279		ug/Kg		84	50 - 120
Naphthalene	333	245		ug/Kg		74	42 - 120
Phenanthrene	333	272		ug/Kg		82	51 - 120
Pyrene	333	307		ug/Kg		92	58 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*78*		*33 - 120*
Terphenyl-d14	*94*		*35 - 146*

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74509-2

GC/MS Semi VOA

Prep Batch: 213205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74509-3	1278EX105[1.5]	Total/NA	Solid	3546	
MB 720-213205/1-A	Method Blank	Total/NA	Solid	3546	
LCS 720-213205/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 213253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74509-3	1278EX105[1.5]	Total/NA	Solid	8270C SIM	213205
MB 720-213205/1-A	Method Blank	Total/NA	Solid	8270C SIM	213205
LCS 720-213205/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	213205

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74509-2

Client Sample ID: 1278EX105[1.5]
Date Collected: 09/15/16 10:34
Date Received: 09/16/16 15:50

Lab Sample ID: 720-74509-3
Matrix: Solid
Percent Solids: 56.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			213205	11/16/16 15:47	NAW	TAL PLS
Total/NA	Analysis	8270C SIM		1	213253	11/17/16 22:07	MQL	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74509-2

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74509-2

Method	Method Description	Protocol	Laboratory
8270C SIM	PAHs by GCMS (SIM)	SW846	TAL PLS

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74509-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-74509-3	1278EX105[1.5]	Solid	09/15/16 10:34	09/16/16 15:50

Sharma, Dimple 720-74509-2

From: Boecher, Caroline <CBoecher@trcsolutions.com>
Sent: Monday, November 14, 2016 12:56 PM
To: Sharma, Dimple
Cc: Hanzel-Durbin, Justin
Subject: RE: Additional Samples

Hi Dimple,

A couple more samples that require additional analysis. Please let me know if you have these available:

- SLCPS204[0.5] (Job 74136) – Add As, Ba, Cu, Zn and PAHs
- 1278EX105[1.5] (Job 74509) – Add PAHs

Thanks,

Carrie Boecher
Project Engineer

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415.644.3002 | F: 415.434.2321 | C: 651.249.6543

LinkedIn | Twitter | Blog | Flickr | www.trcsolutions.com

From: Sharma, Dimple [mailto:Dimple.Sharma@testamericainc.com]
Sent: Monday, November 14, 2016 9:39 AM
To: Boecher, Caroline <CBoecher@trcsolutions.com>
Cc: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Subject: RE: Additional Samples

720-74509 Chain of Custody

Hi Caroline,
We do not have samples for job 720-73608 and 74082. We logged 720-74180 for metals and PAHs.

Dimple Sharma
Senior Project Manager

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

1220 Quarry Lane
Pleasanton, Ca 94566
Tel 925-484-1919
Fax 925-600-3002
www.testamericainc.com

From: Boecher, Caroline [mailto:CBoecher@trcsolutions.com]
Sent: Friday, November 11, 2016 12:48 PM
To: Sharma, Dimple

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-74509-2

Login Number: 74509

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Arauz, Dennis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-74510-1
Client Project/Site: Lendrum Ct. Data Conf. Sampling

For:
TRC Solutions, Inc.
505 Sansome Street
Suite 1600
San Francisco, California 94111

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
9/21/2016 4:50:52 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

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Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-74510-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-74510-1

Comments
No additional comments.

Receipt
The samples were received on 9/16/2016 3:05 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-1

Client Sample ID: 1257PS203[2.0] — Lab Sample ID: 720-74510-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	36		1.8		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1257PS110[0.0] — Lab Sample ID: 720-74510-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	220		1.5		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1257PS111[0.0] — Lab Sample ID: 720-74510-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	180		1.5		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1257PS112[0.0] — Lab Sample ID: 720-74510-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	230		1.9		mg/Kg	4	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-1

Client Sample ID: 1257PS203[2.0]
Date Collected: 09/15/16 11:18
Date Received: 09/16/16 15:05

Lab Sample ID: 720-74510-1
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.8		0.1		%			09/19/16 09:04	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-1

Client Sample ID: 1257PS203[2.0]
Date Collected: 09/15/16 11:18
Date Received: 09/16/16 15:05

Lab Sample ID: 720-74510-1
Matrix: Solid
Percent Solids: 91.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	36		1.8		mg/Kg	☼	09/16/16 21:35	09/21/16 00:09	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-1

Client Sample ID: 1257PS110[0.0]
Date Collected: 09/15/16 11:37
Date Received: 09/16/16 15:05

Lab Sample ID: 720-74510-3
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24.3		0.1		%			09/19/16 09:04	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-1

Client Sample ID: 1257PS110[0.0]
Date Collected: 09/15/16 11:37
Date Received: 09/16/16 15:05

Lab Sample ID: 720-74510-3
Matrix: Solid
Percent Solids: 75.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	220		1.5		mg/Kg	☼	09/19/16 13:17	09/20/16 14:56	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-1

Client Sample ID: 1257PS111[0.0]
Date Collected: 09/15/16 11:27
Date Received: 09/16/16 15:05

Lab Sample ID: 720-74510-6
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.3		0.1		%			09/19/16 09:04	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-1

Client Sample ID: 1257PS111[0.0]
Date Collected: 09/15/16 11:27
Date Received: 09/16/16 15:05

Lab Sample ID: 720-74510-6
Matrix: Solid
Percent Solids: 91.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	180		1.5		mg/Kg	☼	09/19/16 13:17	09/20/16 15:00	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-1

Client Sample ID: 1257PS112[0.0]
Date Collected: 09/15/16 11:44
Date Received: 09/16/16 15:05

Lab Sample ID: 720-74510-10
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.0		0.1		%			09/19/16 09:04	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-1

Client Sample ID: 1257PS112[0.0]
Date Collected: 09/15/16 11:44
Date Received: 09/16/16 15:05

Lab Sample ID: 720-74510-10
Matrix: Solid
Percent Solids: 89.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	230		1.9		mg/Kg	☼	09/19/16 13:17	09/20/16 15:05	4

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-209466/1-A
Matrix: Solid
Analysis Batch: 209692

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 209466

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50		mg/Kg		09/16/16 21:35	09/20/16 22:00	1

Lab Sample ID: LCS 720-209466/2-A
Matrix: Solid
Analysis Batch: 209692

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 209466

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	49.6		mg/Kg		99	80 - 120

Lab Sample ID: LCSSRM 720-209466/3-A
Matrix: Solid
Analysis Batch: 209692

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 209466

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	302	262		mg/Kg		87	62 - 113

Lab Sample ID: MB 720-209540/1-A
Matrix: Solid
Analysis Batch: 209640

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 209540

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50		mg/Kg		09/19/16 13:17	09/20/16 13:58	1

Lab Sample ID: LCS 720-209540/2-A
Matrix: Solid
Analysis Batch: 209640

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 209540

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	45.8		mg/Kg		92	80 - 120

Lab Sample ID: LCSSRM 720-209540/3-A
Matrix: Solid
Analysis Batch: 209640

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 209540

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	302	238		mg/Kg		79	62 - 113

Metals

Prep Batch: 209466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74510-1	1257PS203[2.0]	Total/NA	Solid	3050B	
MB 720-209466/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 720-209466/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 720-209466/3-A	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 209540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74510-3	1257PS110[0.0]	Total/NA	Solid	3050B	
720-74510-6	1257PS111[0.0]	Total/NA	Solid	3050B	
720-74510-10	1257PS112[0.0]	Total/NA	Solid	3050B	
MB 720-209540/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 720-209540/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 720-209540/3-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 209640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74510-3	1257PS110[0.0]	Total/NA	Solid	6010B	209540
720-74510-6	1257PS111[0.0]	Total/NA	Solid	6010B	209540
720-74510-10	1257PS112[0.0]	Total/NA	Solid	6010B	209540
MB 720-209540/1-A	Method Blank	Total/NA	Solid	6010B	209540
LCS 720-209540/2-A	Lab Control Sample	Total/NA	Solid	6010B	209540
LCSSRM 720-209540/3-A	Lab Control Sample	Total/NA	Solid	6010B	209540

Analysis Batch: 209692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74510-1	1257PS203[2.0]	Total/NA	Solid	6010B	209466
MB 720-209466/1-A	Method Blank	Total/NA	Solid	6010B	209466
LCS 720-209466/2-A	Lab Control Sample	Total/NA	Solid	6010B	209466
LCSSRM 720-209466/3-A	Lab Control Sample	Total/NA	Solid	6010B	209466

General Chemistry

Analysis Batch: 209508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74510-1	1257PS203[2.0]	Total/NA	Solid	Moisture	
720-74510-3	1257PS110[0.0]	Total/NA	Solid	Moisture	
720-74510-6	1257PS111[0.0]	Total/NA	Solid	Moisture	
720-74510-10	1257PS112[0.0]	Total/NA	Solid	Moisture	

Client Sample ID: 1257PS203[2.0] — **Lab Sample ID: 720-74510-1**
Date Collected: 09/15/16 11:18 — **Matrix: Solid**
Date Received: 09/16/16 15:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	209508	09/19/16 09:04	NVP	TAL PLS

Client Sample ID: 1257PS203[2.0] — **Lab Sample ID: 720-74510-1**
Date Collected: 09/15/16 11:18 — **Matrix: Solid**
Date Received: 09/16/16 15:05 — **Percent Solids: 91.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			209466	09/16/16 21:35	MJD	TAL PLS
Total/NA	Analysis	6010B		4	209692	09/21/16 00:09	SLK	TAL PLS

Client Sample ID: 1257PS110[0.0] — **Lab Sample ID: 720-74510-3**
Date Collected: 09/15/16 11:37 — **Matrix: Solid**
Date Received: 09/16/16 15:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	209508	09/19/16 09:04	NVP	TAL PLS

Client Sample ID: 1257PS110[0.0] — **Lab Sample ID: 720-74510-3**
Date Collected: 09/15/16 11:37 — **Matrix: Solid**
Date Received: 09/16/16 15:05 — **Percent Solids: 75.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			209540	09/19/16 13:17	BRB	TAL PLS
Total/NA	Analysis	6010B		4	209640	09/20/16 14:56	ASB	TAL PLS

Client Sample ID: 1257PS111[0.0] — **Lab Sample ID: 720-74510-6**
Date Collected: 09/15/16 11:27 — **Matrix: Solid**
Date Received: 09/16/16 15:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	209508	09/19/16 09:04	NVP	TAL PLS

Client Sample ID: 1257PS111[0.0] — **Lab Sample ID: 720-74510-6**
Date Collected: 09/15/16 11:27 — **Matrix: Solid**
Date Received: 09/16/16 15:05 — **Percent Solids: 91.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			209540	09/19/16 13:17	BRB	TAL PLS
Total/NA	Analysis	6010B		4	209640	09/20/16 15:00	ASB	TAL PLS

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-1

Client Sample ID: 1257PS112[0.0] — **Lab Sample ID: 720-74510-10**
Date Collected: 09/15/16 11:44 — **Matrix: Solid**
Date Received: 09/16/16 15:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	209508	09/19/16 09:04	NVP	TAL PLS

Client Sample ID: 1257PS112[0.0] — **Lab Sample ID: 720-74510-10**
Date Collected: 09/15/16 11:44 — **Matrix: Solid**
Date Received: 09/16/16 15:05 — **Percent Solids: 89.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			209540	09/19/16 13:17	BRB	TAL PLS
Total/NA	Analysis	6010B		4	209640	09/20/16 15:05	ASB	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-74510-1	1257PS203[2.0]	Solid	09/15/16 11:18	09/16/16 15:05
720-74510-3	1257PS110[0.0]	Solid	09/15/16 11:37	09/16/16 15:05
720-74510-6	1257PS111[0.0]	Solid	09/15/16 11:27	09/16/16 15:05
720-74510-10	1257PS112[0.0]	Solid	09/15/16 11:44	09/16/16 15:05

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

720-74510

Chain of Custody Record

171012

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9/21/2016

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other:

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Patrick Woods	Date:	COC No:
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	1 of 2 COCs
505 Sansome Street Suite 1600	Analysis Turnaround Time			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(415) 644-3000 Phone	TAT if different from Below 5 days			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☐ 1 week			
Site: Presidio of San Francisco	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

720-74510 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA 6020)	As, Ba, Cu, Zn (USEPA 6020)	Sample Specific Notes:
1257 PS 203 [2.0]	9/15/16	1118	G	Soil	1			X		
1257 PS 203 [2.5]	"	1122	"	"	"					HOLD
1257 PS 110 [0.0]	"	1137	"	"	"			X		
1257 PS 110 [0.5]	"	1138	"	"	"					HOLD
1257 PS 110 [1.0]	"	1140	"	"	"					HOLD
1257 PS 111 [0.0]	"	1127	"	"	"			X		
1257 PS 111 [0.5]	"	1129	"	"	"					HOLD
1257 PS 111 [1.0]	"	1130	"	"	"					HOLD
1257 PS 111 [1.5]	"	1132	"	"	"					HOLD
1257 PS 112 [0.0]	"	1144	"	"	"			X		
1257 PS 112 [0.5]	↓	1146	↓	↓	↓					HOLD

Preservation Used: 1=Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected

2-8°C

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:	Corr'd:	Therm ID No.:
Relinquished by:	Company:	Date/Time: 9-16-16 1725	Received by:	Company: JD	Date/Time: 9.16.16 1722
Relinquished by:	Company: TT	Date/Time: 9/16/16 1805	Received by:	Company: DS	Date/Time: 9/16/16 1805
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

1/10/12

TestAmerica Pleasanton
1220 Quarry Lane

Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other:

TestAmerica Laboratories, Inc.

9/21/2016

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Patrick Woods	Date:	COC No
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	2 of 2 COCs
505 Sansome Street Suite 1600	Analysis Turnaround Time			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(415) 644-3000 Phone	TAT if different from Below 5 days			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct ADL Sampling	☐ 1 week			
Site: Presidio of San Francisco	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA 6020)	As, Ba, Cu, Zn (USEPA 6020)	Sample Specific Notes:
1257PS112 [1.0]	9/15/16	1149	G	Soil	1					HOLD
1257PS112 [1.5]	9/15/16	1150	G	Soil	1					HOLD

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected

7.8 °C

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____		Therm ID No.: _____
Relinquished by:	Company:	Date/Time: 9-16-16 12	Received by:	Company: TA	Date/Time: 9-16-16
Relinquished by:	Company: TA	Date/Time: 9-16-16 1505	Received by:	Company: TA	Date/Time: 9/16/16 1505
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.9, dated 2/2/2016

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-74510-1

Login Number: 74510

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Arauz, Dennis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-74510-2
Client Project/Site: Lendrum Ct. Data Conf. Sampling

For:
TRC Solutions, Inc.
505 Sansome Street
Suite 1600
San Francisco, California 94111

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
10/3/2016 11:20:56 AM

Dimple Sharma, Senior Project Manager
(925)484-1919
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LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-2

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-74510-2

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-74510-2

Comments
No additional comments.

Receipt
The samples were received on 9/16/2016 3:05 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8º C.

Metals
Method 6010B: The serial dilution performed for the following sample associated with batch 720-210038 was outside control limits: (720-74510-A-4-C SD ^)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-2

Client Sample ID: 1257PS110[0.5] — Lab Sample ID: 720-74510-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	190		1.5		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1257PS111[0.5] — Lab Sample ID: 720-74510-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	390		1.5		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1257PS112[0.5] — Lab Sample ID: 720-74510-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	390		1.3		mg/Kg	4	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-2

Client Sample ID: 1257PS110[0.5]
Date Collected: 09/15/16 11:38
Date Received: 09/16/16 15:05

Lab Sample ID: 720-74510-4
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.7		0.1		%			09/24/16 14:28	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-2

Client Sample ID: 1257PS110[0.5]
Date Collected: 09/15/16 11:38
Date Received: 09/16/16 15:05

Lab Sample ID: 720-74510-4
Matrix: Solid
Percent Solids: 92.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	190		1.5		mg/Kg	☼	09/23/16 12:26	09/26/16 20:43	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-2

Client Sample ID: 1257PS111[0.5]
Date Collected: 09/15/16 11:29
Date Received: 09/16/16 15:05

Lab Sample ID: 720-74510-7
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.5		0.1		%			09/24/16 14:28	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-2

Client Sample ID: 1257PS111[0.5]
Date Collected: 09/15/16 11:29
Date Received: 09/16/16 15:05

Lab Sample ID: 720-74510-7
Matrix: Solid
Percent Solids: 89.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	390		1.5		mg/Kg	☼	09/23/16 12:26	09/29/16 17:40	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-2

Client Sample ID: 1257PS112[0.5]
Date Collected: 09/15/16 11:46
Date Received: 09/16/16 15:05

Lab Sample ID: 720-74510-11
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.4		0.1		%			09/24/16 14:28	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-2

Client Sample ID: 1257PS112[0.5]
Date Collected: 09/15/16 11:46
Date Received: 09/16/16 15:05

Lab Sample ID: 720-74510-11
Matrix: Solid
Percent Solids: 91.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	390		1.3		mg/Kg	☼	09/23/16 12:26	09/29/16 17:45	4

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-209871/1-A
Matrix: Solid
Analysis Batch: 210038

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 209871

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50		mg/Kg		09/23/16 12:26	09/26/16 20:09	1

Lab Sample ID: LCS 720-209871/2-A
Matrix: Solid
Analysis Batch: 210038

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 209871

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	46.2		mg/Kg		92	80 - 120

Lab Sample ID: LCSSRM 720-209871/3-A
Matrix: Solid
Analysis Batch: 210038

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 209871

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	302	240		mg/Kg		79	62 - 113

Lab Sample ID: 720-74510-4 MS
Matrix: Solid
Analysis Batch: 210038

Client Sample ID: 1257PS110[0.5]
Prep Type: Total/NA
Prep Batch: 209871

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	190		33.7	225	4	mg/Kg	☼	101	75 - 125

Lab Sample ID: 720-74510-4 MSD
Matrix: Solid
Analysis Batch: 210038

Client Sample ID: 1257PS110[0.5]
Prep Type: Total/NA
Prep Batch: 209871

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	190		43.7	228	4	mg/Kg	☼	84	75 - 125	1	20

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-2

Metals

Prep Batch: 209871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74510-4	1257PS110[0.5]	Total/NA	Solid	3050B	
720-74510-7	1257PS111[0.5]	Total/NA	Solid	3050B	
720-74510-11	1257PS112[0.5]	Total/NA	Solid	3050B	
MB 720-209871/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 720-209871/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 720-209871/3-A	Lab Control Sample	Total/NA	Solid	3050B	
720-74510-4 MS	1257PS110[0.5]	Total/NA	Solid	3050B	
720-74510-4 MSD	1257PS110[0.5]	Total/NA	Solid	3050B	

Analysis Batch: 210038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74510-4	1257PS110[0.5]	Total/NA	Solid	6010B	209871
MB 720-209871/1-A	Method Blank	Total/NA	Solid	6010B	209871
LCS 720-209871/2-A	Lab Control Sample	Total/NA	Solid	6010B	209871
LCSSRM 720-209871/3-A	Lab Control Sample	Total/NA	Solid	6010B	209871
720-74510-4 MS	1257PS110[0.5]	Total/NA	Solid	6010B	209871
720-74510-4 MSD	1257PS110[0.5]	Total/NA	Solid	6010B	209871

Analysis Batch: 210305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74510-7	1257PS111[0.5]	Total/NA	Solid	6010B	209871
720-74510-11	1257PS112[0.5]	Total/NA	Solid	6010B	209871

General Chemistry

Analysis Batch: 209934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74510-4	1257PS110[0.5]	Total/NA	Solid	Moisture	
720-74510-7	1257PS111[0.5]	Total/NA	Solid	Moisture	
720-74510-11	1257PS112[0.5]	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-2

Client Sample ID: 1257PS110[0.5] — **Lab Sample ID: 720-74510-4**
Date Collected: 09/15/16 11:38 — **Matrix: Solid**
Date Received: 09/16/16 15:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	209934	09/24/16 14:28	MEV	TAL PLS

Client Sample ID: 1257PS110[0.5] — **Lab Sample ID: 720-74510-4**
Date Collected: 09/15/16 11:38 — **Matrix: Solid**
Date Received: 09/16/16 15:05 — **Percent Solids: 92.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			209871	09/23/16 12:26	BRB	TAL PLS
Total/NA	Analysis	6010B		4	210038	09/26/16 20:43	ASB	TAL PLS

Client Sample ID: 1257PS111[0.5] — **Lab Sample ID: 720-74510-7**
Date Collected: 09/15/16 11:29 — **Matrix: Solid**
Date Received: 09/16/16 15:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	209934	09/24/16 14:28	MEV	TAL PLS

Client Sample ID: 1257PS111[0.5] — **Lab Sample ID: 720-74510-7**
Date Collected: 09/15/16 11:29 — **Matrix: Solid**
Date Received: 09/16/16 15:05 — **Percent Solids: 89.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			209871	09/23/16 12:26	BRB	TAL PLS
Total/NA	Analysis	6010B		4	210305	09/29/16 17:40	ASB	TAL PLS

Client Sample ID: 1257PS112[0.5] — **Lab Sample ID: 720-74510-11**
Date Collected: 09/15/16 11:46 — **Matrix: Solid**
Date Received: 09/16/16 15:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	209934	09/24/16 14:28	MEV	TAL PLS

Client Sample ID: 1257PS112[0.5] — **Lab Sample ID: 720-74510-11**
Date Collected: 09/15/16 11:46 — **Matrix: Solid**
Date Received: 09/16/16 15:05 — **Percent Solids: 91.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			209871	09/23/16 12:26	BRB	TAL PLS
Total/NA	Analysis	6010B		4	210305	09/29/16 17:45	ASB	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-2

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-74510-4	1257PS110[0.5]	Solid	09/15/16 11:38	09/16/16 15:05
720-74510-7	1257PS111[0.5]	Solid	09/15/16 11:29	09/16/16 15:05
720-74510-11	1257PS112[0.5]	Solid	09/15/16 11:46	09/16/16 15:05

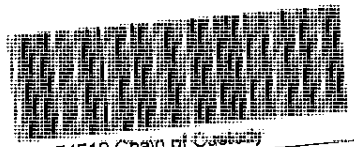
720-74510-2

Sharma, Dimple

From: Boecher, Caroline <CBoecher@trcsolutions.com>
Sent: Thursday, September 22, 2016 3:53 PM
To: Sharma, Dimple
Cc: Hanzel-Durbin, Justin
Subject: RE: TestAmerica EDD and report files from 720-74510-1 Lendrum Ct. Data Conf. Sampling

Hi Dimple,

Please analyze the following for lead (dry weight corrected) on 5-day TAT:


720-74510 Chain of Custody

- 1257PS110[0.5]
- 1257PS111[0.5]
- 1257PS112[0.5]

Thank you,
Carrie
From: Sharma, Dimple [mailto:dimple.sharma@testamericainc.com]
Sent: Wednesday, September 21, 2016 4:56 PM
To: Boecher, Caroline <CBoecher@trcsolutions.com>; Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Subject: TestAmerica EDD and report files from 720-74510-1 Lendrum Ct. Data Conf. Sampling

Hello,

Attached please find the EDD and report files for job 720-74510-1; Lendrum Ct. Data Conf. Sampling

Please feel free to contact me if you have any questions.

Thank you.

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

DIMPLE SHARMA
Senior Project Manager

TestAmerica Pleasanton
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 925 484.1919
www.testamericainc.com

Reference: [226163]
Attachments: 2

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-74510-2

Login Number: 74510
List Number: 1
Creator: Arauz, Dennis

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-74510-3
Client Project/Site: Lendrum Ct. Data Conf. Sampling

For:
TRC Solutions, Inc.
505 Sansome Street
Suite 1600
San Francisco, California 94111

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
10/7/2016 5:10:41 PM
Paloma Duong, Project Manager I
paloma.duong@testamericainc.com

Designee for

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-74510-3

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-74510-3

Comments
No additional comments.

Receipt
The samples were received on 9/16/2016 3:05 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-3

Client Sample ID: 1257PS111[1.0] — Lab Sample ID: 720-74510-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	500		2.0		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1257PS112[1.0] — Lab Sample ID: 720-74510-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	900		1.5		mg/Kg	4	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-3

Client Sample ID: 1257PS111[1.0]
Date Collected: 09/15/16 11:30
Date Received: 09/16/16 15:05

Lab Sample ID: 720-74510-8
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	29.6		0.1		%			10/06/16 19:14	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-3

Client Sample ID: 1257PS111[1.0]
Date Collected: 09/15/16 11:30
Date Received: 09/16/16 15:05

Lab Sample ID: 720-74510-8
Matrix: Solid
Percent Solids: 70.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	500		2.0		mg/Kg	☼	10/06/16 14:03	10/07/16 13:50	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-3

Client Sample ID: 1257PS112[1.0]
Date Collected: 09/15/16 11:49
Date Received: 09/16/16 15:05

Lab Sample ID: 720-74510-12
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.8		0.1		%			10/06/16 19:14	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-3

Client Sample ID: 1257PS112[1.0]
Date Collected: 09/15/16 11:49
Date Received: 09/16/16 15:05

Lab Sample ID: 720-74510-12
Matrix: Solid
Percent Solids: 91.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	900		1.5		mg/Kg	☼	10/06/16 14:03	10/07/16 13:55	4

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-210746/1-A
Matrix: Solid
Analysis Batch: 210834

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 210746

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50		mg/Kg		10/06/16 11:48	10/07/16 12:40	1

Lab Sample ID: LCS 720-210746/2-A
Matrix: Solid
Analysis Batch: 210834

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 210746

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	48.2		mg/Kg		96	80 - 120

Lab Sample ID: LCSSRM 720-210746/3-A
Matrix: Solid
Analysis Batch: 210834

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 210746

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	302	253		mg/Kg		84	62 - 113

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-3

Metals

Prep Batch: 210746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74510-8	1257PS111[1.0]	Total/NA	Solid	3050B	
720-74510-12	1257PS112[1.0]	Total/NA	Solid	3050B	
MB 720-210746/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 720-210746/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 720-210746/3-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 210834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74510-8	1257PS111[1.0]	Total/NA	Solid	6010B	210746
720-74510-12	1257PS112[1.0]	Total/NA	Solid	6010B	210746
MB 720-210746/1-A	Method Blank	Total/NA	Solid	6010B	210746
LCS 720-210746/2-A	Lab Control Sample	Total/NA	Solid	6010B	210746
LCSSRM 720-210746/3-A	Lab Control Sample	Total/NA	Solid	6010B	210746

General Chemistry

Analysis Batch: 210783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74510-8	1257PS111[1.0]	Total/NA	Solid	Moisture	
720-74510-12	1257PS112[1.0]	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-3

Client Sample ID: 1257PS111[1.0]

Lab Sample ID: 720-74510-8
Date Collected: 09/15/16 11:30
Matrix: Solid
Date Received: 09/16/16 15:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	210783	10/06/16 19:14	CAM	TAL PLS

Client Sample ID: 1257PS111[1.0]

Lab Sample ID: 720-74510-8
Date Collected: 09/15/16 11:30
Matrix: Solid
Date Received: 09/16/16 15:05
Percent Solids: 70.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			210746	10/06/16 14:03	BRB	TAL PLS
Total/NA	Analysis	6010B		4	210834	10/07/16 13:50	ASB	TAL PLS

Client Sample ID: 1257PS112[1.0]

Lab Sample ID: 720-74510-12
Date Collected: 09/15/16 11:49
Matrix: Solid
Date Received: 09/16/16 15:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	210783	10/06/16 19:14	CAM	TAL PLS

Client Sample ID: 1257PS112[1.0]

Lab Sample ID: 720-74510-12
Date Collected: 09/15/16 11:49
Matrix: Solid
Date Received: 09/16/16 15:05
Percent Solids: 91.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			210746	10/06/16 14:03	BRB	TAL PLS
Total/NA	Analysis	6010B		4	210834	10/07/16 13:55	ASB	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-3

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-3

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Conf. Sampling

TestAmerica Job ID: 720-74510-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-74510-8	1257PS111[1.0]	Solid	09/15/16 11:30	09/16/16 15:05
720-74510-12	1257PS112[1.0]	Solid	09/15/16 11:49	09/16/16 15:05

Sharma, Dimple 720-74510-3

From: Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Sent: Wednesday, October 05, 2016 8:16 PM
To: Sharma, Dimple; Boecher, Caroline
Subject: RE: TestAmerica EDD and report files from 720-74510-2 Lendrum Ct. Data Conf. Sampling

Dimple can you please run the 1257PS111 and 1257PS112 @ 1.0 on rush analyses for total lead?
Thanks
Justin

Justin Hanzel-Durbin
Senior Engineer/Project Manager
Environmental/Remediation

505 Sansome Street, Suite 1600, San Francisco, CA 94111
T: 415.644.3050 | F: 415.434.2321 | Cell: 415.209.3326

Follow us on LinkedIn or Twitter | www.trcsolutions.com
JHanzel-Durbin@trcsolutions.com

RUSH

From: Sharma, Dimple [mailto:dimple.sharma@testamericainc.com]
Sent: Monday, October 03, 2016 11:26 AM
To: Boecher, Caroline <CBoecher@trcsolutions.com>; Hanzel-Durbin, Justin <JHanzel-Durbin@trcsolutions.com>
Subject: TestAmerica EDD and report files from 720-74510-2 Lendrum Ct. Data Conf. Sampling

Hello,

Attached please find the EDD and report files for job 720-74510-2; Lendrum Ct. Data Conf. Sampling

Please feel free to contact me if you have any questions.

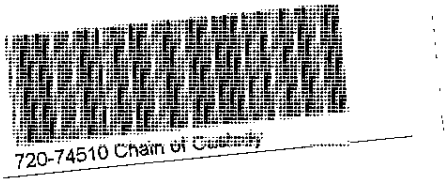
Thank you.

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

DIMPLE SHARMA
Senior Project Manager

TestAmerica Pleasanton
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 925.484.1919
www.testamericainc.com



Reference: [227021]
Attachments: 2

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-74510-3

Login Number: 74510
List Number: 1
Creator: Arauz, Dennis

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-74816-1
Client Project/Site: Lendrum Ct. Data Gap Investigation

For:
TRC Solutions, Inc.
505 Sansome Street
Suite 1600
San Francisco, California 94111

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
10/4/2016 10:48:21 AM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74816-1

Job ID: 720-74816-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-74816-1

Comments
No additional comments.

Receipt
The samples were received on 9/30/2016 11:34 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.5º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74816-1

Client Sample ID: 1258EX108[0.75] — Lab Sample ID: 720-74816-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	16		1.7		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1258EX110[1.5] — Lab Sample ID: 720-74816-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	78		1.9		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1258EX109[0.75] — Lab Sample ID: 720-74816-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	120		2.0		mg/Kg	4	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74816-1

Client Sample ID: 1258EX108[0.75]
Date Collected: 09/29/16 10:25
Date Received: 09/30/16 11:34

Lab Sample ID: 720-74816-1
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.6		0.1		%			10/01/16 00:04	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74816-1

Client Sample ID: 1258EX108[0.75]
Date Collected: 09/29/16 10:25
Date Received: 09/30/16 11:34

Lab Sample ID: 720-74816-1
Matrix: Solid
Percent Solids: 91.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	16		1.7		mg/Kg	☼	09/30/16 12:36	10/03/16 17:38	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74816-1

Client Sample ID: 1258EX110[1.5]
Date Collected: 09/29/16 10:35
Date Received: 09/30/16 11:34

Lab Sample ID: 720-74816-2
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.6		0.1		%			10/01/16 00:04	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74816-1

Client Sample ID: 1258EX110[1.5]
Date Collected: 09/29/16 10:35
Date Received: 09/30/16 11:34

Lab Sample ID: 720-74816-2
Matrix: Solid
Percent Solids: 90.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	78		1.9		mg/Kg	☼	09/30/16 12:36	10/03/16 17:42	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74816-1

Client Sample ID: 1258EX109[0.75]
Date Collected: 09/29/16 10:48
Date Received: 09/30/16 11:34

Lab Sample ID: 720-74816-3
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.1		0.1		%			10/01/16 00:04	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74816-1

Client Sample ID: 1258EX109[0.75]
Date Collected: 09/29/16 10:48
Date Received: 09/30/16 11:34

Lab Sample ID: 720-74816-3
Matrix: Solid
Percent Solids: 89.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	120		2.0		mg/Kg	☼	09/30/16 12:36	10/03/16 17:57	4

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74816-1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-210351/1-A
Matrix: Solid
Analysis Batch: 210500

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 210351

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50		mg/Kg		09/30/16 12:36	10/03/16 16:59	1

Lab Sample ID: LCS 720-210351/2-A
Matrix: Solid
Analysis Batch: 210500

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 210351

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	44.8		mg/Kg		90	80 - 120

Lab Sample ID: LCSSRM 720-210351/3-A
Matrix: Solid
Analysis Batch: 210500

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 210351

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	302	242		mg/Kg		80	62 - 113

Method: Moisture - Percent Moisture

Lab Sample ID: 720-74816-1 DU
Matrix: Solid
Analysis Batch: 210390

Client Sample ID: 1258EX108[0.75]
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	8.6		8.7		%		2	20

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74816-1

Metals

Prep Batch: 210351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74816-1	1258EX108[0.75]	Total/NA	Solid	3050B	
720-74816-2	1258EX110[1.5]	Total/NA	Solid	3050B	
720-74816-3	1258EX109[0.75]	Total/NA	Solid	3050B	
MB 720-210351/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 720-210351/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 720-210351/3-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 210500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74816-1	1258EX108[0.75]	Total/NA	Solid	6010B	210351
720-74816-2	1258EX110[1.5]	Total/NA	Solid	6010B	210351
720-74816-3	1258EX109[0.75]	Total/NA	Solid	6010B	210351
MB 720-210351/1-A	Method Blank	Total/NA	Solid	6010B	210351
LCS 720-210351/2-A	Lab Control Sample	Total/NA	Solid	6010B	210351
LCSSRM 720-210351/3-A	Lab Control Sample	Total/NA	Solid	6010B	210351

General Chemistry

Analysis Batch: 210390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-74816-1	1258EX108[0.75]	Total/NA	Solid	Moisture	
720-74816-2	1258EX110[1.5]	Total/NA	Solid	Moisture	
720-74816-3	1258EX109[0.75]	Total/NA	Solid	Moisture	
720-74816-1 DU	1258EX108[0.75]	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74816-1

Client Sample ID: 1258EX108[0.75] — **Lab Sample ID: 720-74816-1**
Date Collected: 09/29/16 10:25 — **Matrix: Solid**
Date Received: 09/30/16 11:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	210390	10/01/16 00:04	EYT	TAL PLS

Client Sample ID: 1258EX108[0.75] — **Lab Sample ID: 720-74816-1**
Date Collected: 09/29/16 10:25 — **Matrix: Solid**
Date Received: 09/30/16 11:34 — **Percent Solids: 91.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			210351	09/30/16 12:36	MJD	TAL PLS
Total/NA	Analysis	6010B		4	210500	10/03/16 17:38	SLK	TAL PLS

Client Sample ID: 1258EX110[1.5] — **Lab Sample ID: 720-74816-2**
Date Collected: 09/29/16 10:35 — **Matrix: Solid**
Date Received: 09/30/16 11:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	210390	10/01/16 00:04	EYT	TAL PLS

Client Sample ID: 1258EX110[1.5] — **Lab Sample ID: 720-74816-2**
Date Collected: 09/29/16 10:35 — **Matrix: Solid**
Date Received: 09/30/16 11:34 — **Percent Solids: 90.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			210351	09/30/16 12:36	MJD	TAL PLS
Total/NA	Analysis	6010B		4	210500	10/03/16 17:42	SLK	TAL PLS

Client Sample ID: 1258EX109[0.75] — **Lab Sample ID: 720-74816-3**
Date Collected: 09/29/16 10:48 — **Matrix: Solid**
Date Received: 09/30/16 11:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	210390	10/01/16 00:04	EYT	TAL PLS

Client Sample ID: 1258EX109[0.75] — **Lab Sample ID: 720-74816-3**
Date Collected: 09/29/16 10:48 — **Matrix: Solid**
Date Received: 09/30/16 11:34 — **Percent Solids: 89.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			210351	09/30/16 12:36	MJD	TAL PLS
Total/NA	Analysis	6010B		4	210500	10/03/16 17:57	SLK	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74816-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74816-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-74816-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-74816-1	1258EX108[0.75]	Solid	09/29/16 10:25	09/30/16 11:34
720-74816-2	1258EX110[1.5]	Solid	09/29/16 10:35	09/30/16 11:34
720-74816-3	1258EX109[0.75]	Solid	09/29/16 10:48	09/30/16 11:34

17134

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

720-74816

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

10/4/2016

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date:	COC No:
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	1 of 1 COCs
505 Sansome Street Suite 1600	**Analysis Turnaround Time**			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(415) 644-3000 Phone	TAT if different from Below			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☐ 1 week			
Site: Presidio of San Francisco	☐ 2 days			Job / SDG No.:
P O #	☑ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA 6020)	As, Ba, Cu, Zn (USEPA 6020)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes:
1258EX108[0.75]	9/29/16	1025	G	Soil	1			X				
1258EX110[1.5]	9/29/16	1035	G	Soil	1			X				
1258EX109[0.75]	9/29/16	1048	G	Soil	1			X				

RUSH

720-74816 Chain of Custody

Preservation Used: 1=Ice, 2=HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6=Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected

3.5°C

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____		Therm ID No.: _____
Relinquished by:	Company: TRC	Date/Time: 9/30/16 1030	Received by:	Company: TA	Date/Time: 9/30/16 1030
Relinquished by:	Company: TA	Date/Time: 1134	Received by:	Company: DS	Date/Time: 9/30/16 1134
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.9, dated 2/2/2016

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-74816-1

Login Number: 74816

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Arauz, Dennis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-75006-1
Client Project/Site: Lendrum Ct. Data Gap Investigation

For:
TRC Solutions, Inc.
505 Sansome Street
Suite 1600
San Francisco, California 94111

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
10/13/2016 9:55:26 AM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Qualifiers

Metals

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Job ID: 720-75006-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-75006-1

Comments
No additional comments.

Receipt
The samples were received on 10/10/2016 4:35 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 14.6º C.

Metals
Method 6010B: The serial dilution performed for the following sample associated with batch 720-211047 was outside control limits: (720-75006-A-1-C SD)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Client Sample ID: 1257PS204[0.25] — Lab Sample ID: 720-75006-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	160	F2	1.9		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1257PS205[0.25] — Lab Sample ID: 720-75006-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	36		2.1		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1257PS206[0.25] — Lab Sample ID: 720-75006-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	350		2.0		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1258PS201[0.75] — Lab Sample ID: 720-75006-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	7.5		1.5		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1258PS202[0.75] — Lab Sample ID: 720-75006-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	190		1.9		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1258PS203[0.75] — Lab Sample ID: 720-75006-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	190		1.4		mg/Kg	4	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Client Sample ID: 1257PS204[0.25]
Date Collected: 10/10/16 11:30
Date Received: 10/10/16 16:35

Lab Sample ID: 720-75006-1
Matrix: Solid
Percent Solids: 90.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	160	F2	1.9		mg/Kg	☼	10/10/16 17:22	10/11/16 14:26	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.1		0.1		%			10/11/16 20:48	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Client Sample ID: 1257PS205[0.25]
Date Collected: 10/10/16 11:42
Date Received: 10/10/16 16:35

Lab Sample ID: 720-75006-2
Matrix: Solid
Percent Solids: 91.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	36		2.1		mg/Kg	☼	10/10/16 17:22	10/11/16 14:32	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.9		0.1		%			10/11/16 20:48	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Client Sample ID: 1257PS206[0.25]
Date Collected: 10/10/16 11:49
Date Received: 10/10/16 16:35

Lab Sample ID: 720-75006-3
Matrix: Solid
Percent Solids: 83.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	350		2.0		mg/Kg	☼	10/10/16 17:22	10/11/16 14:37	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.3		0.1		%			10/11/16 20:48	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Client Sample ID: 1258PS201[0.75]
Date Collected: 10/10/16 13:33
Date Received: 10/10/16 16:35

Lab Sample ID: 720-75006-4
Matrix: Solid
Percent Solids: 89.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	7.5		1.5		mg/Kg	☼	10/10/16 17:22	10/11/16 14:53	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.6		0.1		%			10/11/16 20:48	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Client Sample ID: 1258PS202[0.75]
Date Collected: 10/10/16 13:38
Date Received: 10/10/16 16:35

Lab Sample ID: 720-75006-5
Matrix: Solid
Percent Solids: 89.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	190		1.9		mg/Kg	☼	10/10/16 17:22	10/11/16 14:59	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.1		0.1		%			10/11/16 20:48	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Client Sample ID: 1258PS203[0.75]
Date Collected: 10/10/16 13:43
Date Received: 10/10/16 16:35

Lab Sample ID: 720-75006-6
Matrix: Solid
Percent Solids: 91.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	190		1.4		mg/Kg	☼	10/10/16 17:22	10/11/16 15:04	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.7		0.1		%			10/11/16 20:48	1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-210966/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 211047 — **Prep Batch: 210966**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50		mg/Kg		10/10/16 17:22	10/11/16 13:48	1

Lab Sample ID: LCS 720-210966/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 211047 — **Prep Batch: 210966**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	47.8		mg/Kg		96	80 - 120

Lab Sample ID: LCSSRM 720-210966/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 211047 — **Prep Batch: 210966**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	302	243		mg/Kg		81	62 - 113

Lab Sample ID: 720-75006-1 MS — **Client Sample ID: 1257PS204[0.25]**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 211047 — **Prep Batch: 210966**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	160	F2	37.4	223	4	mg/Kg	☼	161	75 - 125

Lab Sample ID: 720-75006-1 MSD — **Client Sample ID: 1257PS204[0.25]**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 211047 — **Prep Batch: 210966**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	160	F2	37.4	391	4 F2	mg/Kg	☼	610	75 - 125	55	20

Method: Moisture - Percent Moisture

Lab Sample ID: 720-75006-1 DU — **Client Sample ID: 1257PS204[0.25]**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 211057

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	9.1		9.3		%		2	20

Metals

Prep Batch: 210966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-75006-1	1257PS204[0.25]	Total/NA	Solid	3050B	
720-75006-2	1257PS205[0.25]	Total/NA	Solid	3050B	
720-75006-3	1257PS206[0.25]	Total/NA	Solid	3050B	
720-75006-4	1258PS201[0.75]	Total/NA	Solid	3050B	
720-75006-5	1258PS202[0.75]	Total/NA	Solid	3050B	
720-75006-6	1258PS203[0.75]	Total/NA	Solid	3050B	
MB 720-210966/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 720-210966/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 720-210966/3-A	Lab Control Sample	Total/NA	Solid	3050B	
720-75006-1 MS	1257PS204[0.25]	Total/NA	Solid	3050B	
720-75006-1 MSD	1257PS204[0.25]	Total/NA	Solid	3050B	

Analysis Batch: 211047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-75006-1	1257PS204[0.25]	Total/NA	Solid	6010B	210966
720-75006-2	1257PS205[0.25]	Total/NA	Solid	6010B	210966
720-75006-3	1257PS206[0.25]	Total/NA	Solid	6010B	210966
720-75006-4	1258PS201[0.75]	Total/NA	Solid	6010B	210966
720-75006-5	1258PS202[0.75]	Total/NA	Solid	6010B	210966
720-75006-6	1258PS203[0.75]	Total/NA	Solid	6010B	210966
MB 720-210966/1-A	Method Blank	Total/NA	Solid	6010B	210966
LCS 720-210966/2-A	Lab Control Sample	Total/NA	Solid	6010B	210966
LCSSRM 720-210966/3-A	Lab Control Sample	Total/NA	Solid	6010B	210966
720-75006-1 MS	1257PS204[0.25]	Total/NA	Solid	6010B	210966
720-75006-1 MSD	1257PS204[0.25]	Total/NA	Solid	6010B	210966

General Chemistry

Analysis Batch: 211057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-75006-1	1257PS204[0.25]	Total/NA	Solid	Moisture	
720-75006-2	1257PS205[0.25]	Total/NA	Solid	Moisture	
720-75006-3	1257PS206[0.25]	Total/NA	Solid	Moisture	
720-75006-4	1258PS201[0.75]	Total/NA	Solid	Moisture	
720-75006-5	1258PS202[0.75]	Total/NA	Solid	Moisture	
720-75006-6	1258PS203[0.75]	Total/NA	Solid	Moisture	
720-75006-1 DU	1257PS204[0.25]	Total/NA	Solid	Moisture	

Client Sample ID: 1257PS204[0.25] — **Lab Sample ID: 720-75006-1**
Date Collected: 10/10/16 11:30 — **Matrix: Solid**
Date Received: 10/10/16 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	211057	10/11/16 20:48	EYT	TAL PLS

Client Sample ID: 1257PS204[0.25] — **Lab Sample ID: 720-75006-1**
Date Collected: 10/10/16 11:30 — **Matrix: Solid**
Date Received: 10/10/16 16:35 — **Percent Solids: 90.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			210966	10/10/16 17:22	BRB	TAL PLS
Total/NA	Analysis	6010B		4	211047	10/11/16 14:26	ASB	TAL PLS

Client Sample ID: 1257PS205[0.25] — **Lab Sample ID: 720-75006-2**
Date Collected: 10/10/16 11:42 — **Matrix: Solid**
Date Received: 10/10/16 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	211057	10/11/16 20:48	EYT	TAL PLS

Client Sample ID: 1257PS205[0.25] — **Lab Sample ID: 720-75006-2**
Date Collected: 10/10/16 11:42 — **Matrix: Solid**
Date Received: 10/10/16 16:35 — **Percent Solids: 91.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			210966	10/10/16 17:22	BRB	TAL PLS
Total/NA	Analysis	6010B		4	211047	10/11/16 14:32	ASB	TAL PLS

Client Sample ID: 1257PS206[0.25] — **Lab Sample ID: 720-75006-3**
Date Collected: 10/10/16 11:49 — **Matrix: Solid**
Date Received: 10/10/16 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	211057	10/11/16 20:48	EYT	TAL PLS

Client Sample ID: 1257PS206[0.25] — **Lab Sample ID: 720-75006-3**
Date Collected: 10/10/16 11:49 — **Matrix: Solid**
Date Received: 10/10/16 16:35 — **Percent Solids: 83.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			210966	10/10/16 17:22	BRB	TAL PLS
Total/NA	Analysis	6010B		4	211047	10/11/16 14:37	ASB	TAL PLS

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Client Sample ID: 1258PS201[0.75] — **Lab Sample ID: 720-75006-4**
Date Collected: 10/10/16 13:33 — **Matrix: Solid**
Date Received: 10/10/16 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	211057	10/11/16 20:48	EYT	TAL PLS

Client Sample ID: 1258PS201[0.75] — **Lab Sample ID: 720-75006-4**
Date Collected: 10/10/16 13:33 — **Matrix: Solid**
Date Received: 10/10/16 16:35 — **Percent Solids: 89.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			210966	10/10/16 17:22	BRB	TAL PLS
Total/NA	Analysis	6010B		4	211047	10/11/16 14:53	ASB	TAL PLS

Client Sample ID: 1258PS202[0.75] — **Lab Sample ID: 720-75006-5**
Date Collected: 10/10/16 13:38 — **Matrix: Solid**
Date Received: 10/10/16 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	211057	10/11/16 20:48	EYT	TAL PLS

Client Sample ID: 1258PS202[0.75] — **Lab Sample ID: 720-75006-5**
Date Collected: 10/10/16 13:38 — **Matrix: Solid**
Date Received: 10/10/16 16:35 — **Percent Solids: 89.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			210966	10/10/16 17:22	BRB	TAL PLS
Total/NA	Analysis	6010B		4	211047	10/11/16 14:59	ASB	TAL PLS

Client Sample ID: 1258PS203[0.75] — **Lab Sample ID: 720-75006-6**
Date Collected: 10/10/16 13:43 — **Matrix: Solid**
Date Received: 10/10/16 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	211057	10/11/16 20:48	EYT	TAL PLS

Client Sample ID: 1258PS203[0.75] — **Lab Sample ID: 720-75006-6**
Date Collected: 10/10/16 13:43 — **Matrix: Solid**
Date Received: 10/10/16 16:35 — **Percent Solids: 91.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			210966	10/10/16 17:22	BRB	TAL PLS
Total/NA	Analysis	6010B		4	211047	10/11/16 15:04	ASB	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-75006-1	1257PS204[0.25]	Solid	10/10/16 11:30	10/10/16 16:35
720-75006-2	1257PS205[0.25]	Solid	10/10/16 11:42	10/10/16 16:35
720-75006-3	1257PS206[0.25]	Solid	10/10/16 11:49	10/10/16 16:35
720-75006-4	1258PS201[0.75]	Solid	10/10/16 13:33	10/10/16 16:35
720-75006-5	1258PS202[0.75]	Solid	10/10/16 13:38	10/10/16 16:35
720-75006-6	1258PS203[0.75]	Solid	10/10/16 13:43	10/10/16 16:35

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

720-75006

Chain of Custody Record

171485

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date:	COC No:
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	1 of 1 COCs
505 Sansome Street Suite 1600	Analysis Turnaround Time			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(415) 644-3000 Phone	TAT if different from Below			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☑ 1 week			
Site: Presidio of San Francisco	☑ 2 days			Job / SDG No.:
P O #	☒ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA 8260)	As, Ba, Cu, Zn (USEPA 8260)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes
1257PS204[0.25]	10/10/16	1130	G	soil	1			X				
1257 PS205 [0.25]	10/10/16	1142	G	soil	1			X				
1257 PS 206 [0.25]	10/10/16	1149	G	soil	1			X				
1258EX201[0.75]	10/10/16	1333	G	soil	1			X				
1258 EX 202 [0.75]	10/10/16	1338	G	soil	1			X				
1258 EX 203 [0.75]	10/10/16	1343	G	soil	1			X				

720-75006 Chain of Custody

ADJSF1

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected

14.6 °C

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd:	Corr'd:	Therm ID No.:

Relinquished by:	Company: TRC	Date/Time: 10/10/16 1407	Received by:	Company: TA	Date/Time: 10.6.16 1407
Relinquished by:	Company: TA	Date/Time: 10/10/16 1635	Received by:	Company: TA	Date/Time: 10/10/16 1635
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.9, dated 2/2/2016

10/13/2016

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-75006-1

Login Number: 75006

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Arauz, Dennis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-75006-1
Client Project/Site: Lendrum Ct. Data Gap Investigation

For:
TRC Solutions, Inc.
505 Sansome Street
Suite 1600
San Francisco, California 94111

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
10/13/2016 9:55:26 AM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Qualifiers

Metals

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Job ID: 720-75006-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-75006-1

Comments
No additional comments.

Receipt
The samples were received on 10/10/2016 4:35 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 14.6º C.

Metals
Method 6010B: The serial dilution performed for the following sample associated with batch 720-211047 was outside control limits: (720-75006-A-1-C SD)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Client Sample ID: 1257PS204[0.25] — Lab Sample ID: 720-75006-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	160	F2	1.9		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1257PS205[0.25] — Lab Sample ID: 720-75006-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	36		2.1		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1257PS206[0.25] — Lab Sample ID: 720-75006-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	350		2.0		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1258PS201[0.75] — Lab Sample ID: 720-75006-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	7.5		1.5		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1258PS202[0.75] — Lab Sample ID: 720-75006-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	190		1.9		mg/Kg	4	☼	6010B	Total/NA

Client Sample ID: 1258PS203[0.75] — Lab Sample ID: 720-75006-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	190		1.4		mg/Kg	4	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Client Sample ID: 1257PS204[0.25]
Date Collected: 10/10/16 11:30
Date Received: 10/10/16 16:35

Lab Sample ID: 720-75006-1
Matrix: Solid
Percent Solids: 90.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	160	F2	1.9		mg/Kg	☼	10/10/16 17:22	10/11/16 14:26	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.1		0.1		%			10/11/16 20:48	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Client Sample ID: 1257PS205[0.25]
Date Collected: 10/10/16 11:42
Date Received: 10/10/16 16:35

Lab Sample ID: 720-75006-2
Matrix: Solid
Percent Solids: 91.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	36		2.1		mg/Kg	☼	10/10/16 17:22	10/11/16 14:32	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.9		0.1		%			10/11/16 20:48	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Client Sample ID: 1257PS206[0.25]
Date Collected: 10/10/16 11:49
Date Received: 10/10/16 16:35

Lab Sample ID: 720-75006-3
Matrix: Solid
Percent Solids: 83.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	350		2.0		mg/Kg	☼	10/10/16 17:22	10/11/16 14:37	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.3		0.1		%			10/11/16 20:48	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Client Sample ID: 1258PS201[0.75]
Date Collected: 10/10/16 13:33
Date Received: 10/10/16 16:35

Lab Sample ID: 720-75006-4
Matrix: Solid
Percent Solids: 89.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	7.5		1.5		mg/Kg	☼	10/10/16 17:22	10/11/16 14:53	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.6		0.1		%			10/11/16 20:48	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Client Sample ID: 1258PS202[0.75]
Date Collected: 10/10/16 13:38
Date Received: 10/10/16 16:35

Lab Sample ID: 720-75006-5
Matrix: Solid
Percent Solids: 89.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	190		1.9		mg/Kg	☼	10/10/16 17:22	10/11/16 14:59	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.1		0.1		%			10/11/16 20:48	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Client Sample ID: 1258PS203[0.75]
Date Collected: 10/10/16 13:43
Date Received: 10/10/16 16:35

Lab Sample ID: 720-75006-6
Matrix: Solid
Percent Solids: 91.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	190		1.4		mg/Kg	☼	10/10/16 17:22	10/11/16 15:04	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.7		0.1		%			10/11/16 20:48	1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-210966/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 211047 — **Prep Batch: 210966**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.50		mg/Kg		10/10/16 17:22	10/11/16 13:48	1

Lab Sample ID: LCS 720-210966/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 211047 — **Prep Batch: 210966**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	47.8		mg/Kg		96	80 - 120

Lab Sample ID: LCSSRM 720-210966/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 211047 — **Prep Batch: 210966**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	302	243		mg/Kg		81	62 - 113

Lab Sample ID: 720-75006-1 MS — **Client Sample ID: 1257PS204[0.25]**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 211047 — **Prep Batch: 210966**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	160	F2	37.4	223	4	mg/Kg	☼	161	75 - 125

Lab Sample ID: 720-75006-1 MSD — **Client Sample ID: 1257PS204[0.25]**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 211047 — **Prep Batch: 210966**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	160	F2	37.4	391	4 F2	mg/Kg	☼	610	75 - 125	55	20

Method: Moisture - Percent Moisture

Lab Sample ID: 720-75006-1 DU — **Client Sample ID: 1257PS204[0.25]**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 211057

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	9.1		9.3		%		2	20

Metals

Prep Batch: 210966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-75006-1	1257PS204[0.25]	Total/NA	Solid	3050B	
720-75006-2	1257PS205[0.25]	Total/NA	Solid	3050B	
720-75006-3	1257PS206[0.25]	Total/NA	Solid	3050B	
720-75006-4	1258PS201[0.75]	Total/NA	Solid	3050B	
720-75006-5	1258PS202[0.75]	Total/NA	Solid	3050B	
720-75006-6	1258PS203[0.75]	Total/NA	Solid	3050B	
MB 720-210966/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 720-210966/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 720-210966/3-A	Lab Control Sample	Total/NA	Solid	3050B	
720-75006-1 MS	1257PS204[0.25]	Total/NA	Solid	3050B	
720-75006-1 MSD	1257PS204[0.25]	Total/NA	Solid	3050B	

Analysis Batch: 211047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-75006-1	1257PS204[0.25]	Total/NA	Solid	6010B	210966
720-75006-2	1257PS205[0.25]	Total/NA	Solid	6010B	210966
720-75006-3	1257PS206[0.25]	Total/NA	Solid	6010B	210966
720-75006-4	1258PS201[0.75]	Total/NA	Solid	6010B	210966
720-75006-5	1258PS202[0.75]	Total/NA	Solid	6010B	210966
720-75006-6	1258PS203[0.75]	Total/NA	Solid	6010B	210966
MB 720-210966/1-A	Method Blank	Total/NA	Solid	6010B	210966
LCS 720-210966/2-A	Lab Control Sample	Total/NA	Solid	6010B	210966
LCSSRM 720-210966/3-A	Lab Control Sample	Total/NA	Solid	6010B	210966
720-75006-1 MS	1257PS204[0.25]	Total/NA	Solid	6010B	210966
720-75006-1 MSD	1257PS204[0.25]	Total/NA	Solid	6010B	210966

General Chemistry

Analysis Batch: 211057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-75006-1	1257PS204[0.25]	Total/NA	Solid	Moisture	
720-75006-2	1257PS205[0.25]	Total/NA	Solid	Moisture	
720-75006-3	1257PS206[0.25]	Total/NA	Solid	Moisture	
720-75006-4	1258PS201[0.75]	Total/NA	Solid	Moisture	
720-75006-5	1258PS202[0.75]	Total/NA	Solid	Moisture	
720-75006-6	1258PS203[0.75]	Total/NA	Solid	Moisture	
720-75006-1 DU	1257PS204[0.25]	Total/NA	Solid	Moisture	

Client Sample ID: 1257PS204[0.25] — **Lab Sample ID: 720-75006-1**
Date Collected: 10/10/16 11:30 — **Matrix: Solid**
Date Received: 10/10/16 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	211057	10/11/16 20:48	EYT	TAL PLS

Client Sample ID: 1257PS204[0.25] — **Lab Sample ID: 720-75006-1**
Date Collected: 10/10/16 11:30 — **Matrix: Solid**
Date Received: 10/10/16 16:35 — **Percent Solids: 90.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			210966	10/10/16 17:22	BRB	TAL PLS
Total/NA	Analysis	6010B		4	211047	10/11/16 14:26	ASB	TAL PLS

Client Sample ID: 1257PS205[0.25] — **Lab Sample ID: 720-75006-2**
Date Collected: 10/10/16 11:42 — **Matrix: Solid**
Date Received: 10/10/16 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	211057	10/11/16 20:48	EYT	TAL PLS

Client Sample ID: 1257PS205[0.25] — **Lab Sample ID: 720-75006-2**
Date Collected: 10/10/16 11:42 — **Matrix: Solid**
Date Received: 10/10/16 16:35 — **Percent Solids: 91.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			210966	10/10/16 17:22	BRB	TAL PLS
Total/NA	Analysis	6010B		4	211047	10/11/16 14:32	ASB	TAL PLS

Client Sample ID: 1257PS206[0.25] — **Lab Sample ID: 720-75006-3**
Date Collected: 10/10/16 11:49 — **Matrix: Solid**
Date Received: 10/10/16 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	211057	10/11/16 20:48	EYT	TAL PLS

Client Sample ID: 1257PS206[0.25] — **Lab Sample ID: 720-75006-3**
Date Collected: 10/10/16 11:49 — **Matrix: Solid**
Date Received: 10/10/16 16:35 — **Percent Solids: 83.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			210966	10/10/16 17:22	BRB	TAL PLS
Total/NA	Analysis	6010B		4	211047	10/11/16 14:37	ASB	TAL PLS

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Client Sample ID: 1258PS201[0.75] — **Lab Sample ID: 720-75006-4**
Date Collected: 10/10/16 13:33 — **Matrix: Solid**
Date Received: 10/10/16 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	211057	10/11/16 20:48	EYT	TAL PLS

Client Sample ID: 1258PS201[0.75] — **Lab Sample ID: 720-75006-4**
Date Collected: 10/10/16 13:33 — **Matrix: Solid**
Date Received: 10/10/16 16:35 — **Percent Solids: 89.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			210966	10/10/16 17:22	BRB	TAL PLS
Total/NA	Analysis	6010B		4	211047	10/11/16 14:53	ASB	TAL PLS

Client Sample ID: 1258PS202[0.75] — **Lab Sample ID: 720-75006-5**
Date Collected: 10/10/16 13:38 — **Matrix: Solid**
Date Received: 10/10/16 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	211057	10/11/16 20:48	EYT	TAL PLS

Client Sample ID: 1258PS202[0.75] — **Lab Sample ID: 720-75006-5**
Date Collected: 10/10/16 13:38 — **Matrix: Solid**
Date Received: 10/10/16 16:35 — **Percent Solids: 89.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			210966	10/10/16 17:22	BRB	TAL PLS
Total/NA	Analysis	6010B		4	211047	10/11/16 14:59	ASB	TAL PLS

Client Sample ID: 1258PS203[0.75] — **Lab Sample ID: 720-75006-6**
Date Collected: 10/10/16 13:43 — **Matrix: Solid**
Date Received: 10/10/16 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	211057	10/11/16 20:48	EYT	TAL PLS

Client Sample ID: 1258PS203[0.75] — **Lab Sample ID: 720-75006-6**
Date Collected: 10/10/16 13:43 — **Matrix: Solid**
Date Received: 10/10/16 16:35 — **Percent Solids: 91.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			210966	10/10/16 17:22	BRB	TAL PLS
Total/NA	Analysis	6010B		4	211047	10/11/16 15:04	ASB	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75006-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-75006-1	1257PS204[0.25]	Solid	10/10/16 11:30	10/10/16 16:35
720-75006-2	1257PS205[0.25]	Solid	10/10/16 11:42	10/10/16 16:35
720-75006-3	1257PS206[0.25]	Solid	10/10/16 11:49	10/10/16 16:35
720-75006-4	1258PS201[0.75]	Solid	10/10/16 13:33	10/10/16 16:35
720-75006-5	1258PS202[0.75]	Solid	10/10/16 13:38	10/10/16 16:35
720-75006-6	1258PS203[0.75]	Solid	10/10/16 13:43	10/10/16 16:35

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

720-75006

Chain of Custody Record

171485

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other:

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date:	COC No:
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	1 of 1 COCs
505 Sansome Street Suite 1600	Analysis Turnaround Time			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(415) 644-3000 Phone	TAT if different from Below			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☑ 1 week			
Site: Presidio of San Francisco	☑ 2 days			Job / SDG No.:
P O #	☒ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA 8260)	As, Ba, Cu, Zn (USEPA 8260)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes
1257PS204[0.25]	10/10/16	1130	G	soil	1			X				
1257 PS205 [0.25]	10/10/16	1142	G	soil	1			X				
1257 PS 206 [0.25]	10/10/16	1149	G	soil	1			X				
1258EX201[0.75]	10/10/16	1333	G	soil	1			X				
1258 EX 202 [0.75]	10/10/16	1338	G	soil	1			X				
1258 EX 203 [0.75]	10/10/16	1343	G	soil	1			X				

720-75006 Chain of Custody

ADJSF1

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected

14.6 °C

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd:	Corr'd:	Therm ID No.:

Relinquished by:	Company: TRC	Date/Time: 10/10/16 1407	Received by:	Company: TA	Date/Time: 10.6.16 1407
Relinquished by:	Company: TA	Date/Time: 10/10/16 1635	Received by:	Company: TA	Date/Time: 10/10/16 1635
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.9, dated 2/2/2016

10/13/2016

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-75006-1

Login Number: 75006

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Arauz, Dennis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-75599-1
Client Project/Site: Lendrum Ct. Data Gap Investigation

For:
TRC Solutions, Inc.
505 Sansome Street
Suite 1600
San Francisco, California 94111

Attn: Mr. Justin Hanzel-Durbin

Authorized for release by:
11/10/2016 4:33:44 PM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-75599-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-75599-1

Comments
No additional comments.

Receipt
The samples were received on 11/2/2016 6:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.2º C.

Receipt Exceptions

The Chain-of-Custody (COC) was improperly completed. Lead USEPA 8260, wrong method listed for Lead. Logged for Lead by 6010 based on the project.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75599-1

Client Sample ID: 1258 PSS204 [0.75] — Lab Sample ID: 720-75599-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	67		1.2		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: 1258 PSS205 [0.75] — Lab Sample ID: 720-75599-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	200		1.1		mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75599-1

Client Sample ID: 1258 PSS204 [0.75]
Date Collected: 11/02/16 13:20
Date Received: 11/02/16 18:40

Lab Sample ID: 720-75599-1
Matrix: Solid
Percent Solids: 83.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	67		1.2		mg/Kg	☼	11/08/16 06:45	11/09/16 12:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16.6		0.1		%			11/09/16 15:58	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75599-1

Client Sample ID: 1258 PSS205 [0.75]
Date Collected: 11/02/16 13:25
Date Received: 11/02/16 18:40

Lab Sample ID: 720-75599-2
Matrix: Solid
Percent Solids: 88.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	200		1.1		mg/Kg	☼	11/08/16 06:45	11/09/16 12:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.5		0.1		%			11/09/16 15:58	1

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75599-1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 320-136568/1-A
Matrix: Solid
Analysis Batch: 136920

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 136568

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.0		mg/Kg		11/08/16 06:45	11/09/16 10:10	1

Lab Sample ID: LCS 320-136568/2-A
Matrix: Solid
Analysis Batch: 136920

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 136568

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	48.4		mg/Kg		97	80 - 120

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75599-1

Metals

Prep Batch: 136568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-75599-1	1258 PSS204 [0.75]	Total/NA	Solid	3050B	
720-75599-2	1258 PSS205 [0.75]	Total/NA	Solid	3050B	
MB 320-136568/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 320-136568/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 136920

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-75599-1	1258 PSS204 [0.75]	Total/NA	Solid	6010B	136568
720-75599-2	1258 PSS205 [0.75]	Total/NA	Solid	6010B	136568
MB 320-136568/1-A	Method Blank	Total/NA	Solid	6010B	136568
LCS 320-136568/2-A	Lab Control Sample	Total/NA	Solid	6010B	136568

General Chemistry

Analysis Batch: 212790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-75599-1	1258 PSS204 [0.75]	Total/NA	Solid	Moisture	
720-75599-2	1258 PSS205 [0.75]	Total/NA	Solid	Moisture	

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75599-1

Client Sample ID: 1258 PSS204 [0.75] — **Lab Sample ID: 720-75599-1**
Date Collected: 11/02/16 13:20 — **Matrix: Solid**
Date Received: 11/02/16 18:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	212790	11/09/16 15:58	ECB	TAL PLS

Client Sample ID: 1258 PSS204 [0.75] — **Lab Sample ID: 720-75599-1**
Date Collected: 11/02/16 13:20 — **Matrix: Solid**
Date Received: 11/02/16 18:40 — **Percent Solids: 83.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			136568	11/08/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	136920	11/09/16 12:08	CV1	TAL SAC

Client Sample ID: 1258 PSS205 [0.75] — **Lab Sample ID: 720-75599-2**
Date Collected: 11/02/16 13:25 — **Matrix: Solid**
Date Received: 11/02/16 18:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	212790	11/09/16 15:58	ECB	TAL PLS

Client Sample ID: 1258 PSS205 [0.75] — **Lab Sample ID: 720-75599-2**
Date Collected: 11/02/16 13:25 — **Matrix: Solid**
Date Received: 11/02/16 18:40 — **Percent Solids: 88.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			136568	11/08/16 06:45	NIM	TAL SAC
Total/NA	Analysis	6010B		1	136920	11/09/16 12:12	CV1	TAL SAC

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Certification Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75599-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

Laboratory: TestAmerica Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-17
Alaska (UST)	State Program	10	UST-055	12-18-16
Arizona	State Program	9	AZ0708	08-11-17
Arkansas DEQ	State Program	6	88-0691	06-17-17
California	State Program	9	2897	01-31-18
Colorado	State Program	8	CA00044	08-31-17
Connecticut	State Program	1	PH-0691	06-30-17
Florida	NELAP	4	E87570	06-30-17
Hawaii	State Program	9	N/A	01-31-17
Illinois	NELAP	5	200060	03-17-17
Kansas	NELAP	7	E-10375	10-31-16 *
Louisiana	NELAP	6	30612	06-30-17
Maine	State Program	1	CA0004	04-18-18
Michigan	State Program	5	9947	01-31-18
Nevada	State Program	9	CA00044	07-31-17
New Jersey	NELAP	2	CA005	06-30-17
New York	NELAP	2	11666	04-01-17
Oregon	NELAP	10	4040	01-29-17
Pennsylvania	NELAP	3	68-01272	03-31-17
Texas	NELAP	6	T104704399	07-31-17
US Fish & Wildlife	Federal		LE148388-0	10-31-17
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-18
Utah	NELAP	8	CA00044	02-28-17
Virginia	NELAP	3	460278	03-14-17
Washington	State Program	10	C581	05-05-17
West Virginia (DW)	State Program	3	9930C	12-31-16
Wyoming	State Program	8	8TMS-L	01-29-17

* Certification renewal pending - certification considered valid.

Method Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75599-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL SAC
Moisture	Percent Moisture	EPA	TAL PLS

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: TRC Solutions, Inc.
Project/Site: Lendrum Ct. Data Gap Investigation

TestAmerica Job ID: 720-75599-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-75599-1	1258 PSS204 [0.75]	Solid	11/02/16 13:20	11/02/16 18:40
720-75599-2	1258 PSS205 [0.75]	Solid	11/02/16 13:25	11/02/16 18:40

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566-4756
phone 925.484.1919 fax 925.600.3002

TRO-75599

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

172077

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other:

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Justin Hanzel-Durbin	Site Contact: Jim Chidester	Date: 11/2/16	COC No: 1
TRC	Tel/Fax: (415) 644-3050	Lab Contact: Dimple Sharma	Carrier:	1 of 1 COCs
505 Sansome Street Suite 1600	Analysis Turnaround Time			Sampler:
San Francisco, CA 94111	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(415) 644-3000 Phone	TAT if different from Below 5-DAY			Walk-in Client:
(415) 434-2321 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Lendrum Ct Confirmation Sampling	☑ 1 week			Job / SDG No.:
Site: Presidio of San Francisco	☐ 2 days			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Lead (USEPA 8260)	As, Ba, Cu, Zn (USEPA 8260)	PAHs (USEPA 8270)	Dioxin/Furans (USEPA 8290A)	Sample Specific Notes:
1258 PS204 [0.75]	11/2/16	1320	G	S	1			X				
1258 PS205 [0.75]	11/2/16	1325	G	S	1			X				

720-75599 Chain of Custody

Preservation Used: 1= Ice, 2= HCl, 3= H_2SO_4, 4= HNO_3, 5=NaOH, 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
-All samples to be dry weight corrected

5.2°C

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd:	Corr'd:	Therm ID No.:

Relinquished by:	Company: TRC	Date/Time: 11/2/16 1415	Received by:	Company: TA	Date/Time: 11/2/16 1415
Relinquished by:	Company: TA	Date/Time: 11/2/16 1840	Received by:	Company: TA	Date/Time: 11/2/16 1840
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.9, dated 2/2/2016

11/10/2016

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Phone (925) 484-1919 Fax (925) 600-3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sharma, Dimple	Carrier Tracking No(s):	COC No: 720-31133.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: dimple.sharma@testamericainc.com	State of Origin: California	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 720-75599-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 11/8/2016			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Lendrum Ct. Data Gap Investigation	Project #: 72011609			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B/3050B Lead	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
1258 PSS204 [0.75] (720-75599-1)	11/2/16	13:20 Pacific		Solid			X	1	
1258 PSS205 [0.75] (720-75599-2)	11/2/16	13:25 Pacific		Solid			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 11.3.16 18:00	Company TA	Received by:	Date/Time: 11-3-16 1800	Company TA Lows
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 20.0

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-75599-1

Login Number: 75599

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Bullock, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 720-75599-1

Login Number: 75599
List Number: 2
Creator: Edman, Connor M

List Source: TestAmerica Sacramento
List Creation: 11/04/16 09:30 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 287485
ANALYTICAL REPORT

TRC Environmental Solutions, Inc.
55 Second Street
San Francisco, CA 94105-3491

Project : 229649.0
Location : Presidio Bldg 1255 Investigation
Level : II

Sample ID	Lab ID	Sample ID	Lab ID	Sample ID	Lab ID
1255SB100 (1.5)	287485-001	1255SB107 (2.0)	287485-024	1255SB115 (1.5)	287485-047
1255SB100 (2.0)	287485-002	1255SB108 (0.75)	287485-025	1255SB115 (2.0)	287485-048
1255SB100 (3.0)	287485-003	1255SB108 (1.5)	287485-026	1255SB116 (0.75)	287485-049
1255SB101 (1.5)	287485-004	1255SB108 (2.0)	287485-027	1255SB116 (1.5)	287485-050
1255SB101 (2.0)	287485-005	1255SB109 (0.75)	287485-028	1255SB116 (2.0)	287485-051
1255SB101 (3.0)	287485-006	1255SB109 (1.5)	287485-029	1255SB117 (0.75)	287485-052
1255SB102 (1.5)	287485-007	1255SB109 (2.0)	287485-030	1255SB117 (1.5)	287485-053
1255SB102 (2.0)	287485-008	1255SB110 (0.75)	287485-031	1255SB117 (2.0)	287485-054
1255SB102 (3.0)	287485-009	1255SB110 (1.5)	287485-032	1255SB118 (0.75)	287485-055
1255SB103 (1.5)	287485-010	1255SB110 (2.0)	287485-033	1255SB118 (1.5)	287485-056
1255SB103 (2.0)	287485-011	1255SB111 (0.75)	287485-034	1255SB118 (2.0)	287485-057
1255SB103 (3.0)	287485-012	1255SB111 (1.5)	287485-035	1255SB119 (0.75)	287485-058
1255SB104 (0.75)	287485-013	1255SB111 (2.0)	287485-036	1255SB119 (1.5)	287485-059
1255SB104 (1.5)	287485-014	1255SB112 (0.75)	287485-037	1255SB119 (2.0)	287485-060
1255SB104 (2.0)	287485-015	1255SB112 (1.5)	287485-038	1255SB108 (0.25)	287485-061
1255SB105 (0.75)	287485-016	1255SB112 (2.0)	287485-039	1255SB109 (0.25)	287485-062
1255SB105 (1.5)	287485-017	1255SB113 (0.75)	287485-040	DUP-03282017-01	287485-063
1255SB105 (2.0)	287485-018	1255SB113 (1.5)	287485-041	DUP-03282017-02	287485-064
1255SB106 (0.75)	287485-019	1255SB113 (2.0)	287485-042	DUP-03282017-03	287485-065
1255SB106 (1.5)	287485-020	1255SB114 (0.75)	287485-043	DUP-03282017-04	287485-066
1255SB106 (2.0)	287485-021	1255SB114 (1.5)	287485-044	DUP-03282017-05	287485-067
1255SB107 (0.75)	287485-022	1255SB114 (2.0)	287485-045	DUP-03282017-06	287485-068
1255SB107 (1.5)	287485-023	1255SB115 (0.75)	287485-046		

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 04/04/2017

Mike Dahlquist
Project Manager
mike.dahlquist@ctberk.com
(510) 204-2225 Ext 13101

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**287485**
Client:	**TRC Solutions**
Project:	**229649.0**
Location:	**Presidio Bldg 1255 Investigation**
Request Date:	**03/29/17**
Samples Received:	**03/29/17**

This data package contains sample and QC results for eleven soil samples, requested for the above referenced project on 03/29/17. The samples were received cold and intact.

Metals (EPA 6010B):
No analytical problems were encountered.

Moisture (ASTM D2216/CLP):
No analytical problems were encountered.

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Chain of Custody # _____

C&T LOGIN # 287485

Project No: 229649.0
Project Name: Presidio Bldg 1255 Investigation
Project P. O. No: 229649.0
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☒ RUSH 72 hr ☐ Standard

Sampler: Patrick Woods
Report To: Justin Hanzel-Durbin
Company: TRC
Telephone: (415) 644-3050
Email: JHanzel-Durbin@trcsolutions.com

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST	
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	Total Lead	HOLD
	1255 SB104 [1.5]	3/28/17	1101		X			1					X	X	
	1255 SB100 [2.0]	3/28/17	1105												X
	1255 SB 100 [3.0]		1110												X
	1255 SB 101 [1.5]		1012											X	
	1255 SB 101 [2.0]		1015												X
	1255 SB 101 [3.0]		1018												X
	1255 SB 102 [1.5]		1043											X	
	1255 SB 102 [2.0]		1047												X
	1255 SB 102 [3.0]		1051												X
	1255 SB 103 [1.5]		1243											X	
	1255 SB 103 [2.0]		1246												X
	1255 SB 103 [3.0]		1248												X
	1255 SB 104 [0.75]		1028											X	

Notes:
All samples are to be dry weight corrected

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
DATE: TIME:
DATE: 3/29 TIME: 14:50
DATE: TIME:

RECEIVED BY:
DATE: 3/29 TIME: 10:25
DATE: 3.29 TIME: 1450
DATE: TIME:

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Fax (510) 486-0532

Chain of Custody # _____

C&T LOGIN # 237485

Project No: See page 1
Project Name:
Project P. O. No:
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☐ RUSH _____ ☐ Standard

Sampler:
Report To:
Company:
Telephone:
Email:

Lab No.	Sample ID.	SAMPLING		MATRIX			# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST	
		Date Collected	Time Collected	Water	Solid			HCl	H2SO4	HNO3	NaOH	None	Total Lead	HOLD
14	1255 SB 104 [1.5]	3/28/17	1031		X		1					X		X
15	1255 SB 104 [2.0]		1034											X
16	1255 SB 105 [0.75]		1147										X	
17	1255 SB 105 [1.5]		1223											X
18	1255 SB 105 [2.0]		1225											X
19	1255 SB 106 [0.75]		0902										X	
20	1255 SB 106 [1.5]		0904											X
21	1255 SB 106 [2.0]		0906											X
22	1255 SB 107 [0.75]		0915										X	
23	1255 SB 107 [1.5]		0918											X
24	1255 SB 107 [2.0]		0921											X
25	1255 SB 108 [0.75]		0934										X	
26	1255 SB 108 [1.5]	↓	0937		↓		↓					↓		X

Notes:
All samples are to be dry weight corrected

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
DATE: TIME:
DATE: 3/29 TIME: 14:50
DATE: TIME:

RECEIVED BY:
DATE: 3/29 TIME: 10:25
DATE: 3.29.17 TIME: 1450
DATE: TIME:

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Chain of Custody # _____

C&T LOGIN # 287485

Project No: See page 1
Project Name:
Project P. O. No:
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☐ RUSH _____ ☐ Standard

Sampler:
Report To:
Company:
Telephone:
Email:

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST	
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	Total Lead	HOLD
27	1255 SB108 [2.0]	3/28/17	0940		X			1					X		X
28	1255 SB108 [0.75]		0941												X
29	1255 SB 109 [1.5]		0952												X
30	1255 SB 109 [2.0]		0955												X
31	1255 SB 110 [0.75]		1322												X
32	1255 SB 110 [1.5]		1324												X
33	1255 SB 110 [2.0]		1326												X
34	1255 SB 111 [0.75]		1307												X
35	1255 SB 111 [1.5]		1312												X
36	1255 SB 111 [2.0]		1314												X
37	1256 SB 112 [0.75]		1257												X
38	1255 SB 112 [1.5]		1258												X
39	1255 SB 112 [2.0]		1300												X

Notes:
All samples are to be dry weight corrected

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
Rhoda Allen DATE: TIME:
DATE: 3/29 TIME: 14:50
DATE: TIME:

RECEIVED BY:
DATE: 3/29 TIME: 10:26
DATE: 3/29 TIME: 1450
DATE: TIME:

CHAIN OF CUSTODY

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Chain of Custody # _____

C&T LOGIN # 287485

Project No: See page 1
Project Name:
Project P. O. No:
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☐ RUSH _____ ☐ Standard

Sampler:
Report To:
Company:
Telephone:
Email:

ANALYTICAL REQUEST

Total Lead
HOLD

	Lab No.	Sample ID.	SAMPLING Date Collected	SAMPLING Time Collected	MATRIX Water	MATRIX Solid	# of Containers	CHEMICAL PRESERVATIVE HCl	H2SO4	HNO3	NaOH	None	Total Lead	HOLD
	~~40~~	~~1255 SB 112 [0.75]~~	3/28/17			X	1					X		X
	~~41~~	~~1255 SB 112 [1.5]~~												
	~~42~~	~~1255 SB 112 [2.0]~~												
40	43	1255 SB 113 [0.75]	3/28/17	1404										
41	44	1255 SB 113 [1.5]		1409										
42	45	1255 SB 113 [2.0]		1413										
43	46	1255 SB 114 [0.75]		1349										
44	47	1255 SB 114 [1.5]		1352										
45	48	1255 SB 114 [2.0]		1355										
46	49	1255 SB 115 [0.75]		1337										
47	50	1255 SB 115 [1.5]		1340										
48	51	1255 SB 115 [2.0]		1342										
49	52	1255 SB 116 [0.75]		1512										

Notes: KMS 05/29/17
All samples are to be dry weight corrected

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
Rhoda Miller DATE: TIME:
DATE: 3/29 TIME: 1450
DATE: TIME:

RECEIVED BY:
DATE: 3/29 TIME: 10:25
DATE: 3-29-17 TIME: 1450
DATE: TIME:

CHAIN OF CUSTODY

Chain of Custody # _____

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Fax (510) 486-0532

C&T LOGIN # 287485

Project No: See page 1 | Sampler: Patrick Woods
Project Name: | Report To: Justin Hanzel-Curbin
Project P. O. No: | Company: TRC
EDD Format: Report Level ☐ II ☐ III ☐ IV | Telephone:
Turnaround Time: ☒ RUSH 72 hr ☐ Standard | Email:

	Lab No.	Sample ID.	SAMPLING Date Collected	SAMPLING Time Collected	MATRIX Water	MATRIX Solid	# of Containers	CHEMICAL PRESERVATIVE HCl	H2SO4	HNO3	NaOH	None	ANALYTICAL REQUEST Total Lead	HOLD
50	53	1255 SB 116 [1.5]	1517	3/28/17		X						X		X
51	54	1255 SB 116 [2.0]	1521											
52	55	1255 SB 117 [0.75]	1453											
53	56	1255 SB 117 [1.5]	1456											
54	57	1255 SB 117 [2.0]	1500											
55	58	1255 SB 118 [0.75]	1440											
56	59	1255 SB 118 [1.5]	1444											
57	60	1255 SB 118 [2.0]												
58	61	1255 SB 119 [0.75]	1427											
59	62	1255 SB 119 [1.5]	1432											
60	63	1255 SB 119 [2.0]	1433											
61	104	[redacted] 1256 SB 108 [0.25]	1000										X	✓
62	105	1255 SB 109 [0.25]	1004											X

Notes:
All samples are to be dry weight corrected

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
Rhoda Adler DATE: TIME:
DATE: 3.29 TIME: 1450
DATE: TIME:

RECEIVED BY:
DATE: 3/29 TIME: 10:25
DATE: 3.29.17 TIME: 1450
DATE: TIME:

CHAIN OF CUSTODY

Chain of Custody # _____

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Berkeley, CA 94710

Phone (510) 486-0900
Fax (510) 486-0532

C&T LOGIN # 287485

Project No: See page 1
Project Name:
Project P. O. No:
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☐ RUSH _____ ☐ Standard

Sampler:
Report To:
Company:
Telephone:
Email:

	Lab No.	Sample ID.	SAMPLING Date Collected	SAMPLING Time Collected	MATRIX Water	MATRIX Solid	MATRIX	MATRIX	# of Containers	CHEMICAL PRESERVATIVE HCl	CHEMICAL PRESERVATIVE H2SO4	CHEMICAL PRESERVATIVE HNO3	CHEMICAL PRESERVATIVE NaOH	CHEMICAL PRESERVATIVE None	ANALYTICAL REQUEST Total / Lead	ANALYTICAL REQUEST 6010
603	66	DUP-03282017-01	3/28/17			X			1					X		X
604	67	DUP-03282017-02													X	
605	68	DUP-03282017-03														X
606	69	DUP-03282017-04														X
607	70	DUP-03282017-05														X
608	71	DUP-03282017-06														X

Notes:
All samples are to be dry weight corrected

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
Rhoda Allen DATE: TIME:
DATE: 3-29 TIME: 14:50
DATE: TIME:

RECEIVED BY:
DATE: 3/29 TIME: 10:25
DATE: 3-29 TIME: 1450
DATE: TIME:

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 287485 Date Received 3.29.17 Number of coolers 1
Client TRC Project Presidio Bldg 1255 Investigation

Date Opened 3.29.17 By (print) ERM (sign)
Date Logged in 4 By (print) KPB (sign)
Date Labeled 4 By (print) ERM (sign)

1. Did cooler come with a shipping slip (airbill, etc) YES (NO)
   Shipping info
2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples ☒ NO
   How many Name Date
2B. Were custody seals intact upon arrival? YES NO (N/A)
3. Were custody papers dry and intact when received? (YES) NO
4. Were custody papers filled out properly (ink, signed, etc)? (YES) NO
5. Is the project identifiable from custody papers? (If so fill out top of form) (YES) NO
6. Indicate the packing in cooler: (if other, describe)

☐ Bubble Wrap ☐ Foam blocks ☒ Bags ☐ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☒ Wet ☐ Blue/Gel ☐ None Temp(°C) 1.0

☐ Temperature blank(s) included? ☐ Thermometer# ☒ IR Gun# A

☐ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? YES (NO)
   If YES, what time were they transferred to freezer?
9. Did all bottles arrive unbroken/unopened? (YES) NO
10. Are there any missing / extra samples? YES (NO)
11. Are samples in the appropriate containers for indicated tests? (YES) NO
12. Are sample labels present, in good condition and complete? (YES) NO
13. Do the sample labels agree with custody papers? (YES) NO
14. Was sufficient amount of sample sent for tests requested? (YES) NO
15. Are the samples appropriately preserved? YES NO (N/A)
16. Did you check preservatives for all bottles for each sample? YES NO (N/A)
17. Did you document your preservative check? (pH strip lot#) YES NO (N/A)
18. Did you change the hold time in LIMS for unpreserved VOAs? YES NO (N/A)
19. Did you change the hold time in LIMS for preserved terracores? YES NO (N/A)
20. Are bubbles > 6mm absent in VOA samples? YES NO (N/A)
21. Was the client contacted concerning this sample delivery? YES (NO)
   If YES, Who was called? By Date:

COMMENTS

CHAIN OF CUSTODY

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Fax (510) 486-0532

287485
C&T LOGIN # _____

Project No: 229649.0
Project Name: Presidio Bldg 1255 Investigation
Project P. O. No: 229649.0
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☒ RUSH 72 hr ☐ Standard

Sampler: Patrick Woods
Report To: Justin Hanzel-Durbin
Company: TRC
Telephone: (415) 644-3050
Email: JHanzel-Durbin@trcsolutions.com

| Lab No. | Sample ID. | SAMPLING Date Collected | SAMPLING Time Collected | MATRIX Water | MATRIX Solid | MATRIX | MATRIX | # of Containers | CHEMICAL PRESERVATIVE HCl | H2SO4 | HNO3 | NaOH | None | ANALYTICAL REQUEST Total Lead | HOLD | | |

Curtis & Tompkins, Ltd.

Detections Summary for 287485

Results for any subcontracted analyses are not included in this summary.

Client : TRC Solutions
Project : 229649.0
Location : Presidio Bldg 1255 Investigation

Client Sample ID : 1255SB100 (1.5) Laboratory Sample ID : 287485-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	230		1.3	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB101 (1.5) Laboratory Sample ID : 287485-004

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	1,400		60	mg/Kg	Dry	100.0	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB102 (1.5) Laboratory Sample ID : 287485-007

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	52		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB103 (1.5) Laboratory Sample ID : 287485-010

No Detections

Client Sample ID : 1255SB104 (0.75) Laboratory Sample ID : 287485-013

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	13		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB105 (0.75) Laboratory Sample ID : 287485-016

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	39		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB106 (0.75) Laboratory Sample ID : 287485-019

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	96		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB107 (0.75) Laboratory Sample ID : 287485-022

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	100		1.4	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB108 (0.75) Laboratory Sample ID : 287485-025

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	200		1.3	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB108 (0.25) Laboratory Sample ID : 287485-061

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	260		1.3	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : DUP-03282017-02 Laboratory Sample ID : 287485-064

No Detections

Curtis & Tompkins, Ltd.

Lead

Lab #:	287485	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649.0	Analysis:	EPA 6010B
Analyte:	Lead	Sampled:	03/28/17
Matrix:	Soil	Received:	03/29/17
Units:	mg/Kg	Prepared:	04/01/17
Basis:	dry	Analyzed:	04/03/17
Batch#:	246199		

Field ID	Type	Lab ID	Result	RL	Moisture	Diln Fac
1255SB100 (1.5)	SAMPLE	287485-001	230	1.3	25%	1.000
1255SB101 (1.5)	SAMPLE	287485-004	1,400	60	16%	100.0
1255SB102 (1.5)	SAMPLE	287485-007	52	1.2	18%	1.000
1255SB104 (0.75)	SAMPLE	287485-013	13	1.2	16%	1.000
1255SB105 (0.75)	SAMPLE	287485-016	39	1.2	17%	1.000
1255SB106 (0.75)	SAMPLE	287485-019	96	1.2	24%	1.000
1255SB107 (0.75)	SAMPLE	287485-022	100	1.4	26%	1.000
1255SB108 (0.75)	SAMPLE	287485-025	200	1.3	24%	1.000
1255SB108 (0.25)	SAMPLE	287485-061	260	1.3	30%	1.000
	BLANK	QC879643	ND	0.95		1.000

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Lead

Lab #:	287485	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649.0	Analysis:	EPA 6010B
Analyte:	Lead	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	246199
MSS Lab ID:	287562-001	Sampled:	03/31/17
Matrix:	Soil	Received:	03/31/17
Units:	mg/Kg	Prepared:	04/01/17
Basis:	as received	Analyzed:	04/03/17

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC879644		55.56	56.68	102	80-120		
BSD	QC879645		51.02	51.28	101	80-120	2	20
MS	QC879646	10.21	53.76	59.78	92	50-131		
MSD	QC879647		47.17	51.34	87	50-131	4	48

RPD= Relative Percent Difference

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Analytical Laboratories, Since 1878

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2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 287805
ANALYTICAL REPORT

TRC Environmental Solutions, Inc.
55 Second Street
San Francisco, CA 94105-3491

Project : 229649.0
Location : Presidio Bldg 1255 Investigation
Level : II

Sample ID	Lab ID
1255SB100 (2.0)	287805-001
1255SB101 (2.0)	287805-002
1255SB103 (1.5)	287805-003
1255SB108 (1.5)	287805-004
1255SB109 (0.75)	287805-005
DUP-03282017-01	287805-006
DUP-03282017-02	287805-007

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 04/10/2017

Mike Dahlquist
Project Manager
mike.dahlquist@ctberk.com
(510) 204-2225 Ext 13101

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**287805**
Client:	**TRC Solutions**
Project:	**229649.0**
Location:	**Presidio Bldg 1255 Investigation**
Request Date:	**04/07/17**
Samples Received:	**03/29/17**

This data package contains sample and QC results for seven soil samples, requested for the above referenced project on 04/07/17. The samples were received cold and intact.

Metals (EPA 6010B):
No analytical problems were encountered.

Moisture (ASTM D2216/CLP):
No analytical problems were encountered.

Curtis & Tompkins, Ltd.

Detections Summary for 287805

Results for any subcontracted analyses are not included in this summary.

Client : TRC Solutions
Project : 229649.0
Location : Presidio Bldg 1255 Investigation

Client Sample ID : 1255SB100 (2.0) Laboratory Sample ID : 287805-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	15		1.3	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB101 (2.0) Laboratory Sample ID : 287805-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	25		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB103 (1.5) Laboratory Sample ID : 287805-003

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	53,000		61	mg/Kg	Dry	100.0	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB108 (1.5) Laboratory Sample ID : 287805-004

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	8.1		1.3	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB109 (0.75) Laboratory Sample ID : 287805-005

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	34		1.3	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : DUP-03282017-01 Laboratory Sample ID : 287805-006

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	110		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : DUP-03282017-02 Laboratory Sample ID : 287805-007

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	3,600		65	mg/Kg	Dry	100.0	EPA 6010B	EPA 3050B

Curtis & Tompkins, Ltd.

Lead

Lab #:	287805	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649.0	Analysis:	EPA 6010B
Analyte:	Lead	Sampled:	03/28/17
Matrix:	Soil	Received:	03/29/17
Units:	mg/Kg	Prepared:	04/08/17
Basis:	dry	Analyzed:	04/10/17
Batch#:	246450		

Field ID	Type	Lab ID	Result	RL	Moisture	Diln Fac
1255SB100 (2.0)	SAMPLE	287805-001	15	1.3	22%	1.000
1255SB101 (2.0)	SAMPLE	287805-002	25	1.2	19%	1.000
1255SB103 (1.5)	SAMPLE	287805-003	53,000	61	23%	100.0
1255SB108 (1.5)	SAMPLE	287805-004	8.1	1.3	26%	1.000
1255SB109 (0.75)	SAMPLE	287805-005	34	1.3	24%	1.000
DUP-03282017-01	SAMPLE	287805-006	110	1.2	23%	1.000
DUP-03282017-02	SAMPLE	287805-007	3,600	65	21%	100.0
	BLANK	QC880641	ND	1.0		1.000

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Lead

Lab #:	287805	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649.0	Analysis:	EPA 6010B
Analyte:	Lead	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	246450
MSS Lab ID:	287739-001	Sampled:	04/05/17
Matrix:	Soil	Received:	04/05/17
Units:	mg/Kg	Prepared:	04/08/17
Basis:	dry	Analyzed:	04/10/17

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim
BS	QC880642		51.55	52.77	102	80-120			
BSD	QC880643		51.02	53.29	104	80-120		2	20
MS	QC880644	11.49	56.75	58.59	83	50-131	11%		
MSD	QC880645		59.77	61.70	84	50-131	11%	1	48

RPD= Relative Percent Difference

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2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 287921
ANALYTICAL REPORT

TRC Environmental Solutions, Inc.
55 Second Street
San Francisco, CA 94105-3491

Project : 229649.0
Location : Presidio Bldg 1255 Investigation
Level : II

Sample ID	Lab ID
1255SB103 (1.5)	287921-001
DUP-03282017-02	287921-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 04/12/2017

Mike Dahlquist
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CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**287921**
Client:	**TRC Solutions**
Project:	**229649.0**
Location:	**Presidio Bldg 1255 Investigation**
Request Date:	**04/11/17**
Samples Received:	**03/29/17**

This data package contains sample and QC results for two soil samples, requested for the above referenced project on 04/11/17. The samples were received cold and intact.

Metals (EPA 6010B):
No analytical problems were encountered.

Curtis & Tompkins, Ltd.

Detections Summary for 287921

Results for any subcontracted analyses are not included in this summary.

Client : TRC Solutions
Project : 229649.0
Location : Presidio Bldg 1255 Investigation

Client Sample ID : 1255SB103 (1.5) Laboratory Sample ID : 287921-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	1,500		62	mg/Kg	Dry	100.0	EPA 6010B	EPA 3050B

Client Sample ID : DUP-03282017-02 Laboratory Sample ID : 287921-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	2,500		66	mg/Kg	Dry	100.0	EPA 6010B	EPA 3050B

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Lead

Lab #:	287921	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649.0	Analysis:	EPA 6010B
Analyte:	Lead	Sampled:	03/28/17
Matrix:	Soil	Received:	03/29/17
Units:	mg/Kg	Prepared:	04/11/17
Basis:	dry	Analyzed:	04/12/17
Batch#:	246551		

Field ID	Type	Lab ID	Result	RL	Moisture	Diln Fac
1255SB103 (1.5)	SAMPLE	287921-001	1,500	62	23%	100.0
DUP-03282017-02	SAMPLE	287921-002	2,500	66	21%	100.0
	BLANK	QC881061	ND	0.93		1.000

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Lead

Lab #:	287921	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649.0	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	246551
Field ID:	DUP-03282017-02	Sampled:	03/28/17
MSS Lab ID:	287921-002	Received:	03/29/17
Matrix:	Soil	Prepared:	04/11/17
Units:	mg/Kg	Analyzed:	04/12/17
Basis:	dry		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim	Diln Fac
BS	QC881062		53.19	52.78	99	80-120				1.000
BSD	QC881063		47.17	47.77	101	80-120		2	20	1.000
MS	QC881064	2,502	59.15	2,755	426 NM	50-131	21%			10.00
MSD	QC881065		69.55	3,845	1930 NM	50-131	21%	33	48	10.00

NM= Not Meaningful: Sample concentration > 4X spike concentration
RPD= Relative Percent Difference

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Laboratory Job Number 287990
ANALYTICAL REPORT

TRC Environmental Solutions, Inc.	Project : 229649.0
55 Second Street	Location : Presidio Bldg 1255 Investigation
San Francisco, CA 94105-3491	Level : II

Sample ID	Lab ID
1255SB103 (2.0)	287990-001
1255SB116 (0.75)	287990-002
1255SB117 (0.75)	287990-003
DUP-03282017-05	287990-004
DUP-03282017-06	287990-005

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Signature: Will Rice Date: 04/19/2017

Will Rice
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CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**287990**
Client:	**TRC Solutions**
Project:	**229649.0**
Location:	**Presidio Bldg 1255 Investigation**
Request Date:	**04/13/17**
Samples Received:	**03/29/17**

This data package contains sample and QC results for five soil samples, requested for the above referenced project on 04/13/17. The samples were received cold and intact.

Metals (EPA 6010B):
No analytical problems were encountered.

Moisture (ASTM D2216/CLP):
No analytical problems were encountered.

Curtis & Tompkins, Ltd.

Detections Summary for 287990

Results for any subcontracted analyses are not included in this summary.

Client : TRC Solutions
Project : 229649.0
Location : Presidio Bldg 1255 Investigation

Client Sample ID : 1255SB103 (2.0) Laboratory Sample ID : 287990-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	920		61	mg/Kg	Dry	100.0	EPA 6010B	EPA 3050B
Moisture, Percent	21		1	%	As Recd	1.000	ASTM D2216/CLP	METHOD

Client Sample ID : 1255SB116 (0.75) Laboratory Sample ID : 287990-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	250		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	17		1	%	As Recd	1.000	ASTM D2216/CLP	METHOD

Client Sample ID : 1255SB117 (0.75) Laboratory Sample ID : 287990-003

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	200		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	17		1	%	As Recd	1.000	ASTM D2216/CLP	METHOD

Client Sample ID : DUP-03282017-05 Laboratory Sample ID : 287990-004

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	260		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	17		1	%	As Recd	1.000	ASTM D2216/CLP	METHOD

Client Sample ID : DUP-03282017-06 Laboratory Sample ID : 287990-005

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	33		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	17		1	%	As Recd	1.000	ASTM D2216/CLP	METHOD

Curtis & Tompkins, Ltd.

Lead

Lab #:	287990	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649.0	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	246791
Matrix:	Soil	Sampled:	03/28/17
Units:	mg/Kg	Received:	03/29/17
Basis:	dry	Prepared:	04/17/17

Field ID	Type	Lab ID	Result	RL	Moisture	Diln Fac	Analyzed
1255SB103 (2.0)	SAMPLE	287990-001	920	61	21%	100.0	04/18/17
1255SB116 (0.75)	SAMPLE	287990-002	250	1.2	17%	1.000	04/18/17
1255SB117 (0.75)	SAMPLE	287990-003	200	1.2	17%	1.000	04/18/17
DUP-03282017-05	SAMPLE	287990-004	260	1.2	17%	1.000	04/18/17
DUP-03282017-06	SAMPLE	287990-005	33	1.2	17%	1.000	04/18/17
	BLANK	QC881980	ND	1.0		1.000	04/17/17

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Lead

Lab #:	287990	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649.0	Analysis:	EPA 6010B
Analyte:	Lead	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	246791
MSS Lab ID:	287924-001	Sampled:	04/11/17
Matrix:	Soil	Received:	04/11/17
Units:	mg/Kg	Prepared:	04/17/17
Basis:	as received	Analyzed:	04/17/17

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC881981		46.73	46.59	100	80-120		
BSD	QC881982		50.51	50.09	99	80-120	1	20
MS	QC881983	10.67	53.76	54.42	81	50-131		
MSD	QC881984		48.54	48.39	78	50-131	3	48

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Moisture

Lab #:	287990	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	METHOD
Project#:	229649.0	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Batch#:	246856
Matrix:	Soil	Sampled:	03/28/17
Units:	%	Received:	03/29/17
Diln Fac:	1.000	Analyzed:	04/19/17

Field ID	Lab ID	Result	RL
1255SB103 (2.0)	287990-001	21	1
1255SB116 (0.75)	287990-002	17	1
1255SB117 (0.75)	287990-003	17	1
DUP-03282017-05	287990-004	17	1
DUP-03282017-06	287990-005	17	1

RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Moisture

Lab #:	287990	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	METHOD
Project#:	229649.0	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Units:	%
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
Type:	SDUP	Batch#:	246856
MSS Lab ID:	288065-046	Sampled:	04/12/17
Lab ID:	QC882230	Received:	04/14/17
Matrix:	Soil	Analyzed:	04/19/17

MSS Result	Result	RL	RPD	Lim
38.82	36.31	1.000	7	26

RL= Reporting Limit
RPD= Relative Percent Difference

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Laboratory Job Number 288132
ANALYTICAL REPORT

TRC Environmental Solutions, Inc.
55 Second Street
San Francisco, CA 94105-3491

Project : 229649.0
Location : Presidio Bldg 1255 Investigation
Level : II

Sample ID	Lab ID
1255SB103 (3.0)	288132-001
1255SB116 (1.5)	288132-002
1255SB117 (1.5)	288132-003
1255SB118 (1.5)	288132-004

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Signature: Tracy Babjar Date: 04/21/2017

Tracy Babjar
Project Manager
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(510) 204-2226 Ext 13107

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**288132**
Client:	**TRC Solutions**
Project:	**229649.0**
Location:	**Presidio Bldg 1255 Investigation**
Request Date:	**04/18/17**
Samples Received:	**03/29/17**

This data package contains sample and QC results for four soil samples, requested for the above referenced project on 04/18/17. The samples were received cold and intact.

Metals (EPA 6010B):
No analytical problems were encountered.

Moisture (ASTM D2216/CLP):
No analytical problems were encountered.

Curtis & Tompkins, Ltd.

Detections Summary for 288132

Results for any subcontracted analyses are not included in this summary.

Client : TRC Solutions
Project : 229649.0
Location : Presidio Bldg 1255 Investigation

Client Sample ID : 1255SB103 (3.0) Laboratory Sample ID : 288132-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	120		1.0	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	3		1	%	As Recd	1.000	ASTM D2216/CLP	METHOD

Client Sample ID : 1255SB116 (1.5) Laboratory Sample ID : 288132-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	1,100		60	mg/Kg	Dry	100.0	EPA 6010B	EPA 3050B
Moisture, Percent	19		1	%	As Recd	1.000	ASTM D2216/CLP	METHOD

Client Sample ID : 1255SB117 (1.5) Laboratory Sample ID : 288132-003

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	78		1.1	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	17		1	%	As Recd	1.000	ASTM D2216/CLP	METHOD

Client Sample ID : 1255SB118 (1.5) Laboratory Sample ID : 288132-004

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	8.5		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	18		1	%	As Recd	1.000	ASTM D2216/CLP	METHOD

Curtis & Tompkins, Ltd.

Lead

Lab #:	288132	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649.0	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	246900
Matrix:	Soil	Sampled:	03/28/17
Units:	mg/Kg	Received:	03/29/17
Basis:	dry	Prepared:	04/19/17

Field ID	Type	Lab ID	Result	RL	Moisture	Diln Fac	Analyzed
1255SB103 (3.0)	SAMPLE	288132-001	120	1.0	3%	1.000	04/20/17
1255SB116 (1.5)	SAMPLE	288132-002	1,100	60	19%	100.0	04/21/17
1255SB117 (1.5)	SAMPLE	288132-003	78	1.1	17%	1.000	04/21/17
1255SB118 (1.5)	SAMPLE	288132-004	8.5	1.2	18%	1.000	04/20/17
	BLANK	QC882405	ND	1.0		1.000	04/20/17

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Lead

Lab #:	288132	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649.0	Analysis:	EPA 6010B
Analyte:	Lead	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	246900
MSS Lab ID:	287992-002	Sampled:	04/12/17
Matrix:	Soil	Received:	04/13/17
Units:	mg/Kg	Prepared:	04/19/17
Basis:	as received	Analyzed:	04/20/17

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC882406		50.51	50.44	100	80-120		
BSD	QC882407		50.51	50.68	100	80-120	0	20
MS	QC882408	19.77	51.55	71.21	100	50-131		
MSD	QC882409		53.76	70.39	94	50-131	4	48

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Moisture

Lab #:	288132	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	METHOD
Project#:	229649.0	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Batch#:	246908
Matrix:	Soil	Sampled:	03/28/17
Units:	%	Received:	03/29/17
Diln Fac:	1.000	Analyzed:	04/20/17

Field ID	Lab ID	Result	RL
1255SB103 (3.0)	288132-001	3	1
1255SB116 (1.5)	288132-002	19	1
1255SB117 (1.5)	288132-003	17	1
1255SB118 (1.5)	288132-004	18	1

RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Moisture

Lab #:	288132	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	METHOD
Project#:	229649.0	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Units:	%
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
Type:	SDUP	Batch#:	246908
MSS Lab ID:	288115-060	Sampled:	04/14/17
Lab ID:	QC882429	Received:	04/18/17
Matrix:	Soil	Analyzed:	04/20/17

MSS Result	Result	RL	RPD	Lim
23.34	19.94	1.000	16	26

RL= Reporting Limit
RPD= Relative Percent Difference

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Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 288247
ANALYTICAL REPORT

TRC Environmental Solutions, Inc.	Project : 229649.0
55 Second Street	Location : Presidio Bldg 1255 Investigation
San Francisco, CA 94105-3491	Level : II

Sample ID	Lab ID
1255SB116 (2.0)	288247-001

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 04/25/2017

Dina Ali
Project Manager
dina.ali@ctberk.com
(510) 204-2223 Ext 13105

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**288247**
Client:	**TRC Solutions**
Project:	**229649.0**
Location:	**Presidio Bldg 1255 Investigation**
Request Date:	**04/21/17**
Samples Received:	**03/29/17**

This data package contains sample and QC results for one soil sample, requested for the above referenced project on 04/21/17. The sample was received on ice and intact.

Metals (EPA 6010B):
No analytical problems were encountered.

Moisture (ASTM D2216/CLP):
No analytical problems were encountered.

Gmail by Google

CT# 288247

Tracy Babjar <tbabjar@montrose-env.com>

RE: 229649.0 - C&T Data (288132)

2 messages

Ang, Alfonso <AAng@trcsolutions.com> Fri, Apr 21, 2017 at 1:02 PM
To: "tracy.babjar@ctberk.com" <tracy.babjar@ctberk.com>
Cc: "Hanzel-Durbin, Justin" <JHanzel-Durbin@trcsolutions.com>

Hi Tracy,

I sent the following email to Will Rice, but I have not heard back from him. Can you help me ensure that the requested analysis is logged? Thanks.

Hello Will,

Please analyze the following sample for total lead (dry weight basis) on **48-hour** TAT if possible:

1255SB116 [2.0] – Lab ID 051

Alfonso Ang, PE
Senior Engineer/Project Manager

T: 415-644-3003 | C: 415-786-7830

aang@trcsolutions.com

From: Tracy Babjar [mailto:tracy.babjar@ctberk.com]
Sent: Friday, April 21, 2017 1:00 PM
To: Ang, Alfonso <AAng@trcsolutions.com>
Subject: 229649.0 - C&T Data (288132)

Hi Alfonso,

Final report and invoice.

Have a great day!

Tracy

Please find attached the following files:
• Invoice
• PDF Deliverable

Email was also sent to: apinvoiceapproval@trcsolutions.com, jhanzel-durbin@trcsolutions.com

C&T sends its e-reports via the Internet as Portable Document Format (PDF) files. Reports in this format, when accompanied by a signed cover page, are considered official reports. **No hardcopy reports will be sent either by fax or U.S. Postal Service unless otherwise requested.** You may distribute your PDF files electronically or as printed hardcopies, as long as they are distributed in their entirety.

Tracy Babjar <tracy.babjar@ctberk.com> Fri, Apr 21, 2017 at 1:12 PM
To: "Ang, Alfonso" <AAng@trcsolutions.com>
Cc: "Hanzel-Durbin, Justin" <JHanzel-Durbin@trcsolutions.com>, Will Rice <will.rice@ctberk.com>

Hi Alfonso,

Will has been stuck in a meeting.

I will get that logged in for you now.

Have great day!

Tracy
[Quoted text hidden]
--

Tracy Babjar
Project Manager
Curtis & Tompkins, Ltd.
510 204-2226
www.curtisandtompkins.com

CHAIN OF CUSTODY

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ENVIRONMENTAL ANALYTICAL TESTING LABORATORY
In Business Since 1878

2323 Fifth Street
Berkeley, CA 94710

Phone (510) 486-0900
Fax (510) 486-0532

Chain of Custody # _____

C&T LOGIN # 287485

Project No: 229649.0
Project Name: Presidio Bldg 1255 Investigation
Project P. O. No: 229649.0
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☒ RUSH 72 hr ☐ Standard

Sampler: Patrick Woods
Report To: Justin Hanzel-Durbin
Company: TRC
Telephone: (415) 644-3050
Email: JHanzel-Durbin@trcsolutions.com

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST	
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	Total Lead	HOLD
	1255 SB101 [1.5]	3/28/17	1101		X			1					X	X	
	1255 SB101 [2.0]	3/28/17	1105												X
	1255 SB101 [3.0]		1110												X
	1255 SB101 [1.5]		1012											X	
	1255 SB101 [2.0]		1015												X
	1255 SB101 [3.0]		1018												X
	1255 SB102 [1.5]		1043											X	
	1255 SB102 [2.0]		1047												X
	1255 SB102 [3.0]		1051												X
	1255 SB103 [1.5]		1243											X	
	1255 SB103 [2.0]		1246												X
	1255 SB103 [3.0]		1248												X
	1255 SB104 [0.75]		1028											X	

Notes:
All samples are to be dry weight corrected

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
Rhonda Allen DATE: TIME:
DATE: 3/29 TIME: 14:50
DATE: TIME:

RECEIVED BY:
DATE: 3/29 TIME: 10:25
DATE: 3.29 TIME: 1450
DATE: TIME:

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Berkeley, CA 94710

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Fax (510) 486-0532

Chain of Custody # _____

C&T LOGIN # 237485

Project No: See page 1 | Sampler:

Project Name: | Report To:

Project P. O. No: | Company:

EDD Format: Report Level ☐ II ☐ III ☐ IV | Telephone:

Turnaround Time: ☐ RUSH _____ ☐ Standard | Email:

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST	
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	Total Lead	HOLD
14	1255 SB 104 [1.5]	3/28/17	1031		X			1					X		X
15	1255 SB 104 [2.0]		1034												X
16	1255 SB 105 [0.75]		1147											X	
17	1255 SB 105 [1.5]		1223												X
18	1255 SB 105 [2.0]		1225												X
19	1255 SB 106 [0.75]		0902											X	
20	1255 SB 106 [1.5]		0904												X
21	1255 SB 106 [2.0]		0906												X
22	1255 SB 107 [0.75]		0915											X	
23	1255 SB 107 [1.5]		0918												X
24	1255 SB 107 [2.0]		0921												X
25	1255 SB 108 [0.75]		0934											X	
26	1255 SB 108 [1.5]		0937												X

Notes:
All samples are to be dry weight corrected

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
DATE: TIME:
DATE: 3/29 TIME: 14:50
DATE: TIME:

RECEIVED BY:
DATE: 3/29 TIME: 10:25
DATE: 3.29.17 TIME: 1450
DATE: TIME:

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Fax (510) 486-0532

Chain of Custody # _____

C&T LOGIN # 287485

Project No: See page 1 | Sampler:
Project Name: | Report To:
Project P. O. No: | Company:
EDD Format: Report Level ☐ II ☐ III ☐ IV | Telephone:
Turnaround Time: ☐ RUSH _____ ☐ Standard | Email:

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST	
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	Total Lead	HOLD
27	1255 SB 108 [2.0]	3/28/17	0940		X			1					X		X
28	1255 SB 108 [0.75]		0941												X
29	1255 SB 109 [1.5]		0952												X
30	1255 SB 109 [2.0]		0955												X
31	1255 SB 110 [0.75]		1322												X
32	1255 SB 110 [1.5]		1324												X
33	1255 SB 110 [2.0]		1326												X
34	1255 SB 111 [0.75]		1307												X
35	1255 SB 111 [1.5]		1312												X
36	1255 SB 111 [2.0]		1314												X
37	1256 SB 112 [0.75]		1257												X
38	1255 SB 112 [1.5]		1258												X
39	1255 SB 112 [2.0]		1300												X

Notes:
All samples are to be dry weight corrected

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
Rhoda Alle DATE: TIME:
DATE: 324 TIME: 14:50
DATE: TIME:

RECEIVED BY:
DATE: 3/29 TIME: 10:26
DATE: 3/29 TIME: 1450
DATE: TIME:

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Berkeley, CA 94710

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Fax (510) 486-0532

Chain of Custody # _____

C&T LOGIN # 287485

Project No: See page 1
Project Name:
Project P. O. No:
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☐ RUSH ☐ Standard

Sampler:
Report To:
Company:
Telephone:
Email:

ANALYTICAL REQUEST

Total Lead
X HOLD

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE				
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None
40	~~1255 SB 112 [0.75]~~	3/28/17			X			1					X
41	~~1255 SB 112 [1.5]~~												
42	~~1255 SB 112 [2.0]~~												
40	43 1255 SB 113 [0.75]	3/28/17	1404										
41	44 1255 SB 113 [1.5]		1409										
42	45 1255 SB 113 [2.0]		1413										
43	46 1255 SB 114 [0.75]		1349										
44	47 1255 SB 114 [1.5]		1352										
45	48 1255 SB 114 [2.0]		1355										
46	49 1255 SB 115 [0.75]		1337										
47	50 1255 SB 115 [1.5]		1340										
48	51 1255 SB 115 [2.0]		1342										
49	52 1255 SB 116 [0.75]		1512										

Notes: EFS 05/29/17
All samples are to be dry weight corrected

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
Rhonda Miller DATE: TIME:
DATE: 3/29 TIME: 1450
DATE: TIME:

RECEIVED BY:
DATE: 3/29 TIME: 10:25
DATE: 3.29.17 TIME: 1450
DATE: TIME:

Curtis & Tompkins, Ltd.

Detections Summary for 288247

Results for any subcontracted analyses are not included in this summary.

Client : TRC Solutions
Project : 229649.0
Location : Presidio Bldg 1255 Investigation

Client Sample ID : 1255SB116 (2.0) Laboratory Sample ID : 288247-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	540		1.1	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	18		1	%	As Recd	1.000	ASTM D2216/CLP	METHOD

Curtis & Tompkins, Ltd.

Lead

Lab #:	288247	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649.0	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	247098
Field ID:	1255SB116 (2.0)	Sampled:	03/28/17
Matrix:	Soil	Received:	03/29/17
Units:	mg/Kg	Prepared:	04/25/17
Basis:	dry	Analyzed:	04/25/17
Diln Fac:	1.000		

Type	Lab ID	Result	RL	Moisture
SAMPLE	288247-001	540	1.1	18%
BLANK	QC883148	ND	1.0	

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Lead

Lab #:	288247	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649.0	Analysis:	EPA 6010B
Analyte:	Lead	Diln Fac:	1.000
Field ID:	1255SB116 (2.0)	Batch#:	247098
MSS Lab ID:	288247-001	Sampled:	03/28/17
Matrix:	Soil	Received:	03/29/17
Units:	mg/Kg	Prepared:	04/25/17
Basis:	dry	Analyzed:	04/25/17

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim
BS	QC883149		4.902	4.835	99	80-120			
BSD	QC883150		4.808	4.716	98	80-120		1	20
MS	QC883151	540.3	6.557	602.1	942 NM	50-131	18%		
MSD	QC883152		5.646	822.6 >LR	4999 NM	50-131	18%	NC	48

NC= Not Calculated
NM= Not Meaningful: Sample concentration > 4X spike concentration
>LR= Response exceeds instrument's linear range
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Moisture

Lab #:	288247	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	METHOD
Project#:	229649.0	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Diln Fac:	1.000
Field ID:	1255SB116 (2.0)	Batch#:	247080
Lab ID:	288247-001	Sampled:	03/28/17
Matrix:	Soil	Received:	03/29/17
Units:	%	Analyzed:	04/25/17

Result	RL
18	1

RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Moisture

Lab #:	288247	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	METHOD
Project#:	229649.0	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Units:	%
Field ID:	1255SB116 (2.0)	Diln Fac:	1.000
Type:	SDUP	Batch#:	247080
MSS Lab ID:	288247-001	Sampled:	03/28/17
Lab ID:	QC883094	Received:	03/29/17
Matrix:	Soil	Analyzed:	04/25/17

MSS Result	Result	RL	RPD	Lim
18.09	18.40	1.000	2	26

RL= Reporting Limit
RPD= Relative Percent Difference

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2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 288386
ANALYTICAL REPORT

TRC Solutions	Project : 229649
505 Sansome St	Location : 1255-1256 Sampling at lendrum
San Francisco, CA 94111	Level : II

Sample ID	Lab ID
1255SB116[3.5]	288386-001
DUP042617-01	288386-002
1255SB120[1.0]	288386-003
1255SB120[2.0]	288386-004
1255SB121[1.0]	288386-005
1255SB121[2.0]	288386-006

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Will Rice Date: 05/01/2017

Will Rice
Project Manager
will.rice@ctberk.com
(510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**288386**
Client:	**TRC Solutions**
Project:	**229649**
Location:	**1255-1256 Sampling at lendrum**
Request Date:	**04/26/17**
Samples Received:	**04/26/17**

This data package contains sample and QC results for six soil samples, requested for the above referenced project on 04/26/17. The samples were received cold and intact.

Metals (EPA 6010B):
No analytical problems were encountered.

CHAIN OF CUSTODY

Chain of Custody # _____

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Berkeley, CA 94710

Phone (510) 486-0900
Fax (510) 486-0532

C&T LOGIN # 288386

Project No: 229649
Project Name: 1255-1256 Sampling at Lendmark
Project P. O. No: 229649
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☑ RUSH 72 hr ☐ Standard

Sampler: Patrick Woods
Report To: Alfonso Ang
Company: TRC
Telephone: (415) 644-3003
Email: aang@trcsolutions.com

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	Total Lead
	1255SB116[3.5]	4/26/17	1054		X			1					X	X
	DUP042617-01				X			1					X	X
	1255SB120[1.0]		1110		X			1					X	X
	1255SB120[2.0]		1112		X			1					X	X
	1255SB121[1.0]		1123		X			1					X	X
	1255SB121[2.0]		1125		X			1					X	X

Notes:
Samples are to be dry weight corrected

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
Patrick Woods DATE: 4/26/17 TIME: 1149
DATE: 4/26 TIME: 1652
DATE: TIME:

RECEIVED BY:
DATE: 4/26 TIME: 1749
DATE: TIME:
DATE: TIME:

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 288386 Date Received 4.26.17 Number of coolers 1
Client TRC Project 229649

Date Opened 4.26.17 By (print) DC (sign)
Date Logged in ↓ By (print) DC (sign)
Date Labelled ↓ By (print) DC (sign)

1. Did cooler come with a shipping slip (airbill, etc) YES NO
   Shipping info
2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples ☒ NO
   How many Name Date
2B. Were custody seals intact upon arrival? YES NO N/A
3. Were custody papers dry and intact when received? YES NO
4. Were custody papers filled out properly (ink, signed, etc)? YES NO
5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO
6. Indicate the packing in cooler: (if other, describe)

☐ Bubble Wrap ☐ Foam blocks ☒ Bags ☐ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☒ Wet ☐ Blue/Gel ☐ None Temp(°C) 1.1

☐ Temperature blank(s) included? ☐ Thermometer# ☒ IR Gun# B

☐ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? YES NO
   If YES, what time were they transferred to freezer?
9. Did all bottles arrive unbroken/unopened? YES NO
10. Are there any missing / extra samples? YES NO
11. Are samples in the appropriate containers for indicated tests? YES NO
12. Are sample labels present, in good condition and complete? YES NO
13. Do the sample labels agree with custody papers? YES NO
14. Was sufficient amount of sample sent for tests requested? YES NO
15. Are the samples appropriately preserved? YES NO N/A
16. Did you check preservatives for all bottles for each sample? YES NO N/A
17. Did you document your preservative check? (pH strip lot#) YES NO N/A
18. Did you change the hold time in LIMS for unpreserved VOAs? YES NO N/A
19. Did you change the hold time in LIMS for preserved terracores? YES NO N/A
20. Are bubbles > 6mm absent in VOA samples? YES NO N/A
21. Was the client contacted concerning this sample delivery? YES NO
   If YES, Who was called? By Date:

COMMENTS

Curtis & Tompkins, Ltd.

Detections Summary for 288386

Results for any subcontracted analyses are not included in this summary.

Client : TRC Solutions
Project : 229649
Location : 1255-1256 Sampling at lendrum

Client Sample ID : 1255SB116[3.5] Laboratory Sample ID : 288386-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	11		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : DUP042617-01 Laboratory Sample ID : 288386-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	7.6		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB120[1.0] Laboratory Sample ID : 288386-003

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	160		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB120[2.0] Laboratory Sample ID : 288386-004

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	750		58	mg/Kg	Dry	100.0	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB121[1.0] Laboratory Sample ID : 288386-005

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	82		1.1	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB121[2.0] Laboratory Sample ID : 288386-006

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	130		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Curtis & Tompkins, Ltd.

Lead

Lab #:	288386	Location:	1255-1256 Sampling at lendrum
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649	Analysis:	EPA 6010B
Analyte:	Lead	Sampled:	04/26/17
Matrix:	Soil	Received:	04/26/17
Units:	mg/Kg	Prepared:	04/28/17
Basis:	dry	Analyzed:	04/28/17
Batch#:	247259		

Field ID	Type	Lab ID	Result	RL	Moisture	Diln Fac
1255SB116[3.5]	SAMPLE	288386-001	11	1.2	15%	1.000
DUP042617-01	SAMPLE	288386-002	7.6	1.2	14%	1.000
1255SB120[1.0]	SAMPLE	288386-003	160	1.2	16%	1.000
1255SB120[2.0]	SAMPLE	288386-004	750	58	17%	100.0
1255SB121[1.0]	SAMPLE	288386-005	82	1.1	13%	1.000
1255SB121[2.0]	SAMPLE	288386-006	130	1.2	15%	1.000
	BLANK	QC883767	ND	1.0		1.000

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Lead

Lab #:	288386	Location:	1255-1256 Sampling at lendrum
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649	Analysis:	EPA 6010B
Analyte:	Lead	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	247259
MSS Lab ID:	288320-001	Sampled:	04/24/17
Matrix:	Soil	Received:	04/24/17
Units:	mg/Kg	Prepared:	04/28/17
Basis:	as received	Analyzed:	04/28/17

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC883768		49.50	49.67	100	80-120		
BSD	QC883769		48.54	48.72	100	80-120	0	20
MS	QC883770	4,253	53.19	2,725 >LR	-2872 NM	50-131		
MSD	QC883771		46.73	3,219 >LR	-2212 NM	50-131	NC	48

NC= Not Calculated
NM= Not Meaningful: Sample concentration > 4X spike concentration
>LR= Response exceeds instrument's linear range
RPD= Relative Percent Difference

APPENDIX H

BUILDING 1255/1256 INFORMATION AND APPROVALS

Hanzel-Durbin, Justin

From: Chow, George@DTSC <George.Chow@dtsc.ca.gov>
Sent: Wednesday, May 24, 2017 8:45 AM
To: Larssen, Nina
Cc: Pettijohn, Julie@DTSC; Fanelli, Eileen; Hanzel-Durbin, Justin
Subject: RE: Lendrum - Building 1255/1256 Area

DTSC concurs with the excavation limits proposed in the Buildings 1255 and 1256 Confirmation Sampling Report and LUC Area Identification, Lendrum Court Remediation Project. I understand that the proposed LUCs will be discussed at tomorrow's meeting.

Thank you,
George

From: Larssen, Nina [mailto:nlarssen@presidiotrust.gov]
Sent: Wednesday, May 17, 2017 6:06 PM
To: Chow, George@DTSC <George.Chow@dtsc.ca.gov>
Cc: Pettijohn, Julie@DTSC <Julie.Pettijohn@dtsc.ca.gov>; Eileen Fanelli <efanelli@trcsolutions.com>; Hanzel-Durbin, Justin (JHanzel-Durbin@trcsolutions.com) <JHanzel-Durbin@trcsolutions.com>
Subject: Lendrum - Building 1255/1256 Area
Importance: High

George,

Attached is the confirmation sampling report for the area near buildings 1255 and 1256 located in the northwest section of the Lendrum Court remediation site. Based on confirmation lead in soil sampling results, sidewall and bottom excavation limits have been delineated to achieve clean closure in the vicinity of the residential buildings. Lead in soil has been characterized in the forest area, as well, where land use controls are being proposed. We can discuss the extent of the forest LUC area in more detail during our meeting next Thursday.

The Trust requests concurrence of the excavation limits in the 1255/1256 residential area so that we may proceed with soil removal next week.

Please let me know if you have any questions.

Thanks,
Nina Larssen
Remediation Project Manager

Presidio Trust
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San Francisco, CA 94129
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Suite 1600
San Francisco, CA 94111

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May 17, 2017 Project No: 229649

Ms. Nina Larssen
Remediation Project Manager
Presidio of San Francisco
103 Montgomery Street
San Francisco, California 94129

RE: Buildings 1255 and 1256 Confirmation Sampling Report and LUC Area Identification
Lendrum Court Remediation Project
Presidio of San Francisco, California

Dear Ms. Larssen:

This letter report ("report") summarizes the results of field sampling conducted on March 28 and April 26, 2017 by TRC Solutions, Inc., (TRC) on behalf of the Presidio Trust (Trust) in the vicinity of buildings 1255 and 1256 as part of the Lendrum Court Site Remediation. The report presents the limits of remedial excavation to achieve clean closure as outlined in the Remedial Action Work Plan, Lendrum Court, Presidio of San Francisco, California (RAW; TRC, 2015). Additionally, we identify the general extent of lead-impacted soil in the adjacent forest area. To avoid impacts associated with tree removal, implementation of land use controls in this area is recommended.

SITE BACKGROUND

Lendrum Court remedial construction has been performed in accordance with the Department of Toxics Substance Control (DTSC) approved Revised Remedial Design and Implementation Plan, Lendrum Court, Presidio of San Francisco, California (RDIP; TRC, 2016) and the Remedial Action Work Plan, Lendrum Court, Presidio of San Francisco, California (RAW; TRC, 2015). Remedial construction consists of excavation, disposal, consolidation, and construction of a soil and hardscape cap. The soil cap extends to the west of Building 1257.

As outlined in the RAW, an area between the western edge of the soil cap containing lead above CULs but not containing debris was identified to be clean closed. A portion of this area has been excavated. Confirmation soil samples were collected at the western limit of the area in support of the clean closure designation. Analytical results showed lead concentrations above the residential screening level of 80 milligram per kilogram (mg/kg) along the southwestern perimeter of the clean closure area and above ecologic special status screening level of 160 mg/kg in a portion of the forest area to the southwest as shown on Figure 1.

Following discussion with DTSC, additional soil samples were collected to 1) further delineate the horizontal and vertical extents of lead impacts to the south (north of building 1256) and to the west (north of building 1255 and forested area), and 2) determine the boundaries of additional excavation necessary to address identified lead impacts.

MARCH AND APRIL 2017 SOIL SAMPLING ACTIVITIES

Prior to mobilizing for subsurface investigation activities, TRC submitted an Excavation Clearance Application to the Trust and received approval on March 20, 2017. To avoid damage to underground utility installations, TRC notified Underground Service Alert (USA). All proposed boring locations were cleared and any utilities in the proposed investigation vicinity were clearly marked. No conflicts with existing utilities and proposed soil boring locations were encountered during sampling.

On March 28, 2017, TRC mobilized to the Site and hand-augered 22 soil borings, 1255SB100 through 1255SB121, to a maximum depth of three (3) feet below ground surface (bgs). A total of 69 soil samples were collected. Sample depths ranged from 0.75 to 3.0 feet bgs. In accordance with the Trust's 2001 Quality Assurance Project Plan (QAPP), 10% duplicate samples were collected during the investigation. All samples were labeled, placed in a cooler with ice pending delivery to an accredited laboratory.

Collected samples were submitted to the laboratory, with an initial set of samples scheduled for analysis. The remaining samples were placed on hold pending results of the initial set. Samples on hold were released in a sequential manner until laboratory results indicated soil sample concentration were below or near screening levels. A total of 26 out of the 69 samples were analyzed for total lead and moisture content to delineate the vertical and horizontal extent of lead impacts above screening levels.

Based on results from the analytical samples collected in March, additional samples were collected adjacent to existing boring 1255SB116 and two step-out locations 1255SB120 and 1255SB121. A total of five samples were collected with sample depths ranging from 1.0 to 3.5 feet bgs. All samples were analyzed. Figure 2 present the locations of the soil samples collected and analyzed during this investigation.

ANALYTICAL RESULTS

Soil samples were submitted to Curtis & Tompkins, Inc. laboratories, in Berkeley, California for analysis. Submitted samples were analyzed for total lead by EPA Test Method 6010B and moisture content by ASTM D2216. Total lead laboratory analytical results were reported on a dry weight basis. The lead analytical results were compared to the screening levels identified in the RAW; 80 mg/kg for residential areas and 160 mg/kg for forest areas. Lead was detected in all analyzed samples. A summary of the lead results for the forest area (ecologic special status) and the Building

1255/1256 area (residential) is summarized in Table 1 and sample locations presented in Figure 1. Laboratory reports are included in Appendix A.

CONFIRMATION SAMPLE DATA

Building 1255 and 1256 Area Excavation

Areas with identified lead impacts will be remediated by extending the existing clean closed excavation to the south and southwest. The excavation volumes and depths are as follow:

Location	Estimated Excavation Area (square feet)	Excavation Depth (feet bgs)	Estimated Volume (cubic yards)
Alleyway and North of Building 1256	1,130	1.5	63
North of Building 1255	788	2	59
North of Building 1256	622	3.5	81

The vertical and horizontal limits of the excavation are defined by bottom and edge samples collected during the March/April 2017 investigation and by soil samples 1255SS05 and 1255SS13 that were collected by Haley & Aldrich, Inc. during an investigation conducted in 2011 to assess lead-based paint in soil around building 1255. The limits of the excavation and location of the confirmation samples used to determine the limits are presented in Figure 2. Following the completion of excavation the area will be backfilled to existing grade or will be slightly modified to optimize slope stability and drainage.

A 95-percent upper confidence limit (95UCL) on the arithmetic mean was calculated for the confirmation samples. The calculated 95UCL value for the residual soil lead concentration is 69.84 mg/kg and below the residential screening level of 80 mg/kg. The 95UCL calculation was conducted using EPA's ProUCL software version 5.1. The confirmation samples and concentration used for the 95UCL calculation are presented in Table 2 and the ProUCL output sheet is included as Appendix B.

Forest Area Land Use Control

As shown on Figure 2, lead in soil above the 160 mg/kg CUL extends into the adjacent forest area. As discussed with Trust forestry and DTSC, the trees in this area serve as a wind block and are considered an important element of the neighborhood. Clean closure would require removal of these trees. As an alternative, Land Use Control (LUC) restrictions are proposed for the forest area. Access to the forest area is limited by the dense vegetation. Photographs of the forested area are presented in Appendix C. The limits of the LUC are preliminarily defined in Figure 2. Final LUC boundaries for the forest area will be determined in consultation with the Department of Toxic Substances Control (DTSC) and documented under separate cover.

CONCLUSIONS

Based on the results of this investigation, lead impacts above residential and recreational screening levels extend to the west and south west of the Lendrum Court western clean-closed zone. The lead impacts extend into the Historic Forest and Building 1255 and 1256 Area. A remedial excavation is proposed to address soil impacts in the Building 1255 and 1256 Area with an LUC for the forested area. We recommend requesting DTSC's concurrence for the excavation and further discussion of the extents of the forest area LUC.

Sincerely,

TRC SOLUTIONS, INC.

Justin Hanzel-Durbin, EIT
Senior Engineer / Project Manager

Alfonso Ang, PE
Senior Engineer / Project Manager

Attachments:

Figure 1 – Buildings 1255/1256 Lead Investigation
Figure 2 – 1255-1256 Excavation Limits and Confirmation Sample Locations
Table 1 – Lead Analysis Results
Table 2 – Lead Risk Evaluation
Appendix A – Laboratory Data Reports
Appendix B – Buildings 1255 and 1256 Area Lead Risk Evaluation Pro UCL
Appendix C – Fores Area Photographs

Figures

	1257PS109[0.0]
Lead	270
	1257PS109[0.5]
Lead	50

	1255SB107[0.75]
Lead	100

	1257PS111[0.0]
Lead	180
	1257PS111[0.5]
Lead	390
	1257PS111[1.0]
Lead	500

	1255SB108[0.25]
Lead	260
	1255SB108[0.75]
Lead	200
	1255SB108[1.5]
Lead	8.1

	1257PS104[0.0]
Lead	50

	1257PS105[0.0]
Lead	17

	1257PS107[0.0]
Lead	10

	1257PS106[0.0]
Lead	20

	1255SB101[1.5]
Lead	1,400
	1255SB101[2.0]
Lead	25

	1255SB102[1.5]
Lead	52

	1255SB109[0.75]
Lead	34/110

	1257EX101[0.5]
Lead	62

	1257PS205[0.25]
Lead	36

	1257EX102[0.5]
Lead	11

	1257PS110[0.0]
Lead	220
	1257PS110[0.5]
Lead	190

	1255SB106[0.75]
Lead	96

	1257PS204[0.25]
Lead	160

	1257EX103[0.5]
Lead	22

	1257PS108[0.0]
Lead	370
	1257PS108[0.5]
Lead	560
	1257PS108[1.0]
Lead	28

	1257PS203[2.0]
Lead	36

	1257PS102[0.0]
Lead	74
OCDD	1.70E-08
Total TCCD	1.20E-09

	1255SB105[0.75]
Lead	39

	1257PS112[0.0]
Lead	230
	1257PS112[0.5]
Lead	390
	1257PS112[1.0]
Lead	900

	1257PS101[0.5]
Lead	4.4

	1255SB104[0.75]
Lead	13

	1255SB100[1.5]
Lead	230
	1255SB100[2.0]
Lead	15

	1255SB118[1.5]
Lead	8.5

	1255SB103[1.5]
Lead	1,500/2,500
	1255SB103[2.0]
Lead	920
	1255SB103[3.0]
Lead	120

	1255SB117[0.75]
Lead	200/260
	1255SB117[1.5]
Lead	78

	1255SB120[1.0]
Lead	160
	1255SB120[2.0]
Lead	750

	1255SB116[0.75]
Lead	250/33
	1255SB116[1.5]
Lead	1,100
	1255SB116[2.0]
Lead	540
	1255SB116[3.5]
Lead	11/7.6

	1255SB121[1.0]
Lead	82
	1255SB121[2.0]
Lead	130

1254 1255 1256 1257 1258

1255SB101 1255SB102 1255SB103 1255SB104 1255SB105 1255SB106 1255SB107 1255SB108 1255SB109 1255SB100 1255SB117 1255SB116 1255SB120 1255SB121 1255SB118

1257PS101 1257PS102 1257PS103 1257PS104 1257PS105 1257PS106 1257PS107 1257PS108 1257PS109 1257PS110 1257PS111 1257PS112 1257PS203 1257PS204 1257PS205 1257EX101 1257EX102 1257EX103

Lendrum Co

Armistead Road

175

LEGEND

- 145 — Existing □ontour elevation
- A□□roximate limits of soil □a□
- A□□roximate areas of building that serve as □a□
- Areas of as□halt / □avement / hards□a□e that serve as □a□
- A□□roximate areas □onsolidated and □lean □losed (0.5▯)
- A□□roximate areas □onsolidated and □lean □losed (2.0▯)
- A□□roximate forested area
- Perimeter □onfirmation sam□ling lo□ation
- Ex□avation □onfirmation sam□ling lo□ation
- Lands□a□ed / Residential Levels (80 mg/□g)
- Sam□le lo□ation Mar□h/A□ril 2017

N

SCALE (FEET)

0 30 60

	Sample ID
Inorganic	Concentration (mg/kg)

SOURCE: Base plan by Towill, October 29-November 4, 2015

B□□d□□□□ 1255/1256 L□□d I□□□□□□□□□□□□

Lendrum Court Area
The Presidio Trust
San Fran□is□o, California

TRC 229649 **FIGURE 1**

FILE NAME: □Sanfran-fs1.sanfran PROJECTS CAD Lendrum Court San Fran□is□ 1255-1256 Investigation Fig1 1255-1256 lead investigation 5.15.17.dwg La out Tab 11x17

	1257PS111[0.0]
Lead	180
	1257PS111[0.5]
Lead	390
	1257PS111[1.0]
Lead	500

	1255SB108[0.25]
Lead	260
	1255SB108[0.75]
Lead	200
	1255SB108[1.5]
Lead	8.1

	1257PS104[0.0]
Lead	50

	1257PS105[0.0]
Lead	17

	1257PS107[0.0]
Lead	10

	1257PS106[0.0]
Lead	20

	1255SB107[0.75]
Lead	100

	1255SB101[1.5]
Lead	1,400
B	1255SB101[2.0]
Lead	25

	1255SB102[1.5]
Lead	52

	1255SB109[0.75]
Lead	34/110

	1257EX101[0.5]
Lead	62

	1257PS205[0.25]
Lead	36

	1257EX102[0.5]
Lead	11

S	1255SB106[0.75]
Lead	96

S	1255SB105[0.75]
Lead	39

	1257PS204[0.25]
Lead	160

	1257EX103[0.5]
Lead	22

	1257PS203[2.0]
Lead	36

S	1255SB104[0.75]
Lead	13

	1257PS101[0.5]
Lead	4.4

	1255SB100[1.5]
Lead	230
B/S	1255SB100[2.0]
Lead	15

B	1255SB118[1.5]
Lead	8.5

1255SS05(0.25)/94
DUP041411-11/76
S1255SS05(0.75)/10

1255SS13(0.25)/87
S1255SS13(0.75)/6.0

	1255SB117[0.75]
Lead	200/260
B/S	1255SB117[1.5]
Lead	78

	1255SB116[0.75]
Lead	250/33
	1255SB116[1.5]
Lead	1,100
	1255SB116[2.0]
Lead	540
B	1255SB116[3.5]
Lead	11/7.6

	1255SB121[1.0]
Lead	82
S	1255SB121[2.0]
Lead	130

1254 1255 1256 1257 1258

Lendrum Court

Armistead Road

N

SCALE (FEET)

0 30 60

LEGEND

- 145 — Existing □ontour elevation
- A□□roximate limits of soil □a□
- A□□roximate areas of building that serve as □a□
- Areas of as□halt / □avement / hards□a□e that serve as □a□
- A□□roximate areas □onsolidated and □lean □losed (0.5□)
- A□□roximate areas □onsolidated and □lean □losed (2.0□)
- A□□roximate forested area
- LUC Area
- Ex□avation- 1.5 ft. (1130 ft^2, 63 □d^3)
- Ex□avation- 2 ft. (788 ft^2, 59 □d^3)
- Ex□avation- 3.5 ft. (622 ft^2, 81 □d^3)
- Perimeter □onfirmation sam□ling lo□ation
- Ex□avation □onfirmation sam□ling lo□ation
- Lands□a□ed / Residential Levels (80 mg/□g)
- Perimeter □onfirmation sam□ling lo□ation (2017)
- Ex□avation □onfirmation sam□ling lo□ation (2017)
- Hale□ □ Aldri□h sam□le (2011)
- 1256SS04(0.25)/89 Sam□le identifi□ation(de□th in feet bgs)/Lead □on□entration in mg/Kg
- S Sidewall Sam□le
- B Bottom Sam□le

	Sample ID
Inorganic	Concentration (mg/kg)

SOURCE: Base plan by Towill, October 29-November 4, 2015

1255-1256 EXCAVATION LIMITS AND CONFIRMATION SAMPLE LOCATIONS

Lendrum Court Area
The Presidio Trust
San Fran□is□o, California

TRC 229649 **FIGURE 2**

FILE NAME□Sanfran-fs1:sanfran:PROJECTS:CAD:Lendrum Court:San Fran□is□o 1255-1256 Investigation Fig2 1255-1256 ex□avation limits and sam□les 5.17.17.dwg□La□out Tab□11x17

Tables

Table 1
Lead Analysis Results (March/April 2017)
Buildings 1255-1256 Lead Investigation
Lendrum Court
Presidio of San Francisco, San Francisco, CA

Sample ID	Date Collected	Sample Depth (feet bgs)	Total Lead[a] (mg/kg)	Location
1255SB100	3/28/2017	1.5	**230**	Bulding 1255/1256
	3/28/2017	2.0	15	
1255SB101	3/28/2017	1.5	**1400**	Bulding 1255/1256
	3/28/2017	2.0	25	
1255SB102	3/28/2017	1.5	52	Forest Area
1255SB103	3/28/2017	1.5	**53000/1500[b]**	Bulding 1255/1256
	3/28/2017	2.0	**920**	
	3/28/2017	3.0	**120**	
DUP-03282017-02	3/28/2017	1.5	**3600/2500[b]**	
1255SB104	3/28/2017	0.75	13	Bulding 1255/1256
1255SB105	3/28/2017	0.75	39	Bulding 1255/1256
1255SB106	3/28/2017	0.75	**96**	Bulding 1255/1256
1255SB107	3/28/2017	0.75	**100**	Forest Area
1255SB108	3/28/2017	0.25	**260**	Forest Area
	3/28/2017	0.75	**200**	
	3/28/2017	1.5	8.1	
1255SB109	3/28/2017	0.75	34	Forest Area
DUP-03282017-01	3/28/2017	0.75	**110**	
1255SB116	3/28/2017	0.75	**250**	Bulding 1255/1256
	3/28/2017	1.5	**1100**	
	3/28/2017	2.0	**540**	
	4/26/2017	3.5	11	
DUP-03282017-06	3/28/2017	0.75	33	
DUP-042617-01	4/26/2017	3.5	6.5	
1255SB117	3/28/2017	0.75	**200**	Bulding 1255/1256
	3/28/2017	1.5	78	
DUP-03282017-05	3/28/2017	0.75	**260**	
1255SB118	3/28/2017	1.5	8.5	Bulding 1255/1256
1255SB120	4/26/2017	1.0	**140**	Bulding 1255/1256
	4/26/2017	2.0	**620**	

TRC
Results you can rely on

Table 1

Lead Analysis Results (March/April 2017)

Buildings 1255-1256 Lead Investigation

Lendrum Court

Presidio of San Francisco, San Francisco, CA

Sample ID	Date Collected	Sample Depth (feet bgs)	Total Lead[a] (mg/kg)	Location
1255SB121	4/26/2017	1.0	**82**	Bulding 1255/1256
	4/26/2017	2.0	**130**	

Footnotes:

[a] Total lead report on a dry weight basis. **Bold** values denote results above site specific cleanup level

[b] Re-analysis value

Abbreviations:

bgs = below ground surface

ID = identification

mg/kg = milligrams per kilogram

TRC Results you can rely on

Table 2
Lead Risk Evaluation
Buildings 1255-1256 Lead Investigation
Lendrum Court
Presidio of San Francisco, San Francisco, CA

Sample Location	Sample Depth (feet bgs)	Confirmation Type	Lead [a] (mg/kg)
1255SS05[0.25][d]	0.25	Sidewall	94
1255SS05[0.75][d]	0.75	Sidewall	10
1255SS13[0.25][d]	0.25	Sidewall	87
1255SS13[0.75][d]	0.75	Sidewall	6.0
1255SB100[2.0]	2.0	Bottom/Sidewall	15
1255SB101[2.0]	2.0	Bottom	25
1255SB104[0.75]	0.75	Sidewall	13
1255SB105[0.75]	0.75	Sidewall	39
1255SB106[0.75]	0.75	Sidewall	96
1255SB116[3.5]	3.5	Bottom	11
1255SB117[1.5]	1.5	Bottom/Sidewall	78
1255SB118[1.5]	1.5	Bottom	8.5
1255SB121[1.0]	1.0	Sidewall	82
1255SB121[2.0]	2.0	Sidewall	130
95% Upper Confidence Limit (95UCL) [b]			69.84
Presidio-Wide Residential Screening Level [c]			80

Abbreviations:
bgs = below ground surface
mg/kg = milligrams per kilogram

Footnotes:
[a] Data set used to calculate the 95UCL, which will remain after excavation activities.
[b] The 95UCL calculated using United States Environmental Protection Agency (USEPA) statistical software ProUCL Version 5.1.00 published June 20, 2016.
[c] Presidio-wide screening levels are from EKI's October 2002 with updates through 2015 *Development of Presidio-Wide Cleanup Levels for Soil, Sediment, Groundwater, and Surface Water, Presidio of San Francisco.*
[d] Samples from lead-base paint investigation conducted by Haely & Aldrich in 2011 and retained as excavation boundary conditions.

Appendix A

Laboratory Data Reports

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 287485
ANALYTICAL REPORT

TRC Environmental Solutions, Inc.
55 Second Street
San Francisco, CA 94105-3491

Project : 229649.0
Location : Presidio Bldg 1255 Investigation
Level : II

Sample ID	Lab ID	Sample ID	Lab ID	Sample ID	Lab ID
1255SB100 (1.5)	287485-001	1255SB107 (2.0)	287485-024	1255SB115 (1.5)	287485-047
1255SB100 (2.0)	287485-002	1255SB108 (0.75)	287485-025	1255SB115 (2.0)	287485-048
1255SB100 (3.0)	287485-003	1255SB108 (1.5)	287485-026	1255SB116 (0.75)	287485-049
1255SB101 (1.5)	287485-004	1255SB108 (2.0)	287485-027	1255SB116 (1.5)	287485-050
1255SB101 (2.0)	287485-005	1255SB109 (0.75)	287485-028	1255SB116 (2.0)	287485-051
1255SB101 (3.0)	287485-006	1255SB109 (1.5)	287485-029	1255SB117 (0.75)	287485-052
1255SB102 (1.5)	287485-007	1255SB109 (2.0)	287485-030	1255SB117 (1.5)	287485-053
1255SB102 (2.0)	287485-008	1255SB110 (0.75)	287485-031	1255SB117 (2.0)	287485-054
1255SB102 (3.0)	287485-009	1255SB110 (1.5)	287485-032	1255SB118 (0.75)	287485-055
1255SB103 (1.5)	287485-010	1255SB110 (2.0)	287485-033	1255SB118 (1.5)	287485-056
1255SB103 (2.0)	287485-011	1255SB111 (0.75)	287485-034	1255SB118 (2.0)	287485-057
1255SB103 (3.0)	287485-012	1255SB111 (1.5)	287485-035	1255SB119 (0.75)	287485-058
1255SB104 (0.75)	287485-013	1255SB111 (2.0)	287485-036	1255SB119 (1.5)	287485-059
1255SB104 (1.5)	287485-014	1255SB112 (0.75)	287485-037	1255SB119 (2.0)	287485-060
1255SB104 (2.0)	287485-015	1255SB112 (1.5)	287485-038	1255SB108 (0.25)	287485-061
1255SB105 (0.75)	287485-016	1255SB112 (2.0)	287485-039	1255SB109 (0.25)	287485-062
1255SB105 (1.5)	287485-017	1255SB113 (0.75)	287485-040	DUP-03282017-01	287485-063
1255SB105 (2.0)	287485-018	1255SB113 (1.5)	287485-041	DUP-03282017-02	287485-064
1255SB106 (0.75)	287485-019	1255SB113 (2.0)	287485-042	DUP-03282017-03	287485-065
1255SB106 (1.5)	287485-020	1255SB114 (0.75)	287485-043	DUP-03282017-04	287485-066
1255SB106 (2.0)	287485-021	1255SB114 (1.5)	287485-044	DUP-03282017-05	287485-067
1255SB107 (0.75)	287485-022	1255SB114 (2.0)	287485-045	DUP-03282017-06	287485-068
1255SB107 (1.5)	287485-023	1255SB115 (0.75)	287485-046		

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 04/04/2017

Mike Dahlquist
Project Manager
mike.dahlquist@ctberk.com
(510) 204-2225 Ext 13101

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**287485**
Client:	**TRC Solutions**
Project:	**229649.0**
Location:	**Presidio Bldg 1255 Investigation**
Request Date:	**03/29/17**
Samples Received:	**03/29/17**

This data package contains sample and QC results for eleven soil samples, requested for the above referenced project on 03/29/17. The samples were received cold and intact.

Metals (EPA 6010B):
No analytical problems were encountered.

Moisture (ASTM D2216/CLP):
No analytical problems were encountered.

CHAIN OF CUSTODY

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Chain of Custody # _____

C&T LOGIN # 287485

Project No: 229649.0
Project Name: Presidio Bldg 1255 Investigation
Project P. O. No: 229649.0
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☒ RUSH 72 hr ☐ Standard

Sampler: Patrick Woods
Report To: Justin Hanzel-Durbin
Company: TRC
Telephone: (415) 644-3050
Email: JHanzel-Durbin@trcsolutions.com

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST	
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	Total Lead	HOLD
	1255 SB104 [1.5]	3/28/17	1101		X			1					X	X	
	1255 SB100 [2.0]	3/28/17	1105												X
	1255 SB 100 [3.0]		1110												X
	1255 SB 101 [1.5]		1012											X	
	1255 SB 101 [2.0]		1015												X
	1255 SB 101 [3.0]		1018												X
	1255 SB 102 [1.5]		1043											X	
	1255 SB 102 [2.0]		1047												X
	1255 SB 102 [3.0]		1051												X
	1255 SB 103 [1.5]		1243											X	
	1255 SB 103 [2.0]		1246												X
	1255 SB 103 [3.0]		1248												X
	1255 SB 104 [0.75]		1028											X	

Notes:
All samples are to be dry weight corrected

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
DATE: TIME:
DATE: 3/29 TIME: 14:50
DATE: TIME:

RECEIVED BY:
DATE: 3/29 TIME: 10:25
DATE: 3.29 TIME: 1450
DATE: TIME:

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Fax (510) 486-0532

Chain of Custody # _____

C&T LOGIN # 237485

Project No: See page 1
Project Name:
Project P. O. No:
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☐ RUSH _____ ☐ Standard

Sampler:
Report To:
Company:
Telephone:
Email:

Lab No.	Sample ID.	SAMPLING		MATRIX			# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST	
		Date Collected	Time Collected	Water	Solid			HCl	H2SO4	HNO3	NaOH	None	Total Lead	HOLD
14	1255 SB 104 [1.5]	3/28/17	1031		X		1					X		X
15	1255 SB 104 [2.0]		1034											X
16	1255 SB 105 [0.75]		1147										X	
17	1255 SB 105 [1.5]		1223											X
18	1255 SB 105 [2.0]		1225											X
19	1255 SB 106 [0.75]		0902										X	
20	1255 SB 106 [1.5]		0904											X
21	1255 SB 106 [2.0]		0906											X
22	1255 SB 107 [0.75]		0915										X	
23	1255 SB 107 [1.5]		0918											X
24	1255 SB 107 [2.0]		0921											X
25	1255 SB 108 [0.75]		0934										X	
26	1255 SB 108 [1.5]	↓	0937		↓		↓					↓		X

Notes:
All samples are to be dry weight corrected

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
DATE: TIME:
DATE: 3/29 TIME: 14:50
DATE: TIME:

RECEIVED BY:
DATE: 3/29 TIME: 10:25
DATE: 3.29.17 TIME: 1450
DATE: TIME:

CHAIN OF CUSTODY

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Chain of Custody # _____

C&T LOGIN # 287485

Project No: See page 1
Project Name:
Project P. O. No:
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☐ RUSH _____ ☐ Standard

Sampler:
Report To:
Company:
Telephone:
Email:

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST	
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	Total Lead	HOLD
27	1255 SB108 [2.0]	3/28/17	0940		X			1					X		X
28	1255 SB108 [0.75]		0941												X
29	1255 SB 109 [1.5]		0952												X
30	1255 SB 109 [2.0]		0955												X
31	1255 SB 110 [0.75]		1322												X
32	1255 SB 110 [1.5]		1324												X
33	1255 SB 110 [2.0]		1326												X
34	1255 SB 111 [0.75]		1307												X
35	1255 SB 111 [1.5]		1312												X
36	1255 SB 111 [2.0]		1314												X
37	1256 SB 112 [0.75]		1257												X
38	1255 SB 112 [1.5]		1258												X
39	1255 SB 112 [2.0]		1300												X

Notes:
All samples are to be dry weight corrected

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
Rhoda Allen DATE: TIME:
DATE: 3/29 TIME: 14:50
DATE: TIME:

RECEIVED BY:
DATE: 3/29 TIME: 10:26
DATE: 3/29 TIME: 1450
DATE: TIME:

CHAIN OF CUSTODY

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Chain of Custody # _____

C&T LOGIN # 287485

Project No: See page 1
Project Name:
Project P. O. No:
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☐ RUSH _____ ☐ Standard

Sampler:
Report To:
Company:
Telephone:
Email:

ANALYTICAL REQUEST

Total Lead
HOLD

	Lab No.	Sample ID.	SAMPLING Date Collected	SAMPLING Time Collected	MATRIX Water	MATRIX Solid	# of Containers	CHEMICAL PRESERVATIVE HCl	H2SO4	HNO3	NaOH	None	Total Lead	HOLD
	~~40~~	~~1255 SB 112 [0.75]~~	3/28/17			X	1					X		X
	~~41~~	~~1255 SB 112 [1.5]~~												
	~~42~~	~~1255 SB 112 [2.0]~~												
40	43	1255 SB 113 [0.75]	3/28/17	1404										
41	44	1255 SB 113 [1.5]		1409										
42	45	1255 SB 113 [2.0]		1413										
43	46	1255 SB 114 [0.75]		1349										
44	47	1255 SB 114 [1.5]		1352										
45	48	1255 SB 114 [2.0]		1355										
46	49	1255 SB 115 [0.75]		1337										
47	50	1255 SB 115 [1.5]		1340										
48	51	1255 SB 115 [2.0]		1342										
49	52	1255 SB 116 [0.75]		1512										

Notes: KMS 05/29/17
All samples are to be dry weight corrected

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
Rhoda Miller DATE: TIME:
DATE: 3/29 TIME: 1450
DATE: TIME:

RECEIVED BY:
DATE: 3/29 TIME: 10:25
DATE: 3-29-17 TIME: 1450
DATE: TIME:

CHAIN OF CUSTODY

Chain of Custody # _____

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Fax (510) 486-0532

C&T LOGIN # 287485

Project No: See page 1 | Sampler: Patrick Woods
Project Name: | Report To: Justin Hanzel-Curbin
Project P. O. No: | Company: TRC
EDD Format: Report Level ☐ II ☐ III ☐ IV | Telephone:
Turnaround Time: ☒ RUSH 72 hr ☐ Standard | Email:

	Lab No.	Sample ID.	SAMPLING Date Collected	SAMPLING Time Collected	MATRIX Water	MATRIX Solid	# of Containers	CHEMICAL PRESERVATIVE HCl	H2SO4	HNO3	NaOH	None	ANALYTICAL REQUEST Total Lead	HOLD
50	53	1255 SB 116 [1.5]	1517	3/28/17		X						X		X
51	54	1255 SB 116 [2.0]	1521											
52	55	1255 SB 117 [0.75]	1453											
53	56	1255 SB 117 [1.5]	1456											
54	57	1255 SB 117 [2.0]	1500											
55	58	1255 SB 118 [0.75]	1440											
56	59	1255 SB 118 [1.5]	1444											
57	60	1255 SB 118 [2.0]												
58	61	1255 SB 119 [0.75]	1427											
59	62	1255 SB 119 [1.5]	1432											
60	63	1255 SB 119 [2.0]	1433											
61	104	[redacted] 1256 SB 108 [0.25]	1000										X	✓
62	105	1255 SB 109 [0.25]	1004											X

Notes:
All samples are to be dry weight corrected

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
Rhoda Adler DATE: TIME:
DATE: 3.29 TIME: 1450
DATE: TIME:

RECEIVED BY:
DATE: 3/29 TIME: 10:25
DATE: 3.29.17 TIME: 1450
DATE: TIME:

CHAIN OF CUSTODY

Chain of Custody # _____

Curtis & Tompkins Laboratories
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Berkeley, CA 94710

Phone (510) 486-0900
Fax (510) 486-0532

C&T LOGIN # 287485

Project No: See page 1
Project Name:
Project P. O. No:
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☐ RUSH _____ ☐ Standard

Sampler:
Report To:
Company:
Telephone:
Email:

	Lab No.	Sample ID.	SAMPLING Date Collected	SAMPLING Time Collected	MATRIX Water	MATRIX Solid	MATRIX	MATRIX	# of Containers	CHEMICAL PRESERVATIVE HCl	CHEMICAL PRESERVATIVE H2SO4	CHEMICAL PRESERVATIVE HNO3	CHEMICAL PRESERVATIVE NaOH	CHEMICAL PRESERVATIVE None	ANALYTICAL REQUEST Total / Lead	ANALYTICAL REQUEST 6010
603	66	DUP-03282017-01	3/28/17			X			1					X		X
604	67	DUP-03282017-02													X	
605	68	DUP-03282017-03														X
606	69	DUP-03282017-04														X
607	70	DUP-03282017-05														X
608	71	DUP-03282017-06														X

Notes:
All samples are to be dry weight corrected

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
Rhoda Allen DATE: TIME:
DATE: 3-29 TIME: 14:50
DATE: TIME:

RECEIVED BY:
DATE: 3/29 TIME: 10:25
DATE: 3-29 TIME: 1450
DATE: TIME:

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 287485 Date Received 3.29.17 Number of coolers 1
Client TRC Project Presidio Bldg 1255 Investigation

Date Opened 3.29.17 By (print) ERM (sign)
Date Logged in 4 By (print) KPB (sign)
Date Labeled 4 By (print) ERM (sign)

1. Did cooler come with a shipping slip (airbill, etc) YES (NO)
   Shipping info
2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples ☒ NO
   How many Name Date
2B. Were custody seals intact upon arrival? YES NO (N/A)
3. Were custody papers dry and intact when received? (YES) NO
4. Were custody papers filled out properly (ink, signed, etc)? (YES) NO
5. Is the project identifiable from custody papers? (If so fill out top of form) (YES) NO
6. Indicate the packing in cooler: (if other, describe)

☐ Bubble Wrap ☐ Foam blocks ☒ Bags ☐ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☒ Wet ☐ Blue/Gel ☐ None Temp(°C) 1.0

☐ Temperature blank(s) included? ☐ Thermometer# ☒ IR Gun# A

☐ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? YES (NO)
   If YES, what time were they transferred to freezer?
9. Did all bottles arrive unbroken/unopened? (YES) NO
10. Are there any missing / extra samples? YES (NO)
11. Are samples in the appropriate containers for indicated tests? (YES) NO
12. Are sample labels present, in good condition and complete? (YES) NO
13. Do the sample labels agree with custody papers? (YES) NO
14. Was sufficient amount of sample sent for tests requested? (YES) NO
15. Are the samples appropriately preserved? YES NO (N/A)
16. Did you check preservatives for all bottles for each sample? YES NO (N/A)
17. Did you document your preservative check? (pH strip lot#) YES NO (N/A)
18. Did you change the hold time in LIMS for unpreserved VOAs? YES NO (N/A)
19. Did you change the hold time in LIMS for preserved terracores? YES NO (N/A)
20. Are bubbles > 6mm absent in VOA samples? YES NO (N/A)
21. Was the client contacted concerning this sample delivery? YES (NO)
   If YES, Who was called? By Date:

COMMENTS

CHAIN OF CUSTODY

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ENVIRONMENTAL ANALYTICAL TESTING LABORATORY
In Business Since 1878

2323 Fifth Street
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Phone (510) 486-0900
Fax (510) 486-0532

287485
C&T LOGIN # _____

Project No: 229649.0
Project Name: Presidio Bldg 1255 Investigation
Project P. O. No: 229649.0
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☒ RUSH 72 hr ☐ Standard

Sampler: Patrick Woods
Report To: Justin Hanzel-Durbin
Company: TRC
Telephone: (415) 644-3050
Email: JHanzel-Durbin@trcsolutions.com

| Lab No. | Sample ID. | SAMPLING Date Collected | SAMPLING Time Collected | MATRIX Water | MATRIX Solid | MATRIX | MATRIX | # of Containers | CHEMICAL PRESERVATIVE HCl | H2SO4 | HNO3 | NaOH | None | ANALYTICAL REQUEST Total Lead | HOLD | | |

Curtis & Tompkins, Ltd.

Detections Summary for 287485

Results for any subcontracted analyses are not included in this summary.

Client : TRC Solutions
Project : 229649.0
Location : Presidio Bldg 1255 Investigation

Client Sample ID : 1255SB100 (1.5) Laboratory Sample ID : 287485-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	230		1.3	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB101 (1.5) Laboratory Sample ID : 287485-004

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	1,400		60	mg/Kg	Dry	100.0	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB102 (1.5) Laboratory Sample ID : 287485-007

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	52		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB103 (1.5) Laboratory Sample ID : 287485-010

No Detections

Client Sample ID : 1255SB104 (0.75) Laboratory Sample ID : 287485-013

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	13		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB105 (0.75) Laboratory Sample ID : 287485-016

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	39		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB106 (0.75) Laboratory Sample ID : 287485-019

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	96		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB107 (0.75) Laboratory Sample ID : 287485-022

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	100		1.4	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB108 (0.75) Laboratory Sample ID : 287485-025

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	200		1.3	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB108 (0.25) Laboratory Sample ID : 287485-061

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	260		1.3	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : DUP-03282017-02 Laboratory Sample ID : 287485-064

No Detections

Curtis & Tompkins, Ltd.

Lead

Lab #:	287485	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649.0	Analysis:	EPA 6010B
Analyte:	Lead	Sampled:	03/28/17
Matrix:	Soil	Received:	03/29/17
Units:	mg/Kg	Prepared:	04/01/17
Basis:	dry	Analyzed:	04/03/17
Batch#:	246199		

Field ID	Type	Lab ID	Result	RL	Moisture	Diln Fac
1255SB100 (1.5)	SAMPLE	287485-001	230	1.3	25%	1.000
1255SB101 (1.5)	SAMPLE	287485-004	1,400	60	16%	100.0
1255SB102 (1.5)	SAMPLE	287485-007	52	1.2	18%	1.000
1255SB104 (0.75)	SAMPLE	287485-013	13	1.2	16%	1.000
1255SB105 (0.75)	SAMPLE	287485-016	39	1.2	17%	1.000
1255SB106 (0.75)	SAMPLE	287485-019	96	1.2	24%	1.000
1255SB107 (0.75)	SAMPLE	287485-022	100	1.4	26%	1.000
1255SB108 (0.75)	SAMPLE	287485-025	200	1.3	24%	1.000
1255SB108 (0.25)	SAMPLE	287485-061	260	1.3	30%	1.000
	BLANK	QC879643	ND	0.95		1.000

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Lead

Lab #:	287485	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649.0	Analysis:	EPA 6010B
Analyte:	Lead	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	246199
MSS Lab ID:	287562-001	Sampled:	03/31/17
Matrix:	Soil	Received:	03/31/17
Units:	mg/Kg	Prepared:	04/01/17
Basis:	as received	Analyzed:	04/03/17

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC879644		55.56	56.68	102	80-120		
BSD	QC879645		51.02	51.28	101	80-120	2	20
MS	QC879646	10.21	53.76	59.78	92	50-131		
MSD	QC879647		47.17	51.34	87	50-131	4	48

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 287805
ANALYTICAL REPORT

TRC Environmental Solutions, Inc.
55 Second Street
San Francisco, CA 94105-3491

Project : 229649.0
Location : Presidio Bldg 1255 Investigation
Level : II

Sample ID	Lab ID
1255SB100 (2.0)	287805-001
1255SB101 (2.0)	287805-002
1255SB103 (1.5)	287805-003
1255SB108 (1.5)	287805-004
1255SB109 (0.75)	287805-005
DUP-03282017-01	287805-006
DUP-03282017-02	287805-007

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 04/10/2017

Mike Dahlquist
Project Manager
mike.dahlquist@ctberk.com
(510) 204-2225 Ext 13101

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**287805**
Client:	**TRC Solutions**
Project:	**229649.0**
Location:	**Presidio Bldg 1255 Investigation**
Request Date:	**04/07/17**
Samples Received:	**03/29/17**

This data package contains sample and QC results for seven soil samples, requested for the above referenced project on 04/07/17. The samples were received cold and intact.

Metals (EPA 6010B):
No analytical problems were encountered.

Moisture (ASTM D2216/CLP):
No analytical problems were encountered.

Curtis & Tompkins, Ltd.

Detections Summary for 287805

Results for any subcontracted analyses are not included in this summary.

Client : TRC Solutions
Project : 229649.0
Location : Presidio Bldg 1255 Investigation

Client Sample ID : 1255SB100 (2.0) Laboratory Sample ID : 287805-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	15		1.3	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB101 (2.0) Laboratory Sample ID : 287805-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	25		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB103 (1.5) Laboratory Sample ID : 287805-003

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	53,000		61	mg/Kg	Dry	100.0	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB108 (1.5) Laboratory Sample ID : 287805-004

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	8.1		1.3	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB109 (0.75) Laboratory Sample ID : 287805-005

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	34		1.3	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : DUP-03282017-01 Laboratory Sample ID : 287805-006

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	110		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : DUP-03282017-02 Laboratory Sample ID : 287805-007

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	3,600		65	mg/Kg	Dry	100.0	EPA 6010B	EPA 3050B

Curtis & Tompkins, Ltd.

Lead

Lab #:	287805	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649.0	Analysis:	EPA 6010B
Analyte:	Lead	Sampled:	03/28/17
Matrix:	Soil	Received:	03/29/17
Units:	mg/Kg	Prepared:	04/08/17
Basis:	dry	Analyzed:	04/10/17
Batch#:	246450		

Field ID	Type	Lab ID	Result	RL	Moisture	Diln Fac
1255SB100 (2.0)	SAMPLE	287805-001	15	1.3	22%	1.000
1255SB101 (2.0)	SAMPLE	287805-002	25	1.2	19%	1.000
1255SB103 (1.5)	SAMPLE	287805-003	53,000	61	23%	100.0
1255SB108 (1.5)	SAMPLE	287805-004	8.1	1.3	26%	1.000
1255SB109 (0.75)	SAMPLE	287805-005	34	1.3	24%	1.000
DUP-03282017-01	SAMPLE	287805-006	110	1.2	23%	1.000
DUP-03282017-02	SAMPLE	287805-007	3,600	65	21%	100.0
	BLANK	QC880641	ND	1.0		1.000

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Lead

Lab #:	287805	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649.0	Analysis:	EPA 6010B
Analyte:	Lead	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	246450
MSS Lab ID:	287739-001	Sampled:	04/05/17
Matrix:	Soil	Received:	04/05/17
Units:	mg/Kg	Prepared:	04/08/17
Basis:	dry	Analyzed:	04/10/17

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim
BS	QC880642		51.55	52.77	102	80-120			
BSD	QC880643		51.02	53.29	104	80-120		2	20
MS	QC880644	11.49	56.75	58.59	83	50-131	11%		
MSD	QC880645		59.77	61.70	84	50-131	11%	1	48

RPD= Relative Percent Difference

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Analytical Laboratories, Since 1878

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2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 287921
ANALYTICAL REPORT

TRC Environmental Solutions, Inc.
55 Second Street
San Francisco, CA 94105-3491

Project : 229649.0
Location : Presidio Bldg 1255 Investigation
Level : II

Sample ID	Lab ID
1255SB103 (1.5)	287921-001
DUP-03282017-02	287921-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 04/12/2017

Mike Dahlquist
Project Manager
mike.dahlquist@ctberk.com
(510) 204-2225 Ext 13101

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**287921**
Client:	**TRC Solutions**
Project:	**229649.0**
Location:	**Presidio Bldg 1255 Investigation**
Request Date:	**04/11/17**
Samples Received:	**03/29/17**

This data package contains sample and QC results for two soil samples, requested for the above referenced project on 04/11/17. The samples were received cold and intact.

Metals (EPA 6010B):
No analytical problems were encountered.

Curtis & Tompkins, Ltd.

Detections Summary for 287921

Results for any subcontracted analyses are not included in this summary.

Client : TRC Solutions
Project : 229649.0
Location : Presidio Bldg 1255 Investigation

Client Sample ID : 1255SB103 (1.5) Laboratory Sample ID : 287921-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	1,500		62	mg/Kg	Dry	100.0	EPA 6010B	EPA 3050B

Client Sample ID : DUP-03282017-02 Laboratory Sample ID : 287921-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	2,500		66	mg/Kg	Dry	100.0	EPA 6010B	EPA 3050B

Curtis & Tompkins, Ltd.

Lead

Lab #:	287921	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649.0	Analysis:	EPA 6010B
Analyte:	Lead	Sampled:	03/28/17
Matrix:	Soil	Received:	03/29/17
Units:	mg/Kg	Prepared:	04/11/17
Basis:	dry	Analyzed:	04/12/17
Batch#:	246551		

Field ID	Type	Lab ID	Result	RL	Moisture	Diln Fac
1255SB103 (1.5)	SAMPLE	287921-001	1,500	62	23%	100.0
DUP-03282017-02	SAMPLE	287921-002	2,500	66	21%	100.0
	BLANK	QC881061	ND	0.93		1.000

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Lead

Lab #:	287921	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649.0	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	246551
Field ID:	DUP-03282017-02	Sampled:	03/28/17
MSS Lab ID:	287921-002	Received:	03/29/17
Matrix:	Soil	Prepared:	04/11/17
Units:	mg/Kg	Analyzed:	04/12/17
Basis:	dry		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim	Diln Fac
BS	QC881062		53.19	52.78	99	80-120				1.000
BSD	QC881063		47.17	47.77	101	80-120		2	20	1.000
MS	QC881064	2,502	59.15	2,755	426 NM	50-131	21%			10.00
MSD	QC881065		69.55	3,845	1930 NM	50-131	21%	33	48	10.00

NM= Not Meaningful: Sample concentration > 4X spike concentration
RPD= Relative Percent Difference

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2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 287990
ANALYTICAL REPORT

TRC Environmental Solutions, Inc.	Project : 229649.0
55 Second Street	Location : Presidio Bldg 1255 Investigation
San Francisco, CA 94105-3491	Level : II

Sample ID	Lab ID
1255SB103 (2.0)	287990-001
1255SB116 (0.75)	287990-002
1255SB117 (0.75)	287990-003
DUP-03282017-05	287990-004
DUP-03282017-06	287990-005

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Will Rice Date: 04/19/2017

Will Rice
Project Manager
will.rice@ctberk.com
(510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**287990**
Client:	**TRC Solutions**
Project:	**229649.0**
Location:	**Presidio Bldg 1255 Investigation**
Request Date:	**04/13/17**
Samples Received:	**03/29/17**

This data package contains sample and QC results for five soil samples, requested for the above referenced project on 04/13/17. The samples were received cold and intact.

Metals (EPA 6010B):
No analytical problems were encountered.

Moisture (ASTM D2216/CLP):
No analytical problems were encountered.

Curtis & Tompkins, Ltd.

Detections Summary for 287990

Results for any subcontracted analyses are not included in this summary.

Client : TRC Solutions
Project : 229649.0
Location : Presidio Bldg 1255 Investigation

Client Sample ID : 1255SB103 (2.0) Laboratory Sample ID : 287990-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	920		61	mg/Kg	Dry	100.0	EPA 6010B	EPA 3050B
Moisture, Percent	21		1	%	As Recd	1.000	ASTM D2216/CLP	METHOD

Client Sample ID : 1255SB116 (0.75) Laboratory Sample ID : 287990-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	250		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	17		1	%	As Recd	1.000	ASTM D2216/CLP	METHOD

Client Sample ID : 1255SB117 (0.75) Laboratory Sample ID : 287990-003

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	200		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	17		1	%	As Recd	1.000	ASTM D2216/CLP	METHOD

Client Sample ID : DUP-03282017-05 Laboratory Sample ID : 287990-004

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	260		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	17		1	%	As Recd	1.000	ASTM D2216/CLP	METHOD

Client Sample ID : DUP-03282017-06 Laboratory Sample ID : 287990-005

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	33		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	17		1	%	As Recd	1.000	ASTM D2216/CLP	METHOD

Curtis & Tompkins, Ltd.

Lead

Lab #:	287990	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649.0	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	246791
Matrix:	Soil	Sampled:	03/28/17
Units:	mg/Kg	Received:	03/29/17
Basis:	dry	Prepared:	04/17/17

Field ID	Type	Lab ID	Result	RL	Moisture	Diln Fac	Analyzed
1255SB103 (2.0)	SAMPLE	287990-001	920	61	21%	100.0	04/18/17
1255SB116 (0.75)	SAMPLE	287990-002	250	1.2	17%	1.000	04/18/17
1255SB117 (0.75)	SAMPLE	287990-003	200	1.2	17%	1.000	04/18/17
DUP-03282017-05	SAMPLE	287990-004	260	1.2	17%	1.000	04/18/17
DUP-03282017-06	SAMPLE	287990-005	33	1.2	17%	1.000	04/18/17
	BLANK	QC881980	ND	1.0		1.000	04/17/17

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Lead

Lab #:	287990	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649.0	Analysis:	EPA 6010B
Analyte:	Lead	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	246791
MSS Lab ID:	287924-001	Sampled:	04/11/17
Matrix:	Soil	Received:	04/11/17
Units:	mg/Kg	Prepared:	04/17/17
Basis:	as received	Analyzed:	04/17/17

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC881981		46.73	46.59	100	80-120		
BSD	QC881982		50.51	50.09	99	80-120	1	20
MS	QC881983	10.67	53.76	54.42	81	50-131		
MSD	QC881984		48.54	48.39	78	50-131	3	48

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Moisture

Lab #:	287990	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	METHOD
Project#:	229649.0	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Batch#:	246856
Matrix:	Soil	Sampled:	03/28/17
Units:	%	Received:	03/29/17
Diln Fac:	1.000	Analyzed:	04/19/17

Field ID	Lab ID	Result	RL
1255SB103 (2.0)	287990-001	21	1
1255SB116 (0.75)	287990-002	17	1
1255SB117 (0.75)	287990-003	17	1
DUP-03282017-05	287990-004	17	1
DUP-03282017-06	287990-005	17	1

RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Moisture

Lab #:	287990	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	METHOD
Project#:	229649.0	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Units:	%
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
Type:	SDUP	Batch#:	246856
MSS Lab ID:	288065-046	Sampled:	04/12/17
Lab ID:	QC882230	Received:	04/14/17
Matrix:	Soil	Analyzed:	04/19/17

MSS Result	Result	RL	RPD	Lim
38.82	36.31	1.000	7	26

RL= Reporting Limit
RPD= Relative Percent Difference

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Laboratory Job Number 288132
ANALYTICAL REPORT

TRC Environmental Solutions, Inc.
55 Second Street
San Francisco, CA 94105-3491

Project : 229649.0
Location : Presidio Bldg 1255 Investigation
Level : II

Sample ID	Lab ID
1255SB103 (3.0)	288132-001
1255SB116 (1.5)	288132-002
1255SB117 (1.5)	288132-003
1255SB118 (1.5)	288132-004

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Signature: Tracy Babjar Date: 04/21/2017

Tracy Babjar
Project Manager
tracy.babjar@ctberk.com
(510) 204-2226 Ext 13107

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**288132**
Client:	**TRC Solutions**
Project:	**229649.0**
Location:	**Presidio Bldg 1255 Investigation**
Request Date:	**04/18/17**
Samples Received:	**03/29/17**

This data package contains sample and QC results for four soil samples, requested for the above referenced project on 04/18/17. The samples were received cold and intact.

Metals (EPA 6010B):
No analytical problems were encountered.

Moisture (ASTM D2216/CLP):
No analytical problems were encountered.

Curtis & Tompkins, Ltd.

Detections Summary for 288132

Results for any subcontracted analyses are not included in this summary.

Client : TRC Solutions
Project : 229649.0
Location : Presidio Bldg 1255 Investigation

Client Sample ID : 1255SB103 (3.0) Laboratory Sample ID : 288132-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	120		1.0	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	3		1	%	As Recd	1.000	ASTM D2216/CLP	METHOD

Client Sample ID : 1255SB116 (1.5) Laboratory Sample ID : 288132-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	1,100		60	mg/Kg	Dry	100.0	EPA 6010B	EPA 3050B
Moisture, Percent	19		1	%	As Recd	1.000	ASTM D2216/CLP	METHOD

Client Sample ID : 1255SB117 (1.5) Laboratory Sample ID : 288132-003

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	78		1.1	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	17		1	%	As Recd	1.000	ASTM D2216/CLP	METHOD

Client Sample ID : 1255SB118 (1.5) Laboratory Sample ID : 288132-004

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	8.5		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	18		1	%	As Recd	1.000	ASTM D2216/CLP	METHOD

Curtis & Tompkins, Ltd.

Lead

Lab #:	288132	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649.0	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	246900
Matrix:	Soil	Sampled:	03/28/17
Units:	mg/Kg	Received:	03/29/17
Basis:	dry	Prepared:	04/19/17

Field ID	Type	Lab ID	Result	RL	Moisture	Diln Fac	Analyzed
1255SB103 (3.0)	SAMPLE	288132-001	120	1.0	3%	1.000	04/20/17
1255SB116 (1.5)	SAMPLE	288132-002	1,100	60	19%	100.0	04/21/17
1255SB117 (1.5)	SAMPLE	288132-003	78	1.1	17%	1.000	04/21/17
1255SB118 (1.5)	SAMPLE	288132-004	8.5	1.2	18%	1.000	04/20/17
	BLANK	QC882405	ND	1.0		1.000	04/20/17

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Lead

Lab #:	288132	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649.0	Analysis:	EPA 6010B
Analyte:	Lead	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	246900
MSS Lab ID:	287992-002	Sampled:	04/12/17
Matrix:	Soil	Received:	04/13/17
Units:	mg/Kg	Prepared:	04/19/17
Basis:	as received	Analyzed:	04/20/17

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC882406		50.51	50.44	100	80-120		
BSD	QC882407		50.51	50.68	100	80-120	0	20
MS	QC882408	19.77	51.55	71.21	100	50-131		
MSD	QC882409		53.76	70.39	94	50-131	4	48

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Moisture

Lab #:	288132	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	METHOD
Project#:	229649.0	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Batch#:	246908
Matrix:	Soil	Sampled:	03/28/17
Units:	%	Received:	03/29/17
Diln Fac:	1.000	Analyzed:	04/20/17

Field ID	Lab ID	Result	RL
1255SB103 (3.0)	288132-001	3	1
1255SB116 (1.5)	288132-002	19	1
1255SB117 (1.5)	288132-003	17	1
1255SB118 (1.5)	288132-004	18	1

RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Moisture

Lab #:	288132	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	METHOD
Project#:	229649.0	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Units:	%
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
Type:	SDUP	Batch#:	246908
MSS Lab ID:	288115-060	Sampled:	04/14/17
Lab ID:	QC882429	Received:	04/18/17
Matrix:	Soil	Analyzed:	04/20/17

MSS Result	Result	RL	RPD	Lim
23.34	19.94	1.000	16	26

RL= Reporting Limit
RPD= Relative Percent Difference

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2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 288247
ANALYTICAL REPORT

TRC Environmental Solutions, Inc.	Project : 229649.0
55 Second Street	Location : Presidio Bldg 1255 Investigation
San Francisco, CA 94105-3491	Level : II

Sample ID	Lab ID
1255SB116 (2.0)	288247-001

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 04/25/2017

Dina Ali
Project Manager
dina.ali@ctberk.com
(510) 204-2223 Ext 13105

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**288247**
Client:	**TRC Solutions**
Project:	**229649.0**
Location:	**Presidio Bldg 1255 Investigation**
Request Date:	**04/21/17**
Samples Received:	**03/29/17**

This data package contains sample and QC results for one soil sample, requested for the above referenced project on 04/21/17. The sample was received on ice and intact.

Metals (EPA 6010B):
No analytical problems were encountered.

Moisture (ASTM D2216/CLP):
No analytical problems were encountered.

Gmail by Google

CT# 288247

Tracy Babjar <tbabjar@montrose-env.com>

RE: 229649.0 - C&T Data (288132)

2 messages

Ang, Alfonso <AAng@trcsolutions.com> Fri, Apr 21, 2017 at 1:02 PM
To: "tracy.babjar@ctberk.com" <tracy.babjar@ctberk.com>
Cc: "Hanzel-Durbin, Justin" <JHanzel-Durbin@trcsolutions.com>

Hi Tracy,

I sent the following email to Will Rice, but I have not heard back from him. Can you help me ensure that the requested analysis is logged? Thanks.

Hello Will,

Please analyze the following sample for total lead (dry weight basis) on **48-hour** TAT if possible:

1255SB116 [2.0] – Lab ID 051

Alfonso Ang, PE
Senior Engineer/Project Manager

T: 415-644-3003 | C: 415-786-7830

aang@trcsolutions.com

From: Tracy Babjar [mailto:tracy.babjar@ctberk.com]
Sent: Friday, April 21, 2017 1:00 PM
To: Ang, Alfonso <AAng@trcsolutions.com>
Subject: 229649.0 - C&T Data (288132)

Hi Alfonso,

Final report and invoice.

Have a great day!

Tracy

Please find attached the following files:
• Invoice
• PDF Deliverable

Email was also sent to: apinvoiceapproval@trcsolutions.com, jhanzel-durbin@trcsolutions.com

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Tracy Babjar <tracy.babjar@ctberk.com> Fri, Apr 21, 2017 at 1:12 PM
To: "Ang, Alfonso" <AAng@trcsolutions.com>
Cc: "Hanzel-Durbin, Justin" <JHanzel-Durbin@trcsolutions.com>, Will Rice <will.rice@ctberk.com>

Hi Alfonso,

Will has been stuck in a meeting.

I will get that logged in for you now.

Have great day!

Tracy
[Quoted text hidden]
--

Tracy Babjar
Project Manager
Curtis & Tompkins, Ltd.
510 204-2226
www.curtisandtompkins.com

CHAIN OF CUSTODY

Curtis & Tompkins Laboratories
ENVIRONMENTAL ANALYTICAL TESTING LABORATORY
In Business Since 1878

2323 Fifth Street
Berkeley, CA 94710

Phone (510) 486-0900
Fax (510) 486-0532

Chain of Custody # _____

C&T LOGIN # 287485

Project No: 229649.0
Project Name: Presidio Bldg 1255 Investigation
Project P. O. No: 229649.0
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☒ RUSH 72 hr ☐ Standard

Sampler: Patrick Woods
Report To: Justin Hanzel-Durbin
Company: TRC
Telephone: (415) 644-3050
Email: JHanzel-Durbin@trcsolutions.com

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST	
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	Total Lead	HOLD
	1255 SB101 [1.5]	3/28/17	1101		X			1					X	X	
	1255 SB101 [2.0]	3/28/17	1105												X
	1255 SB101 [3.0]		1110												X
	1255 SB101 [1.5]		1012											X	
	1255 SB101 [2.0]		1015												X
	1255 SB101 [3.0]		1018												X
	1255 SB102 [1.5]		1043											X	
	1255 SB102 [2.0]		1047												X
	1255 SB102 [3.0]		1051												X
	1255 SB103 [1.5]		1243											X	
	1255 SB103 [2.0]		1246												X
	1255 SB103 [3.0]		1248												X
	1255 SB104 [0.75]		1028											X	

Notes:
All samples are to be dry weight corrected

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
Rhonda Allen DATE: TIME:
DATE: 3/29 TIME: 14:50
DATE: TIME:

RECEIVED BY:
DATE: 3/29 TIME: 10:25
DATE: 3.29 TIME: 1450
DATE: TIME:

CHAIN OF CUSTODY

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Berkeley, CA 94710

Phone (510) 486-0900
Fax (510) 486-0532

Chain of Custody # _____

C&T LOGIN # 237485

Project No: See page 1 | Sampler:

Project Name: | Report To:

Project P. O. No: | Company:

EDD Format: Report Level ☐ II ☐ III ☐ IV | Telephone:

Turnaround Time: ☐ RUSH _____ ☐ Standard | Email:

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST	
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	Total Lead	HOLD
14	1255 SB 104 [1.5]	3/28/17	1031		X			1					X		X
15	1255 SB 104 [2.0]		1034												X
16	1255 SB 105 [0.75]		1147											X	
17	1255 SB 105 [1.5]		1223												X
18	1255 SB 105 [2.0]		1225												X
19	1255 SB 106 [0.75]		0902											X	
20	1255 SB 106 [1.5]		0904												X
21	1255 SB 106 [2.0]		0906												X
22	1255 SB 107 [0.75]		0915											X	
23	1255 SB 107 [1.5]		0918												X
24	1255 SB 107 [2.0]		0921												X
25	1255 SB 108 [0.75]		0934											X	
26	1255 SB 108 [1.5]		0937												X

Notes:
All samples are to be dry weight corrected

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
DATE: TIME:
DATE: 3/29 TIME: 14:50
DATE: TIME:

RECEIVED BY:
DATE: 3/29 TIME: 10:25
DATE: 3.29.17 TIME: 1450
DATE: TIME:

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Berkeley, CA 94710

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Fax (510) 486-0532

Chain of Custody # _____

C&T LOGIN # 287485

Project No: See page 1 | Sampler:
Project Name: | Report To:
Project P. O. No: | Company:
EDD Format: Report Level ☐ II ☐ III ☐ IV | Telephone:
Turnaround Time: ☐ RUSH _____ ☐ Standard | Email:

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST	
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	Total Lead	HOLD
27	1255 SB 108 [2.0]	3/28/17	0940		X			1					X		X
28	1255 SB 108 [0.75]		0941												X
29	1255 SB 109 [1.5]		0952												X
30	1255 SB 109 [2.0]		0955												X
31	1255 SB 110 [0.75]		1322												X
32	1255 SB 110 [1.5]		1324												X
33	1255 SB 110 [2.0]		1326												X
34	1255 SB 111 [0.75]		1307												X
35	1255 SB 111 [1.5]		1312												X
36	1255 SB 111 [2.0]		1314												X
37	1256 SB 112 [0.75]		1257												X
38	1255 SB 112 [1.5]		1258												X
39	1255 SB 112 [2.0]		1300												X

Notes:
All samples are to be dry weight corrected

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
Rhoda Alle DATE: TIME:
DATE: 324 TIME: 14:50
DATE: TIME:

RECEIVED BY:
DATE: 3/29 TIME: 10:26
DATE: 3/29 TIME: 1450
DATE: TIME:

CHAIN OF CUSTODY

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Berkeley, CA 94710

Phone (510) 486-0900
Fax (510) 486-0532

Chain of Custody # _____

C&T LOGIN # 287485

Project No: See page 1
Project Name:
Project P. O. No:
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☐ RUSH ☐ Standard

Sampler:
Report To:
Company:
Telephone:
Email:

ANALYTICAL REQUEST

Total Lead
X HOLD

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE				
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None
40	~~1255 SB 112 [0.75]~~	3/28/17			X			1					X
41	~~1255 SB 112 [1.5]~~												
42	~~1255 SB 112 [2.0]~~												
40	43 1255 SB 113 [0.75]	3/28/17	1404										
41	44 1255 SB 113 [1.5]		1409										
42	45 1255 SB 113 [2.0]		1413										
43	46 1255 SB 114 [0.75]		1349										
44	47 1255 SB 114 [1.5]		1352										
45	48 1255 SB 114 [2.0]		1355										
46	49 1255 SB 115 [0.75]		1337										
47	50 1255 SB 115 [1.5]		1340										
48	51 1255 SB 115 [2.0]		1342										
49	52 1255 SB 116 [0.75]		1512										

Notes: EFS 05/29/17
All samples are to be dry weight corrected

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
Rhonda Miller DATE: TIME:
DATE: 3/29 TIME: 1450
DATE: TIME:

RECEIVED BY:
DATE: 3/29 TIME: 10:25
DATE: 3.29.17 TIME: 1450
DATE: TIME:

Curtis & Tompkins, Ltd.

Detections Summary for 288247

Results for any subcontracted analyses are not included in this summary.

Client : TRC Solutions
Project : 229649.0
Location : Presidio Bldg 1255 Investigation

Client Sample ID : 1255SB116 (2.0) Laboratory Sample ID : 288247-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	540		1.1	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B
Moisture, Percent	18		1	%	As Recd	1.000	ASTM D2216/CLP	METHOD

Curtis & Tompkins, Ltd.

Lead

Lab #:	288247	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649.0	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	247098
Field ID:	1255SB116 (2.0)	Sampled:	03/28/17
Matrix:	Soil	Received:	03/29/17
Units:	mg/Kg	Prepared:	04/25/17
Basis:	dry	Analyzed:	04/25/17
Diln Fac:	1.000		

Type	Lab ID	Result	RL	Moisture
SAMPLE	288247-001	540	1.1	18%
BLANK	QC883148	ND	1.0	

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Lead

Lab #:	288247	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649.0	Analysis:	EPA 6010B
Analyte:	Lead	Diln Fac:	1.000
Field ID:	1255SB116 (2.0)	Batch#:	247098
MSS Lab ID:	288247-001	Sampled:	03/28/17
Matrix:	Soil	Received:	03/29/17
Units:	mg/Kg	Prepared:	04/25/17
Basis:	dry	Analyzed:	04/25/17

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim
BS	QC883149		4.902	4.835	99	80-120			
BSD	QC883150		4.808	4.716	98	80-120		1	20
MS	QC883151	540.3	6.557	602.1	942 NM	50-131	18%		
MSD	QC883152		5.646	822.6 >LR	4999 NM	50-131	18%	NC	48

NC= Not Calculated
NM= Not Meaningful: Sample concentration > 4X spike concentration
>LR= Response exceeds instrument's linear range
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Moisture

Lab #:	288247	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	METHOD
Project#:	229649.0	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Diln Fac:	1.000
Field ID:	1255SB116 (2.0)	Batch#:	247080
Lab ID:	288247-001	Sampled:	03/28/17
Matrix:	Soil	Received:	03/29/17
Units:	%	Analyzed:	04/25/17

Result	RL
18	1

RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Moisture

Lab #:	288247	Location:	Presidio Bldg 1255 Investigation
Client:	TRC Solutions	Prep:	METHOD
Project#:	229649.0	Analysis:	ASTM D2216/CLP
Analyte:	Moisture, Percent	Units:	%
Field ID:	1255SB116 (2.0)	Diln Fac:	1.000
Type:	SDUP	Batch#:	247080
MSS Lab ID:	288247-001	Sampled:	03/28/17
Lab ID:	QC883094	Received:	03/29/17
Matrix:	Soil	Analyzed:	04/25/17

MSS Result	Result	RL	RPD	Lim
18.09	18.40	1.000	2	26

RL= Reporting Limit
RPD= Relative Percent Difference

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Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 288386
ANALYTICAL REPORT

TRC Solutions	Project : 229649
505 Sansome St	Location : 1255-1256 Sampling at lendrum
San Francisco, CA 94111	Level : II

Sample ID	Lab ID
1255SB116[3.5]	288386-001
DUP042617-01	288386-002
1255SB120[1.0]	288386-003
1255SB120[2.0]	288386-004
1255SB121[1.0]	288386-005
1255SB121[2.0]	288386-006

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Will Rice Date: 05/01/2017

Will Rice
Project Manager
will.rice@ctberk.com
(510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**288386**
Client:	**TRC Solutions**
Project:	**229649**
Location:	**1255-1256 Sampling at lendrum**
Request Date:	**04/26/17**
Samples Received:	**04/26/17**

This data package contains sample and QC results for six soil samples, requested for the above referenced project on 04/26/17. The samples were received cold and intact.

Metals (EPA 6010B):
No analytical problems were encountered.

CHAIN OF CUSTODY

Chain of Custody # _____

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ENVIRONMENTAL ANALYTICAL TESTING LABORATORY
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Berkeley, CA 94710

Phone (510) 486-0900
Fax (510) 486-0532

C&T LOGIN # 288386

Project No: 229649
Project Name: 1255-1256 Sampling at Lendmark
Project P. O. No: 229649
EDD Format: Report Level ☐ II ☐ III ☐ IV
Turnaround Time: ☑ RUSH 72 hr ☐ Standard

Sampler: Patrick Woods
Report To: Alfonso Ang
Company: TRC
Telephone: (415) 644-3003
Email: aang@trcsolutions.com

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	Total Lead
	1255SB116[3.5]	4/26/17	1054		X			1					X	X
	DUP042617-01				X			1					X	X
	1255SB120[1.0]		1110		X			1					X	X
	1255SB120[2.0]		1112		X			1					X	X
	1255SB121[1.0]		1123		X			1					X	X
	1255SB121[2.0]		1125		X			1					X	X

Notes:
Samples are to be dry weight corrected

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
Patrick Woods DATE: 4/26/17 TIME: 1149
DATE: 4/26 TIME: 1652
DATE: TIME:

RECEIVED BY:
DATE: 4/26 TIME: 1749
DATE: TIME:
DATE: TIME:

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 288386 Date Received 4.26.17 Number of coolers 1
Client TRC Project 229649

Date Opened 4.26.17 By (print) DC (sign)
Date Logged in ↓ By (print) DC (sign)
Date Labelled ↓ By (print) DC (sign)

1. Did cooler come with a shipping slip (airbill, etc) YES NO
   Shipping info
2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples ☒ NO
   How many Name Date
2B. Were custody seals intact upon arrival? YES NO N/A
3. Were custody papers dry and intact when received? YES NO
4. Were custody papers filled out properly (ink, signed, etc)? YES NO
5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO
6. Indicate the packing in cooler: (if other, describe)

☐ Bubble Wrap ☐ Foam blocks ☒ Bags ☐ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☒ Wet ☐ Blue/Gel ☐ None Temp(°C) 1.1

☐ Temperature blank(s) included? ☐ Thermometer# ☒ IR Gun# B

☐ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? YES NO
   If YES, what time were they transferred to freezer?
9. Did all bottles arrive unbroken/unopened? YES NO
10. Are there any missing / extra samples? YES NO
11. Are samples in the appropriate containers for indicated tests? YES NO
12. Are sample labels present, in good condition and complete? YES NO
13. Do the sample labels agree with custody papers? YES NO
14. Was sufficient amount of sample sent for tests requested? YES NO
15. Are the samples appropriately preserved? YES NO N/A
16. Did you check preservatives for all bottles for each sample? YES NO N/A
17. Did you document your preservative check? (pH strip lot#) YES NO N/A
18. Did you change the hold time in LIMS for unpreserved VOAs? YES NO N/A
19. Did you change the hold time in LIMS for preserved terracores? YES NO N/A
20. Are bubbles > 6mm absent in VOA samples? YES NO N/A
21. Was the client contacted concerning this sample delivery? YES NO
   If YES, Who was called? By Date:

COMMENTS

Curtis & Tompkins, Ltd.

Detections Summary for 288386

Results for any subcontracted analyses are not included in this summary.

Client : TRC Solutions
Project : 229649
Location : 1255-1256 Sampling at lendrum

Client Sample ID : 1255SB116[3.5] Laboratory Sample ID : 288386-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	11		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : DUP042617-01 Laboratory Sample ID : 288386-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	7.6		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB120[1.0] Laboratory Sample ID : 288386-003

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	160		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB120[2.0] Laboratory Sample ID : 288386-004

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	750		58	mg/Kg	Dry	100.0	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB121[1.0] Laboratory Sample ID : 288386-005

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	82		1.1	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Client Sample ID : 1255SB121[2.0] Laboratory Sample ID : 288386-006

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Lead	130		1.2	mg/Kg	Dry	1.000	EPA 6010B	EPA 3050B

Curtis & Tompkins, Ltd.

Lead

Lab #:	288386	Location:	1255-1256 Sampling at lendrum
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649	Analysis:	EPA 6010B
Analyte:	Lead	Sampled:	04/26/17
Matrix:	Soil	Received:	04/26/17
Units:	mg/Kg	Prepared:	04/28/17
Basis:	dry	Analyzed:	04/28/17
Batch#:	247259		

Field ID	Type	Lab ID	Result	RL	Moisture	Diln Fac
1255SB116[3.5]	SAMPLE	288386-001	11	1.2	15%	1.000
DUP042617-01	SAMPLE	288386-002	7.6	1.2	14%	1.000
1255SB120[1.0]	SAMPLE	288386-003	160	1.2	16%	1.000
1255SB120[2.0]	SAMPLE	288386-004	750	58	17%	100.0
1255SB121[1.0]	SAMPLE	288386-005	82	1.1	13%	1.000
1255SB121[2.0]	SAMPLE	288386-006	130	1.2	15%	1.000
	BLANK	QC883767	ND	1.0		1.000

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Lead

Lab #:	288386	Location:	1255-1256 Sampling at lendrum
Client:	TRC Solutions	Prep:	EPA 3050B
Project#:	229649	Analysis:	EPA 6010B
Analyte:	Lead	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	247259
MSS Lab ID:	288320-001	Sampled:	04/24/17
Matrix:	Soil	Received:	04/24/17
Units:	mg/Kg	Prepared:	04/28/17
Basis:	as received	Analyzed:	04/28/17

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC883768		49.50	49.67	100	80-120		
BSD	QC883769		48.54	48.72	100	80-120	0	20
MS	QC883770	4,253	53.19	2,725 >LR	-2872 NM	50-131		
MSD	QC883771		46.73	3,219 >LR	-2212 NM	50-131	NC	48

NC= Not Calculated
NM= Not Meaningful: Sample concentration > 4X spike concentration
>LR= Response exceeds instrument's linear range
RPD= Relative Percent Difference

Appendix B

Buildings 1255 and 1256 Area Lead Risk Evaluation Pro UCL

Building 1255 and 1256 Area
UCL Statistics for Uncensored Full Data Sets

User Selected Options	
Date/Time of Computation	ProUCL 5.15/15/2017 8:30:54 AM
From File	WorkSheet.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead

General Statistics

Total Number of Observations	14	Number of Distinct Observations	14
		Number of Missing Observations	0
Minimum	6	Mean	49.61
Maximum	130	Median	32
SD	42.74	Std. Error of Mean	11.42
Coefficient of Variation	0.862	Skewness	0.503

Normal GOF Test

Shapiro Wilk Test Statistic	0.849	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.874	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.22	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.226	Data appear Normal at 5% Significance Level

Data appear Approximate Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	69.84	95% Adjusted-CLT UCL (Chen-1995)	70.04
		95% Modified-t UCL (Johnson-1978)	70.09

Gamma GOF Test

A-D Test Statistic	0.808	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.756	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.226	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.234	Detected data appear Gamma Distributed at 5% Significance Level

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics

k hat (MLE)	1.189	k star (bias corrected MLE)	0.982
Theta hat (MLE)	41.72	Theta star (bias corrected MLE)	50.52
nu hat (MLE)	33.3	nu star (bias corrected)	27.49
MLE Mean (bias corrected)	49.61	MLE Sd (bias corrected)	50.06
		Approximate Chi Square Value (0.05)	16.54

46					Adjusted Level of Significance	0.0312				Adjusted Chi Square Value		15.42
47												
48					**Assuming Gamma Distribution**							
49					95% Approximate Gamma UCL (use when n>=50))	82.49				95% Adjusted Gamma UCL (use when n<50)		88.48
50												
51					**Lognormal GOF Test**							
52					Shapiro Wilk Test Statistic	0.883				**Shapiro Wilk Lognormal GOF Test**		
53					5% Shapiro Wilk Critical Value	0.874				Data appear Lognormal at 5% Significance Level		
54					Lilliefors Test Statistic	0.231				**Lilliefors Lognormal GOF Test**		
55					5% Lilliefors Critical Value	0.226				Data Not Lognormal at 5% Significance Level		
56					**Data appear Approximate Lognormal at 5% Significance Level**							
57												
58					**Lognormal Statistics**							
59					Minimum of Logged Data	1.792				Mean of logged Data		3.428
60					Maximum of Logged Data	4.868				SD of logged Data		1.093
61												
62					**Assuming Lognormal Distribution**							
63					95% H-UCL	136.9				90% Chebyshev (MVUE) UCL		103.2
64					95% Chebyshev (MVUE) UCL	126.1				97.5% Chebyshev (MVUE) UCL		157.9
65					99% Chebyshev (MVUE) UCL	220.4						
66												
67					**Nonparametric Distribution Free UCL Statistics**							
68					**Data appear to follow a Discernible Distribution at 5% Significance Level**							
69												
70					**Nonparametric Distribution Free UCLs**							
71					95% CLT UCL	68.4				95% Jackknife UCL		69.84
72					95% Standard Bootstrap UCL	67.39				95% Bootstrap-t UCL		69.74
73					95% Hall's Bootstrap UCL	67.25				95% Percentile Bootstrap UCL		67.89
74					95% BCA Bootstrap UCL	69.25						
75					90% Chebyshev(Mean, Sd) UCL	83.87				95% Chebyshev(Mean, Sd) UCL		99.4
76					97.5% Chebyshev(Mean, Sd) UCL	120.9				99% Chebyshev(Mean, Sd) UCL		163.3
77												
78					**Suggested UCL to Use**							
79					95% Student's-t UCL	69.84						
80												
81					When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test							
82					When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL							
83												
84					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
85					Recommendations are based upon data size, data distribution, and skewness.							
86					These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).							
87					However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							
88												

Appendix C

Forest Area Photographs

FOREST AREA
Building 1255 and 1256
Lendrum Court
Presidio of San Francisco, San Francisco, CA

Photograph 1 Forest Area Looking from Armistead Road Parking Lot

Photograph 2 Forest Area Looking from Bldg. 1256 NE Corner

TRC
Results you can rely on

FOREST AREA
Building 1255 and 1256
Lendrum Court
Presidio of San Francisco, San Francisco, CA

Photograph 3 Forest Area Looking from Bldg. 1256 Concrete Patio

Photograph 4 Forest Area Looking from Bldg. 1255 NE Corner

FOREST AREA
Building 1255 and 1256
Lendrum Court
Presidio of San Francisco, San Francisco, CA

Photograph 5 Edge of Forest Looking East (Bldgs. 1255 and 1256 to the right)

Photograph 6 Edge of Forest Looking West (Bldgs. 1255 to the left)

FOREST AREA
Building 1255 and 1256
Lendrum Court
Presidio of San Francisco, San Francisco, CA

Photograph 7 South Corner of Forest Area Looking North

Photograph 8 South Corner of Forest Area looking North with Clean-Closed Area to the Right

APPENDIX I

IMPORT SOIL INFORMATION AND APPROVALS

Department of Toxic Substances Control

Matthew Rodriquez
Secretary for
Environmental Protection

Barbara A. Lee, Director
700 Heinz Avenue
Berkeley, California 94710-2721

Edmund G. Brown Jr.
Governor

July 14, 2015

Nina Larssen
Remediation Project Manager
Presidio Trust
103 Montgomery Street
P.O. Box 29052
San Francisco, California 94129-0052

Dear Ms. Larssen:

Thank you for submitting the *Request for Approval of LBNL Soil as Import to the Lendrum Court Site, Presidio of San Francisco, California,* dated July 10, 2015 (Report). The Report, prepared by TRC on behalf of the Presidio Trust, summarizes the chemical testing of a soil stockpile proposed for reuse for the Phase I cap at the Lendrum Court site and within Land Use Control areas in the Doyle Drive corridor. The stockpile comes from an excavation of an undeveloped hillside for the construction of the Computational Research and Theory (CRT) facility on the Lawrence Berkeley National Laboratory (LBNL) site.

Based on a review of the information provided, the Department of Toxic Substances Control (DTSC) approves the use of up to 17,000 cubic yards of the CRT stockpile from the LBNL site. In the annual Presidio Operation and Maintenance and Land Use Controls Report, please report the specific locations within LUC areas where this soil was placed.

Printed on Recycled Paper

If you have any questions or concerns, please contact me at (510) 540-3879 or at George.Chow@dtsc.ca.gov.

Sincerely,

George Chow
Project Manager
Brownfields and Environmental Restoration Program
Berkeley Office

cc: David Yam
david.yam@dot.ca.gov

Eileen Fanelli
EFanelli@trcsolutions.com

505 Sansome Street
Suite 1600
San Francisco, CA 94111

415.434.2600 PHONE
415.434.2321 FAX

www.trcsolutions.com

July 10, 2015

Mr. George Chow
Department of Toxic Substances Control
700 Heinz Avenue
Berkeley, CA 94710-0052

RE: Request for Approval of LBNL Soil as Import to the Lendrum Court Site
Presidio of San Francisco

Dear Mr. Chow,

The following summarizes the results of chemical testing of soil currently stockpiled at the Lawrence Berkeley National Laboratory (LBNL) in Berkeley, California. On behalf of the Presidio Trust, TRC is requesting DTSC approval to import soil from LBNL to construct the soil cap in the phase 1 Lendrum Court area (site) in the Presidio of San Francisco (Presidio). The following provides background information on the history of the soil and presents chemical data characterizing the soil relative to Presidio and site clean-up levels.

BACKGROUND

The remediation of Lendrum Court is occurring at the same time as final construction of the Doyle Drive Replacement Project. The Doyle Drive project requires importation of soil as backfill along portions of the highway. Caltrans identified the LBNL soil as a potential source of fill. As documented in the attached letter from Ron Pauer of LBNL to Dave Yam of Caltrans (Attachment A), the soil was generated during construction of the Computational Research and Theory facility on the LBNL campus. The site was previously undeveloped hillside, consisting of a stand of eucalyptus trees and a few immature redwood, bay, and oak trees with a grassland understory. There is no history of hazardous materials use, storage or disposal on the site. The LBNL site has been evaluated for the presence of soil contamination under the oversight of DTSC's Corrective Action Program, and no further investigation or remediation was required by DTSC.

This soil was approved for re-use by DTSC. Approximately 17,000 cubic yards of this soil is currently stockpiled at LBNLs Richmond Field Station. LBLN has no intentions for reusing this soil and has made it available to Caltrans for reuse on the Doyle Drive project. Portions of the Doyle Drive project are in Presidio Land Use Control (LUC) areas. As such the Trust is requesting DTSC approval to place the soil in LUC areas within the Doyle corridor, in particular the Com/PX

and FS6B LUC areas. Additionally, the Trust is seeking DTSC approval to use the soil as import for construction of the phase 1 soil cap at Lendrum Court.

In conjunction with LBNL, Caltrans collected and analyzed samples of the soil from stockpiles B, C, and D on March 24, 2015 (Figure 1). The sampling was performed in conformance with DTSC's October 2001 *Information Advisory Clean Imported Fill*. The samples were analyzed for chemical constituents as outlined below. In addition, samples were evaluated for horticultural properties to confirm suitability for planting.

LABORATORY ANALYSIS

Soil samples were analyzed by Curtis Tompkins, Ltd for:

- TPH-Purgeables and/or BTXE by GC (EPA 8015B)
- TPH-Extractables by GC (EPA 8015B)
- Volatile Organics by GC/MS (EPA 8260B)
- Semivolatile Organics by GC/MS (EPA 8270C)
- Pesticides (EPA 8081A)
- PCBs (EPA 8082)
- Metals (EPA 6020 and EPA 7471A)
- Moisture (ASTM D2216/CLP)
- Asbestos PLM (EPA 600/R-93-116)
    - Analyzed by Forensic Analytical in Hayward, California[1]

RESULTS

Laboratory analytical results (Attachment B) are summarized and presented in Table 1. Results were compared to residential/ecological buffer zone screening levels as presented in the 2002 Presidio-Wide Clean-Up Level (CUL) Document as amended. All contaminants of concern (COCs) meet ecological, residential, and background screening levels except arsenic, where the governing screening level (Background for Colma formation) is 6.2 milligram per kilogram (mg/kg) and the maximum arsenic concentrations for stockpiles areas B, C, and D were reported as 14, 14, and 15 mg/kg, respectively. Additionally, maximum concentration of 160 mg/kg of TPH as Fuel Oil (motor oil) was reported for a sample collected from stockpile area C, which is equivalent to the governing screening level (Unrestricted Use – Ecological and Residential).

The following constituents were reported as Non-Detect (ND), however, reporting limits (RL) were above screening levels (SL):

[1] Not a National Environmental Laboratory Accreditation Program (NELAP) certified lab.

- Benzo(a)anthracene (SL 0.46 mg/kg, RL 0.58 mg/kg);
- Benzo(a)pyrene (SL 0.046 mg/kg, RL 0.58 mg/kg);
- Benzo(b)fluoranthene (SL 0.46 mg/kg, RL 0.58 mg/kg);
- Indeno(1,2,3-cd)pyrene (SL 0.46 mg/kg, RL 0.6 mg/kg);
- Dibenzo(a,h)anthracene (SL 0.046 mg/kg, RL 0.58 mg/kg);
- 1,4-Dichlorobenzene (SL 0.13 mg/kg, RL 0.58 mg/kg);
- Chlordane (SL 0.009 mg/kg, RL 0.034 mg/kg); and
- 2,4-D (SL 0.025 mg/kg, RL 0.58 mg/kg).

Even so, the undeveloped nature of the area from which the soil was generated supports the analytical findings that PAHs and pesticides are not present in the soil.

CONCLUSIONS

The analytical data indicates that concentrations of COCs substantially meet ecological, residential, and background screening levels. Additionally, the will support post-remediation vegetation. In accordance with previous DTSC approval of the soil for reuse fill at Richmond Field Station (RFS) and in conjunction with the analytical data substantially meeting residential, ecological, and background screening levels, TRC is requesting, on the behalf of the Presidio Trust, DTSC approval to import soil from the LBNL stockpiles at RFS as a source for the phase 1 soil cap and for use in LUC areas within the Doyle Drive project corridor.

Sincerely,
TRC Solutions, Inc.

Justin Hanzel-Durbin
Senior Engineer/Project Manager

Eileen Fanelli
Principal Environmental/Remediation

Cc. Nina Larssen – Presidio Trust
Bruce Handel – US Army

David Yam - Caltrans

ATTACHMENTS:
Table 1 – LBNL Sampling Results
Figure 1 – Soil Sample Locations
Attachment A – Letter from Ron Pauer to David Yam
Attachment B – Laboratory Data Results

Table 1
LBNL Sampling Results

Table 1

SUMMARY TABLE SOIL ANALYTICAL RESULTS - LBNL SOIL AT RICHMOND FIELD STATION

(Concentrations in mg/kg)

Sample ID			75458 75459	75460 75461	75462 75463	75464 75465	75466 75467	75468 75469	75470 75471	75472 75473	75474 75475	75476 75477	75478 75479	75480 75481	75482 75483	75484 75485	75486 75487	75488 75489	75490 75491	75492 75493	75494 75495	75496 75497	75498 75499	75500 75501	75502 75503	75504 75505
Location			B1	B2	B3	B4	B5	B6	B7	B8	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	D1	D2	D3	D4	D5	D6
Collection Depth (feet)			2	2	2	2	2	2	2	2	1.5	4	5	5	5	4	4	3	2	2	5	5	5	5	4	4
Analyte/Analytical Group	**Analytical Method**	**LBNL Background (a)**																								
Metals																										
Antimony	EPA 6020	<6	**0.77**	**0.6**	**0.54**	**0.47**	**0.52**	**0.38**	**0.54**	**0.5**	**0.51**	**0.53**	**0.55**	**0.29**	**0.46**	**0.44**	**0.54**	**0.51**	**0.58**	**0.53**	**0.55**	**0.45**	**0.74**	**0.54**	**0.44**	**0.44**
Arsenic	EPA 6020	24	**12**	**12**	**14**	**13**	**14**	**9.8**	**13**	**13**	**13**	**13**	**13**	**8.2**	**12**	**11**	**13**	**14**	**13**	**14**	**13**	**12**	**15**	**14**	**12**	**13**
Barium	EPA 6020	410	**230**	**190**	**250**	**200**	**210**	**170**	**190**	**190**	**180**	**180**	**200**	**160**	**170**	**180**	**190**	**100**	**190**	**210**	**190**	**180**	**170**	**190**	**180**	**170**
Beryllium	EPA 6020	1	**0.7**	**0.76**	**0.89**	**0.86**	**0.87**	**0.76**	**0.82**	**0.78**	**0.89**	**0.88**	**0.84**	**0.64**	**0.71**	**0.72**	**0.88**	**0.43**	**0.85**	**0.9**	**0.82**	**0.76**	**0.81**	**0.77**	**0.74**	**0.77**
Cadmium	EPA 6020	5.6	<0.28	<0.29	<0.29	<0.29	<0.29	<0.3	<0.28	<0.27	<0.25	<0.29	<0.27	<0.27	<0.28	<0.29	<0.29	<0.29	<0.3	<0.3	<0.3	<0.29	<0.29	<0.27	<0.29	<0.29
Chromium (total)	EPA 6020	120	**46**	**42**	**50**	**47**	**47**	**42**	**45**	**49**	**49**	**49**	**53**	**32**	**41**	**39**	**48**	**29**	**46**	**53**	**47**	**43**	**51**	**50**	**41**	**42**
Cobalt	EPA 6020	25	**15**	**15**	**23**	**15**	**17**	**14**	**16**	**16**	**16**	**17**	**18**	**8.6**	**13**	**13**	**18**	**9**	**15**	**17**	**16**	**14**	**16**	**18**	**17**	**17**
Copper	EPA 6020	63	**46**	**42**	**45**	**45**	**45**	**34**	**45**	**46**	**46**	**45**	**46**	**22**	**37**	**35**	**43**	**25**	**44**	**49**	**42**	**42**	**49**	**49**	**41**	**39**
Lead	EPA 6020	24	**13**	**12**	**14**	**11**	**14**	**9.9**	**13**	**13**	**13**	**13**	**14**	**6.3**	**12**	**11**	**13**	**9.4**	**13**	**13**	**12**	**12**	**17**	**15**	**13**	**12**
Mercury	EPA 7471	0.42	**0.042**	**0.053**	**0.051**	**0.052**	**0.047**	**0.048**	**0.046**	**0.054**	**0.046**	**0.046**	**0.054**	**0.04**	**0.049**	**0.042**	**0.054**	**0.058**	**0.049**	**0.041**	**0.054**	**0.053**	**0.051**	**0.042**	**0.056**	**0.063**
Molybdenum	EPA 6020	4.8	**0.8**	**0.9**	**0.9**	**0.61**	**0.78**	**0.56**	**0.74**	**0.76**	**0.75**	**0.74**	**0.85**	<0.43	**0.73**	**0.64**	**0.8**	**0.66**	**0.82**	**0.78**	**0.75**	**0.74**	**0.94**	**0.62**	**0.61**	**0.64**
Nickel	EPA 6020	272	**48**	**49**	**51**	**46**	**49**	**42**	**45**	**53**	**48**	**48**	**53**	**25**	**46**	**44**	**48**	**25**	**46**	**49**	**49**	**49**	**58**	**59**	**49**	**46**
Selenium	EPA 6020	4.9	**0.33**	<0.29	**0.36**	<0.29	**0.3**	<0.31	**0.31**	<0.27	**0.29**	<0.31	<0.27	<0.27	<0.28	<0.31	**0.36**	<0.29	**0.31**	<0.32	<0.3	<0.29	**0.34**	**0.34**	<0.29	<0.29
Silver	EPA 6020	2.9	<0.28	<0.29	<0.29	<0.29	<0.29	<0.3	<0.28	<0.27	<0.25	<0.29	<0.27	<0.27	<0.28	<0.29	<0.29	<0.29	<0.3	<0.3	<0.3	<0.29	<0.29	<0.27	<0.29	<0.29
Thallium	EPA 6020	10	<0.28	<0.29	<0.29	<0.29	<0.29	<0.3	<0.28	<0.27	<0.25	<0.29	<0.27	<0.27	<0.28	<0.29	<0.29	<0.29	<0.3	<0.3	<0.3	<0.29	<0.29	<0.27	<0.29	<0.29
Vanadium	EPA 6020	90	**55**	**58**	**67**	**66**	**64**	**62**	**64**	**63**	**65**	**69**	**67**	**57**	**54**	**57**	**67**	**41**	**67**	**70**	**62**	**55**	**58**	**59**	**56**	**55**
Zinc	EPA 6020	140	**100**	**96**	**99**	**100**	**110**	**84**	**100**	**100**	**110**	**110**	**100**	**66**	**88**	**80**	**100**	**56**	**99**	**110**	**93**	**92**	**120**	**130**	**120**	**110**
VOCs	EPA 8260		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Asbestos	EPA 600/R-93-116		ND***	ND***	ND***	ND***	ND***	ND***	ND***	ND***	ND***	ND***	ND***	ND***	ND***	ND***	ND***	ND***	ND***	ND***	ND***	ND***	ND***	ND***	ND***	ND***
SVOCs	EPA 8270		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.61***
Diesel Range	EPA 8015		<11	<12	<12	<12	<11	<12	<12	<12	<11	<12	<12	**17**	<12	<12	<12	<12	<12	<12	<12	<12	<12	<12	<12	<12
Motor Oil Range	EPA 8015		<57	<59	<58	<59	<57	<60	<58	<59	**64**	**110**	<59	**160**	<58	<58	<58	<59	<60	<59	<59	<60	<58	<58	<59	<59
Gasoline	EPA 8015		<0.16	<0.18	<0.16	<0.17	<0.18	<0.16	<0.17	<0.17	<0.17	<0.2	<0.18	<0.18	<0.17	<0.19	<0.17	<0.17	<0.18	<0.17	<0.17	<0.19	<0.17	<0.15	<0.17	<0.2
PCBs	EPA 8082		ND**	ND**	ND**	ND**	ND**	ND**	ND**	ND**	ND**	ND**	ND**	ND**	ND**	ND**	ND**	ND**	ND**	ND**	ND**	ND**	ND**	ND**	ND**	ND**
Pesticides	EPA 8081		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

(a) "Analysis of Background Distributions of Metals in the Soil at Lawrence Berkeley National Laboratory" (June 2002 Revised April 2009)

*bis(2-ethyhexyl)phthalate

** less than 0.01 mg/kg for aroclors 1016, 1232, 1242, 1248, & 1260; Less than 0.02 mg/kg for aroclor 1221

*** Level of Quantification = 1%

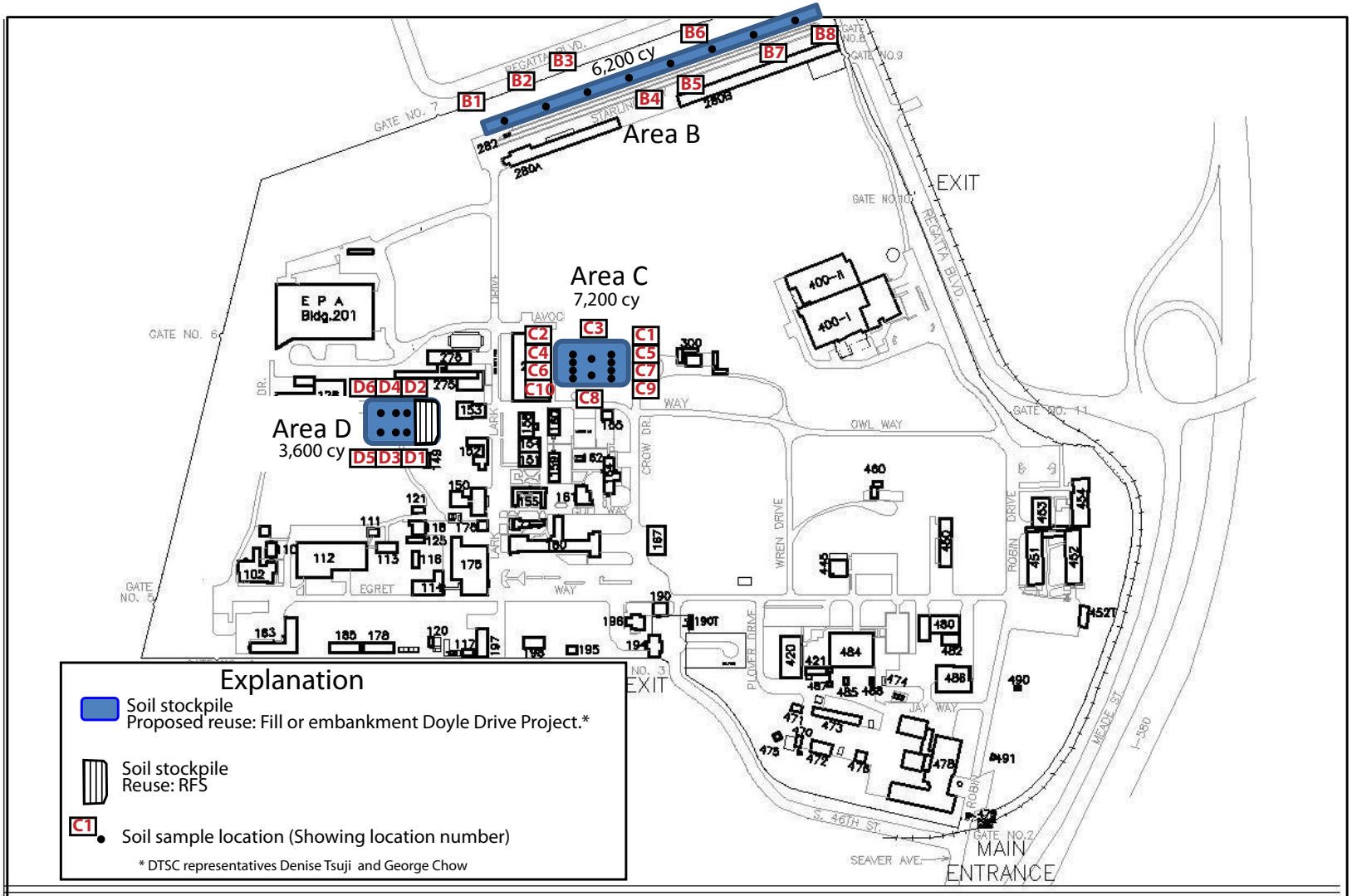
ND: No Analytes Detected

VOCs: Volatile Organic Compounds

SVOCs: Semivolatile Organic Compounds

PCBs: Polychlorinated biphenyls

Figure 1
LBNL Soil Sample Locations



SITE MAP

UC BERKELEY RICHMOND FIELD STATION

REVISION DATE: 01/2

Attachment A
Letter from Ron Pauer to David Yam

BERKELEY LAB

Environment / Health / Safety
DIVISION
Environmental Services

Via email

Reference No.: ES-15-090

July 6, 2015

Mr. David Yam
Branch Chief, Office of Water Quality
California Department of Transportation
111 Grand Ave., MS 8F
Oakland, CA 94612

Subject: Information Requested for Source Location of LBNL Soil Currently Stockpiled at the Richmond Field Station

Mr. Yam,

As requested, the Lawrence Berkeley National Laboratory (LBNL) is providing the following information regarding the source location for LBNL soil currently stockpiled at the University of California Richmond Field Station (RFS) that has been proposed for reuse in the Presidio. The soil had previously been approved for reuse as fill at the RFS by the California Department of Toxic Substances Control (DTSC) RFS site manager Lynn Nakashima, but is no longer needed for that purpose.

The soil at the RFS site was excavated for construction of the Computational Research and Theory (CRT) facility on the LBNL site. The CRT facility is located on a 2.25 acre site on land owned by the University of California and was previously undeveloped hillside consisting of a stand of eucalyptus trees and a few immature redwood, bay, and oak trees, and a grassland understory. The CRT site, as shown on attached Figure 1, is flanked by LBNL Buildings 70 and 70A and the Building 50 complex to east, open space to the south, and Chu Road to the north and west.

Under the oversight of the DTSC's Corrective Action Program, the LBNL site has been evaluated for the presence of soil contamination. There is no history of hazardous materials use, storage or disposal on the site where the CRT is located and no further investigation or remediation was required by DTSC. The current DTSC site manager for the LBNL site is Jacinto Soto.

Please contact David Baskin (dabaskin@lbl.gov) at 510-486-5684 or me (ropauer@lbl.gov) at 510-486-7614 if you have any questions.

Sincerely,

Ron Pauer

Ron Pauer
Environmental Manager

Attachment:
Figure 1. Location of Computational Research and Theory (CRT) Facility

Lawrence Berkeley National Laboratory
One Cyclotron Road | Berkeley, California 94720 | Mail Stop 75B0101 | Tel: 510.486.7614 | email: ROPauer@lbl.gov

cc via email:

Kim Abbott (kvabbott@lbl.gov)
David Baskin (dabaskin@lbl.gov)
Jim Floyd (JGFloyd@lbl.gov)
Mary Gross (mcgross@lbl.gov)
David Kestell (djkestell@lbl.gov)
Jack Salazar (jjsalazar@lbl.gov)
Jacinto Soto (jsoto@dtsc.ca.gov)
Sheree Swanson (sswanson@lbl.gov)
Nancy Ware (NMWare@lbl.gov)

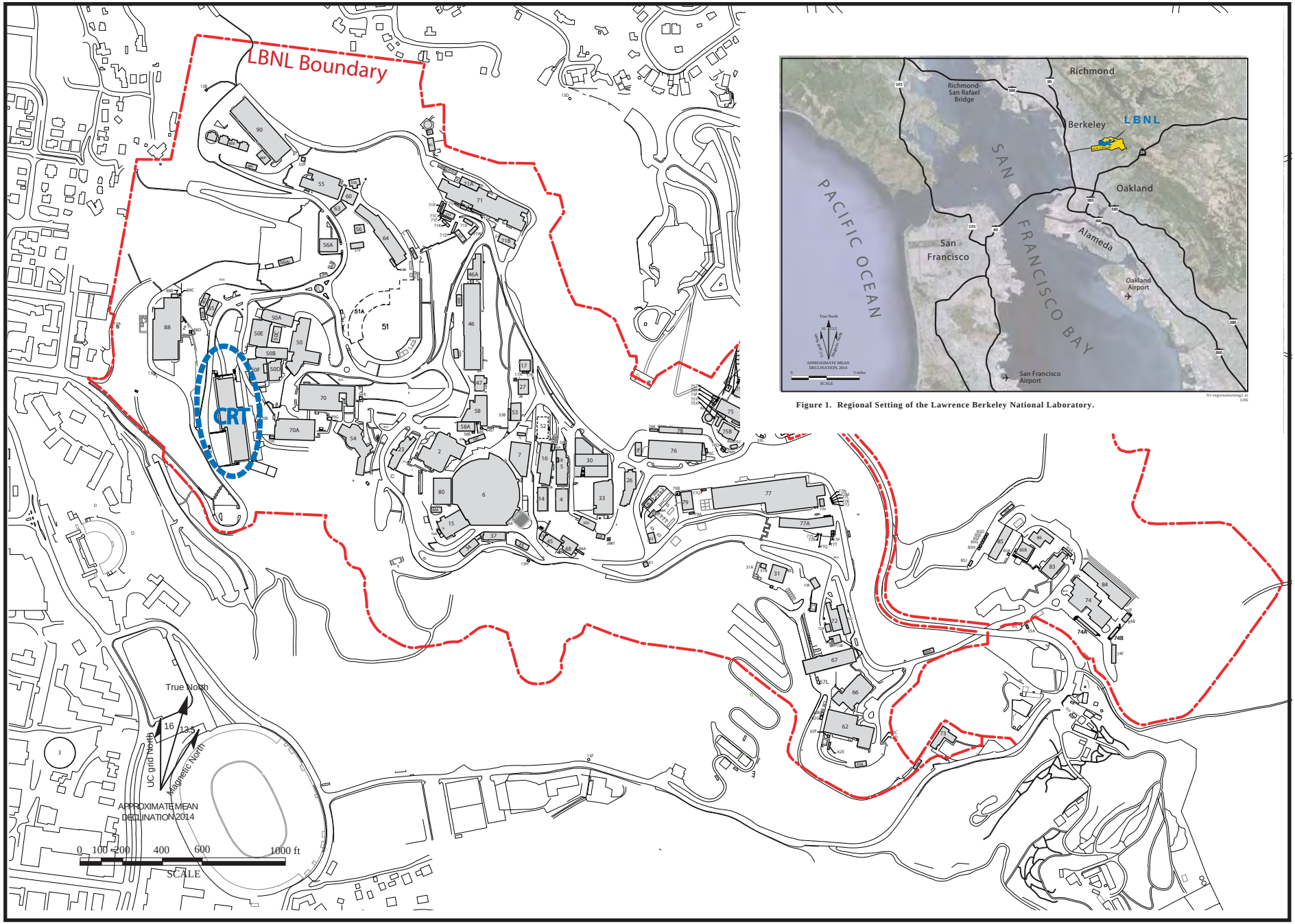


Figure 1. Regional Setting of the Lawrence Berkeley National Laboratory.

location.ai
7/15

Figure 1. Location of Computational Research and Theorey (CRT) Facility, Lawrence Berkeley National Laboratory.

Attachment B
Laboratory Data Results

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 265569
ANALYTICAL REPORT

Lawrence Berkeley National Lab
1 Cyclotron Road
Berkeley, CA 94720

Project : STANDARD
Location : WSDP - RFS Soil Disposal Testing 3/24
Level : II

Sample ID	Lab ID	Sample ID	Lab ID	Sample ID	Lab ID
75458	265569-001	75476	265569-019	75494	265569-037
75459	265569-002	75477	265569-020	75495	265569-038
75460	265569-003	75478	265569-021	75496	265569-039
75461	265569-004	75479	265569-022	75497	265569-040
75462	265569-005	75480	265569-023	75498	265569-041
75463	265569-006	75481	265569-024	75499	265569-042
75464	265569-007	75482	265569-025	75500	265569-043
75465	265569-008	75483	265569-026	75501	265569-044
75466	265569-009	75484	265569-027	75502	265569-045
75467	265569-010	75485	265569-028	75503	265569-046
75468	265569-011	75486	265569-029	75504	265569-047
75469	265569-012	75487	265569-030	75505	265569-048
75470	265569-013	75488	265569-031	75506	265569-049
75471	265569-014	75489	265569-032	75507	265569-050
75472	265569-015	75490	265569-033	75508	265569-051
75473	265569-016	75491	265569-034	75509	265569-052
75474	265569-017	75492	265569-035		
75475	265569-018	75493	265569-036		

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Mikelle Chong Date: 04/08/2015

Mikelle Chong
Project Manager
mikelle.chong@ctberk.com

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**265569**
Client:	**Lawrence Berkeley National Lab**
Location:	**WSDP - RFS Soil Disposal Testing 3/24**
Request Date:	**03/25/15**
Samples Received:	**03/25/15**

This data package contains sample and QC results for twenty nine soil samples, requested for the above referenced project on 03/25/15. The samples were received on ice and intact. All holding times and calibration criteria were met.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):
No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):
No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
Matrix spikes were not performed for this analysis in batch 221678 due to insufficient sample amount. Matrix spikes were not performed for this analysis in batch 221694 due to insufficient sample amount. High surrogate recoveries were observed for 1,2-dichloroethane-d4 in 75493 (lab # 265569-036) and 75495 (lab # 265569-038); no target analytes were detected in these samples. No other analytical problems were encountered.

Semivolatile Organics by GC/MS (EPA 8270C):
High RPD was observed for 1,4-dichlorobenzene in the MS/MSD of 75502 (lab # 265569-045); the high RPD was confirmed by re-analysis, and this analyte was not detected at or above the RL in the associated samples. No other analytical problems were encountered.

Pesticides (EPA 8081A):
All samples underwent sulfur cleanup using the copper option in EPA Method 3660B. All samples underwent florisil cleanup using EPA Method 3620C. 75474 (lab # 265569-017), 75478 (lab # 265569-021), and 75480 (lab # 265569-023) were diluted due to the color of the sample extracts. No other analytical problems were encountered.

PCBs (EPA 8082):
All samples underwent sulfuric acid cleanup using EPA Method 3665A. All samples underwent sulfur cleanup using the copper option in EPA Method 3660B. No analytical problems were encountered.

Metals (EPA 6020 and EPA 7471A):
High recoveries were observed for arsenic, vanadium, and zinc in the MS of 75458 (lab # 265569-001); the LCS was within limits, and the associated RPDs were within limits. No other analytical problems were encountered.

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**265569**
Client:	**Lawrence Berkeley National Lab**
Location:	**WSDP - RFS Soil Disposal Testing 3/24**
Request Date:	**03/25/15**
Samples Received:	**03/25/15**

Moisture (ASTM D2216/CLP):

No analytical problems were encountered.

Asbestos PLM (EPA 600/R-93-116):

Forensic Analytical in Hayward, CA performed the analysis (not NELAP certified). Please see the Forensic Analytical case narrative.

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Phone: 510-486-7616 **Fax:** 510-486-7034

COC No.: 08381

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

1	75458	3/24/2015 14:50	3/24/2015 14:50	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	B-1-2'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 14:50	3/24/2015 14:50	Grab	Soil/Solids	16 oz. CG	1	None	E8081	B-1-2'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 14:50	3/24/2015 14:50	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	B-1-2'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 14:50	3/24/2015 14:50	Grab	Soil/Solids	16 oz. CG	1	None	E8270	B-1-2'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 14:50	3/24/2015 14:50	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	B-1-2'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 14:50	3/24/2015 14:50	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	B-1-2'	For metals analysis use method 6020 and 7471A (for Hg)
2	75459	3/24/2015 15:05	3/24/2015 15:05	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	E8260	B-1-2'	

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by:

Special Instructions/Comments:
HOLD Samples 75506, 75507, 75508, & 75509 until further notice. Please report results as dry weight corrected. Copy Bruce Rucker on results - Rucker@ce2corp.com
-All Samples on this COC delivered on blue ice.

Relinquished By (Sampler)		Relinquished By		Relinquished By	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: Neel Singh	Date: 3/25/15	Printed Name	Date	Printed Name	Date
Company: LBNL		Company		Company	
Received By		**Received By**		**Received By**	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: Mikelle Chong	Date: 3/25/15	Printed Name	Date	Printed Name	Date
Company: CT		Company		Company	

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial

*** Field Sample ID: If present, use this information as the sample identifier in hard-copy reports (please include Sample Location information in the notes). If blank, and in electronic deliverable files, use Sample Location as the identifier. ****Listed turnaround time is for reporting and is in work days, as defined in the Joint LBNL/LLNL Analytical Services blanket order.

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Phone: 510-486-7616 Fax: 510-486-7034

COC No.: 08381

Page 2 of 30

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

75459	3/24/2015 15:05	3/24/2015 15:05	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	EM8015:GAS	B-1-2'	
75460	3/24/2015 15:05	3/24/2015 15:05	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	B-2-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 15:05	3/24/2015 15:05	Grab	Soil/Solids	16 oz. CG	1	None	E8081	B-2-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 15:05	3/24/2015 15:05	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	B-2-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 15:05	3/24/2015 15:05	Grab	Soil/Solids	16 oz. CG	1	None	E8270	B-2-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 15:05	3/24/2015 15:05	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	B-2-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 15:05	3/24/2015 15:05	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	B-2-2'	For metals analysis use method 6020 and 7471A (for Hg)

3

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by: NS

Special Instructions/Comments:
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Relinquished By (Sampler)		Relinquished By		Relinquished By	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: Neel Singh	Date: 3/25/15	Printed Name	Date	Printed Name	Date
Company: LBNL		Company		Company	
Received By		**Received By**		**Received By**	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: Mikelle Chong	Date: 3/25	Printed Name	Date	Printed Name	Date
Company: CT		Company		Company	

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
*** Field Sample ID: If present, use this information as the sample identifier in hard-copy reports (please include Sample Location information in the notes). If blank, and in electronic deliverable files, use Sample Location as the identifier. ****Listed turnaround time is for reporting and is in work days, as defined in the Joint LBNL/LLNL Analytical Services blanket order.

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COC No.: 08381

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

75461	3/24/2015 15:05	3/24/2015 15:05	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	E8260	B-2-2'	
	3/24/2015 15:05	3/24/2015 15:05	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	EM8015:GAS	B-2-2'	
75462	3/24/2015 15:20	3/24/2015 15:20	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	B-3-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 15:20	3/24/2015 15:20	Grab	Soil/Solids	16 oz. CG	1	None	E8081	B-3-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 15:20	3/24/2015 15:20	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	B-3-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 15:20	3/24/2015 15:20	Grab	Soil/Solids	16 oz. CG	1	None	E8270	B-3-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 15:20	3/24/2015 15:20	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	B-3-2'	For metals analysis use method 6020 and 7471A (for Hg)

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by: NS

Special Instructions/Comments:
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Relinquished By (Sampler)		Relinquished By		Relinquished By	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: Neel Singh	Date: 3/25/15	Printed Name	Date	Printed Name	Date
Company: LBNL		Company		Company	
Received By		**Received By**		**Received By**	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: Mikelle Chong	Date: 3/25/15	Printed Name	Date	Printed Name	Date
Company: CT		Company		Company	

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
*** Field Sample ID: If present, use this information as the sample identifier in hard-copy reports (please include Sample Location information in the notes). If blank, and in electronic deliverable files, use Sample Location as the identifier. ****Listed turnaround time is for reporting and is in work days, as defined in the Joint LBNL/LLNL Analytical Services blanket order.

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Phone: 510-486-7616 **Fax:** 510-486-7034

COC No.: 08381

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

75462	3/24/2015 15:20	3/24/2015 15:20	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	B-3-2'	For metals analysis use method 6020 and 7471A (for Hg)
75463	3/24/2015 15:20	3/24/2015 15:20	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	E8260	B-3-2'	
	3/24/2015 15:20	3/24/2015 15:20	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	EM8015:GAS	B-3-2'	
75464	3/24/2015 15:35	3/24/2015 15:35	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	B-4-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 15:35	3/24/2015 15:35	Grab	Soil/Solids	16 oz. CG	1	None	E8081	B-4-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 15:35	3/24/2015 15:35	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	B-4-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 15:35	3/24/2015 15:35	Grab	Soil/Solids	16 oz. CG	1	None	E8270	B-4-2'	For metals analysis use method 6020 and 7471A (for Hg)

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by: NS

Special Instructions/Comments:
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Relinquished By (Sampler)		Relinquished By		Relinquished By	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: Neel Singh	Date: 3/25/15	Printed Name	Date	Printed Name	Date
Company: LBNL		Company		Company	

Received By		Received By		Received By	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: Michelle Chang	Date: 3/25	Printed Name	Date	Printed Name	Date
Company: CT		Company		Company	

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
*** Field Sample ID: If present, use this information as the sample identifier in hard-copy reports (please include Sample Location information in the notes). If blank, and in electronic deliverable files, use Sample Location as the identifier. ****Listed turnaround time is for reporting and is in work days, as defined in the Joint LBNL/LLNL Analytical Services blanket order.

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COC No.: 08381

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

75464	3/24/2015 15:35	3/24/2015 15:35	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	B-4-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 15:35	3/24/2015 15:35	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	B-4-2'	For metals analysis use method 6020 and 7471A (for Hg)
75465	3/24/2015 15:35	3/24/2015 15:35	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	E8260	B-4-2'	
	3/24/2015 15:35	3/24/2015 15:35	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	EM8015:GAS	B-4-2'	
75466	3/24/2015 15:50	3/24/2015 15:50	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	B-5-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 15:50	3/24/2015 15:50	Grab	Soil/Solids	16 oz. CG	1	None	E8081	B-5-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 15:50	3/24/2015 15:50	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	B-5-2'	For metals analysis use method 6020 and 7471A (for Hg)

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by: NS

Special Instructions/Comments:
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Relinquished By (Sampler)		Relinquished By		Relinquished By	
Signature	Time 1535	Signature	Time	Signature	Time
Printed Name Neel Singh	Date 3/25/15	Printed Name	Date	Printed Name	Date
Company LBNL		Company		Company	
Received By		**Received By**		**Received By**	
Signature	Time 1535	Signature	Time	Signature	Time
Printed Name Mikelle Chung	Date 3/25	Printed Name	Date	Printed Name	Date
Company CT		Company		Company	

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
*** Field Sample ID: If present, use this information as the sample identifier in hard-copy reports (please include Sample Location information in the notes). If blank, and in electronic deliverable files, use Sample Location as the identifier. ****Listed turnaround time is for reporting and is in work days, as defined in the Joint LBNL/LLNL Analytical Services blanket order.

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COC No.: 08381

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

75466	3/24/2015 15:50	3/24/2015 15:50	Grab	Soil/Solids	16 oz. CG	1	None	E8270	B-5-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 15:50	3/24/2015 15:50	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	B-5-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 15:50	3/24/2015 15:50	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	B-5-2'	For metals analysis use method 6020 and 7471A (for Hg)
75467	3/24/2015 15:50	3/24/2015 15:50	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	E8260	B-5-2'	
	3/24/2015 15:50	3/24/2015 15:50	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	EM8015:GAS	B-5-2'	
75468	3/24/2015 16:05	3/24/2015 16:05	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	B-6-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 16:05	3/24/2015 16:05	Grab	Soil/Solids	16 oz. CG	1	None	E8081	B-6-2'	For metals analysis use method 6020 and 7471A (for Hg)

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by: NS

Special Instructions/Comments:
HOLD Samples 75506, 75507, 75508, & 75509 until further notice. Please report results as dry weight corrected. Copy Bruce Rucker on results - Rucker@ce2corp.com

Relinquished By (Sampler)		Relinquished By		Relinquished By	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: Neel Singh	Date: 3/25/15	Printed Name	Date	Printed Name	Date
Company: LBNL		Company		Company	
Received By		**Received By**		**Received By**	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: MikelleChang	Date: 3/25	Printed Name	Date	Printed Name	Date
Company: CT		Company		Company	

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
*** Field Sample ID: If present, use this information as the sample identifier in hard-copy reports (please include Sample Location information in the notes). If blank, and in electronic deliverable files, use Sample Location as the identifier. ****Listed turnaround time is for reporting and is in work days, as defined in the Joint LBNL/LLNL Analytical Services blanket order.

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Phone: 510-486-7616 **Fax:** 510-486-7034

COC No.: 08381

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

11	75468	3/24/2015 16:05	3/24/2015 16:05	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	B-6-2'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 16:05	3/24/2015 16:05	Grab	Soil/Solids	16 oz. CG	1	None	E8270	B-6-2'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 16:05	3/24/2015 16:05	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	B-6-2'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 16:05	3/24/2015 16:05	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	B-6-2'	For metals analysis use method 6020 and 7471A (for Hg)
12	75469	3/24/2015 16:05	3/24/2015 16:05	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	E8260	B-6-2'	
		3/24/2015 16:05	3/24/2015 16:05	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	EM8015:GAS	B-6-2'	
13	75470	3/24/2015 16:20	3/24/2015 16:20	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	B-7-2'	For metals analysis use method 6020 and 7471A (for Hg)

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by: NS

Special Instructions/Comments:
HOLD Samples 75506, 75507, 75508, & 75509 until further notice. Please report results as dry weight corrected. Copy Bruce Rucker on results - Rucker@ce2corp.com

Relinquished By (Sampler)		Relinquished By		Relinquished By	
Signature	Time 1535	Signature	Time	Signature	Time
Printed Name Ned Singh	Date 3/25/15	Printed Name	Date	Printed Name	Date
Company LBNL		Company		Company	

Received By		Received By		Received By	
Signature	Time 1535	Signature	Time	Signature	Time
Printed Name Mikelle Chang	Date 3/25	Printed Name	Date	Printed Name	Date
Company CT		Company		Company	

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
*** Field Sample ID: If present, use this information as the sample identifier in hard-copy reports (please include Sample Location information in the notes). If blank, and in electronic deliverable files, use Sample Location as the identifier. ****Listed turnaround time is for reporting and is in work days, as defined in the Joint LBNL/LLNL Analytical Services blanket order.

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Phone: 510-486-7616 Fax: 510-486-7034

COC No.: 08381

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

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75470	3/24/2015 16:20	3/24/2015 16:20	Grab	Soil/Solids	16 oz. CG	1	None	E8081	B-7-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 16:20	3/24/2015 16:20	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	B-7-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 16:20	3/24/2015 16:20	Grab	Soil/Solids	16 oz. CG	1	None	E8270	B-7-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 16:20	3/24/2015 16:20	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	B-7-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 16:20	3/24/2015 16:20	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	B-7-2'	For metals analysis use method 6020 and 7471A (for Hg)

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by:

Special Instructions/Comments:
HOLD Samples 75506, 75507, 75508, & 75509 until further notice. Please report results as dry weight corrected. Copy Bruce Rucker on results - Rucker@ce2corp.com

Relinquished By (Sampler)	Relinquished By	Relinquished By
Signature: [signature] Time: 1535	Signature: Time:	Signature: Time:
Printed Name: Ned Singh Date: 3/25/15	Printed Name: Date:	Printed Name: Date:
Company: LBNL	Company:	Company:

Received By	Received By	Received By
Signature: [signature] Time: 1535	Signature: Time:	Signature: Time:
Printed Name: Michelle Chang Date: 3/25	Printed Name: Date:	Printed Name: Date:
Company: CT	Company:	Company:

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
*** Field Sample ID: If present, use this information as the sample identifier in hard-copy reports (please include Sample Location information in the notes). If blank, and in electronic deliverable files, use Sample Location as the identifier. ****Listed turnaround time is for reporting and is in work days, as defined in the Joint LBNL/LLNL Analytical Services blanket order.

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For questions contact John Jelinski, e-mail: JAJelinski@lbl.gov
Phone: 510-486-7616 **Fax:** 510-486-7034

COC No.: 08381

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

75471	3/24/2015 16:20	3/24/2015 16:20	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	E8260	B-7-2'	
	3/24/2015 16:20	3/24/2015 16:20	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	EM8015:GAS	B-7-2'	
75472	3/24/2015 16:35	3/24/2015 16:35	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	B-8-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 16:35	3/24/2015 16:35	Grab	Soil/Solids	16 oz. CG	1	None	E8081	B-8-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 16:35	3/24/2015 16:35	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	B-8-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 16:35	3/24/2015 16:35	Grab	Soil/Solids	16 oz. CG	1	None	E8270	B-8-2'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 16:35	3/24/2015 16:35	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	B-8-2'	For metals analysis use method 6020 and 7471A (for Hg)

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by:

Special Instructions/Comments:
HOLD Samples 75506, 75507, 75508, & 75509 until further notice. Please report results as dry weight corrected. Copy Bruce Rucker on results - Rucker@ce2corp.com

Relinquished By (Sampler)	Relinquished By	Relinquished By
Signature: [signature] Time: 1535	Signature: Time:	Signature: Time:
Printed Name: N. Singh Date: 3/25/15	Printed Name: Date:	Printed Name: Date:
Company: LBNL	Company:	Company:

Received By	Received By	Received By
Signature: [signature] Time: 1535	Signature: Time:	Signature: Time:
Printed Name: Mikelle Chong Date: 3/25	Printed Name: Date:	Printed Name: Date:
Company: CT	Company:	Company:

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
*** Field Sample ID: If present, use this information as the sample identifier in hard-copy reports (please include Sample Location information in the notes). If blank, and in electronic deliverable files, use Sample Location as the identifier. ****Listed turnaround time is for reporting and is in work days, as defined in the Joint LBNL/LLNL Analytical Services blanket order.

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Phone: 510-486-7616 **Fax:** 510-486-7034

COC No.: 08381

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

75472	3/24/2015 16:35	3/24/2015 16:35	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	B-8-2'	For metals analysis use method 6020 and 7471A (for Hg)
75473	3/24/2015 16:35	3/24/2015 16:35	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	E8260	B-8-2'	
	3/24/2015 16:35	3/24/2015 16:35	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	EM8015:GAS	B-8-2'	
75474	3/24/2015 9:40	3/24/2015 9:40	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	C-1-1.5'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 9:40	3/24/2015 9:40	Grab	Soil/Solids	16 oz. CG	1	None	E8081	C-1-1.5'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 9:40	3/24/2015 9:40	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	C-1-1.5'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 9:40	3/24/2015 9:40	Grab	Soil/Solids	16 oz. CG	1	None	E8270	C-1-1.5'	For metals analysis use method 6020 and 7471A (for Hg)

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by:

Special Instructions/Comments:
HOLD Samples 75506, 75507, 75508, & 75509 until further notice. Please report results as dry weight corrected. Copy Bruce Rucker on results - Rucker@ce2corp.com

Relinquished By (Sampler)		Relinquished By		Relinquished By	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: N. Singh	Date: 3/25/15	Printed Name	Date	Printed Name	Date
Company: LBNL		Company		Company	

Received By		Received By		Received By	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: Mikelle Chang	Date: 3/25	Printed Name	Date	Printed Name	Date
Company: CT		Company		Company	

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
*** Field Sample ID: If present, use this information as the sample identifier in hard-copy reports (please include Sample Location information in the notes). If blank, and in electronic deliverable files, use Sample Location as the identifier. ****Listed turnaround time is for reporting and is in work days, as defined in the Joint LBNL/LLNL Analytical Services blanket order.

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Phone: 510-486-7616 **Fax:** 510-486-7034

COC No.: 08381

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

17	75474	3/24/2015 9:40	3/24/2015 9:40	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	C-1-1.5'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 9:40	3/24/2015 9:40	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	C-1-1.5'	For metals analysis use method 6020 and 7471A (for Hg)
18	75475	3/24/2015 9:40	3/24/2015 9:40	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	E8260	C-1-1.5'	
		3/24/2015 9:40	3/24/2015 9:40	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	EM8015:GAS	C-1-1.5'	
19	75476	3/24/2015 10:20	3/24/2015 10:20	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	C-2-4'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 10:20	3/24/2015 10:20	Grab	Soil/Solids	16 oz. CG	1	None	E8081	C-2-4'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 10:20	3/24/2015 10:20	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	C-2-4'	For metals analysis use method 6020 and 7471A (for Hg)

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by:

Special Instructions/Comments:
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Relinquished By (Sampler)		Relinquished By		Relinquished By	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: N. Singh	Date: 3/25/15	Printed Name	Date	Printed Name	Date
Company: LBNL		Company		Company	
Received By		**Received By**		**Received By**	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: Michelle Chang	Date: 3/25	Printed Name	Date	Printed Name	Date
Company: CT		Company		Company	

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
*** Field Sample ID: If present, use this information as the sample identifier in hard-copy reports (please include Sample Location information in the notes). If blank, and in electronic deliverable files, use Sample Location as the identifier. ****Listed turnaround time is for reporting and is in work days, as defined in the Joint LBNL/LLNL Analytical Services blanket order.

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Phone: 510-486-7616 **Fax:** 510-486-7034

COC No.: 08381

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

19	75476	3/24/2015 10:20	3/24/2015 10:20	Grab	Soil/Solids	16 oz. CG	1	None	E8270	C-2-4'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 10:20	3/24/2015 10:20	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	C-2-4'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 10:20	3/24/2015 10:20	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	C-2-4'	For metals analysis use method 6020 and 7471A (for Hg)
20	75477	3/24/2015 10:20	3/24/2015 10:20	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	E8260	C-2-4'	
		3/24/2015 10:20	3/24/2015 10:20	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	EM8015:GAS	C-2-4'	
21	75478	3/24/2015 10:40	3/24/2015 10:40	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	C-3-5'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 10:40	3/24/2015 10:40	Grab	Soil/Solids	16 oz. CG	1	None	E8081	C-3-5'	For metals analysis use method 6020 and 7471A (for Hg)

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by:

Special Instructions/Comments:
HOLD Samples 75506, 75507, 75508, & 75509 until further notice. Please report results as dry weight corrected. Copy Bruce Rucker on results - Rucker@ce2corp.com

Relinquished By (Sampler)		Relinquished By		Relinquished By	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: N Singh	Date: 3/25/15	Printed Name	Date	Printed Name	Date
Company: LBNL		Company		Company	
Received By		**Received By**		**Received By**	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: Michelle Chong	Date: 3/25	Printed Name	Date	Printed Name	Date
Company: CT		Company		Company	

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
*** Field Sample ID: If present, use this information as the sample identifier in hard-copy reports (please include Sample Location information in the notes). If blank, and in electronic deliverable files, use Sample Location as the identifier. ****Listed turnaround time is for reporting and is in work days, as defined in the Joint LBNL/LLNL Analytical Services blanket order.

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Phone: 510-486-7616 Fax: 510-486-7034

COC No.: 08381

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

21	75478	3/24/2015 10:40	3/24/2015 10:40	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	C-3-5'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 10:40	3/24/2015 10:40	Grab	Soil/Solids	16 oz. CG	1	None	E8270	C-3-5'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 10:40	3/24/2015 10:40	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	C-3-5'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 10:40	3/24/2015 10:40	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	C-3-5'	For metals analysis use method 6020 and 7471A (for Hg)
22	75479	3/24/2015 10:40	3/24/2015 10:40	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	E8260	C-3-5'	
		3/24/2015 10:40	3/24/2015 10:40	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	EM8015:GAS	C-3-5'	
23	75480	3/24/2015 10:55	3/24/2015 10:55	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	C-4-5'	For metals analysis use method 6020 and 7471A (for Hg)

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by:

Special Instructions/Comments:
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Relinquished By (Sampler)		Relinquished By		Relinquished By	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: N. Singh	Date: 3/25/15	Printed Name	Date	Printed Name	Date
Company: LBNL		Company		Company	

Received By		Received By		Received By	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: Mikelle Chong	Date: 3/25	Printed Name	Date	Printed Name	Date
Company: CT		Company		Company	

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
*** Field Sample ID: If present, use this information as the sample identifier in hard-copy reports (please include Sample Location information in the notes). If blank, and in electronic deliverable files, use Sample Location as the identifier. ****Listed turnaround time is for reporting and is in work days, as defined in the Joint LBNL/LLNL Analytical Services blanket order.

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Phone: 510-486-7616 Fax: 510-486-7034

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

COC No.: 08381

Collection(s): 7714

23	75480	3/24/2015 10:55	3/24/2015 10:55	Grab	Soil/Solids	16 oz. CG	1	None	E8081	C-4-5'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 10:55	3/24/2015 10:55	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	C-4-5'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 10:55	3/24/2015 10:55	Grab	Soil/Solids	16 oz. CG	1	None	E8270	C-4-5'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 10:55	3/24/2015 10:55	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	C-4-5'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 10:55	3/24/2015 10:55	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	C-4-5'	For metals analysis use method 6020 and 7471A (for Hg)
24	75481	3/24/2015 10:55	3/24/2015 10:55	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	E8260	C-4-5'	
		3/24/2015 10:55	3/24/2015 10:55	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	EM8015:GAS	C-4-5'	

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by:

Special Instructions/Comments:
HOLD Samples 75506, 75507, 75508, & 75509 until further notice. Please report results as dry weight corrected. Copy Bruce Rucker on results - Rucker@ce2corp.com

Relinquished By (Sampler)		Relinquished By		Relinquished By	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: N. Singh	Date: 3/25/15	Printed Name	Date	Printed Name	Date
Company: LBNL		Company		Company	
Received By		**Received By**		**Received By**	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: Michelle Chang	Date: 3/25	Printed Name	Date	Printed Name	Date
Company: QT		Company		Company	

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial

*** Field Sample ID: If present, use this information as the sample identifier in hard-copy reports (please include Sample Location information in the notes). If blank, and in electronic deliverable files, use Sample Location as the identifier. ****Listed turnaround time is for reporting and is in work days, as defined in the Joint LBNL/LLNL Analytical Services blanket order.

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Phone: 510-486-7616 **Fax:** 510-486-7034

COC No.: 08381

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

25	75482	3/24/2015 10:45	3/24/2015 10:45	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	C-5-5'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 10:45	3/24/2015 10:45	Grab	Soil/Solids	16 oz. CG	1	None	E8081	C-5-5'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 10:45	3/24/2015 10:45	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	C-5-5'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 10:45	3/24/2015 10:45	Grab	Soil/Solids	16 oz. CG	1	None	E8270	C-5-5'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 10:45	3/24/2015 10:45	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	C-5-5'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 10:45	3/24/2015 10:45	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	C-5-5'	For metals analysis use method 6020 and 7471A (for Hg)
26	75483	3/24/2015 10:45	3/24/2015 10:45	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	E8260	C-5-5'	

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by:

Special Instructions/Comments:
HOLD Samples 75506, 75507, 75508, & 75509 until further notice. Please report results as dry weight corrected. Copy Bruce Rucker on results - Rucker@ce2corp.com

Relinquished By (Sampler)		Relinquished By		Relinquished By	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: N. Singh	Date: 3/25/15	Printed Name	Date	Printed Name	Date
Company: LBNL		Company		Company	
Received By		**Received By**		**Received By**	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: Mikelle Chang	Date: 3/25	Printed Name	Date	Printed Name	Date
Company: CT		Company		Company	

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
*** Field Sample ID: If present, use this information as the sample identifier in hard-copy reports (please include Sample Location information in the notes). If blank, and in electronic deliverable files, use Sample Location as the identifier. ****Listed turnaround time is for reporting and is in work days, as defined in the Joint LBNL/LLNL Analytical Services blanket order.

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Phone: 510-486-7616 Fax: 510-486-7034

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

COC No.: 08381

Collection(s): 7714

75483	3/24/2015 10:45	3/24/2015 10:45	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	EM8015:GAS	C-5-5'	
75484	3/24/2015 11:50	3/24/2015 11:50	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	C-6-4'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 11:50	3/24/2015 11:50	Grab	Soil/Solids	16 oz. CG	1	None	E8081	C-6-4'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 11:50	3/24/2015 11:50	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	C-6-4'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 11:50	3/24/2015 11:50	Grab	Soil/Solids	16 oz. CG	1	None	E8270	C-6-4'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 11:50	3/24/2015 11:50	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	C-6-4'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 11:50	3/24/2015 11:50	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	C-6-4'	For metals analysis use method 6020 and 7471A (for Hg)

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by:

Special Instructions/Comments:
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Relinquished By (Sampler)		Relinquished By		Relinquished By	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: N Singh	Date: 3/25/15	Printed Name	Date	Printed Name	Date
Company: LBNL		Company		Company	
Received By		**Received By**		**Received By**	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: Mikelle Chang	Date: 3/25	Printed Name	Date	Printed Name	Date
Company: CT		Company		Company	

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
*** Field Sample ID: If present, use this information as the sample identifier in hard-copy reports (please include Sample Location information in the notes). If blank, and in electronic deliverable files, use Sample Location as the identifier. ****Listed turnaround time is for reporting and is in work days, as defined in the Joint LBNL/LLNL Analytical Services blanket order.

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For questions contact John Jelinski, e-mail: JAJelinski@lbl.gov
Phone: 510-486-7616 **Fax:** 510-486-7034

COC No.: 08381

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

28	75485	3/24/2015 11:50	3/24/2015 11:50	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	E8260	C-6-4'	
		3/24/2015 11:50	3/24/2015 11:50	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	EM8015:GAS	C-6-4'	
29	75486	3/24/2015 12:05	3/24/2015 12:05	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	C-7-4'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 12:05	3/24/2015 12:05	Grab	Soil/Solids	16 oz. CG	1	None	E8081	C-7-4'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 12:05	3/24/2015 12:05	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	C-7-4'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 12:05	3/24/2015 12:05	Grab	Soil/Solids	16 oz. CG	1	None	E8270	C-7-4'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 12:05	3/24/2015 12:05	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	C-7-4'	For metals analysis use method 6020 and 7471A (for Hg)

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by:

Special Instructions/Comments:
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Relinquished By (Sampler)		Relinquished By		Relinquished By	
Signature	Time 1535	Signature	Time	Signature	Time
Printed Name N. Singh	Date 3/25/15	Printed Name	Date	Printed Name	Date
Company LBNL		Company		Company	
Received By		**Received By**		**Received By**	
Signature	Time 1535	Signature	Time	Signature	Time
Printed Name Mikelle Chong	Date 3/25	Printed Name	Date	Printed Name	Date
Company CT		Company		Company	

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
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Phone: 510-486-7616 **Fax:** 510-486-7034

COC No.: 08381

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

29	75486	3/24/2015 12:05	3/24/2015 12:05	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	C-7-4'	For metals analysis use method 6020 and 7471A (for Hg)
30	75487	3/24/2015 12:05	3/24/2015 12:05	Grab	Soil/Solids	Terra Core	5	None	E8260	C-7-4'	
		3/24/2015 12:05	3/24/2015 12:05	Grab	Soil/Solids	Terra Core	5	None	EM8015:GAS	C-7-4'	
31	75488	3/24/2015 12:20	3/24/2015 12:20	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	C-8-3'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 12:20	3/24/2015 12:20	Grab	Soil/Solids	16 oz. CG	1	None	E8081	C-8-3'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 12:20	3/24/2015 12:20	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	C-8-3'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 12:20	3/24/2015 12:20	Grab	Soil/Solids	16 oz. CG	1	None	E8270	C-8-3'	For metals analysis use method 6020 and 7471A (for Hg)

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by:

Special Instructions/Comments:
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Relinquished By (Sampler)		Relinquished By		Relinquished By	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: N. Singh	Date: 3/25/15	Printed Name	Date	Printed Name	Date
Company: LBNL		Company		Company	

Received By		Received By		Received By	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: Mikelle Chong	Date: 3/25	Printed Name	Date	Printed Name	Date
Company: CT		Company		Company	

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
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Phone: 510-486-7616 **Fax:** 510-486-7034

COC No.: 08381

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

31	75488	3/24/2015 12:20	3/24/2015 12:20	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	C-8-3'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 12:20	3/24/2015 12:20	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	C-8-3'	For metals analysis use method 6020 and 7471A (for Hg)
32	75489	3/24/2015 12:20	3/24/2015 12:20	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	E8260	C-8-3'	
		3/24/2015 12:20	3/24/2015 12:20	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	EM8015:GAS	C-8-3'	
33	75490	3/24/2015 12:35	3/24/2015 12:35	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	C-9-2'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 12:35	3/24/2015 12:35	Grab	Soil/Solids	16 oz. CG	1	None	E8081	C-9-2'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 12:35	3/24/2015 12:35	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	C-9-2'	For metals analysis use method 6020 and 7471A (for Hg)

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by:

Special Instructions/Comments:
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Relinquished By (Sampler)		Relinquished By		Relinquished By	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: N. Singh	Date: 3/25/15	Printed Name	Date	Printed Name	Date
Company: LBNL		Company		Company	

Received By		Received By		Received By	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: Mikelle Chang	Date: 3/25	Printed Name	Date	Printed Name	Date
Company: CT		Company		Company	

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
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Phone: 510-486-7616 **Fax:** 510-486-7034

COC No.: 08381

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

33	75490	3/24/2015 12:35	3/24/2015 12:35	Grab	Soil/Solids	16 oz. CG	1	None	E8270	C-9-2'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 12:35	3/24/2015 12:35	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	C-9-2'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 12:35	3/24/2015 12:35	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	C-9-2'	For metals analysis use method 6020 and 7471A (for Hg)
34	75491	3/24/2015 12:35	3/24/2015 12:35	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	E8260	C-9-2'	
		3/24/2015 12:35	3/24/2015 12:35	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	EM8015:GAS	C-9-2'	
35	75492	3/24/2015 12:50	3/24/2015 12:50	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	C-10-2'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 12:50	3/24/2015 12:50	Grab	Soil/Solids	16 oz. CG	1	None	E8081	C-10-2'	For metals analysis use method 6020 and 7471A (for Hg)

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by:

Special Instructions/Comments:
HOLD Samples 75506, 75507, 75508, & 75509 until further notice. Please report results as dry weight corrected. Copy Bruce Rucker on results - Rucker@ce2corp.com

Relinquished By (Sampler)	Relinquished By	Relinquished By
Signature: [signature] Time: 1535	Signature: Time:	Signature: Time:
Printed Name: N. Singh Date: 3/25/15	Printed Name: Date:	Printed Name: Date:
Company: LBNL	Company:	Company:

Received By	Received By	Received By
Signature: [signature] Time: 1535	Signature: Time:	Signature: Time:
Printed Name: Mikelle Chong Date: 3/25	Printed Name: Date:	Printed Name: Date:
Company: CT	Company:	Company:

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
*** Field Sample ID: If present, use this information as the sample identifier in hard-copy reports (please include Sample Location information in the notes). If blank, and in electronic deliverable files, use Sample Location as the identifier. ****Listed turnaround time is for reporting and is in work days, as defined in the Joint LBNL/LLNL Analytical Services blanket order.

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Phone: 510-486-7616 **Fax:** 510-486-7034

COC No.: 08381

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

35	75492	3/24/2015 12:50	3/24/2015 12:50	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	C-10-2'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 12:50	3/24/2015 12:50	Grab	Soil/Solids	16 oz. CG	1	None	E8270	C-10-2'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 12:50	3/24/2015 12:50	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	C-10-2'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 12:50	3/24/2015 12:50	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	C-10-2'	For metals analysis use method 6020 and 7471A (for Hg)
36	75493	3/24/2015 12:50	3/24/2015 12:50	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	E8260	C-10-2'	
		3/24/2015 12:50	3/24/2015 12:50	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	EM8015:GAS	C-10-2'	
37	75494	3/24/2015 13:00	3/24/2015 13:00	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	D-1-5'	For metals analysis use method 6020 and 7471A (for Hg)

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by:

Special Instructions/Comments:
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Relinquished By (Sampler)	Relinquished By	Relinquished By
Signature: [signature] Time: 1535	Signature: Time:	Signature: Time:
Printed Name: N. Singh Date: 3/25/15	Printed Name: Date:	Printed Name: Date:
Company: LBNL	Company:	Company:

Received By	Received By	Received By
Signature: [signature] Time: 1535	Signature: Time:	Signature: Time:
Printed Name: Mikelle Chong Date: 3/25	Printed Name: Date:	Printed Name: Date:
Company: CT	Company:	Company:

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial *** Field Sample ID: If present, use this information as the sample identifier in hard-copy reports (please include Sample Location information in the notes). If blank, and in electronic deliverable files, use Sample Location as the identifier. ****Listed turnaround time is for reporting and is in work days, as defined in the Joint LBNL/LLNL Analytical Services blanket order.

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Phone: 510-486-7616 Fax: 510-486-7034

COC No.: 08381

Page 22 of 30

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

37 75494	3/24/2015 13:00	3/24/2015 13:00	Grab	Soil/Solids	16 oz. CG	1	None	E8081	D-1-5'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 13:00	3/24/2015 13:00	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	D-1-5'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 13:00	3/24/2015 13:00	Grab	Soil/Solids	16 oz. CG	1	None	E8270	D-1-5'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 13:00	3/24/2015 13:00	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	D-1-5'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 13:00	3/24/2015 13:00	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	D-1-5'	For metals analysis use method 6020 and 7471A (for Hg)
36 75495	3/24/2015 13:00	3/24/2015 13:00	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	E8260	D-1-5'	
	3/24/2015 13:00	3/24/2015 13:00	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	EM8015:GAS	D-1-5'	

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by:

Special Instructions/Comments:
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Relinquished By (Sampler)	Relinquished By	Relinquished By
Signature: [signature] Time: 1535	Signature: Time:	Signature: Time:
Printed Name: N. Singh Date: 3/25/15	Printed Name: Date:	Printed Name: Date:
Company: LBNL	Company:	Company:

Received By	Received By	Received By
Signature: [signature] Time: 1535	Signature: Time:	Signature: Time:
Printed Name: Mikelle Chang Date: 3/25	Printed Name: Date:	Printed Name: Date:
Company: CT	Company:	Company:

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
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Phone: 510-486-7616 **Fax:** 510-486-7034

COC No.: 08381

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

37

75496	3/24/2015 13:10	3/24/2015 13:10	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	D-2-5'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 13:10	3/24/2015 13:10	Grab	Soil/Solids	16 oz. CG	1	None	E8081	D-2-5'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 13:10	3/24/2015 13:10	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	D-2-5'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 13:10	3/24/2015 13:10	Grab	Soil/Solids	16 oz. CG	1	None	E8270	D-2-5'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 13:10	3/24/2015 13:10	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	D-2-5'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 13:10	3/24/2015 13:10	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	D-2-5'	For metals analysis use method 6020 and 7471A (for Hg)
75497	3/24/2015 13:10	3/24/2015 13:10	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	E8260	D-2-5'	

40

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by:

Special Instructions/Comments:
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Relinquished By (Sampler)		Relinquished By		Relinquished By	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: N. Singh	Date: 3/25/15	Printed Name	Date	Printed Name	Date
Company: LBNL		Company		Company	

Received By		Received By		Received By	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: Mikelle Chong	Date: 3/25	Printed Name	Date	Printed Name	Date
Company: CT		Company		Company	

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
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Phone: 510-486-7616 **Fax:** 510-486-7034

COC No.: 08381

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

40
41

75497	3/24/2015 13:10	3/24/2015 13:10	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	EM8015:GAS	D-2-5'	
75498	3/24/2015 13:25	3/24/2015 13:25	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	D-3-5'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 13:25	3/24/2015 13:25	Grab	Soil/Solids	16 oz. CG	1	None	E8081	D-3-5'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 13:25	3/24/2015 13:25	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	D-3-5'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 13:25	3/24/2015 13:25	Grab	Soil/Solids	16 oz. CG	1	None	E8270	D-3-5'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 13:25	3/24/2015 13:25	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	D-3-5'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 13:25	3/24/2015 13:25	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	D-3-5'	For metals analysis use method 6020 and 7471A (for Hg)

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by:

Special Instructions/Comments:
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Relinquished By (Sampler)		Relinquished By		Relinquished By	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: N. Singh	Date: 3/25/15	Printed Name	Date	Printed Name	Date
Company: LBNL		Company		Company	
Received By		**Received By**		**Received By**	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: Mikelle Chong	Date: 3/25	Printed Name	Date	Printed Name	Date
Company: CT		Company		Company	

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
*** Field Sample ID: If present, use this information as the sample identifier in hard-copy reports (please include Sample Location information in the notes). If blank, and in electronic deliverable files, use Sample Location as the identifier. ****Listed turnaround time is for reporting and is in work days, as defined in the Joint LBNL/LLNL Analytical Services blanket order.

2053269

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Berkeley CA 94720

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Chain of Custody

Send final reports to: Suying Xu, Mailstop 75B0101
For questions contact John Jelinski, e-mail: JAJelinski@lbl.gov
Phone: 510-486-7616 Fax: 510-486-7034

COC No.: 08381

Page 25 of 30

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

42
43

75499	3/24/2015 13:25	3/24/2015 13:25	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	E8260	D-3-5'	
	3/24/2015 13:25	3/24/2015 13:25	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	EM8015:GAS	D-3-5'	
75500	3/24/2015 13:35	3/24/2015 13:35	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	D-4-5'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 13:35	3/24/2015 13:35	Grab	Soil/Solids	16 oz. CG	1	None	E8081	D-4-5'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 13:35	3/24/2015 13:35	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	D-4-5'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 13:35	3/24/2015 13:35	Grab	Soil/Solids	16 oz. CG	1	None	E8270	D-4-5'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 13:35	3/24/2015 13:35	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	D-4-5'	For metals analysis use method 6020 and 7471A (for Hg)

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by:

Special Instructions/Comments:
HOLD Samples 75506, 75507, 75508, & 75509 until further notice. Please report results as dry weight corrected. Copy Bruce Rucker on results - Rucker@ce2corp.com

Relinquished By (Sampler)		Relinquished By		Relinquished By	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: N. Singh	Date: 3/25/15	Printed Name	Date	Printed Name	Date
Company: LBNL		Company		Company	
Received By		**Received By**		**Received By**	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: Mikelle Chong	Date: 3/25	Printed Name	Date	Printed Name	Date
Company: CT		Company		Company	

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
*** Field Sample ID: If present, use this information as the sample identifier in hard-copy reports (please include Sample Location information in the notes). If blank, and in electronic deliverable files, use Sample Location as the identifier. ****Listed turnaround time is for reporting and is in work days, as defined in the Joint LBNL/LLNL Analytical Services blanket order.

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Phone: 510-486-7616 **Fax:** 510-486-7034

COC No.: 08381

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

75500	3/24/2015 13:35	3/24/2015 13:35	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	D-4-5'	For metals analysis use method 6020 and 7471A (for Hg)
75501	3/24/2015 13:35	3/24/2015 13:35	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	E8260	D-4-5'	
	3/24/2015 13:35	3/24/2015 13:35	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	EM8015:GAS	D-4-5'	
75502	3/24/2015 13:50	3/24/2015 13:50	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	D-5-4'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 13:50	3/24/2015 13:50	Grab	Soil/Solids	16 oz. CG	1	None	E8081	D-5-4'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 13:50	3/24/2015 13:50	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	D-5-4'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 13:50	3/24/2015 13:50	Grab	Soil/Solids	16 oz. CG	1	None	E8270	D-5-4'	For metals analysis use method 6020 and 7471A (for Hg)

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by:

Special Instructions/Comments:
HOLD Samples 75506, 75507, 75508, & 75509 until further notice. Please report results as dry weight corrected. Copy Bruce Rucker on results - Rucker@ce2corp.com

Relinquished By (Sampler)		Relinquished By		Relinquished By	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: N. Singh	Date: 3/25/15	Printed Name	Date	Printed Name	Date
Company: LBNL		Company		Company	
Received By		**Received By**		**Received By**	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: Mikelle Chong	Date: 3/25	Printed Name	Date	Printed Name	Date
Company: CT		Company		Company	

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
*** Field Sample ID: If present, use this information as the sample identifier in hard-copy reports (please include Sample Location information in the notes). If blank, and in electronic deliverable files, use Sample Location as the identifier. ****Listed turnaround time is for reporting and is in work days, as defined in the Joint LBNL/LLNL Analytical Services blanket order.

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COC No.: 08381

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Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

45	75502	3/24/2015 13:50	3/24/2015 13:50	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	D-5-4'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 13:50	3/24/2015 13:50	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	D-5-4'	For metals analysis use method 6020 and 7471A (for Hg)
46	75503	3/24/2015 13:50	3/24/2015 13:50	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	E8260	D-5-4'	
		3/24/2015 13:50	3/24/2015 13:50	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	EM8015:GAS	D-5-4'	
47	75504	3/24/2015 14:00	3/24/2015 14:00	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	D-6-4'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 14:00	3/24/2015 14:00	Grab	Soil/Solids	16 oz. CG	1	None	E8081	D-6-4'	For metals analysis use method 6020 and 7471A (for Hg)
		3/24/2015 14:00	3/24/2015 14:00	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	D-6-4'	For metals analysis use method 6020 and 7471A (for Hg)

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by:

Special Instructions/Comments:
HOLD Samples 75506, 75507, 75508, & 75509 until further notice. Please report results as dry weight corrected. Copy Bruce Rucker on results - Rucker@ce2corp.com

Relinquished By (Sampler)		Relinquished By		Relinquished By	
Signature	Time 1535	Signature	Time	Signature	Time
Printed Name N. Singh	Date 3/25/15	Printed Name	Date	Printed Name	Date
Company LBNL		Company		Company	
Received By		**Received By**		**Received By**	
Signature	Time 1535	Signature	Time	Signature	Time
Printed Name Michelle Chong	Date 3/25	Printed Name	Date	Printed Name	Date
Company CT		Company		Company	

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
*** Field Sample ID: If present, use this information as the sample identifier in hard-copy reports (please include Sample Location information in the notes). If blank, and in electronic deliverable files, use Sample Location as the identifier. ****Listed turnaround time is for reporting and is in work days, as defined in the Joint LBNL/LLNL Analytical Services blanket order.

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Phone: 510-486-7616 **Fax:** 510-486-7034

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

COC No.: 08381

Collection(s): 7714

75504	3/24/2015 14:00	3/24/2015 14:00	Grab	Soil/Solids	16 oz. CG	1	None	E8270	D-6-4'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 14:00	3/24/2015 14:00	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	D-6-4'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 14:00	3/24/2015 14:00	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	D-6-4'	For metals analysis use method 6020 and 7471A (for Hg)
75505	3/24/2015 14:00	3/24/2015 14:00	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	E8260	D-6-4'	
	3/24/2015 14:00	3/24/2015 14:00	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	EM8015:GAS	D-6-4'	
75506	3/24/2015 14:15	3/24/2015 14:15	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	D-7-3'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 14:15	3/24/2015 14:15	Grab	Soil/Solids	16 oz. CG	1	None	E8081	D-7-3'	For metals analysis use method 6020 and 7471A (for Hg)

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by:

Special Instructions/Comments:
HOLD Samples 75506, 75507, 75508, & 75509 until further notice. Please report results as dry weight corrected. Copy Bruce Rucker on results - Rucker@ce2corp.com

Relinquished By (Sampler)	Relinquished By	Relinquished By
Signature: [signature] Time: 1535	Signature: Time:	Signature: Time:
Printed Name: N. Singh Date: 3/25/15	Printed Name: Date:	Printed Name: Date:
Company: LBNL	Company:	Company:

Received By	Received By	Received By
Signature: [signature] Time: 1535	Signature: Time:	Signature: Time:
Printed Name: Mikelle Chong Date: 3/25	Printed Name: Date:	Printed Name: Date:
Company: CT	Company:	Company:

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
*** Field Sample ID: If present, use this information as the sample identifier in hard-copy reports (please include Sample Location information in the notes). If blank, and in electronic deliverable files, use Sample Location as the identifier. ****Listed turnaround time is for reporting and is in work days, as defined in the Joint LBNL/LLNL Analytical Services blanket order.

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Phone: 510-486-7616 **Fax:** 510-486-7034

COC No.: 08381

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

49 75506	3/24/2015 14:15	3/24/2015 14:15	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	D-7-3'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 14:15	3/24/2015 14:15	Grab	Soil/Solids	16 oz. CG	1	None	E8270	D-7-3'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 14:15	3/24/2015 14:15	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	D-7-3'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 14:15	3/24/2015 14:15	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	D-7-3'	For metals analysis use method 6020 and 7471A (for Hg)
50 75507	3/24/2015 14:15	3/24/2015 14:15	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	E8260	D-7-3'	
	3/24/2015 14:15	3/24/2015 14:15	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	EM8015:GAS	D-7-3'	
51 75508	3/24/2015 14:25	3/24/2015 14:25	Grab	Soil/Solids	16 oz. CG	1	None	Asbestors	D-8-3'	For metals analysis use method 6020 and 7471A (for Hg)

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by:

Special Instructions/Comments:
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Relinquished By (Sampler)		Relinquished By		Relinquished By	
Signature	Time 1535	Signature	Time	Signature	Time
Printed Name N. Singh	Date 3/25/15	Printed Name	Date	Printed Name	Date
Company LBNL		Company		Company	
Received By		**Received By**		**Received By**	
Signature	Time 1535	Signature	Time	Signature	Time
Printed Name Michelle Chong	Date 3/25	Printed Name	Date	Printed Name	Date
Company CT		Company		Company	

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
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Phone: 510-486-7616 **Fax:** 510-486-7034

COC No.: 08381

Collection(s): 7714

Purpose: Waste Soil Disposal Program - RFS Soil Disposal Testing, 3/24/2015

75508	3/24/2015 14:25	3/24/2015 14:25	Grab	Soil/Solids	16 oz. CG	1	None	E8081	D-8-3'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 14:25	3/24/2015 14:25	Grab	Soil/Solids	16 oz. CG	1	None	E8082C	D-8-3'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 14:25	3/24/2015 14:25	Grab	Soil/Solids	16 oz. CG	1	None	E8270	D-8-3'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 14:25	3/24/2015 14:25	Grab	Soil/Solids	16 oz. CG	1	None	EM8015:DIESEL+OIL	D-8-3'	For metals analysis use method 6020 and 7471A (for Hg)
	3/24/2015 14:25	3/24/2015 14:25	Grab	Soil/Solids	16 oz. CG	1	None	TTLCLBNL	D-8-3'	For metals analysis use method 6020 and 7471A (for Hg)
75509	3/24/2015 14:25	3/24/2015 14:25	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	E8260	D-8-3'	
	3/24/2015 14:25	3/24/2015 14:25	Grab	Soil/Solids	Terra Core	5	MeOH or UPBW	EM8015:GAS	D-8-3'	

Total No. of Containers: 156
Shipping Document ID: Hand Carry
Turnaround Time**:** 10 days
Lab Name: CURTISTOMP
Sampled by:

Special Instructions/Comments:
HOLD Samples 75506, 75507, 75508, & 75509 until further notice. Please report results as dry weight corrected. Copy Bruce Rucker on results - Rucker@ce2corp.com

Relinquished By (Sampler)		Relinquished By		Relinquished By	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: N. Singh	Date: 3/25/15	Printed Name	Date	Printed Name	Date
Company: LBNL		Company		Company	
Received By		**Received By**		**Received By**	
Signature	Time: 1535	Signature	Time	Signature	Time
Printed Name: Mikelle Chong	Date: 3/25/15	Printed Name	Date	Printed Name	Date
Company: CT		Company		Company	

*REFERENCE DATE/TIME: Use this value for decay calculations in radiological analyses when applicable **Container Codes: AG = amber glass CG = clear glass PE = polyethylene VV = VOA vial
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Subject: Sample Time COC 8381
From: Neel Singh <nrsingh@lbl.gov>
Date: 3/27/2015 10:02 AM
To: Isabelle Choy <Isabelle.Choy@ctberk.com>
CC: David Baskin <DABaskin@lbl.gov>

Hi Isabelle,

Dave just asked me about the sample time for #75459. It should be 14:50, not 15:05. Sorry about that. Hopefully the rest are ok.

Thanks,

--
Neel Singh

Staff Geologist
CE2 Corporation Contractor
T: (510) 486-5826
C: (510) 508-1115

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 165569 Date Received 3/25/15 Number of coolers 2
Client LBNL Project Waste Soil Disposal Program

Date Opened 8/25 By (print) FC (sign)
Date Logged in 3/25 By (print) FC (sign)

1. Did cooler come with a shipping slip (airbill, etc) YES (NO)
   Shipping info
2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples (NO)
   How many Name Date
2B. Were custody seals intact upon arrival? YES NO (N/A)
3. Were custody papers dry and intact when received? (YES) NO
4. Were custody papers filled out properly (ink, signed, etc)? (YES) NO
5. Is the project identifiable from custody papers? (If so fill out top of form) (YES) NO
6. Indicate the packing in cooler: (if other, describe) peanuts

☒ Bubble Wrap ☒ Foam blocks ☐ Bags ☐ None
☐ Cloth material ☒ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☐ Wet ☒ Blue/Gel ☐ None Temp(°C) 5.5, 5.8 *terracores

☒ Samples Received on ice & cold without a temperature blank; temp. taken with IR gun

☐ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? (YES) NO
   If YES, what time were they transferred to freezer?
9. Did all bottles arrive unbroken/unopened? (YES) NO
10. Are there any missing / extra samples? YES (NO)
11. Are samples in the appropriate containers for indicated tests? (YES) NO
12. Are sample labels present, in good condition and complete? (YES) NO
13. Do the sample labels agree with custody papers? (YES) NO
14. Was sufficient amount of sample sent for tests requested? (YES) NO
15. Are the samples appropriately preserved? (YES) NO N/A
16. Did you check preservatives for all bottles for each sample? YES NO (N/A)
17. Did you document your preservative check? YES NO (N/A)
18. Did you change the hold time in LIMS for unpreserved VOAs? YES NO (N/A)
19. Did you change the hold time in LIMS for preserved terracores? (YES) NO N/A
20. Are bubbles > 6mm absent in VOA samples? YES NO (N/A)
21. Was the client contacted concerning this sample delivery? YES (NO)
   If YES, Who was called? By Date:

COMMENTS

Rev 10, 9/12

Curtis & Tompkins, Ltd.

Detections Summary for 265569

Results for any subcontracted analyses are not included in this summary.

Client : Lawrence Berkeley National Lab
Project : STANDARD
Location : WSDP - RFS Soil Disposal Testing 3/24

Client Sample ID : 75458 Laboratory Sample ID : 265569-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Antimony	0.77		0.28	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	12		0.28	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	230		0.28	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.70		0.28	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	46		0.28	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	15		0.28	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	46		0.31	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	13		0.28	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.042		0.020	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	0.80		0.46	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	48		0.44	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Selenium	0.33		0.28	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	55		0.50	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	100		1.1	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B

Client Sample ID : 75459 Laboratory Sample ID : 265569-002

No Detections

Client Sample ID : 75460 Laboratory Sample ID : 265569-003

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Antimony	0.60		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	12		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	190		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.76		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	42		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	15		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	42		0.33	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	12		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.053		0.020	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	0.90		0.49	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	49		0.47	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	58		0.53	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	96		1.2	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B

Client Sample ID : 75461 Laboratory Sample ID : 265569-004

No Detections

Client Sample ID : 75462 Laboratory Sample ID : 265569-005

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Antimony	0.54		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	14		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	250		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.89		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	50		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	23		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	45		0.32	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	14		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.051		0.020	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	0.90		0.47	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	51		0.45	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Selenium	0.36		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	67		0.51	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	99		1.2	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B

Client Sample ID : 75463 Laboratory Sample ID : 265569-006

No Detections

Client Sample ID : 75464 Laboratory Sample ID : 265569-007

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Antimony	0.47		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	13		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	200		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.86		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	47		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	15		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	45		0.32	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	11		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.052		0.019	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	0.61		0.47	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	46		0.45	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	66		0.51	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	100		1.2	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B

Client Sample ID : 75465 Laboratory Sample ID : 265569-008

No Detections

Client Sample ID : 75466 Laboratory Sample ID : 265569-009

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Antimony	0.52		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	14		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	210		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.87		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	47		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	17		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	45		0.33	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	14		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.047		0.019	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	0.78		0.49	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	49		0.47	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Selenium	0.30		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	64		0.53	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	110		1.2	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B

Client Sample ID : 75467 Laboratory Sample ID : 265569-010

No Detections

Client Sample ID : 75468 Laboratory Sample ID : 265569-011

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Antimony	0.38		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	9.8		0.32	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	170		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.76		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	42		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	14		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	34		0.36	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	9.9		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.048		0.020	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	0.56		0.53	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	42		0.50	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	62		0.57	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	84		1.3	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B

Client Sample ID : 75469 Laboratory Sample ID : 265569-012

No Detections

Client Sample ID : 75470 Laboratory Sample ID : 265569-013

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Antimony	0.54		0.28	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	13		0.28	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	190		0.28	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.82		0.28	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	45		0.28	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	16		0.28	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	45		0.31	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	13		0.28	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.046		0.018	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	0.74		0.46	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	45		0.44	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Selenium	0.31		0.28	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	64		0.50	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	100		1.1	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B

Client Sample ID : 75471 Laboratory Sample ID : 265569-014

No Detections

Client Sample ID : 75472 Laboratory Sample ID : 265569-015

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Antimony	0.50		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	13		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	190		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.78		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	49		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	16		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	46		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	13		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.054		0.019	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	0.76		0.43	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	53		0.42	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	63		0.47	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	100		1.1	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B

Client Sample ID : 75473 Laboratory Sample ID : 265569-016

No Detections

Client Sample ID : 75474 Laboratory Sample ID : 265569-017

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Motor Oil C24-C36	64		55	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550B
Antimony	0.51		0.25	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	13		0.25	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	180		0.25	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.89		0.25	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	49		0.25	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	16		0.25	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	46		0.28	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	13		0.25	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.046		0.019	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	0.75		0.41	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	48		0.40	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Selenium	0.29		0.25	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	65		0.45	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	110		1.0	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B

Client Sample ID : 75475 Laboratory Sample ID : 265569-018

No Detections

Client Sample ID : 75476 Laboratory Sample ID : 265569-019

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Motor Oil C24-C36	110		58	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550B
Antimony	0.53		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	13		0.31	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	180		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.88		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	49		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	17		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	45		0.35	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	13		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.046		0.019	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	0.74		0.51	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	48		0.49	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	69		0.56	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	110		1.3	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B

Client Sample ID : 75477 Laboratory Sample ID : 265569-020

No Detections

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Client Sample ID : 75478 Laboratory Sample ID : 265569-021

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Antimony	0.55		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	13		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	200		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.84		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	53		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	18		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	46		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	14		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.054		0.021	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	0.85		0.44	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	53		0.42	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	67		0.48	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	100		1.1	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B

Client Sample ID : 75479 Laboratory Sample ID : 265569-022

No Detections

Client Sample ID : 75480 Laboratory Sample ID : 265569-023

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	17	Y	12	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550B
Motor Oil C24-C36	160		58	mg/Kg	Dry	1.000	EPA 8015B	EPA 3550B
Antimony	0.29		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	8.2		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	160		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.64		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	32		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	8.6		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	22		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	6.3		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.040		0.017	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Nickel	25		0.41	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	57		0.47	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	66		1.1	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B

Client Sample ID : 75481 Laboratory Sample ID : 265569-024

No Detections

Client Sample ID : 75482 Laboratory Sample ID : 265569-025

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Antimony	0.46		0.28	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	12		0.28	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	170		0.28	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.71		0.28	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	41		0.28	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	13		0.28	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	37		0.32	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	12		0.28	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.049		0.021	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	0.73		0.46	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	46		0.44	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	54		0.50	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	88		1.1	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B

Client Sample ID : 75483 Laboratory Sample ID : 265569-026

No Detections

Client Sample ID : 75484 Laboratory Sample ID : 265569-027

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Antimony	0.44		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	11		0.31	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	180		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.72		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	39		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	13		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	35		0.35	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	11		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.042		0.020	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	0.64		0.51	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	44		0.49	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	57		0.56	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	80		1.3	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B

Client Sample ID : 75485 Laboratory Sample ID : 265569-028

No Detections

Client Sample ID : 75486 Laboratory Sample ID : 265569-029

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Antimony	0.54		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	13		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	190		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.88		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	48		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	18		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	43		0.33	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	13		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.054		0.019	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	0.80		0.49	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	48		0.47	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Selenium	0.36		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	67		0.53	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	100		1.2	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B

Client Sample ID : 75487 Laboratory Sample ID : 265569-030

No Detections

Client Sample ID : 75488 Laboratory Sample ID : 265569-031

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Antimony	0.51		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	14		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	100		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.43		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	29		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	9.0		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	25		0.33	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	9.4		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.058		0.021	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	0.66		0.48	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	25		0.46	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	41		0.52	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	56		1.2	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B

Client Sample ID : 75489 Laboratory Sample ID : 265569-032

No Detections

Client Sample ID : 75490 Laboratory Sample ID : 265569-033

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Antimony	0.58		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	13		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	190		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.85		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	46		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	15		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	44		0.34	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	13		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.049		0.020	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	0.82		0.49	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	46		0.47	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Selenium	0.31		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	67		0.54	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	99		1.2	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B

Client Sample ID : 75491 Laboratory Sample ID : 265569-034

No Detections

Client Sample ID : 75492 Laboratory Sample ID : 265569-035

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Antimony	0.53		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	14		0.32	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	210		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.90		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	53		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	17		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	49		0.36	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	13		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.041		0.019	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	0.78		0.53	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	49		0.51	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	70		0.58	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	110		1.3	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B

Client Sample ID : 75493 Laboratory Sample ID : 265569-036

No Detections

Client Sample ID : 75494 Laboratory Sample ID : 265569-037

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Antimony	0.55		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	13		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	190		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.82		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	47		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	16		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	42		0.33	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	12		0.30	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.054		0.020	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	0.75		0.48	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	49		0.46	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	62		0.52	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	93		1.2	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B

Client Sample ID : 75495 Laboratory Sample ID : 265569-038

No Detections

Client Sample ID : 75496 Laboratory Sample ID : 265569-039

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Antimony	0.45		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	12		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	180		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.76		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	43		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	14		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	42		0.32	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	12		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.053		0.022	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	0.74		0.47	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	49		0.45	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	55		0.51	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	92		1.2	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B

Client Sample ID : 75497 Laboratory Sample ID : 265569-040

No Detections

Client Sample ID : 75498 Laboratory Sample ID : 265569-041

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Antimony	0.74		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	15		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	170		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.81		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	51		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	16		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	49		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	17		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.051		0.020	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	0.94		0.48	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	58		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Selenium	0.34		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	58		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	120		1.2	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B

Client Sample ID : 75499 Laboratory Sample ID : 265569-042

No Detections

Client Sample ID : 75500 Laboratory Sample ID : 265569-043

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Antimony	0.54		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	14		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	190		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.77		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	50		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	18		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	49		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	15		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.042		0.019	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	0.62		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	59		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Selenium	0.34		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	59		0.27	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	130		1.1	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B

Client Sample ID : 75501 Laboratory Sample ID : 265569-044

No Detections

Curtis & Tompkins, Ltd.

Client Sample ID : 75502 Laboratory Sample ID : 265569-045

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Antimony	0.44		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	12		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	180		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.74		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	41		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	17		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	41		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	13		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.056		0.018	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	0.61		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	49		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	56		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	120		1.2	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B

Client Sample ID : 75503 Laboratory Sample ID : 265569-046

No Detections

Client Sample ID : 75504 Laboratory Sample ID : 265569-047

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
bis(2-Ethylhexyl)phthalate	0.61		0.60	mg/Kg	Dry	1.000	EPA 8270C	EPA 3550B
Antimony	0.44		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Arsenic	13		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Barium	170		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Beryllium	0.77		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Chromium	42		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Cobalt	17		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Copper	39		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Lead	12		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Mercury	0.063		0.018	mg/Kg	Dry	1.000	EPA 7471A	METHOD
Molybdenum	0.64		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Nickel	46		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Vanadium	55		0.29	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B
Zinc	110		1.2	mg/Kg	Dry	25.00	EPA 6020	EPA 3050B

Client Sample ID : 75505 Laboratory Sample ID : 265569-048

No Detections

Y = Sample exhibits chromatographic pattern which does not resemble standard

Curtis & Tompkins, Ltd.

Gasoline by GC/FID (5035 Prep)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8015B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	EM8015:GAS	Diln Fac:	1.000
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg		

Field ID:	75459	Instrument:	GC07
Type:	SAMPLE	Chemist:	ERR
Lab ID:	265569-002	Sampled:	03/24/15 14:50
Moisture:	12%	Analyzed:	03/30/15 18:10
Batch#:	221769		

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.16

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	104	78-138

Field ID:	75461	Instrument:	GC07
Type:	SAMPLE	Chemist:	ERR
Lab ID:	265569-004	Sampled:	03/24/15 15:05
Moisture:	15%	Analyzed:	03/30/15 18:46
Batch#:	221769		

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.18

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	105	78-138

Field ID:	75463	Instrument:	GC07
Type:	SAMPLE	Chemist:	ERR
Lab ID:	265569-006	Sampled:	03/24/15 15:20
Moisture:	14%	Analyzed:	03/30/15 19:22
Batch#:	221769		

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.16

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	102	78-138

Field ID:	75465	Instrument:	GC07
Type:	SAMPLE	Chemist:	ERR
Lab ID:	265569-008	Sampled:	03/24/15 15:35
Moisture:	15%	Analyzed:	03/30/15 21:47
Batch#:	221769		

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.17

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	104	78-138

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/FID (5035 Prep)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8015B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	EM8015:GAS	Diln Fac:	1.000
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg		

Field ID:	75467	Instrument:	GC07
Type:	SAMPLE	Chemist:	ERR
Lab ID:	265569-010	Sampled:	03/24/15 15:50
Moisture:	13%	Analyzed:	03/30/15 22:23
Batch#:	221769		

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.18

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	103	78-138

Field ID:	75469	Instrument:	GC07
Type:	SAMPLE	Chemist:	ERR
Lab ID:	265569-012	Sampled:	03/24/15 16:05
Moisture:	17%	Analyzed:	03/30/15 22:59
Batch#:	221769		

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.16

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	102	78-138

Field ID:	75471	Instrument:	GC07
Type:	SAMPLE	Chemist:	ERR
Lab ID:	265569-014	Sampled:	03/24/15 16:20
Moisture:	14%	Analyzed:	03/30/15 23:35
Batch#:	221769		

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.17

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	104	78-138

Field ID:	75473	Instrument:	GC07
Type:	SAMPLE	Chemist:	ERR
Lab ID:	265569-016	Sampled:	03/24/15 16:35
Moisture:	15%	Analyzed:	03/31/15 00:12
Batch#:	221769		

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.17

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	104	78-138

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/FID (5035 Prep)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8015B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	EM8015:GAS	Diln Fac:	1.000
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg		

Field ID:	75475	Instrument:	GC07
Type:	SAMPLE	Chemist:	ERR
Lab ID:	265569-018	Sampled:	03/24/15 09:40
Moisture:	10%	Analyzed:	03/31/15 00:48
Batch#:	221769		

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.17

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	103	78-138

Field ID:	75477	Instrument:	GC07
Type:	SAMPLE	Chemist:	ERR
Lab ID:	265569-020	Sampled:	03/24/15 10:20
Moisture:	15%	Analyzed:	03/31/15 01:24
Batch#:	221769		

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.20

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	102	78-138

Field ID:	75479	Instrument:	GC05
Type:	SAMPLE	Chemist:	ETP
Lab ID:	265569-022	Sampled:	03/24/15 10:40
Moisture:	15%	Analyzed:	03/30/15 18:42
Batch#:	221768		

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.18

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	107	78-138

Field ID:	75481	Instrument:	GC05
Type:	SAMPLE	Chemist:	ETP
Lab ID:	265569-024	Sampled:	03/24/15 10:55
Moisture:	13%	Analyzed:	03/30/15 19:20
Batch#:	221768		

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.18

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	113	78-138

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/FID (5035 Prep)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8015B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	EM8015:GAS	Diln Fac:	1.000
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg		

Field ID:	75483	Instrument:	GC05
Type:	SAMPLE	Chemist:	ETP
Lab ID:	265569-026	Sampled:	03/24/15 10:45
Moisture:	14%	Analyzed:	03/30/15 19:57
Batch#:	221768		

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.17

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	111	78-138

Field ID:	75485	Instrument:	GC05
Type:	SAMPLE	Chemist:	ETP
Lab ID:	265569-028	Sampled:	03/24/15 11:50
Moisture:	14%	Analyzed:	03/30/15 20:35
Batch#:	221768		

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.19

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	111	78-138

Field ID:	75487	Instrument:	GC05
Type:	SAMPLE	Chemist:	ETP
Lab ID:	265569-030	Sampled:	03/24/15 12:05
Moisture:	14%	Analyzed:	03/30/15 21:13
Batch#:	221768		

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.17

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	116	78-138

Field ID:	75489	Instrument:	GC05
Type:	SAMPLE	Chemist:	ETP
Lab ID:	265569-032	Sampled:	03/24/15 12:20
Moisture:	15%	Analyzed:	03/30/15 21:50
Batch#:	221768		

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.17

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	106	78-138

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/FID (5035 Prep)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8015B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	EM8015:GAS	Diln Fac:	1.000
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg		

Field ID:	75491	Instrument:	GC05
Type:	SAMPLE	Chemist:	ETP
Lab ID:	265569-034	Sampled:	03/24/15 12:35
Moisture:	16%	Analyzed:	03/30/15 22:28
Batch#:	221768		

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.18

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	106	78-138

Field ID:	75493	Instrument:	GC05
Type:	SAMPLE	Chemist:	ETP
Lab ID:	265569-036	Sampled:	03/24/15 12:50
Moisture:	16%	Analyzed:	03/30/15 23:05
Batch#:	221768		

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.17

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	111	78-138

Field ID:	75495	Instrument:	GC05
Type:	SAMPLE	Chemist:	ETP
Lab ID:	265569-038	Sampled:	03/24/15 13:00
Moisture:	16%	Analyzed:	03/30/15 23:43
Batch#:	221768		

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.17

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	122	78-138

Field ID:	75497	Instrument:	GC05
Type:	SAMPLE	Chemist:	ETP
Lab ID:	265569-040	Sampled:	03/24/15 13:10
Moisture:	16%	Analyzed:	03/31/15 00:21
Batch#:	221768		

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.19

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	115	78-138

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/FID (5035 Prep)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8015B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	EM8015:GAS	Diln Fac:	1.000
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg		

Field ID:	75499	Instrument:	GC05
Type:	SAMPLE	Chemist:	ETP
Lab ID:	265569-042	Sampled:	03/24/15 13:25
Moisture:	14%	Analyzed:	03/31/15 02:51
Batch#:	221768		

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.17

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	99	78-138

Field ID:	75501	Instrument:	GC05
Type:	SAMPLE	Chemist:	ETP
Lab ID:	265569-044	Sampled:	03/24/15 13:35
Moisture:	14%	Analyzed:	03/31/15 03:28
Batch#:	221768		

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.15

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	113	78-138

Field ID:	75503	Instrument:	GC05
Type:	SAMPLE	Chemist:	ETP
Lab ID:	265569-046	Sampled:	03/24/15 13:50
Moisture:	15%	Analyzed:	03/31/15 04:06
Batch#:	221768		

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.17

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	108	78-138

Field ID:	75505	Instrument:	GC05
Type:	SAMPLE	Chemist:	ETP
Lab ID:	265569-048	Sampled:	03/24/15 14:00
Moisture:	16%	Analyzed:	03/31/15 04:43
Batch#:	221768		

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.20

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	107	78-138

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/FID (5035 Prep)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8015B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	EM8015:GAS	Diln Fac:	1.000
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg		

Type:	BLANK	Instrument:	GC05
Lab ID:	QC782392	Chemist:	ETP
Batch#:	221768	Analyzed:	03/30/15 10:33

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.20

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	106	78-138

Type:	BLANK	Instrument:	GC07
Lab ID:	QC782397	Chemist:	ERR
Batch#:	221769	Analyzed:	03/30/15 09:42

Analyte	Code	Result	RL
Gasoline C7-C12	4900	ND	0.20

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	99	78-138

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/FID (5035 Prep)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8015B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
Requested:	EM8015:GAS	Diln Fac:	1.000
Type:	LCS	Batch#:	221768
Lab ID:	QC782391	Instrument:	GC05
Matrix:	Soil	Chemist:	ETP
Units:	mg/Kg	Analyzed:	03/30/15 09:04

Analyte	Code	Spiked	Result	%REC	Limits
Gasoline C7-C12	4900	1.000	0.9853	99	80-121

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	106	78-138

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/FID (5035 Prep)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8015B
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Requested:	EM8015:GAS	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	221768
MSS Lab ID:	265644-005	Instrument:	GC05
Matrix:	Soil	Chemist:	ETP
Units:	mg/Kg	Sampled:	03/25/15 14:35
Basis:	dry	Received:	03/27/15

Type:	MS	Moisture:	14%
Lab ID:	QC782393	Analyzed:	03/30/15 13:04

Analyte	Code	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	4900	0.2357	12.37	8.844	70	50-120

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	94	78-138

Type:	MSD	Moisture:	14%
Lab ID:	QC782394	Analyzed:	03/30/15 13:41

Analyte	Code	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	4900	10.97	8.814	78	50-120	11	31

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	109	78-138

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/FID (5035 Prep)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8015B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
Requested:	EM8015:GAS	Batch#:	221769
Matrix:	Soil	Instrument:	GC07
Units:	mg/Kg	Chemist:	ERR
Diln Fac:	1.000		

Type: BS Analyzed: 03/30/15 08:30
Lab ID: QC782395

Analyte	Code	Spiked	Result	%REC	Limits
Gasoline C7-C12	4900	1.000	0.9876	99	80-121

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	100	78-138

Type: BSD Analyzed: 03/30/15 09:06
Lab ID: QC782396

Analyte	Code	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	4900	1.000	0.9561	96	80-121	3	20

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	100	78-138

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/FID (5035 Prep)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8015B
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Requested:	EM8015:GAS	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	221769
MSS Lab ID:	265644-004	Instrument:	GC07
Matrix:	Soil	Chemist:	ERR
Units:	mg/Kg	Sampled:	03/25/15 11:30
Basis:	dry	Received:	03/27/15

Type:	MS	Moisture:	13%
Lab ID:	QC782404	Analyzed:	03/30/15 14:32

Analyte	Code	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	4900	0.1180	10.74	6.594	60	50-120

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	104	78-138

Type:	MSD	Moisture:	13%
Lab ID:	QC782405	Analyzed:	03/30/15 15:09

Analyte	Code	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	4900	11.97	7.659	63	50-120	4	31

Surrogate	Code	%REC	Limits
Bromofluorobenzene (FID)	1420	101	78-138

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8015B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	EM8015:DIESEL+OIL	Diln Fac:	1.000
Matrix:	Soil	Chemist:	SFL
Units:	mg/Kg	Received:	03/25/15

Field ID:	75458	Instrument:	GC26A
Type:	SAMPLE	Sampled:	03/24/15 14:50
Lab ID:	265569-001	Prepared:	03/26/15 12:28
Moisture:	12%	Analyzed:	03/26/15 17:18
Batch#:	221672		

Analyte	Code	Result	RL
Diesel C10-C24	4025	ND	11
Motor Oil C24-C36	6320	ND	57

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	119	59-140

Field ID:	75460	Instrument:	GC26A
Type:	SAMPLE	Sampled:	03/24/15 15:05
Lab ID:	265569-003	Prepared:	03/26/15 12:28
Moisture:	15%	Analyzed:	03/26/15 17:47
Batch#:	221672		

Analyte	Code	Result	RL
Diesel C10-C24	4025	ND	12
Motor Oil C24-C36	6320	ND	59

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	109	59-140

Field ID:	75462	Instrument:	GC26A
Type:	SAMPLE	Sampled:	03/24/15 15:20
Lab ID:	265569-005	Prepared:	03/26/15 12:28
Moisture:	14%	Analyzed:	03/26/15 18:15
Batch#:	221672		

Analyte	Code	Result	RL
Diesel C10-C24	4025	ND	12
Motor Oil C24-C36	6320	ND	58

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	105	59-140

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8015B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	EM8015:DIESEL+OIL	Diln Fac:	1.000
Matrix:	Soil	Chemist:	SFL
Units:	mg/Kg	Received:	03/25/15

Field ID:	75464	Instrument:	GC26A
Type:	SAMPLE	Sampled:	03/24/15 15:35
Lab ID:	265569-007	Prepared:	03/26/15 12:28
Moisture:	15%	Analyzed:	03/26/15 18:43
Batch#:	221672		

Analyte	Code	Result	RL
Diesel C10-C24	4025	ND	12
Motor Oil C24-C36	6320	ND	59

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	98	59-140

Field ID:	75466	Instrument:	GC26A
Type:	SAMPLE	Sampled:	03/24/15 15:50
Lab ID:	265569-009	Prepared:	03/26/15 12:28
Moisture:	13%	Analyzed:	03/26/15 19:11
Batch#:	221672		

Analyte	Code	Result	RL
Diesel C10-C24	4025	ND	11
Motor Oil C24-C36	6320	ND	57

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	96	59-140

Field ID:	75468	Instrument:	GC26A
Type:	SAMPLE	Sampled:	03/24/15 16:05
Lab ID:	265569-011	Prepared:	03/26/15 12:28
Moisture:	17%	Analyzed:	03/26/15 19:39
Batch#:	221672		

Analyte	Code	Result	RL
Diesel C10-C24	4025	ND	12
Motor Oil C24-C36	6320	ND	60

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	107	59-140

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8015B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	EM8015:DIESEL+OIL	Diln Fac:	1.000
Matrix:	Soil	Chemist:	SFL
Units:	mg/Kg	Received:	03/25/15

Field ID:	75470	Instrument:	GC26A
Type:	SAMPLE	Sampled:	03/24/15 16:20
Lab ID:	265569-013	Prepared:	03/26/15 12:28
Moisture:	14%	Analyzed:	03/26/15 20:07
Batch#:	221672		

Analyte	Code	Result	RL
Diesel C10-C24	4025	ND	12
Motor Oil C24-C36	6320	ND	58

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	109	59-140

Field ID:	75472	Instrument:	GC26A
Type:	SAMPLE	Sampled:	03/24/15 16:35
Lab ID:	265569-015	Prepared:	03/26/15 12:28
Moisture:	15%	Analyzed:	03/26/15 20:35
Batch#:	221672		

Analyte	Code	Result	RL
Diesel C10-C24	4025	ND	12
Motor Oil C24-C36	6320	ND	59

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	108	59-140

Field ID:	75474	Instrument:	GC26A
Type:	SAMPLE	Sampled:	03/24/15 09:40
Lab ID:	265569-017	Prepared:	03/26/15 12:28
Moisture:	10%	Analyzed:	03/26/15 21:03
Batch#:	221672		

Analyte	Code	Result	RL
Diesel C10-C24	4025	ND	11
Motor Oil C24-C36	6320	64	55

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	108	59-140

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8015B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	EM8015:DIESEL+OIL	Diln Fac:	1.000
Matrix:	Soil	Chemist:	SFL
Units:	mg/Kg	Received:	03/25/15

Field ID:	75476	Instrument:	GC26A
Type:	SAMPLE	Sampled:	03/24/15 10:20
Lab ID:	265569-019	Prepared:	03/26/15 12:28
Moisture:	15%	Analyzed:	03/26/15 21:30
Batch#:	221672		

Analyte	Code	Result	RL
Diesel C10-C24	4025	ND	12
Motor Oil C24-C36	6320	110	58

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	113	59-140

Field ID:	75478	Instrument:	GC26A
Type:	SAMPLE	Sampled:	03/24/15 10:40
Lab ID:	265569-021	Prepared:	03/26/15 12:28
Moisture:	15%	Analyzed:	03/27/15 00:18
Batch#:	221672		

Analyte	Code	Result	RL
Diesel C10-C24	4025	ND	12
Motor Oil C24-C36	6320	ND	59

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	105	59-140

Field ID:	75480	Instrument:	GC26A
Type:	SAMPLE	Sampled:	03/24/15 10:55
Lab ID:	265569-023	Prepared:	03/26/15 12:28
Moisture:	13%	Analyzed:	03/27/15 00:46
Batch#:	221672		

Analyte	Code	Result	RL
Diesel C10-C24	4025	17 Y	12
Motor Oil C24-C36	6320	160	58

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	106	59-140

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8015B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	EM8015:DIESEL+OIL	Diln Fac:	1.000
Matrix:	Soil	Chemist:	SFL
Units:	mg/Kg	Received:	03/25/15

Field ID:	75482	Instrument:	GC26A
Type:	SAMPLE	Sampled:	03/24/15 10:45
Lab ID:	265569-025	Prepared:	03/26/15 12:28
Moisture:	14%	Analyzed:	03/27/15 01:14
Batch#:	221672		

Analyte	Code	Result	RL
Diesel C10-C24	4025	ND	12
Motor Oil C24-C36	6320	ND	58

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	107	59-140

Field ID:	75484	Instrument:	GC26A
Type:	SAMPLE	Sampled:	03/24/15 11:50
Lab ID:	265569-027	Prepared:	03/26/15 12:28
Moisture:	14%	Analyzed:	03/27/15 01:42
Batch#:	221672		

Analyte	Code	Result	RL
Diesel C10-C24	4025	ND	12
Motor Oil C24-C36	6320	ND	58

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	104	59-140

Field ID:	75486	Instrument:	GC15B
Type:	SAMPLE	Sampled:	03/24/15 12:05
Lab ID:	265569-029	Prepared:	03/27/15 13:12
Moisture:	14%	Analyzed:	03/28/15 17:53
Batch#:	221738		

Analyte	Code	Result	RL
Diesel C10-C24	4025	ND	12
Motor Oil C24-C36	6320	ND	58

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	107	59-140

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8015B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	EM8015:DIESEL+OIL	Diln Fac:	1.000
Matrix:	Soil	Chemist:	SFL
Units:	mg/Kg	Received:	03/25/15

Field ID:	75488	Instrument:	GC15B
Type:	SAMPLE	Sampled:	03/24/15 12:20
Lab ID:	265569-031	Prepared:	03/27/15 13:12
Moisture:	15%	Analyzed:	03/28/15 13:17
Batch#:	221738		

Analyte	Code	Result	RL
Diesel C10-C24	4025	ND	12
Motor Oil C24-C36	6320	ND	59

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	103	59-140

Field ID:	75490	Instrument:	GC15B
Type:	SAMPLE	Sampled:	03/24/15 12:35
Lab ID:	265569-033	Prepared:	03/27/15 13:12
Moisture:	16%	Analyzed:	03/28/15 18:21
Batch#:	221738		

Analyte	Code	Result	RL
Diesel C10-C24	4025	ND	12
Motor Oil C24-C36	6320	ND	60

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	114	59-140

Field ID:	75492	Instrument:	GC15B
Type:	SAMPLE	Sampled:	03/24/15 12:50
Lab ID:	265569-035	Prepared:	03/27/15 13:12
Moisture:	16%	Analyzed:	03/28/15 22:03
Batch#:	221738		

Analyte	Code	Result	RL
Diesel C10-C24	4025	ND	12
Motor Oil C24-C36	6320	ND	59

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	103	59-140

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8015B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	EM8015:DIESEL+OIL	Diln Fac:	1.000
Matrix:	Soil	Chemist:	SFL
Units:	mg/Kg	Received:	03/25/15

Field ID:	75494	Instrument:	GC15B
Type:	SAMPLE	Sampled:	03/24/15 13:00
Lab ID:	265569-037	Prepared:	03/27/15 13:12
Moisture:	16%	Analyzed:	03/28/15 22:31
Batch#:	221738		

Analyte	Code	Result	RL
Diesel C10-C24	4025	ND	12
Motor Oil C24-C36	6320	ND	59

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	107	59-140

Field ID:	75496	Instrument:	GC15B
Type:	SAMPLE	Sampled:	03/24/15 13:10
Lab ID:	265569-039	Prepared:	03/27/15 13:12
Moisture:	16%	Analyzed:	03/28/15 22:59
Batch#:	221738		

Analyte	Code	Result	RL
Diesel C10-C24	4025	ND	12
Motor Oil C24-C36	6320	ND	60

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	116	59-140

Field ID:	75498	Instrument:	GC15B
Type:	SAMPLE	Sampled:	03/24/15 13:25
Lab ID:	265569-041	Prepared:	03/27/15 13:12
Moisture:	14%	Analyzed:	03/28/15 23:27
Batch#:	221738		

Analyte	Code	Result	RL
Diesel C10-C24	4025	ND	12
Motor Oil C24-C36	6320	ND	58

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	106	59-140

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8015B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	EM8015:DIESEL+OIL	Diln Fac:	1.000
Matrix:	Soil	Chemist:	SFL
Units:	mg/Kg	Received:	03/25/15

Field ID:	75500	Instrument:	GC15B
Type:	SAMPLE	Sampled:	03/24/15 13:35
Lab ID:	265569-043	Prepared:	03/27/15 13:12
Moisture:	14%	Analyzed:	03/28/15 23:54
Batch#:	221738		

Analyte	Code	Result	RL
Diesel C10-C24	4025	ND	12
Motor Oil C24-C36	6320	ND	58

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	114	59-140

Field ID:	75502	Instrument:	GC15B
Type:	SAMPLE	Sampled:	03/24/15 13:50
Lab ID:	265569-045	Prepared:	03/27/15 13:12
Moisture:	15%	Analyzed:	03/29/15 00:22
Batch#:	221738		

Analyte	Code	Result	RL
Diesel C10-C24	4025	ND	12
Motor Oil C24-C36	6320	ND	59

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	123	59-140

Field ID:	75504	Instrument:	GC15B
Type:	SAMPLE	Sampled:	03/24/15 14:00
Lab ID:	265569-047	Prepared:	03/27/15 13:12
Moisture:	16%	Analyzed:	03/29/15 00:50
Batch#:	221738		

Analyte	Code	Result	RL
Diesel C10-C24	4025	ND	12
Motor Oil C24-C36	6320	ND	59

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	105	59-140

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8015B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	EM8015:DIESEL+OIL	Diln Fac:	1.000
Matrix:	Soil	Chemist:	SFL
Units:	mg/Kg	Received:	03/25/15

Type:	BLANK	Instrument:	GC26A
Lab ID:	QC782041	Prepared:	03/25/15 16:45
Batch#:	221672	Analyzed:	03/26/15 09:47

Analyte	Code	Result	RL
Diesel C10-C24	4025	ND	9.9
Motor Oil C24-C36	6320	ND	50

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	104	59-140

Type:	BLANK	Instrument:	GC15B
Lab ID:	QC782279	Prepared:	03/27/15 13:12
Batch#:	221738	Analyzed:	03/28/15 11:52

Analyte	Code	Result	RL
Diesel C10-C24	4025	ND	10
Motor Oil C24-C36	6320	ND	50

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	109	59-140

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8015B
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Requested:	EM8015:DIESEL+OIL	Batch#:	221672
Type:	LCS	Instrument:	GC26A
Lab ID:	QC782042	Chemist:	SFL
Matrix:	Soil	Prepared:	03/25/15 16:45
Units:	mg/Kg	Analyzed:	03/26/15 10:15
Diln Fac:	1.000		

Analyte	Code	Spiked	Result	%REC	Limits
Diesel C10-C24	4025	50.40	52.67	104	58-137

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	107	59-140

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8015B
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Requested:	EM8015:DIESEL+OIL	Batch#:	221672
Field ID:	ZZZZZZZZZZ	Instrument:	GC26A
MSS Lab ID:	265552-002	Chemist:	SFL
Matrix:	Soil	Sampled:	03/24/15 09:20
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Prepared:	03/25/15 16:45
Diln Fac:	1.000		

Type:	MS	Moisture:	16%
Lab ID:	QC782043	Analyzed:	03/26/15 11:11

Analyte	Code	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	4025	<0.3664	60.08	66.32	110	46-154

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	117	59-140

Type:	MSD	Moisture:	16%
Lab ID:	QC782044	Analyzed:	03/26/15 11:39

Analyte	Code	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	4025	59.06	62.42	106	46-154	4	50

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	110	59-140

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8015B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
Requested:	EM8015:DIESEL+OIL	Batch#:	221738
Type:	LCS	Instrument:	GC15B
Lab ID:	QC782280	Chemist:	SFL
Matrix:	Soil	Prepared:	03/27/15 13:12
Units:	mg/Kg	Analyzed:	03/29/15 01:18
Diln Fac:	1.000		

Cleanup Method: EPA 3630C

Analyte	Code	Spiked	Result	%REC	Limits
Diesel C10-C24	4025	49.85	60.43	121	58-137

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	121	59-140

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8015B
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Requested:	EM8015:DIESEL+OIL	Batch#:	221738
Field ID:	75488	Instrument:	GC15B
MSS Lab ID:	265569-031	Chemist:	SFL
Matrix:	Soil	Sampled:	03/24/15 12:20
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Prepared:	03/27/15 13:12
Diln Fac:	1.000		

Type:	MS	Moisture:	15%
Lab ID:	QC782281	Analyzed:	03/28/15 13:45

Analyte	Code	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	4025	11.08	59.07	68.98	98	46-154

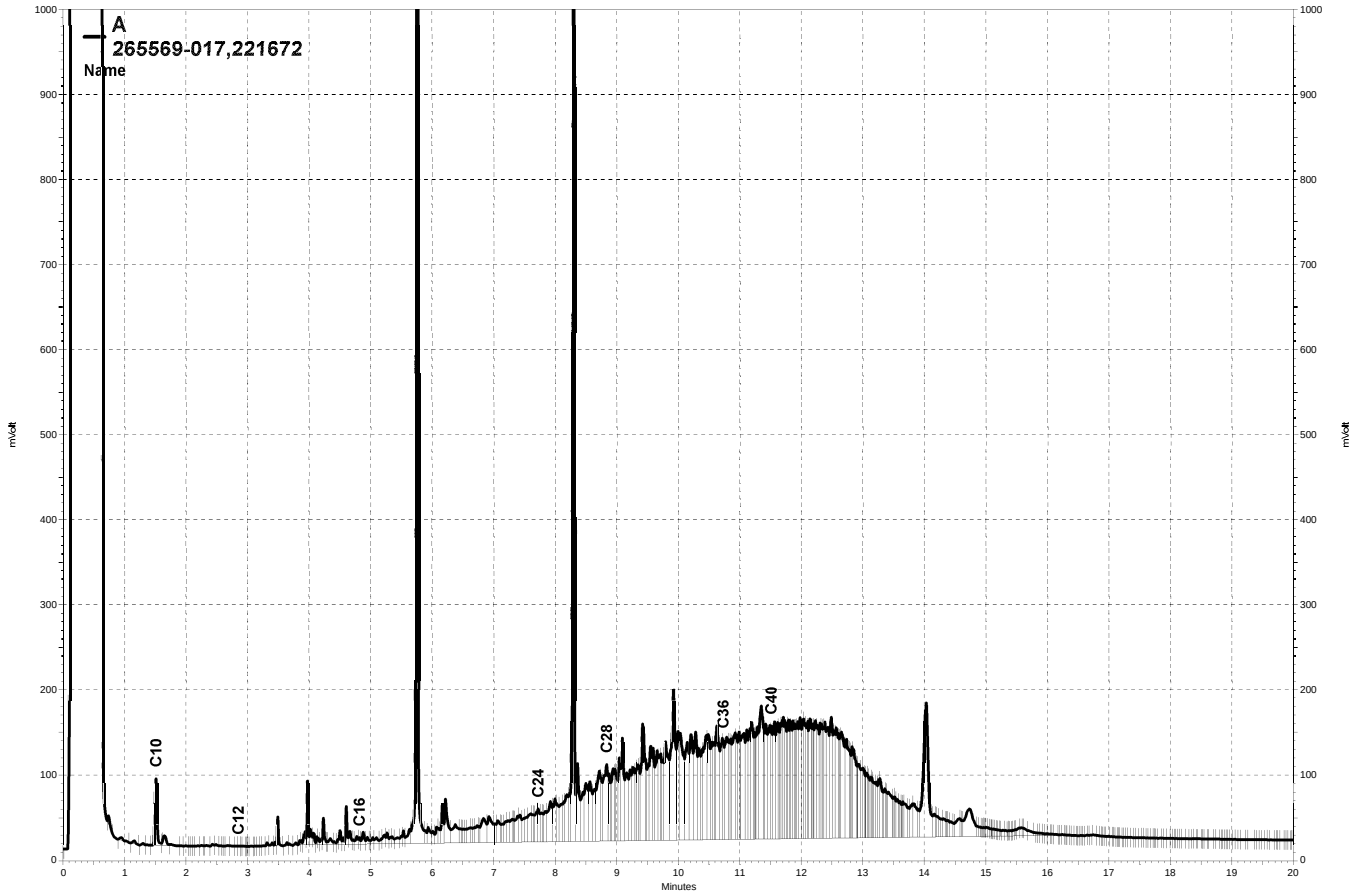
Surrogate	Code	%REC	Limits
o-Terphenyl	8171	109	59-140

Type:	MSD	Moisture:	15%
Lab ID:	QC782282	Analyzed:	03/28/15 14:12

Analyte	Code	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	4025	58.50	65.42	93	46-154	4	50

Surrogate	Code	%REC	Limits
o-Terphenyl	8171	102	59-140

RPD= Relative Percent Difference



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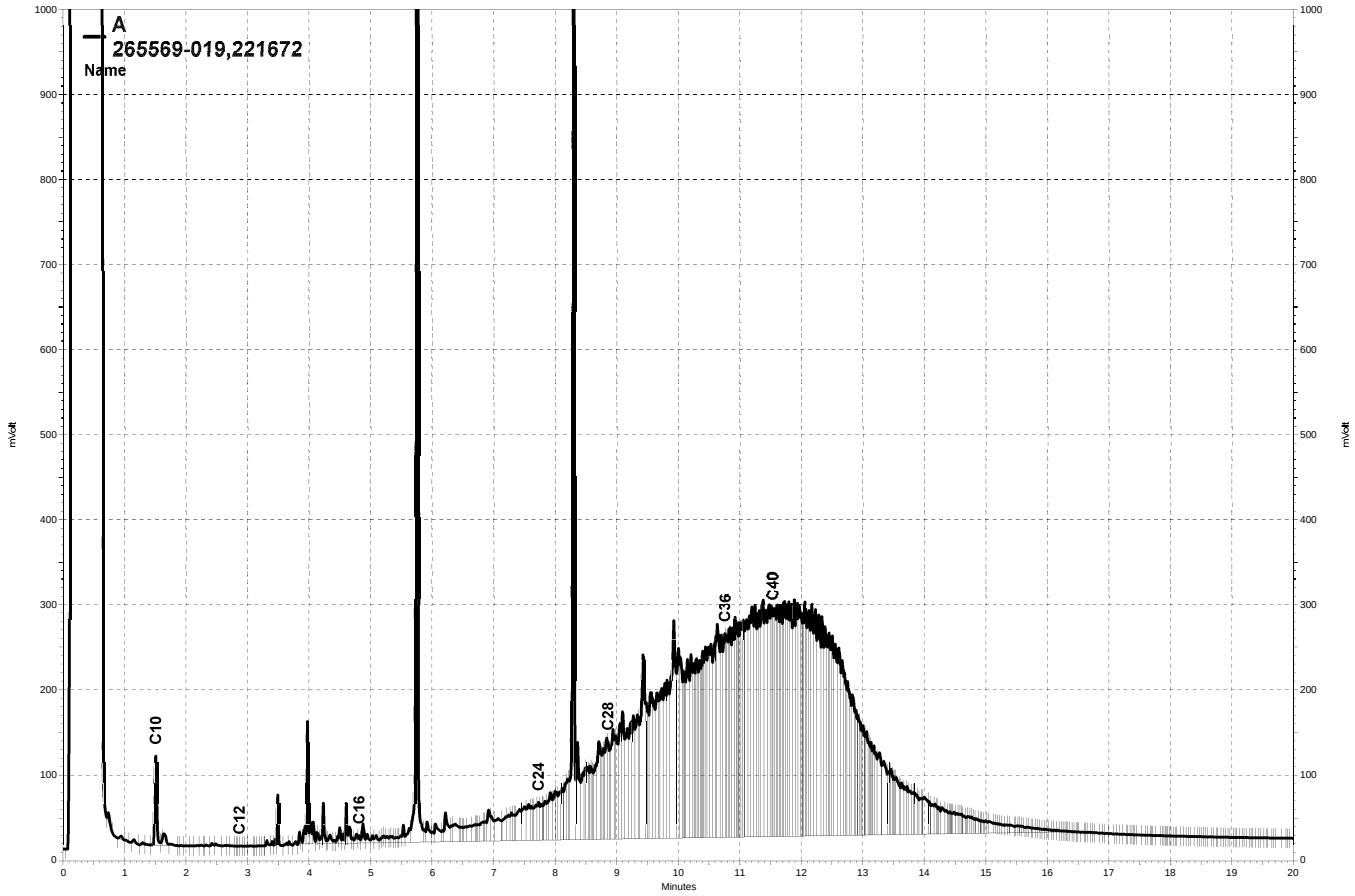

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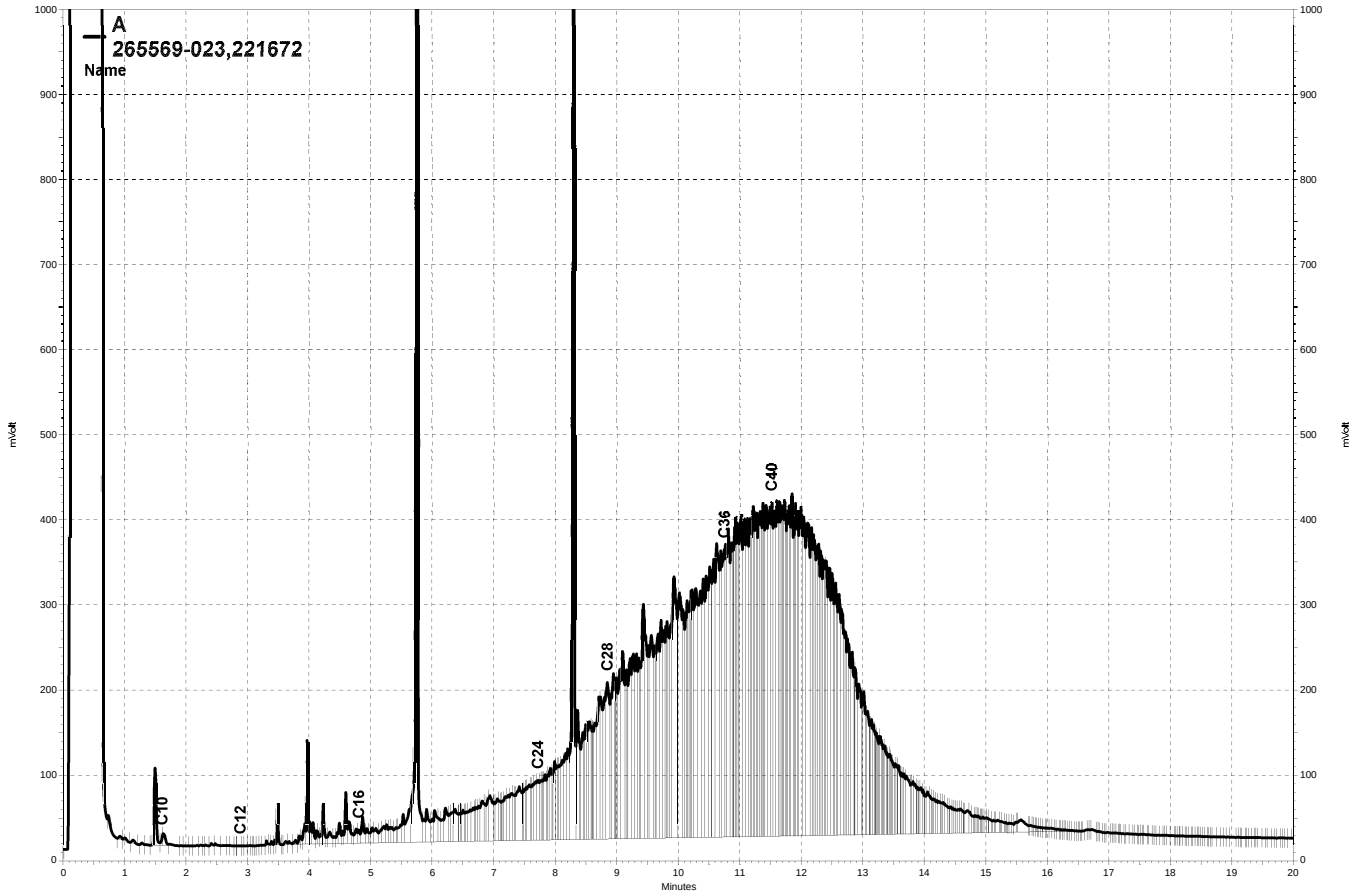

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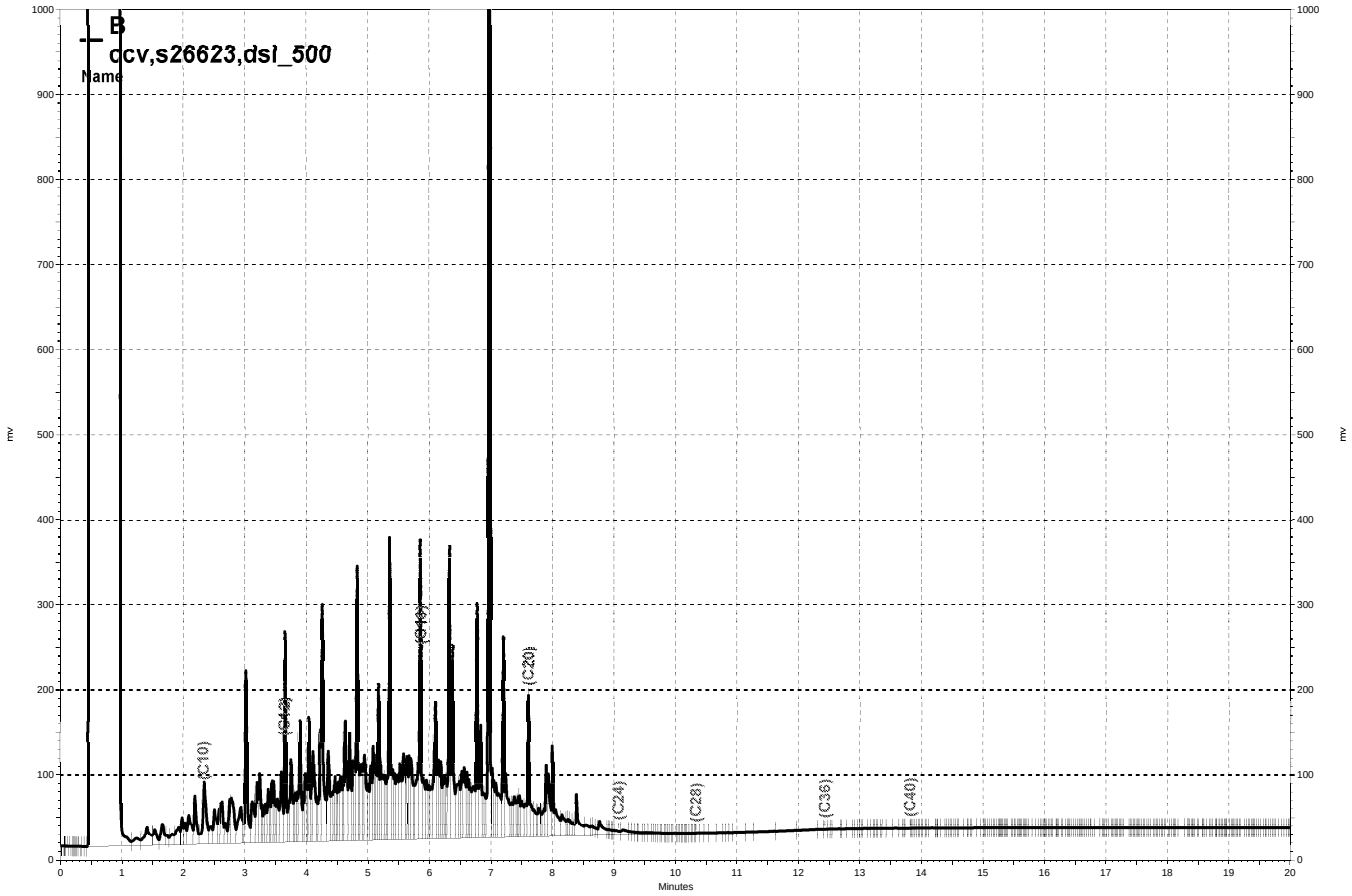

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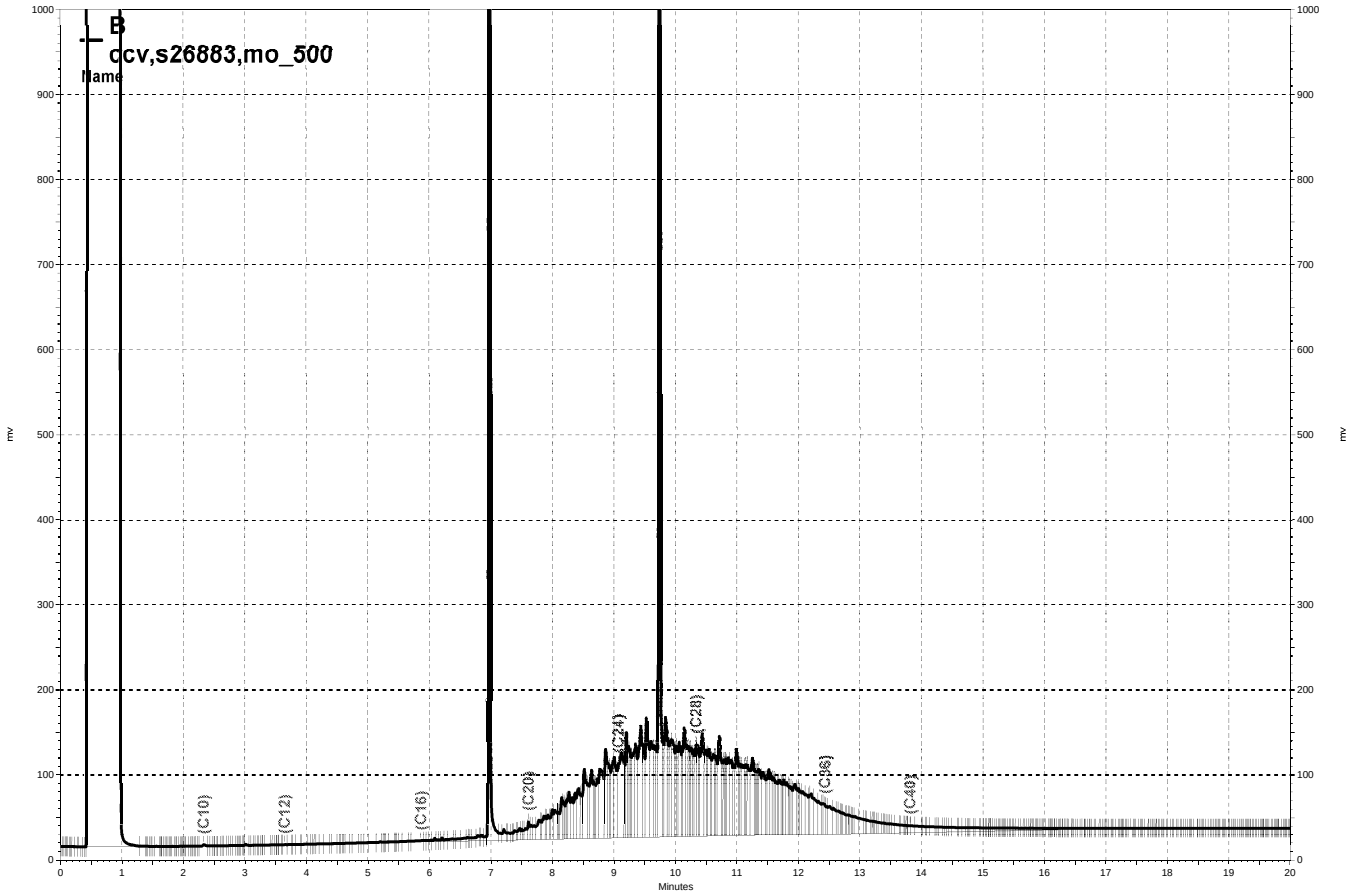

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Dil'n Fac:	0.7874
Requested:	E8260	Batch#:	221678
Field ID:	75459	Instrument:	MSVOA07
Lab ID:	265569-002	Chemist:	MCT
Matrix:	Soil	Sampled:	03/24/15 14:50
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/26/15 13:33

Moisture: 12%

Analyte	Code	Result	RL
Freon 12	3500	ND	0.0089
Chloromethane	2200	ND	0.0089
Vinyl Chloride	8900	ND	0.0089
Bromomethane	1550	ND	0.0089
Chloroethane	2050	ND	0.0089
Trichlorofluoromethane	8700	ND	0.0045
Ethanol	4675	ND	8.9
Acetone	0125	ND	0.089
Freon 113	4850	ND	0.0045
1,1-Dichloroethene	3650	ND	0.0045
Methylene Chloride	5750	ND	0.0089
Carbon Disulfide	1775	ND	0.045
trans-1,2-Dichloroethene	3700	ND	0.0045
Vinyl Acetate	8885	ND	0.045
1,1-Dichloroethane	3550	ND	0.0045
2-Butanone	5815	ND	0.0089
cis-1,2-Dichloroethene	3695	ND	0.0045
Chloroform	2150	ND	0.0045
1,1,1-Trichloroethane	8550	ND	0.0045
Carbon Tetrachloride	1800	ND	0.0045
1,2-Dichloroethane	3600	ND	0.0045
Benzene	0500	ND	0.0045
Trichloroethene	8650	ND	0.0045
1,2-Dichloropropane	3850	ND	0.0045
Bromodichloromethane	1450	ND	0.0045
4-Methyl-2-Pentanone	5720	ND	0.0089
cis-1,3-Dichloropropene	3900	ND	0.0045
Toluene	8350	ND	0.0045
trans-1,3-Dichloropropene	3950	ND	0.0045
1,1,2-Trichloroethane	8600	ND	0.0045
2-Hexanone	5735	ND	0.0089
Tetrachloroethene	8250	ND	0.0045
Dibromochloromethane	3200	ND	0.0045
Chlorobenzene	2000	ND	0.0045
1,1,1,2-Tetrachloroethane	8185	ND	0.0045
Ethylbenzene	4700	ND	0.0045
Styrene	7968	ND	0.0045
Bromoform	1500	ND	0.0045
1,1,2,2-Tetrachloroethane	8200	ND	0.0045
1,2,3-Trichloropropane	8753	ND	0.0045
1,2-Dibromo-3-Chloropropane	3185	ND	0.0045
1,2-Dichloroethene (total)	3705	ND	0.0089
Xylene (total)	8975	ND	0.0089

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	91	78-134
1,2-Dichloroethane-d4	3601	93	80-138
Toluene-d8	8351	93	80-120
Bromofluorobenzene	1420	89	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Dil'n Fac:	0.7236
Requested:	E8260	Batch#:	221678
Field ID:	75461	Instrument:	MSVOA07
Lab ID:	265569-004	Chemist:	KER
Matrix:	Soil	Sampled:	03/24/15 15:05
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/26/15 14:07

Moisture: 15%

Analyte	Code	Result	RL
Freon 12	3500	ND	0.0085
Chloromethane	2200	ND	0.0085
Vinyl Chloride	8900	ND	0.0085
Bromomethane	1550	ND	0.0085
Chloroethane	2050	ND	0.0085
Trichlorofluoromethane	8700	ND	0.0043
Ethanol	4675	ND	8.5
Acetone	0125	ND	0.085
Freon 113	4850	ND	0.0043
1,1-Dichloroethene	3650	ND	0.0043
Methylene Chloride	5750	ND	0.0085
Carbon Disulfide	1775	ND	0.043
trans-1,2-Dichloroethene	3700	ND	0.0043
Vinyl Acetate	8885	ND	0.043
1,1-Dichloroethane	3550	ND	0.0043
2-Butanone	5815	ND	0.0085
cis-1,2-Dichloroethene	3695	ND	0.0043
Chloroform	2150	ND	0.0043
1,1,1-Trichloroethane	8550	ND	0.0043
Carbon Tetrachloride	1800	ND	0.0043
1,2-Dichloroethane	3600	ND	0.0043
Benzene	0500	ND	0.0043
Trichloroethene	8650	ND	0.0043
1,2-Dichloropropane	3850	ND	0.0043
Bromodichloromethane	1450	ND	0.0043
4-Methyl-2-Pentanone	5720	ND	0.0085
cis-1,3-Dichloropropene	3900	ND	0.0043
Toluene	8350	ND	0.0043
trans-1,3-Dichloropropene	3950	ND	0.0043
1,1,2-Trichloroethane	8600	ND	0.0043
2-Hexanone	5735	ND	0.0085
Tetrachloroethene	8250	ND	0.0043
Dibromochloromethane	3200	ND	0.0043
Chlorobenzene	2000	ND	0.0043
1,1,1,2-Tetrachloroethane	8185	ND	0.0043
Ethylbenzene	4700	ND	0.0043
Styrene	7968	ND	0.0043
Bromoform	1500	ND	0.0043
1,1,2,2-Tetrachloroethane	8200	ND	0.0043
1,2,3-Trichloropropane	8753	ND	0.0043
1,2-Dibromo-3-Chloropropane	3185	ND	0.0043
1,2-Dichloroethene (total)	3705	ND	0.0085
Xylene (total)	8975	ND	0.0085

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	93	78-134
1,2-Dichloroethane-d4	3601	94	80-138
Toluene-d8	8351	93	80-120
Bromofluorobenzene	1420	88	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Dil'n Fac:	0.7215
Requested:	E8260	Batch#:	221678
Field ID:	75463	Instrument:	MSVOA07
Lab ID:	265569-006	Chemist:	KER
Matrix:	Soil	Sampled:	03/24/15 15:20
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/26/15 14:41

Moisture: 14%

Analyte	Code	Result	RL
Freon 12	3500	ND	0.0084
Chloromethane	2200	ND	0.0084
Vinyl Chloride	8900	ND	0.0084
Bromomethane	1550	ND	0.0084
Chloroethane	2050	ND	0.0084
Trichlorofluoromethane	8700	ND	0.0042
Ethanol	4675	ND	8.4
Acetone	0125	ND	0.084
Freon 113	4850	ND	0.0042
1,1-Dichloroethene	3650	ND	0.0042
Methylene Chloride	5750	ND	0.0084
Carbon Disulfide	1775	ND	0.042
trans-1,2-Dichloroethene	3700	ND	0.0042
Vinyl Acetate	8885	ND	0.042
1,1-Dichloroethane	3550	ND	0.0042
2-Butanone	5815	ND	0.0084
cis-1,2-Dichloroethene	3695	ND	0.0042
Chloroform	2150	ND	0.0042
1,1,1-Trichloroethane	8550	ND	0.0042
Carbon Tetrachloride	1800	ND	0.0042
1,2-Dichloroethane	3600	ND	0.0042
Benzene	0500	ND	0.0042
Trichloroethene	8650	ND	0.0042
1,2-Dichloropropane	3850	ND	0.0042
Bromodichloromethane	1450	ND	0.0042
4-Methyl-2-Pentanone	5720	ND	0.0084
cis-1,3-Dichloropropene	3900	ND	0.0042
Toluene	8350	ND	0.0042
trans-1,3-Dichloropropene	3950	ND	0.0042
1,1,2-Trichloroethane	8600	ND	0.0042
2-Hexanone	5735	ND	0.0084
Tetrachloroethene	8250	ND	0.0042
Dibromochloromethane	3200	ND	0.0042
Chlorobenzene	2000	ND	0.0042
1,1,1,2-Tetrachloroethane	8185	ND	0.0042
Ethylbenzene	4700	ND	0.0042
Styrene	7968	ND	0.0042
Bromoform	1500	ND	0.0042
1,1,2,2-Tetrachloroethane	8200	ND	0.0042
1,2,3-Trichloropropane	8753	ND	0.0042
1,2-Dibromo-3-Chloropropane	3185	ND	0.0042
1,2-Dichloroethene (total)	3705	ND	0.0084
Xylene (total)	8975	ND	0.0084

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	92	78-134
1,2-Dichloroethane-d4	3601	92	80-138
Toluene-d8	8351	93	80-120
Bromofluorobenzene	1420	89	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Dil'n Fac:	0.7225
Requested:	E8260	Batch#:	221678
Field ID:	75465	Instrument:	MSVOA07
Lab ID:	265569-008	Chemist:	KER
Matrix:	Soil	Sampled:	03/24/15 15:35
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/26/15 15:16

Moisture: 15%

Analyte	Code	Result	RL
Freon 12	3500	ND	0.0085
Chloromethane	2200	ND	0.0085
Vinyl Chloride	8900	ND	0.0085
Bromomethane	1550	ND	0.0085
Chloroethane	2050	ND	0.0085
Trichlorofluoromethane	8700	ND	0.0043
Ethanol	4675	ND	8.5
Acetone	0125	ND	0.085
Freon 113	4850	ND	0.0043
1,1-Dichloroethene	3650	ND	0.0043
Methylene Chloride	5750	ND	0.0085
Carbon Disulfide	1775	ND	0.043
trans-1,2-Dichloroethene	3700	ND	0.0043
Vinyl Acetate	8885	ND	0.043
1,1-Dichloroethane	3550	ND	0.0043
2-Butanone	5815	ND	0.0085
cis-1,2-Dichloroethene	3695	ND	0.0043
Chloroform	2150	ND	0.0043
1,1,1-Trichloroethane	8550	ND	0.0043
Carbon Tetrachloride	1800	ND	0.0043
1,2-Dichloroethane	3600	ND	0.0043
Benzene	0500	ND	0.0043
Trichloroethene	8650	ND	0.0043
1,2-Dichloropropane	3850	ND	0.0043
Bromodichloromethane	1450	ND	0.0043
4-Methyl-2-Pentanone	5720	ND	0.0085
cis-1,3-Dichloropropene	3900	ND	0.0043
Toluene	8350	ND	0.0043
trans-1,3-Dichloropropene	3950	ND	0.0043
1,1,2-Trichloroethane	8600	ND	0.0043
2-Hexanone	5735	ND	0.0085
Tetrachloroethene	8250	ND	0.0043
Dibromochloromethane	3200	ND	0.0043
Chlorobenzene	2000	ND	0.0043
1,1,1,2-Tetrachloroethane	8185	ND	0.0043
Ethylbenzene	4700	ND	0.0043
Styrene	7968	ND	0.0043
Bromoform	1500	ND	0.0043
1,1,2,2-Tetrachloroethane	8200	ND	0.0043
1,2,3-Trichloropropane	8753	ND	0.0043
1,2-Dibromo-3-Chloropropane	3185	ND	0.0043
1,2-Dichloroethene (total)	3705	ND	0.0085
Xylene (total)	8975	ND	0.0085

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	92	78-134
1,2-Dichloroethane-d4	3601	93	80-138
Toluene-d8	8351	93	80-120
Bromofluorobenzene	1420	89	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Dil'n Fac:	0.7587
Requested:	E8260	Batch#:	221678
Field ID:	75467	Instrument:	MSVOA07
Lab ID:	265569-010	Chemist:	KER
Matrix:	Soil	Sampled:	03/24/15 15:50
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/26/15 15:50

Moisture: 13%

Analyte	Code	Result	RL
Freon 12	3500	ND	0.0087
Chloromethane	2200	ND	0.0087
Vinyl Chloride	8900	ND	0.0087
Bromomethane	1550	ND	0.0087
Chloroethane	2050	ND	0.0087
Trichlorofluoromethane	8700	ND	0.0044
Ethanol	4675	ND	8.7
Acetone	0125	ND	0.087
Freon 113	4850	ND	0.0044
1,1-Dichloroethene	3650	ND	0.0044
Methylene Chloride	5750	ND	0.0087
Carbon Disulfide	1775	ND	0.044
trans-1,2-Dichloroethene	3700	ND	0.0044
Vinyl Acetate	8885	ND	0.044
1,1-Dichloroethane	3550	ND	0.0044
2-Butanone	5815	ND	0.0087
cis-1,2-Dichloroethene	3695	ND	0.0044
Chloroform	2150	ND	0.0044
1,1,1-Trichloroethane	8550	ND	0.0044
Carbon Tetrachloride	1800	ND	0.0044
1,2-Dichloroethane	3600	ND	0.0044
Benzene	0500	ND	0.0044
Trichloroethene	8650	ND	0.0044
1,2-Dichloropropane	3850	ND	0.0044
Bromodichloromethane	1450	ND	0.0044
4-Methyl-2-Pentanone	5720	ND	0.0087
cis-1,3-Dichloropropene	3900	ND	0.0044
Toluene	8350	ND	0.0044
trans-1,3-Dichloropropene	3950	ND	0.0044
1,1,2-Trichloroethane	8600	ND	0.0044
2-Hexanone	5735	ND	0.0087
Tetrachloroethene	8250	ND	0.0044
Dibromochloromethane	3200	ND	0.0044
Chlorobenzene	2000	ND	0.0044
1,1,1,2-Tetrachloroethane	8185	ND	0.0044
Ethylbenzene	4700	ND	0.0044
Styrene	7968	ND	0.0044
Bromoform	1500	ND	0.0044
1,1,2,2-Tetrachloroethane	8200	ND	0.0044
1,2,3-Trichloropropane	8753	ND	0.0044
1,2-Dibromo-3-Chloropropane	3185	ND	0.0044
1,2-Dichloroethene (total)	3705	ND	0.0087
Xylene (total)	8975	ND	0.0087

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	93	78-134
1,2-Dichloroethane-d4	3601	93	80-138
Toluene-d8	8351	93	80-120
Bromofluorobenzene	1420	90	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Dil'n Fac:	0.7692
Requested:	E8260	Batch#:	221678
Field ID:	75469	Instrument:	MSVOA07
Lab ID:	265569-012	Chemist:	KER
Matrix:	Soil	Sampled:	03/24/15 16:05
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/26/15 16:25

Moisture: 17%

Analyte	Code	Result	RL
Freon 12	3500	ND	0.0093
Chloromethane	2200	ND	0.0093
Vinyl Chloride	8900	ND	0.0093
Bromomethane	1550	ND	0.0093
Chloroethane	2050	ND	0.0093
Trichlorofluoromethane	8700	ND	0.0046
Ethanol	4675	ND	9.3
Acetone	0125	ND	0.093
Freon 113	4850	ND	0.0046
1,1-Dichloroethene	3650	ND	0.0046
Methylene Chloride	5750	ND	0.0093
Carbon Disulfide	1775	ND	0.046
trans-1,2-Dichloroethene	3700	ND	0.0046
Vinyl Acetate	8885	ND	0.046
1,1-Dichloroethane	3550	ND	0.0046
2-Butanone	5815	ND	0.0093
cis-1,2-Dichloroethene	3695	ND	0.0046
Chloroform	2150	ND	0.0046
1,1,1-Trichloroethane	8550	ND	0.0046
Carbon Tetrachloride	1800	ND	0.0046
1,2-Dichloroethane	3600	ND	0.0046
Benzene	0500	ND	0.0046
Trichloroethene	8650	ND	0.0046
1,2-Dichloropropane	3850	ND	0.0046
Bromodichloromethane	1450	ND	0.0046
4-Methyl-2-Pentanone	5720	ND	0.0093
cis-1,3-Dichloropropene	3900	ND	0.0046
Toluene	8350	ND	0.0046
trans-1,3-Dichloropropene	3950	ND	0.0046
1,1,2-Trichloroethane	8600	ND	0.0046
2-Hexanone	5735	ND	0.0093
Tetrachloroethene	8250	ND	0.0046
Dibromochloromethane	3200	ND	0.0046
Chlorobenzene	2000	ND	0.0046
1,1,1,2-Tetrachloroethane	8185	ND	0.0046
Ethylbenzene	4700	ND	0.0046
Styrene	7968	ND	0.0046
Bromoform	1500	ND	0.0046
1,1,2,2-Tetrachloroethane	8200	ND	0.0046
1,2,3-Trichloropropane	8753	ND	0.0046
1,2-Dibromo-3-Chloropropane	3185	ND	0.0046
1,2-Dichloroethene (total)	3705	ND	0.0093
Xylene (total)	8975	ND	0.0093

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	95	78-134
1,2-Dichloroethane-d4	3601	93	80-138
Toluene-d8	8351	93	80-120
Bromofluorobenzene	1420	88	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Dil'n Fac:	0.6983
Requested:	E8260	Batch#:	221678
Field ID:	75471	Instrument:	MSVOA07
Lab ID:	265569-014	Chemist:	KER
Matrix:	Soil	Sampled:	03/24/15 16:20
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/26/15 17:00

Moisture: 14%

Analyte	Code	Result	RL
Freon 12	3500	ND	0.0081
Chloromethane	2200	ND	0.0081
Vinyl Chloride	8900	ND	0.0081
Bromomethane	1550	ND	0.0081
Chloroethane	2050	ND	0.0081
Trichlorofluoromethane	8700	ND	0.0041
Ethanol	4675	ND	8.1
Acetone	0125	ND	0.081
Freon 113	4850	ND	0.0041
1,1-Dichloroethene	3650	ND	0.0041
Methylene Chloride	5750	ND	0.0081
Carbon Disulfide	1775	ND	0.041
trans-1,2-Dichloroethene	3700	ND	0.0041
Vinyl Acetate	8885	ND	0.041
1,1-Dichloroethane	3550	ND	0.0041
2-Butanone	5815	ND	0.0081
cis-1,2-Dichloroethene	3695	ND	0.0041
Chloroform	2150	ND	0.0041
1,1,1-Trichloroethane	8550	ND	0.0041
Carbon Tetrachloride	1800	ND	0.0041
1,2-Dichloroethane	3600	ND	0.0041
Benzene	0500	ND	0.0041
Trichloroethene	8650	ND	0.0041
1,2-Dichloropropane	3850	ND	0.0041
Bromodichloromethane	1450	ND	0.0041
4-Methyl-2-Pentanone	5720	ND	0.0081
cis-1,3-Dichloropropene	3900	ND	0.0041
Toluene	8350	ND	0.0041
trans-1,3-Dichloropropene	3950	ND	0.0041
1,1,2-Trichloroethane	8600	ND	0.0041
2-Hexanone	5735	ND	0.0081
Tetrachloroethene	8250	ND	0.0041
Dibromochloromethane	3200	ND	0.0041
Chlorobenzene	2000	ND	0.0041
1,1,1,2-Tetrachloroethane	8185	ND	0.0041
Ethylbenzene	4700	ND	0.0041
Styrene	7968	ND	0.0041
Bromoform	1500	ND	0.0041
1,1,2,2-Tetrachloroethane	8200	ND	0.0041
1,2,3-Trichloropropane	8753	ND	0.0041
1,2-Dibromo-3-Chloropropane	3185	ND	0.0041
1,2-Dichloroethene (total)	3705	ND	0.0081
Xylene (total)	8975	ND	0.0081

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	93	78-134
1,2-Dichloroethane-d4	3601	95	80-138
Toluene-d8	8351	93	80-120
Bromofluorobenzene	1420	88	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Dil'n Fac:	0.6658
Requested:	E8260	Batch#:	221678
Field ID:	75473	Instrument:	MSVOA07
Lab ID:	265569-016	Chemist:	KER
Matrix:	Soil	Sampled:	03/24/15 16:35
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/26/15 17:34

Moisture: 15%

Analyte	Code	Result	RL
Freon 12	3500	ND	0.0078
Chloromethane	2200	ND	0.0078
Vinyl Chloride	8900	ND	0.0078
Bromomethane	1550	ND	0.0078
Chloroethane	2050	ND	0.0078
Trichlorofluoromethane	8700	ND	0.0039
Ethanol	4675	ND	7.8
Acetone	0125	ND	0.078
Freon 113	4850	ND	0.0039
1,1-Dichloroethene	3650	ND	0.0039
Methylene Chloride	5750	ND	0.0078
Carbon Disulfide	1775	ND	0.039
trans-1,2-Dichloroethene	3700	ND	0.0039
Vinyl Acetate	8885	ND	0.039
1,1-Dichloroethane	3550	ND	0.0039
2-Butanone	5815	ND	0.0078
cis-1,2-Dichloroethene	3695	ND	0.0039
Chloroform	2150	ND	0.0039
1,1,1-Trichloroethane	8550	ND	0.0039
Carbon Tetrachloride	1800	ND	0.0039
1,2-Dichloroethane	3600	ND	0.0039
Benzene	0500	ND	0.0039
Trichloroethene	8650	ND	0.0039
1,2-Dichloropropane	3850	ND	0.0039
Bromodichloromethane	1450	ND	0.0039
4-Methyl-2-Pentanone	5720	ND	0.0078
cis-1,3-Dichloropropene	3900	ND	0.0039
Toluene	8350	ND	0.0039
trans-1,3-Dichloropropene	3950	ND	0.0039
1,1,2-Trichloroethane	8600	ND	0.0039
2-Hexanone	5735	ND	0.0078
Tetrachloroethene	8250	ND	0.0039
Dibromochloromethane	3200	ND	0.0039
Chlorobenzene	2000	ND	0.0039
1,1,1,2-Tetrachloroethane	8185	ND	0.0039
Ethylbenzene	4700	ND	0.0039
Styrene	7968	ND	0.0039
Bromoform	1500	ND	0.0039
1,1,2,2-Tetrachloroethane	8200	ND	0.0039
1,2,3-Trichloropropane	8753	ND	0.0039
1,2-Dibromo-3-Chloropropane	3185	ND	0.0039
1,2-Dichloroethene (total)	3705	ND	0.0078
Xylene (total)	8975	ND	0.0078

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	93	78-134
1,2-Dichloroethane-d4	3601	92	80-138
Toluene-d8	8351	93	80-120
Bromofluorobenzene	1420	88	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Dil'n Fac:	0.7610
Requested:	E8260	Batch#:	221678
Field ID:	75475	Instrument:	MSVOA07
Lab ID:	265569-018	Chemist:	KER
Matrix:	Soil	Sampled:	03/24/15 09:40
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/26/15 18:09

Moisture: 10%

Analyte	Code	Result	RL
Freon 12	3500	ND	0.0085
Chloromethane	2200	ND	0.0085
Vinyl Chloride	8900	ND	0.0085
Bromomethane	1550	ND	0.0085
Chloroethane	2050	ND	0.0085
Trichlorofluoromethane	8700	ND	0.0042
Ethanol	4675	ND	8.5
Acetone	0125	ND	0.085
Freon 113	4850	ND	0.0042
1,1-Dichloroethene	3650	ND	0.0042
Methylene Chloride	5750	ND	0.0085
Carbon Disulfide	1775	ND	0.042
trans-1,2-Dichloroethene	3700	ND	0.0042
Vinyl Acetate	8885	ND	0.042
1,1-Dichloroethane	3550	ND	0.0042
2-Butanone	5815	ND	0.0085
cis-1,2-Dichloroethene	3695	ND	0.0042
Chloroform	2150	ND	0.0042
1,1,1-Trichloroethane	8550	ND	0.0042
Carbon Tetrachloride	1800	ND	0.0042
1,2-Dichloroethane	3600	ND	0.0042
Benzene	0500	ND	0.0042
Trichloroethene	8650	ND	0.0042
1,2-Dichloropropane	3850	ND	0.0042
Bromodichloromethane	1450	ND	0.0042
4-Methyl-2-Pentanone	5720	ND	0.0085
cis-1,3-Dichloropropene	3900	ND	0.0042
Toluene	8350	ND	0.0042
trans-1,3-Dichloropropene	3950	ND	0.0042
1,1,2-Trichloroethane	8600	ND	0.0042
2-Hexanone	5735	ND	0.0085
Tetrachloroethene	8250	ND	0.0042
Dibromochloromethane	3200	ND	0.0042
Chlorobenzene	2000	ND	0.0042
1,1,1,2-Tetrachloroethane	8185	ND	0.0042
Ethylbenzene	4700	ND	0.0042
Styrene	7968	ND	0.0042
Bromoform	1500	ND	0.0042
1,1,2,2-Tetrachloroethane	8200	ND	0.0042
1,2,3-Trichloropropane	8753	ND	0.0042
1,2-Dibromo-3-Chloropropane	3185	ND	0.0042
1,2-Dichloroethene (total)	3705	ND	0.0085
Xylene (total)	8975	ND	0.0085

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	93	78-134
1,2-Dichloroethane-d4	3601	94	80-138
Toluene-d8	8351	94	80-120
Bromofluorobenzene	1420	91	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Dil'n Fac:	0.7013
Requested:	E8260	Batch#:	221678
Field ID:	75477	Instrument:	MSVOA07
Lab ID:	265569-020	Chemist:	MCT
Matrix:	Soil	Sampled:	03/24/15 10:20
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/26/15 18:44

Moisture: 15%

Analyte	Code	Result	RL
Freon 12	3500	ND	0.0083
Chloromethane	2200	ND	0.0083
Vinyl Chloride	8900	ND	0.0083
Bromomethane	1550	ND	0.0083
Chloroethane	2050	ND	0.0083
Trichlorofluoromethane	8700	ND	0.0041
Ethanol	4675	ND	8.3
Acetone	0125	ND	0.083
Freon 113	4850	ND	0.0041
1,1-Dichloroethene	3650	ND	0.0041
Methylene Chloride	5750	ND	0.0083
Carbon Disulfide	1775	ND	0.041
trans-1,2-Dichloroethene	3700	ND	0.0041
Vinyl Acetate	8885	ND	0.041
1,1-Dichloroethane	3550	ND	0.0041
2-Butanone	5815	ND	0.0083
cis-1,2-Dichloroethene	3695	ND	0.0041
Chloroform	2150	ND	0.0041
1,1,1-Trichloroethane	8550	ND	0.0041
Carbon Tetrachloride	1800	ND	0.0041
1,2-Dichloroethane	3600	ND	0.0041
Benzene	0500	ND	0.0041
Trichloroethene	8650	ND	0.0041
1,2-Dichloropropane	3850	ND	0.0041
Bromodichloromethane	1450	ND	0.0041
4-Methyl-2-Pentanone	5720	ND	0.0083
cis-1,3-Dichloropropene	3900	ND	0.0041
Toluene	8350	ND	0.0041
trans-1,3-Dichloropropene	3950	ND	0.0041
1,1,2-Trichloroethane	8600	ND	0.0041
2-Hexanone	5735	ND	0.0083
Tetrachloroethene	8250	ND	0.0041
Dibromochloromethane	3200	ND	0.0041
Chlorobenzene	2000	ND	0.0041
1,1,1,2-Tetrachloroethane	8185	ND	0.0041
Ethylbenzene	4700	ND	0.0041
Styrene	7968	ND	0.0041
Bromoform	1500	ND	0.0041
1,1,2,2-Tetrachloroethane	8200	ND	0.0041
1,2,3-Trichloropropane	8753	ND	0.0041
1,2-Dibromo-3-Chloropropane	3185	ND	0.0041
1,2-Dichloroethene (total)	3705	ND	0.0083
Xylene (total)	8975	ND	0.0083

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	92	78-134
1,2-Dichloroethane-d4	3601	92	80-138
Toluene-d8	8351	94	80-120
Bromofluorobenzene	1420	90	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Dil'n Fac:	0.6993
Requested:	E8260	Batch#:	221694
Field ID:	75479	Instrument:	MSVOA05
Lab ID:	265569-022	Chemist:	NJT
Matrix:	Soil	Sampled:	03/24/15 10:40
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/26/15 19:24

Moisture: 15%

Analyte	Code	Result	RL
Freon 12	3500	ND	0.0082
Chloromethane	2200	ND	0.0082
Vinyl Chloride	8900	ND	0.0082
Bromomethane	1550	ND	0.0082
Chloroethane	2050	ND	0.0082
Trichlorofluoromethane	8700	ND	0.0041
Ethanol	4675	ND	8.2
Acetone	0125	ND	0.082
Freon 113	4850	ND	0.0041
1,1-Dichloroethene	3650	ND	0.0041
Methylene Chloride	5750	ND	0.0082
Carbon Disulfide	1775	ND	0.041
trans-1,2-Dichloroethene	3700	ND	0.0041
Vinyl Acetate	8885	ND	0.041
1,1-Dichloroethane	3550	ND	0.0041
2-Butanone	5815	ND	0.0082
cis-1,2-Dichloroethene	3695	ND	0.0041
Chloroform	2150	ND	0.0041
1,1,1-Trichloroethane	8550	ND	0.0041
Carbon Tetrachloride	1800	ND	0.0041
1,2-Dichloroethane	3600	ND	0.0041
Benzene	0500	ND	0.0041
Trichloroethene	8650	ND	0.0041
1,2-Dichloropropane	3850	ND	0.0041
Bromodichloromethane	1450	ND	0.0041
4-Methyl-2-Pentanone	5720	ND	0.0082
cis-1,3-Dichloropropene	3900	ND	0.0041
Toluene	8350	ND	0.0041
trans-1,3-Dichloropropene	3950	ND	0.0041
1,1,2-Trichloroethane	8600	ND	0.0041
2-Hexanone	5735	ND	0.0082
Tetrachloroethene	8250	ND	0.0041
Dibromochloromethane	3200	ND	0.0041
Chlorobenzene	2000	ND	0.0041
1,1,1,2-Tetrachloroethane	8185	ND	0.0041
Ethylbenzene	4700	ND	0.0041
Styrene	7968	ND	0.0041
Bromoform	1500	ND	0.0041
1,1,2,2-Tetrachloroethane	8200	ND	0.0041
1,2,3-Trichloropropane	8753	ND	0.0041
1,2-Dibromo-3-Chloropropane	3185	ND	0.0041
1,2-Dichloroethene (total)	3705	ND	0.0082
Xylene (total)	8975	ND	0.0082

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	103	78-134
1,2-Dichloroethane-d4	3601	127	80-138
Toluene-d8	8351	104	80-120
Bromofluorobenzene	1420	108	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Dil'n Fac:	0.7474
Requested:	E8260	Batch#:	221694
Field ID:	75481	Instrument:	MSVOA05
Lab ID:	265569-024	Chemist:	NJT
Matrix:	Soil	Sampled:	03/24/15 10:55
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/26/15 19:59

Moisture: 13%

Analyte	Code	Result	RL
Freon 12	3500	ND	0.0086
Chloromethane	2200	ND	0.0086
Vinyl Chloride	8900	ND	0.0086
Bromomethane	1550	ND	0.0086
Chloroethane	2050	ND	0.0086
Trichlorofluoromethane	8700	ND	0.0043
Ethanol	4675	ND	8.6
Acetone	0125	ND	0.086
Freon 113	4850	ND	0.0043
1,1-Dichloroethene	3650	ND	0.0043
Methylene Chloride	5750	ND	0.0086
Carbon Disulfide	1775	ND	0.043
trans-1,2-Dichloroethene	3700	ND	0.0043
Vinyl Acetate	8885	ND	0.043
1,1-Dichloroethane	3550	ND	0.0043
2-Butanone	5815	ND	0.0086
cis-1,2-Dichloroethene	3695	ND	0.0043
Chloroform	2150	ND	0.0043
1,1,1-Trichloroethane	8550	ND	0.0043
Carbon Tetrachloride	1800	ND	0.0043
1,2-Dichloroethane	3600	ND	0.0043
Benzene	0500	ND	0.0043
Trichloroethene	8650	ND	0.0043
1,2-Dichloropropane	3850	ND	0.0043
Bromodichloromethane	1450	ND	0.0043
4-Methyl-2-Pentanone	5720	ND	0.0086
cis-1,3-Dichloropropene	3900	ND	0.0043
Toluene	8350	ND	0.0043
trans-1,3-Dichloropropene	3950	ND	0.0043
1,1,2-Trichloroethane	8600	ND	0.0043
2-Hexanone	5735	ND	0.0086
Tetrachloroethene	8250	ND	0.0043
Dibromochloromethane	3200	ND	0.0043
Chlorobenzene	2000	ND	0.0043
1,1,1,2-Tetrachloroethane	8185	ND	0.0043
Ethylbenzene	4700	ND	0.0043
Styrene	7968	ND	0.0043
Bromoform	1500	ND	0.0043
1,1,2,2-Tetrachloroethane	8200	ND	0.0043
1,2,3-Trichloropropane	8753	ND	0.0043
1,2-Dibromo-3-Chloropropane	3185	ND	0.0043
1,2-Dichloroethene (total)	3705	ND	0.0086
Xylene (total)	8975	ND	0.0086

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	101	78-134
1,2-Dichloroethane-d4	3601	133	80-138
Toluene-d8	8351	103	80-120
Bromofluorobenzene	1420	107	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Dil'n Fac:	0.6925
Requested:	E8260	Batch#:	221694
Field ID:	75483	Instrument:	MSVOA05
Lab ID:	265569-026	Chemist:	NJT
Matrix:	Soil	Sampled:	03/24/15 10:45
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/26/15 20:34

Moisture: 14%

Analyte	Code	Result	RL
Freon 12	3500	ND	0.0081
Chloromethane	2200	ND	0.0081
Vinyl Chloride	8900	ND	0.0081
Bromomethane	1550	ND	0.0081
Chloroethane	2050	ND	0.0081
Trichlorofluoromethane	8700	ND	0.0040
Ethanol	4675	ND	8.1
Acetone	0125	ND	0.081
Freon 113	4850	ND	0.0040
1,1-Dichloroethene	3650	ND	0.0040
Methylene Chloride	5750	ND	0.0081
Carbon Disulfide	1775	ND	0.040
trans-1,2-Dichloroethene	3700	ND	0.0040
Vinyl Acetate	8885	ND	0.040
1,1-Dichloroethane	3550	ND	0.0040
2-Butanone	5815	ND	0.0081
cis-1,2-Dichloroethene	3695	ND	0.0040
Chloroform	2150	ND	0.0040
1,1,1-Trichloroethane	8550	ND	0.0040
Carbon Tetrachloride	1800	ND	0.0040
1,2-Dichloroethane	3600	ND	0.0040
Benzene	0500	ND	0.0040
Trichloroethene	8650	ND	0.0040
1,2-Dichloropropane	3850	ND	0.0040
Bromodichloromethane	1450	ND	0.0040
4-Methyl-2-Pentanone	5720	ND	0.0081
cis-1,3-Dichloropropene	3900	ND	0.0040
Toluene	8350	ND	0.0040
trans-1,3-Dichloropropene	3950	ND	0.0040
1,1,2-Trichloroethane	8600	ND	0.0040
2-Hexanone	5735	ND	0.0081
Tetrachloroethene	8250	ND	0.0040
Dibromochloromethane	3200	ND	0.0040
Chlorobenzene	2000	ND	0.0040
1,1,1,2-Tetrachloroethane	8185	ND	0.0040
Ethylbenzene	4700	ND	0.0040
Styrene	7968	ND	0.0040
Bromoform	1500	ND	0.0040
1,1,2,2-Tetrachloroethane	8200	ND	0.0040
1,2,3-Trichloropropane	8753	ND	0.0040
1,2-Dibromo-3-Chloropropane	3185	ND	0.0040
1,2-Dichloroethene (total)	3705	ND	0.0081
Xylene (total)	8975	ND	0.0081

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	103	78-134
1,2-Dichloroethane-d4	3601	130	80-138
Toluene-d8	8351	102	80-120
Bromofluorobenzene	1420	107	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Dil'n Fac:	0.7163
Requested:	E8260	Batch#:	221694
Field ID:	75485	Instrument:	MSVOA05
Lab ID:	265569-028	Chemist:	NJT
Matrix:	Soil	Sampled:	03/24/15 11:50
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/26/15 21:09

Moisture: 14%

Analyte	Code	Result	RL
Freon 12	3500	ND	0.0083
Chloromethane	2200	ND	0.0083
Vinyl Chloride	8900	ND	0.0083
Bromomethane	1550	ND	0.0083
Chloroethane	2050	ND	0.0083
Trichlorofluoromethane	8700	ND	0.0042
Ethanol	4675	ND	8.3
Acetone	0125	ND	0.083
Freon 113	4850	ND	0.0042
1,1-Dichloroethene	3650	ND	0.0042
Methylene Chloride	5750	ND	0.0083
Carbon Disulfide	1775	ND	0.042
trans-1,2-Dichloroethene	3700	ND	0.0042
Vinyl Acetate	8885	ND	0.042
1,1-Dichloroethane	3550	ND	0.0042
2-Butanone	5815	ND	0.0083
cis-1,2-Dichloroethene	3695	ND	0.0042
Chloroform	2150	ND	0.0042
1,1,1-Trichloroethane	8550	ND	0.0042
Carbon Tetrachloride	1800	ND	0.0042
1,2-Dichloroethane	3600	ND	0.0042
Benzene	0500	ND	0.0042
Trichloroethene	8650	ND	0.0042
1,2-Dichloropropane	3850	ND	0.0042
Bromodichloromethane	1450	ND	0.0042
4-Methyl-2-Pentanone	5720	ND	0.0083
cis-1,3-Dichloropropene	3900	ND	0.0042
Toluene	8350	ND	0.0042
trans-1,3-Dichloropropene	3950	ND	0.0042
1,1,2-Trichloroethane	8600	ND	0.0042
2-Hexanone	5735	ND	0.0083
Tetrachloroethene	8250	ND	0.0042
Dibromochloromethane	3200	ND	0.0042
Chlorobenzene	2000	ND	0.0042
1,1,1,2-Tetrachloroethane	8185	ND	0.0042
Ethylbenzene	4700	ND	0.0042
Styrene	7968	ND	0.0042
Bromoform	1500	ND	0.0042
1,1,2,2-Tetrachloroethane	8200	ND	0.0042
1,2,3-Trichloropropane	8753	ND	0.0042
1,2-Dibromo-3-Chloropropane	3185	ND	0.0042
1,2-Dichloroethene (total)	3705	ND	0.0083
Xylene (total)	8975	ND	0.0083

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	106	78-134
1,2-Dichloroethane-d4	3601	135	80-138
Toluene-d8	8351	107	80-120
Bromofluorobenzene	1420	106	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Dil'n Fac:	0.6803
Requested:	E8260	Batch#:	221694
Field ID:	75487	Instrument:	MSVOA05
Lab ID:	265569-030	Chemist:	NJT
Matrix:	Soil	Sampled:	03/24/15 12:05
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/26/15 21:44

Moisture: 14%

Analyte	Code	Result	RL
Freon 12	3500	ND	0.0079
Chloromethane	2200	ND	0.0079
Vinyl Chloride	8900	ND	0.0079
Bromomethane	1550	ND	0.0079
Chloroethane	2050	ND	0.0079
Trichlorofluoromethane	8700	ND	0.0040
Ethanol	4675	ND	7.9
Acetone	0125	ND	0.079
Freon 113	4850	ND	0.0040
1,1-Dichloroethene	3650	ND	0.0040
Methylene Chloride	5750	ND	0.0079
Carbon Disulfide	1775	ND	0.040
trans-1,2-Dichloroethene	3700	ND	0.0040
Vinyl Acetate	8885	ND	0.040
1,1-Dichloroethane	3550	ND	0.0040
2-Butanone	5815	ND	0.0079
cis-1,2-Dichloroethene	3695	ND	0.0040
Chloroform	2150	ND	0.0040
1,1,1-Trichloroethane	8550	ND	0.0040
Carbon Tetrachloride	1800	ND	0.0040
1,2-Dichloroethane	3600	ND	0.0040
Benzene	0500	ND	0.0040
Trichloroethene	8650	ND	0.0040
1,2-Dichloropropane	3850	ND	0.0040
Bromodichloromethane	1450	ND	0.0040
4-Methyl-2-Pentanone	5720	ND	0.0079
cis-1,3-Dichloropropene	3900	ND	0.0040
Toluene	8350	ND	0.0040
trans-1,3-Dichloropropene	3950	ND	0.0040
1,1,2-Trichloroethane	8600	ND	0.0040
2-Hexanone	5735	ND	0.0079
Tetrachloroethene	8250	ND	0.0040
Dibromochloromethane	3200	ND	0.0040
Chlorobenzene	2000	ND	0.0040
1,1,1,2-Tetrachloroethane	8185	ND	0.0040
Ethylbenzene	4700	ND	0.0040
Styrene	7968	ND	0.0040
Bromoform	1500	ND	0.0040
1,1,2,2-Tetrachloroethane	8200	ND	0.0040
1,2,3-Trichloropropane	8753	ND	0.0040
1,2-Dibromo-3-Chloropropane	3185	ND	0.0040
1,2-Dichloroethene (total)	3705	ND	0.0079
Xylene (total)	8975	ND	0.0079

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	107	78-134
1,2-Dichloroethane-d4	3601	135	80-138
Toluene-d8	8351	104	80-120
Bromofluorobenzene	1420	109	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Dil'n Fac:	0.8375
Requested:	E8260	Batch#:	221694
Field ID:	75489	Instrument:	MSVOA05
Lab ID:	265569-032	Chemist:	NJT
Matrix:	Soil	Sampled:	03/24/15 12:20
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/26/15 22:19

Moisture: 15%

Analyte	Code	Result	RL
Freon 12	3500	ND	0.0099
Chloromethane	2200	ND	0.0099
Vinyl Chloride	8900	ND	0.0099
Bromomethane	1550	ND	0.0099
Chloroethane	2050	ND	0.0099
Trichlorofluoromethane	8700	ND	0.0049
Ethanol	4675	ND	9.9
Acetone	0125	ND	0.099
Freon 113	4850	ND	0.0049
1,1-Dichloroethene	3650	ND	0.0049
Methylene Chloride	5750	ND	0.0099
Carbon Disulfide	1775	ND	0.049
trans-1,2-Dichloroethene	3700	ND	0.0049
Vinyl Acetate	8885	ND	0.049
1,1-Dichloroethane	3550	ND	0.0049
2-Butanone	5815	ND	0.0099
cis-1,2-Dichloroethene	3695	ND	0.0049
Chloroform	2150	ND	0.0049
1,1,1-Trichloroethane	8550	ND	0.0049
Carbon Tetrachloride	1800	ND	0.0049
1,2-Dichloroethane	3600	ND	0.0049
Benzene	0500	ND	0.0049
Trichloroethene	8650	ND	0.0049
1,2-Dichloropropane	3850	ND	0.0049
Bromodichloromethane	1450	ND	0.0049
4-Methyl-2-Pentanone	5720	ND	0.0099
cis-1,3-Dichloropropene	3900	ND	0.0049
Toluene	8350	ND	0.0049
trans-1,3-Dichloropropene	3950	ND	0.0049
1,1,2-Trichloroethane	8600	ND	0.0049
2-Hexanone	5735	ND	0.0099
Tetrachloroethene	8250	ND	0.0049
Dibromochloromethane	3200	ND	0.0049
Chlorobenzene	2000	ND	0.0049
1,1,1,2-Tetrachloroethane	8185	ND	0.0049
Ethylbenzene	4700	ND	0.0049
Styrene	7968	ND	0.0049
Bromoform	1500	ND	0.0049
1,1,2,2-Tetrachloroethane	8200	ND	0.0049
1,2,3-Trichloropropane	8753	ND	0.0049
1,2-Dibromo-3-Chloropropane	3185	ND	0.0049
1,2-Dichloroethene (total)	3705	ND	0.0099
Xylene (total)	8975	ND	0.0099

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	110	78-134
1,2-Dichloroethane-d4	3601	134	80-138
Toluene-d8	8351	104	80-120
Bromofluorobenzene	1420	107	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Dil'n Fac:	0.7133
Requested:	E8260	Batch#:	221694
Field ID:	75491	Instrument:	MSVOA05
Lab ID:	265569-034	Chemist:	NJT
Matrix:	Soil	Sampled:	03/24/15 12:35
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/26/15 22:53

Moisture: 16%

Analyte	Code	Result	RL
Freon 12	3500	ND	0.0085
Chloromethane	2200	ND	0.0085
Vinyl Chloride	8900	ND	0.0085
Bromomethane	1550	ND	0.0085
Chloroethane	2050	ND	0.0085
Trichlorofluoromethane	8700	ND	0.0042
Ethanol	4675	ND	8.5
Acetone	0125	ND	0.085
Freon 113	4850	ND	0.0042
1,1-Dichloroethene	3650	ND	0.0042
Methylene Chloride	5750	ND	0.0085
Carbon Disulfide	1775	ND	0.042
trans-1,2-Dichloroethene	3700	ND	0.0042
Vinyl Acetate	8885	ND	0.042
1,1-Dichloroethane	3550	ND	0.0042
2-Butanone	5815	ND	0.0085
cis-1,2-Dichloroethene	3695	ND	0.0042
Chloroform	2150	ND	0.0042
1,1,1-Trichloroethane	8550	ND	0.0042
Carbon Tetrachloride	1800	ND	0.0042
1,2-Dichloroethane	3600	ND	0.0042
Benzene	0500	ND	0.0042
Trichloroethene	8650	ND	0.0042
1,2-Dichloropropane	3850	ND	0.0042
Bromodichloromethane	1450	ND	0.0042
4-Methyl-2-Pentanone	5720	ND	0.0085
cis-1,3-Dichloropropene	3900	ND	0.0042
Toluene	8350	ND	0.0042
trans-1,3-Dichloropropene	3950	ND	0.0042
1,1,2-Trichloroethane	8600	ND	0.0042
2-Hexanone	5735	ND	0.0085
Tetrachloroethene	8250	ND	0.0042
Dibromochloromethane	3200	ND	0.0042
Chlorobenzene	2000	ND	0.0042
1,1,1,2-Tetrachloroethane	8185	ND	0.0042
Ethylbenzene	4700	ND	0.0042
Styrene	7968	ND	0.0042
Bromoform	1500	ND	0.0042
1,1,2,2-Tetrachloroethane	8200	ND	0.0042
1,2,3-Trichloropropane	8753	ND	0.0042
1,2-Dibromo-3-Chloropropane	3185	ND	0.0042
1,2-Dichloroethene (total)	3705	ND	0.0085
Xylene (total)	8975	ND	0.0085

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	110	78-134
1,2-Dichloroethane-d4	3601	138	80-138
Toluene-d8	8351	105	80-120
Bromofluorobenzene	1420	111	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		

COC #:	08381	Diln Fac:	0.6702
Requested:	E8260	Batch#:	221694
Field ID:	75493	Instrument:	MSVOA05
Lab ID:	265569-036	Chemist:	NJT
Matrix:	Soil	Sampled:	03/24/15 12:50
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/26/15 23:28

Moisture: 16%

Analyte	Code	Result	RL
Freon 12	3500	ND	0.0080
Chloromethane	2200	ND	0.0080
Vinyl Chloride	8900	ND	0.0080
Bromomethane	1550	ND	0.0080
Chloroethane	2050	ND	0.0080
Trichlorofluoromethane	8700	ND	0.0040
Ethanol	4675	ND	8.0
Acetone	0125	ND	0.080
Freon 113	4850	ND	0.0040
1,1-Dichloroethene	3650	ND	0.0040
Methylene Chloride	5750	ND	0.0080
Carbon Disulfide	1775	ND	0.040
trans-1,2-Dichloroethene	3700	ND	0.0040
Vinyl Acetate	8885	ND	0.040
1,1-Dichloroethane	3550	ND	0.0040
2-Butanone	5815	ND	0.0080
cis-1,2-Dichloroethene	3695	ND	0.0040
Chloroform	2150	ND	0.0040
1,1,1-Trichloroethane	8550	ND	0.0040
Carbon Tetrachloride	1800	ND	0.0040
1,2-Dichloroethane	3600	ND	0.0040
Benzene	0500	ND	0.0040
Trichloroethene	8650	ND	0.0040
1,2-Dichloropropane	3850	ND	0.0040
Bromodichloromethane	1450	ND	0.0040
4-Methyl-2-Pentanone	5720	ND	0.0080
cis-1,3-Dichloropropene	3900	ND	0.0040
Toluene	8350	ND	0.0040
trans-1,3-Dichloropropene	3950	ND	0.0040
1,1,2-Trichloroethane	8600	ND	0.0040
2-Hexanone	5735	ND	0.0080

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Diln Fac:	0.6702
Requested:	E8260	Batch#:	221694
Field ID:	75493	Instrument:	MSVOA05
Lab ID:	265569-036	Chemist:	NJT
Matrix:	Soil	Sampled:	03/24/15 12:50
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/26/15 23:28

Analyte	Code	Result	RL
Tetrachloroethene	8250	ND	0.0040
Dibromochloromethane	3200	ND	0.0040
Chlorobenzene	2000	ND	0.0040
1,1,1,2-Tetrachloroethane	8185	ND	0.0040
Ethylbenzene	4700	ND	0.0040
Styrene	7968	ND	0.0040
Bromoform	1500	ND	0.0040
1,1,2,2-Tetrachloroethane	8200	ND	0.0040
1,2,3-Trichloropropane	8753	ND	0.0040
1,2-Dibromo-3-Chloropropane	3185	ND	0.0040
1,2-Dichloroethene (total)	3705	ND	0.0080
Xylene (total)	8975	ND	0.0080

Surrogate	Code	%REC		Limits
Dibromofluoromethane	3210	112		78-134
1,2-Dichloroethane-d4	3601	139	*	80-138
Toluene-d8	8351	106		80-120
Bromofluorobenzene	1420	107		78-123

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Diln Fac:	0.7289
Requested:	E8260	Batch#:	221694
Field ID:	75495	Instrument:	MSVOA05
Lab ID:	265569-038	Chemist:	NJT
Matrix:	Soil	Sampled:	03/24/15 13:00
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/27/15 00:03

Moisture: 16%

Analyte	Code	Result	RL
Freon 12	3500	ND	0.0087
Chloromethane	2200	ND	0.0087
Vinyl Chloride	8900	ND	0.0087
Bromomethane	1550	ND	0.0087
Chloroethane	2050	ND	0.0087
Trichlorofluoromethane	8700	ND	0.0043
Ethanol	4675	ND	8.7
Acetone	0125	ND	0.087
Freon 113	4850	ND	0.0043
1,1-Dichloroethene	3650	ND	0.0043
Methylene Chloride	5750	ND	0.0087
Carbon Disulfide	1775	ND	0.043
trans-1,2-Dichloroethene	3700	ND	0.0043
Vinyl Acetate	8885	ND	0.043
1,1-Dichloroethane	3550	ND	0.0043
2-Butanone	5815	ND	0.0087
cis-1,2-Dichloroethene	3695	ND	0.0043
Chloroform	2150	ND	0.0043
1,1,1-Trichloroethane	8550	ND	0.0043
Carbon Tetrachloride	1800	ND	0.0043
1,2-Dichloroethane	3600	ND	0.0043
Benzene	0500	ND	0.0043
Trichloroethene	8650	ND	0.0043
1,2-Dichloropropane	3850	ND	0.0043
Bromodichloromethane	1450	ND	0.0043
4-Methyl-2-Pentanone	5720	ND	0.0087
cis-1,3-Dichloropropene	3900	ND	0.0043
Toluene	8350	ND	0.0043
trans-1,3-Dichloropropene	3950	ND	0.0043
1,1,2-Trichloroethane	8600	ND	0.0043
2-Hexanone	5735	ND	0.0087

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Diln Fac:	0.7289
Requested:	E8260	Batch#:	221694
Field ID:	75495	Instrument:	MSVOA05
Lab ID:	265569-038	Chemist:	NJT
Matrix:	Soil	Sampled:	03/24/15 13:00
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/27/15 00:03

Analyte	Code	Result	RL
Tetrachloroethene	8250	ND	0.0043
Dibromochloromethane	3200	ND	0.0043
Chlorobenzene	2000	ND	0.0043
1,1,1,2-Tetrachloroethane	8185	ND	0.0043
Ethylbenzene	4700	ND	0.0043
Styrene	7968	ND	0.0043
Bromoform	1500	ND	0.0043
1,1,2,2-Tetrachloroethane	8200	ND	0.0043
1,2,3-Trichloropropane	8753	ND	0.0043
1,2-Dibromo-3-Chloropropane	3185	ND	0.0043
1,2-Dichloroethene (total)	3705	ND	0.0087
Xylene (total)	8975	ND	0.0087

Surrogate	Code	%REC		Limits
Dibromofluoromethane	3210	116		78-134
1,2-Dichloroethane-d4	3601	139	*	80-138
Toluene-d8	8351	103		80-120
Bromofluorobenzene	1420	108		78-123

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Dil'n Fac:	0.7082
Requested:	E8260	Batch#:	221712
Field ID:	75497	Instrument:	MSVOA07
Lab ID:	265569-040	Chemist:	MCT
Matrix:	Soil	Sampled:	03/24/15 13:10
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/27/15 12:42

Moisture: 16%

Analyte	Code	Result	RL
Freon 12	3500	ND	0.0084
Chloromethane	2200	ND	0.0084
Vinyl Chloride	8900	ND	0.0084
Bromomethane	1550	ND	0.0084
Chloroethane	2050	ND	0.0084
Trichlorofluoromethane	8700	ND	0.0042
Ethanol	4675	ND	8.4
Acetone	0125	ND	0.084
Freon 113	4850	ND	0.0042
1,1-Dichloroethene	3650	ND	0.0042
Methylene Chloride	5750	ND	0.0084
Carbon Disulfide	1775	ND	0.042
trans-1,2-Dichloroethene	3700	ND	0.0042
Vinyl Acetate	8885	ND	0.042
1,1-Dichloroethane	3550	ND	0.0042
2-Butanone	5815	ND	0.0084
cis-1,2-Dichloroethene	3695	ND	0.0042
Chloroform	2150	ND	0.0042
1,1,1-Trichloroethane	8550	ND	0.0042
Carbon Tetrachloride	1800	ND	0.0042
1,2-Dichloroethane	3600	ND	0.0042
Benzene	0500	ND	0.0042
Trichloroethene	8650	ND	0.0042
1,2-Dichloropropane	3850	ND	0.0042
Bromodichloromethane	1450	ND	0.0042
4-Methyl-2-Pentanone	5720	ND	0.0084
cis-1,3-Dichloropropene	3900	ND	0.0042
Toluene	8350	ND	0.0042
trans-1,3-Dichloropropene	3950	ND	0.0042
1,1,2-Trichloroethane	8600	ND	0.0042
2-Hexanone	5735	ND	0.0084
Tetrachloroethene	8250	ND	0.0042
Dibromochloromethane	3200	ND	0.0042
Chlorobenzene	2000	ND	0.0042
1,1,1,2-Tetrachloroethane	8185	ND	0.0042
Ethylbenzene	4700	ND	0.0042
Styrene	7968	ND	0.0042
Bromoform	1500	ND	0.0042
1,1,2,2-Tetrachloroethane	8200	ND	0.0042
1,2,3-Trichloropropane	8753	ND	0.0042
1,2-Dibromo-3-Chloropropane	3185	ND	0.0042
1,2-Dichloroethene (total)	3705	ND	0.0084
Xylene (total)	8975	ND	0.0084

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	96	78-134
1,2-Dichloroethane-d4	3601	103	80-138
Toluene-d8	8351	94	80-120
Bromofluorobenzene	1420	92	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Dil'n Fac:	0.7364
Requested:	E8260	Batch#:	221712
Field ID:	75499	Instrument:	MSVOA07
Lab ID:	265569-042	Chemist:	MCT
Matrix:	Soil	Sampled:	03/24/15 13:25
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/27/15 13:16

Moisture: 14%

Analyte	Code	Result	RL
Freon 12	3500	ND	0.0086
Chloromethane	2200	ND	0.0086
Vinyl Chloride	8900	ND	0.0086
Bromomethane	1550	ND	0.0086
Chloroethane	2050	ND	0.0086
Trichlorofluoromethane	8700	ND	0.0043
Ethanol	4675	ND	8.6
Acetone	0125	ND	0.086
Freon 113	4850	ND	0.0043
1,1-Dichloroethene	3650	ND	0.0043
Methylene Chloride	5750	ND	0.0086
Carbon Disulfide	1775	ND	0.043
trans-1,2-Dichloroethene	3700	ND	0.0043
Vinyl Acetate	8885	ND	0.043
1,1-Dichloroethane	3550	ND	0.0043
2-Butanone	5815	ND	0.0086
cis-1,2-Dichloroethene	3695	ND	0.0043
Chloroform	2150	ND	0.0043
1,1,1-Trichloroethane	8550	ND	0.0043
Carbon Tetrachloride	1800	ND	0.0043
1,2-Dichloroethane	3600	ND	0.0043
Benzene	0500	ND	0.0043
Trichloroethene	8650	ND	0.0043
1,2-Dichloropropane	3850	ND	0.0043
Bromodichloromethane	1450	ND	0.0043
4-Methyl-2-Pentanone	5720	ND	0.0086
cis-1,3-Dichloropropene	3900	ND	0.0043
Toluene	8350	ND	0.0043
trans-1,3-Dichloropropene	3950	ND	0.0043
1,1,2-Trichloroethane	8600	ND	0.0043
2-Hexanone	5735	ND	0.0086
Tetrachloroethene	8250	ND	0.0043
Dibromochloromethane	3200	ND	0.0043
Chlorobenzene	2000	ND	0.0043
1,1,1,2-Tetrachloroethane	8185	ND	0.0043
Ethylbenzene	4700	ND	0.0043
Styrene	7968	ND	0.0043
Bromoform	1500	ND	0.0043
1,1,2,2-Tetrachloroethane	8200	ND	0.0043
1,2,3-Trichloropropane	8753	ND	0.0043
1,2-Dibromo-3-Chloropropane	3185	ND	0.0043
1,2-Dichloroethene (total)	3705	ND	0.0086
Xylene (total)	8975	ND	0.0086

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	97	78-134
1,2-Dichloroethane-d4	3601	104	80-138
Toluene-d8	8351	96	80-120
Bromofluorobenzene	1420	94	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Dil'n Fac:	0.7022
Requested:	E8260	Batch#:	221712
Field ID:	75501	Instrument:	MSVOA07
Lab ID:	265569-044	Chemist:	MCT
Matrix:	Soil	Sampled:	03/24/15 13:35
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/27/15 13:50

Moisture: 14%

Analyte	Code	Result	RL
Freon 12	3500	ND	0.0082
Chloromethane	2200	ND	0.0082
Vinyl Chloride	8900	ND	0.0082
Bromomethane	1550	ND	0.0082
Chloroethane	2050	ND	0.0082
Trichlorofluoromethane	8700	ND	0.0041
Ethanol	4675	ND	8.2
Acetone	0125	ND	0.082
Freon 113	4850	ND	0.0041
1,1-Dichloroethene	3650	ND	0.0041
Methylene Chloride	5750	ND	0.0082
Carbon Disulfide	1775	ND	0.041
trans-1,2-Dichloroethene	3700	ND	0.0041
Vinyl Acetate	8885	ND	0.041
1,1-Dichloroethane	3550	ND	0.0041
2-Butanone	5815	ND	0.0082
cis-1,2-Dichloroethene	3695	ND	0.0041
Chloroform	2150	ND	0.0041
1,1,1-Trichloroethane	8550	ND	0.0041
Carbon Tetrachloride	1800	ND	0.0041
1,2-Dichloroethane	3600	ND	0.0041
Benzene	0500	ND	0.0041
Trichloroethene	8650	ND	0.0041
1,2-Dichloropropane	3850	ND	0.0041
Bromodichloromethane	1450	ND	0.0041
4-Methyl-2-Pentanone	5720	ND	0.0082
cis-1,3-Dichloropropene	3900	ND	0.0041
Toluene	8350	ND	0.0041
trans-1,3-Dichloropropene	3950	ND	0.0041
1,1,2-Trichloroethane	8600	ND	0.0041
2-Hexanone	5735	ND	0.0082
Tetrachloroethene	8250	ND	0.0041
Dibromochloromethane	3200	ND	0.0041
Chlorobenzene	2000	ND	0.0041
1,1,1,2-Tetrachloroethane	8185	ND	0.0041
Ethylbenzene	4700	ND	0.0041
Styrene	7968	ND	0.0041
Bromoform	1500	ND	0.0041
1,1,2,2-Tetrachloroethane	8200	ND	0.0041
1,2,3-Trichloropropane	8753	ND	0.0041
1,2-Dibromo-3-Chloropropane	3185	ND	0.0041
1,2-Dichloroethene (total)	3705	ND	0.0082
Xylene (total)	8975	ND	0.0082

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	95	78-134
1,2-Dichloroethane-d4	3601	102	80-138
Toluene-d8	8351	94	80-120
Bromofluorobenzene	1420	92	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Dil'n Fac:	0.7776
Requested:	E8260	Batch#:	221712
Field ID:	75503	Instrument:	MSVOA07
Lab ID:	265569-046	Chemist:	MCT
Matrix:	Soil	Sampled:	03/24/15 13:50
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/27/15 14:24

Moisture: 15%

Analyte	Code	Result	RL
Freon 12	3500	ND	0.0091
Chloromethane	2200	ND	0.0091
Vinyl Chloride	8900	ND	0.0091
Bromomethane	1550	ND	0.0091
Chloroethane	2050	ND	0.0091
Trichlorofluoromethane	8700	ND	0.0046
Ethanol	4675	ND	9.1
Acetone	0125	ND	0.091
Freon 113	4850	ND	0.0046
1,1-Dichloroethene	3650	ND	0.0046
Methylene Chloride	5750	ND	0.0091
Carbon Disulfide	1775	ND	0.046
trans-1,2-Dichloroethene	3700	ND	0.0046
Vinyl Acetate	8885	ND	0.046
1,1-Dichloroethane	3550	ND	0.0046
2-Butanone	5815	ND	0.0091
cis-1,2-Dichloroethene	3695	ND	0.0046
Chloroform	2150	ND	0.0046
1,1,1-Trichloroethane	8550	ND	0.0046
Carbon Tetrachloride	1800	ND	0.0046
1,2-Dichloroethane	3600	ND	0.0046
Benzene	0500	ND	0.0046
Trichloroethene	8650	ND	0.0046
1,2-Dichloropropane	3850	ND	0.0046
Bromodichloromethane	1450	ND	0.0046
4-Methyl-2-Pentanone	5720	ND	0.0091
cis-1,3-Dichloropropene	3900	ND	0.0046
Toluene	8350	ND	0.0046
trans-1,3-Dichloropropene	3950	ND	0.0046
1,1,2-Trichloroethane	8600	ND	0.0046
2-Hexanone	5735	ND	0.0091
Tetrachloroethene	8250	ND	0.0046
Dibromochloromethane	3200	ND	0.0046
Chlorobenzene	2000	ND	0.0046
1,1,1,2-Tetrachloroethane	8185	ND	0.0046
Ethylbenzene	4700	ND	0.0046
Styrene	7968	ND	0.0046
Bromoform	1500	ND	0.0046
1,1,2,2-Tetrachloroethane	8200	ND	0.0046
1,2,3-Trichloropropane	8753	ND	0.0046
1,2-Dibromo-3-Chloropropane	3185	ND	0.0046
1,2-Dichloroethene (total)	3705	ND	0.0091
Xylene (total)	8975	ND	0.0091

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	98	78-134
1,2-Dichloroethane-d4	3601	104	80-138
Toluene-d8	8351	95	80-120
Bromofluorobenzene	1420	94	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Dil'n Fac:	0.7911
Requested:	E8260	Batch#:	221712
Field ID:	75505	Instrument:	MSVOA07
Lab ID:	265569-048	Chemist:	MCT
Matrix:	Soil	Sampled:	03/24/15 14:00
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Analyzed:	03/27/15 14:58

Moisture: 16%

Analyte	Code	Result	RL
Freon 12	3500	ND	0.0094
Chloromethane	2200	ND	0.0094
Vinyl Chloride	8900	ND	0.0094
Bromomethane	1550	ND	0.0094
Chloroethane	2050	ND	0.0094
Trichlorofluoromethane	8700	ND	0.0047
Ethanol	4675	ND	9.4
Acetone	0125	ND	0.094
Freon 113	4850	ND	0.0047
1,1-Dichloroethene	3650	ND	0.0047
Methylene Chloride	5750	ND	0.0094
Carbon Disulfide	1775	ND	0.047
trans-1,2-Dichloroethene	3700	ND	0.0047
Vinyl Acetate	8885	ND	0.047
1,1-Dichloroethane	3550	ND	0.0047
2-Butanone	5815	ND	0.0094
cis-1,2-Dichloroethene	3695	ND	0.0047
Chloroform	2150	ND	0.0047
1,1,1-Trichloroethane	8550	ND	0.0047
Carbon Tetrachloride	1800	ND	0.0047
1,2-Dichloroethane	3600	ND	0.0047
Benzene	0500	ND	0.0047
Trichloroethene	8650	ND	0.0047
1,2-Dichloropropane	3850	ND	0.0047
Bromodichloromethane	1450	ND	0.0047
4-Methyl-2-Pentanone	5720	ND	0.0094
cis-1,3-Dichloropropene	3900	ND	0.0047
Toluene	8350	ND	0.0047
trans-1,3-Dichloropropene	3950	ND	0.0047
1,1,2-Trichloroethane	8600	ND	0.0047
2-Hexanone	5735	ND	0.0094
Tetrachloroethene	8250	ND	0.0047
Dibromochloromethane	3200	ND	0.0047
Chlorobenzene	2000	ND	0.0047
1,1,1,2-Tetrachloroethane	8185	ND	0.0047
Ethylbenzene	4700	ND	0.0047
Styrene	7968	ND	0.0047
Bromoform	1500	ND	0.0047
1,1,2,2-Tetrachloroethane	8200	ND	0.0047
1,2,3-Trichloropropane	8753	ND	0.0047
1,2-Dibromo-3-Chloropropane	3185	ND	0.0047
1,2-Dichloroethene (total)	3705	ND	0.0094
Xylene (total)	8975	ND	0.0094

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	96	78-134
1,2-Dichloroethane-d4	3601	104	80-138
Toluene-d8	8351	95	80-120
Bromofluorobenzene	1420	94	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
Requested:	E8260	Diln Fac:	1.000
Type:	BLANK	Batch#:	221678
Lab ID:	QC782068	Instrument:	MSVOA07
Matrix:	Soil	Chemist:	MCT
Units:	mg/Kg	Analyzed:	03/26/15 09:34

Analyte	Code	Result	RL
Freon 12	3500	ND	0.010
Chloromethane	2200	ND	0.010
Vinyl Chloride	8900	ND	0.010
Bromomethane	1550	ND	0.010
Chloroethane	2050	ND	0.010
Trichlorofluoromethane	8700	ND	0.0050
Ethanol	4675	ND	10
Acetone	0125	ND	0.10
Freon 113	4850	ND	0.0050
1,1-Dichloroethene	3650	ND	0.0050
Methylene Chloride	5750	ND	0.010
Carbon Disulfide	1775	ND	0.050
trans-1,2-Dichloroethene	3700	ND	0.0050
Vinyl Acetate	8885	ND	0.050
1,1-Dichloroethane	3550	ND	0.0050
2-Butanone	5815	ND	0.010
cis-1,2-Dichloroethene	3695	ND	0.0050
Chloroform	2150	ND	0.0050
1,1,1-Trichloroethane	8550	ND	0.0050
Carbon Tetrachloride	1800	ND	0.0050
1,2-Dichloroethane	3600	ND	0.0050
Benzene	0500	ND	0.0050
Trichloroethene	8650	ND	0.0050
1,2-Dichloropropane	3850	ND	0.0050
Bromodichloromethane	1450	ND	0.0050
4-Methyl-2-Pentanone	5720	ND	0.010
cis-1,3-Dichloropropene	3900	ND	0.0050
Toluene	8350	ND	0.0050
trans-1,3-Dichloropropene	3950	ND	0.0050
1,1,2-Trichloroethane	8600	ND	0.0050
2-Hexanone	5735	ND	0.010
Tetrachloroethene	8250	ND	0.0050
Dibromochloromethane	3200	ND	0.0050
Chlorobenzene	2000	ND	0.0050
1,1,1,2-Tetrachloroethane	8185	ND	0.0050
Ethylbenzene	4700	ND	0.0050
Styrene	7968	ND	0.0050
Bromoform	1500	ND	0.0050
1,1,2,2-Tetrachloroethane	8200	ND	0.0050
1,2,3-Trichloropropane	8753	ND	0.0050
1,2-Dibromo-3-Chloropropane	3185	ND	0.0050
1,2-Dichloroethene (total)	3705	ND	0.010
Xylene (total)	8975	ND	0.010

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	90	78-134
1,2-Dichloroethane-d4	3601	84	80-138
Toluene-d8	8351	94	80-120
Bromofluorobenzene	1420	87	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
Requested:	E8260	Diln Fac:	1.000
Type:	BLANK	Batch#:	221694
Lab ID:	QC782124	Instrument:	MSVOA05
Matrix:	Soil	Chemist:	NJT
Units:	mg/Kg	Analyzed:	03/26/15 15:43

Analyte	Code	Result	RL
Freon 12	3500	ND	0.010
Chloromethane	2200	ND	0.010
Vinyl Chloride	8900	ND	0.010
Bromomethane	1550	ND	0.010
Chloroethane	2050	ND	0.010
Trichlorofluoromethane	8700	ND	0.0050
Ethanol	4675	ND	10
Acetone	0125	ND	0.10
Freon 113	4850	ND	0.0050
1,1-Dichloroethene	3650	ND	0.0050
Methylene Chloride	5750	ND	0.010
Carbon Disulfide	1775	ND	0.050
trans-1,2-Dichloroethene	3700	ND	0.0050
Vinyl Acetate	8885	ND	0.050
1,1-Dichloroethane	3550	ND	0.0050
2-Butanone	5815	ND	0.010
cis-1,2-Dichloroethene	3695	ND	0.0050
Chloroform	2150	ND	0.0050
1,1,1-Trichloroethane	8550	ND	0.0050
Carbon Tetrachloride	1800	ND	0.0050
1,2-Dichloroethane	3600	ND	0.0050
Benzene	0500	ND	0.0050
Trichloroethene	8650	ND	0.0050
1,2-Dichloropropane	3850	ND	0.0050
Bromodichloromethane	1450	ND	0.0050
4-Methyl-2-Pentanone	5720	ND	0.010
cis-1,3-Dichloropropene	3900	ND	0.0050
Toluene	8350	ND	0.0050
trans-1,3-Dichloropropene	3950	ND	0.0050
1,1,2-Trichloroethane	8600	ND	0.0050
2-Hexanone	5735	ND	0.010
Tetrachloroethene	8250	ND	0.0050
Dibromochloromethane	3200	ND	0.0050
Chlorobenzene	2000	ND	0.0050
1,1,1,2-Tetrachloroethane	8185	ND	0.0050
Ethylbenzene	4700	ND	0.0050
Styrene	7968	ND	0.0050
Bromoform	1500	ND	0.0050
1,1,2,2-Tetrachloroethane	8200	ND	0.0050
1,2,3-Trichloropropane	8753	ND	0.0050
1,2-Dibromo-3-Chloropropane	3185	ND	0.0050
1,2-Dichloroethene (total)	3705	ND	0.010
Xylene (total)	8975	ND	0.010

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	99	78-134
1,2-Dichloroethane-d4	3601	119	80-138
Toluene-d8	8351	103	80-120
Bromofluorobenzene	1420	103	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
Requested:	E8260	Diln Fac:	1.000
Type:	BLANK	Batch#:	221712
Lab ID:	QC782195	Instrument:	MSVOA07
Matrix:	Soil	Chemist:	MCT
Units:	mg/Kg	Analyzed:	03/27/15 12:08

Analyte	Code	Result	RL
Freon 12	3500	ND	0.010
Chloromethane	2200	ND	0.010
Vinyl Chloride	8900	ND	0.010
Bromomethane	1550	ND	0.010
Chloroethane	2050	ND	0.010
Trichlorofluoromethane	8700	ND	0.0050
Ethanol	4675	ND	10
Acetone	0125	ND	0.10
Freon 113	4850	ND	0.0050
1,1-Dichloroethene	3650	ND	0.0050
Methylene Chloride	5750	ND	0.010
Carbon Disulfide	1775	ND	0.050
trans-1,2-Dichloroethene	3700	ND	0.0050
Vinyl Acetate	8885	ND	0.050
1,1-Dichloroethane	3550	ND	0.0050
2-Butanone	5815	ND	0.010
cis-1,2-Dichloroethene	3695	ND	0.0050
Chloroform	2150	ND	0.0050
1,1,1-Trichloroethane	8550	ND	0.0050
Carbon Tetrachloride	1800	ND	0.0050
1,2-Dichloroethane	3600	ND	0.0050
Benzene	0500	ND	0.0050
Trichloroethene	8650	ND	0.0050
1,2-Dichloropropane	3850	ND	0.0050
Bromodichloromethane	1450	ND	0.0050
4-Methyl-2-Pentanone	5720	ND	0.010
cis-1,3-Dichloropropene	3900	ND	0.0050
Toluene	8350	ND	0.0050
trans-1,3-Dichloropropene	3950	ND	0.0050
1,1,2-Trichloroethane	8600	ND	0.0050
2-Hexanone	5735	ND	0.010
Tetrachloroethene	8250	ND	0.0050
Dibromochloromethane	3200	ND	0.0050
Chlorobenzene	2000	ND	0.0050
1,1,1,2-Tetrachloroethane	8185	ND	0.0050
Ethylbenzene	4700	ND	0.0050
Styrene	7968	ND	0.0050
Bromoform	1500	ND	0.0050
1,1,2,2-Tetrachloroethane	8200	ND	0.0050
1,2,3-Trichloropropane	8753	ND	0.0050
1,2-Dibromo-3-Chloropropane	3185	ND	0.0050
1,2-Dichloroethene (total)	3705	ND	0.010
Xylene (total)	8975	ND	0.010

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	92	78-134
1,2-Dichloroethane-d4	3601	94	80-138
Toluene-d8	8351	97	80-120
Bromofluorobenzene	1420	93	78-123

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Requested:	E8260	Batch#:	221712
Field ID:	ZZZZZZZZZZ	Instrument:	MSVOA07
MSS Lab ID:	265636-002	Chemist:	MCT
Matrix:	Soil	Sampled:	03/18/15 14:50
Units:	mg/Kg	Received:	03/19/15
Basis:	as received		

Type:	MS	Diln Fac:	0.9579
Lab ID:	QC782234	Analyzed:	03/27/15 16:41

Analyte	Code	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	3650	<0.0005801	0.04789	0.04710	98	56-133
Benzene	0500	<0.0006759	0.04789	0.04310	90	57-120
Trichloroethene	8650	<0.0007039	0.04789	0.05336	111	49-145
Toluene	8350	<0.0007403	0.04789	0.04332	90	51-120
Chlorobenzene	2000	<0.0006069	0.04789	0.04484	94	47-120

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	91	78-134
1,2-Dichloroethane-d4	3601	99	80-138
Toluene-d8	8351	94	80-120
Bromofluorobenzene	1420	95	78-123

Type:	MSD	Diln Fac:	0.9728
Lab ID:	QC782235	Analyzed:	03/27/15 17:15

Analyte	Code	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	3650	0.04864	0.04683	96	56-133	2	46
Benzene	0500	0.04864	0.04139	85	57-120	6	44
Trichloroethene	8650	0.04864	0.05238	108	49-145	3	46
Toluene	8350	0.04864	0.04251	87	51-120	3	47
Chlorobenzene	2000	0.04864	0.04318	89	47-120	5	50

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	91	78-134
1,2-Dichloroethane-d4	3601	97	80-138
Toluene-d8	8351	95	80-120
Bromofluorobenzene	1420	96	78-123

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
Requested:	E8260	Diln Fac:	1.000
Type:	LCS	Batch#:	221678
Lab ID:	QC782853	Instrument:	MSVOA07
Matrix:	Soil	Chemist:	MCT
Units:	mg/Kg	Analyzed:	03/26/15 09:01

Analyte	Code	Spiked	Result	%REC	Limits
1,1-Dichloroethene	3650	0.02500	0.02370	95	70-134
Benzene	0500	0.02500	0.02309	92	80-123
Trichloroethene	8650	0.02500	0.02403	96	80-128
Toluene	8350	0.02500	0.02422	97	80-120
Chlorobenzene	2000	0.02500	0.02549	102	80-123

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	85	78-134
1,2-Dichloroethane-d4	3601	84	80-138
Toluene-d8	8351	93	80-120
Bromofluorobenzene	1420	88	78-123

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Batch QC Report

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
Requested:	E8260	Diln Fac:	1.000
Type:	LCS	Batch#:	221694
Lab ID:	QC782860	Instrument:	MSVOA05
Matrix:	Soil	Chemist:	NJT
Units:	mg/Kg	Analyzed:	03/26/15 18:03

Analyte	Code	Spiked	Result	%REC	Limits
1,1-Dichloroethene	3650	0.02000	0.02021	101	70-134
Benzene	0500	0.02000	0.02148	107	80-123
Trichloroethene	8650	0.02000	0.02029	101	80-128
Toluene	8350	0.02000	0.02248	112	80-120
Chlorobenzene	2000	0.02000	0.02356	118	80-123

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	104	78-134
1,2-Dichloroethane-d4	3601	120	80-138
Toluene-d8	8351	105	80-120
Bromofluorobenzene	1420	93	78-123

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Batch QC Report

Purgeable Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 5035
Project#:	STANDARD	Analysis:	EPA 8260B
Location:	WSDP - RFS Soil Disposal Testing 3/24		
Requested:	E8260	Diln Fac:	1.000
Type:	LCS	Batch#:	221712
Lab ID:	QC782861	Instrument:	MSVOA07
Matrix:	Soil	Chemist:	MCT
Units:	mg/Kg	Analyzed:	03/27/15 11:34

Analyte	Code	Spiked	Result	%REC	Limits
1,1-Dichloroethene	3650	0.02500	0.02433	97	70-134
Benzene	0500	0.02500	0.02455	98	80-123
Trichloroethene	8650	0.02500	0.02468	99	80-128
Toluene	8350	0.02500	0.02440	98	80-120
Chlorobenzene	2000	0.02500	0.02512	100	80-123

Surrogate	Code	%REC	Limits
Dibromofluoromethane	3210	90	78-134
1,2-Dichloroethane-d4	3601	94	80-138
Toluene-d8	8351	95	80-120
Bromofluorobenzene	1420	94	78-123

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75458	Chemist:	KMH
Lab ID:	265569-001	Sampled:	03/24/15 14:50
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 18:51
Diln Fac:	1.000		

Moisture: 12%

Analyte	Code	Result	RL
Phenol	6900	ND	0.58
2-Chlorophenol	2350	ND	0.58
1,3-Dichlorobenzene	3350	ND	0.58
1,4-Dichlorobenzene	3400	ND	0.58
Benzyl alcohol	0880	ND	0.58
1,2-Dichlorobenzene	3300	ND	0.58
2-Methylphenol	5730	ND	0.58
bis(2-Chloroisopropyl) ether	1300	ND	0.58
4-Methylphenol	5734	ND	0.58
N-Nitroso-di-n-propylamine	6250	ND	0.58
Hexachloroethane	5200	ND	0.58
Nitrobenzene	6000	ND	0.58
Isophorone	5400	ND	0.58
2,4-Dimethylphenol	4100	ND	0.58
Benzoic acid	0875	ND	1.9
bis(2-Chloroethoxy)methane	1200	ND	0.58
2,4-Dichlorophenol	3750	ND	0.58
1,2,4-Trichlorobenzene	8500	ND	0.58
Naphthalene	5800	ND	0.58
4-Chloroaniline	1975	ND	0.58
Hexachlorobutadiene	5100	ND	0.58
4-Chloro-3-methylphenol	2250	ND	0.58
2-Methylnaphthalene	5740	ND	0.58
Hexachlorocyclopentadiene	5150	ND	0.77
2,4,6-Trichlorophenol	8750	ND	0.58
2,4,5-Trichlorophenol	8745	ND	0.58
2-Chloronaphthalene	2300	ND	0.58
2-Nitroaniline	5990	ND	0.77
Dimethylphthalate	4150	ND	0.58
Acenaphthylene	0100	ND	0.58
2,6-Dinitrotoluene	4300	ND	0.58
3-Nitroaniline	5992	ND	0.77
Acenaphthene	0050	ND	0.58
2,4-Dinitrophenol	4200	ND	0.77
4-Nitrophenol	6100	ND	0.77
Dibenzofuran	3175	ND	0.58
2,4-Dinitrotoluene	4250	ND	0.58
Diethylphthalate	4050	ND	0.58
Fluorene	4800	ND	0.58
4-Chlorophenyl-phenylether	2425	ND	0.58
4-Nitroaniline	5994	ND	0.77
4,6-Dinitro-2-methylphenol	5700	ND	0.77
4-Bromophenyl-phenylether	1613	ND	0.58
Hexachlorobenzene	5050	ND	0.58
Pentachlorophenol	6400	ND	0.77
Phenanthrene	6850	ND	0.58
Anthracene	0350	ND	0.58
Di-n-butylphthalate	3250	ND	0.58

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75458	Chemist:	KMH
Lab ID:	265569-001	Sampled:	03/24/15 14:50
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 18:51
Diln Fac:	1.000		

Analyte	Code	Result	RL
Fluoranthene	4750	ND	0.58
Pyrene	7100	ND	0.58
Butylbenzylphthalate	1625	ND	0.58
3,3'-Dichlorobenzidine	3450	ND	0.77
Benzo(a)anthracene	0650	ND	0.58
Chrysene	2600	ND	0.58
bis(2-Ethylhexyl)phthalate	1350	ND	0.58
Di-n-octylphthalate	4350	ND	0.58
Benzo(b)fluoranthene	0700	ND	0.58
Benzo(k)fluoranthene	0750	ND	0.58
Benzo(a)pyrene	0850	ND	0.58
Indeno(1,2,3-cd)pyrene	5300	ND	0.58
Dibenz(a,h)anthracene	3150	ND	0.58
Benzo(g,h,i)perylene	0800	ND	0.58

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	55	25-120
Phenol-d5	6903	61	36-120
2,4,6-Tribromophenol	8490	73	27-120
Nitrobenzene-d5	6005	61	44-120
2-Fluorobiphenyl	4833	65	47-120
Terphenyl-d14	8173	75	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75460	Chemist:	KMH
Lab ID:	265569-003	Sampled:	03/24/15 15:05
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 19:27
Diln Fac:	1.000		

Moisture: 15%

Analyte	Code	Result	RL
Phenol	6900	ND	1.2
2-Chlorophenol	2350	ND	1.2
1,3-Dichlorobenzene	3350	ND	1.2
1,4-Dichlorobenzene	3400	ND	1.2
Benzyl alcohol	0880	ND	1.2
1,2-Dichlorobenzene	3300	ND	1.2
2-Methylphenol	5730	ND	1.2
bis(2-Chloroisopropyl) ether	1300	ND	1.2
4-Methylphenol	5734	ND	1.2
N-Nitroso-di-n-propylamine	6250	ND	1.2
Hexachloroethane	5200	ND	1.2
Nitrobenzene	6000	ND	1.2
Isophorone	5400	ND	1.2
2,4-Dimethylphenol	4100	ND	1.2
Benzoic acid	0875	ND	3.9
bis(2-Chloroethoxy)methane	1200	ND	1.2
2,4-Dichlorophenol	3750	ND	1.2
1,2,4-Trichlorobenzene	8500	ND	1.2
Naphthalene	5800	ND	1.2
4-Chloroaniline	1975	ND	1.2
Hexachlorobutadiene	5100	ND	1.2
4-Chloro-3-methylphenol	2250	ND	1.2
2-Methylnaphthalene	5740	ND	1.2
Hexachlorocyclopentadiene	5150	ND	1.6
2,4,6-Trichlorophenol	8750	ND	1.2
2,4,5-Trichlorophenol	8745	ND	1.2
2-Chloronaphthalene	2300	ND	1.2
2-Nitroaniline	5990	ND	1.6
Dimethylphthalate	4150	ND	1.2
Acenaphthylene	0100	ND	1.2
2,6-Dinitrotoluene	4300	ND	1.2
3-Nitroaniline	5992	ND	1.6
Acenaphthene	0050	ND	1.2
2,4-Dinitrophenol	4200	ND	1.6
4-Nitrophenol	6100	ND	1.6
Dibenzofuran	3175	ND	1.2
2,4-Dinitrotoluene	4250	ND	1.2
Diethylphthalate	4050	ND	1.2
Fluorene	4800	ND	1.2
4-Chlorophenyl-phenylether	2425	ND	1.2
4-Nitroaniline	5994	ND	1.6
4,6-Dinitro-2-methylphenol	5700	ND	1.6
4-Bromophenyl-phenylether	1613	ND	1.2
Hexachlorobenzene	5050	ND	1.2
Pentachlorophenol	6400	ND	1.6
Phenanthrene	6850	ND	1.2
Anthracene	0350	ND	1.2
Di-n-butylphthalate	3250	ND	1.2

ND= Not Detected
RL= Reporting Limit

77.0

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75460	Chemist:	KMH
Lab ID:	265569-003	Sampled:	03/24/15 15:05
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 19:27
Diln Fac:	1.000		

Analyte	Code	Result	RL
Fluoranthene	4750	ND	1.2
Pyrene	7100	ND	1.2
Butylbenzylphthalate	1625	ND	1.2
3,3'-Dichlorobenzidine	3450	ND	1.6
Benzo(a)anthracene	0650	ND	1.2
Chrysene	2600	ND	1.2
bis(2-Ethylhexyl)phthalate	1350	ND	1.2
Di-n-octylphthalate	4350	ND	1.2
Benzo(b)fluoranthene	0700	ND	1.2
Benzo(k)fluoranthene	0750	ND	1.2
Benzo(a)pyrene	0850	ND	1.2
Indeno(1,2,3-cd)pyrene	5300	ND	1.2
Dibenz(a,h)anthracene	3150	ND	1.2
Benzo(g,h,i)perylene	0800	ND	1.2

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	52	25-120
Phenol-d5	6903	56	36-120
2,4,6-Tribromophenol	8490	70	27-120
Nitrobenzene-d5	6005	60	44-120
2-Fluorobiphenyl	4833	70	47-120
Terphenyl-d14	8173	70	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75462	Chemist:	KMH
Lab ID:	265569-005	Sampled:	03/24/15 15:20
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 13:29
Diln Fac:	1.000		

Moisture: 14%

Analyte	Code	Result	RL
Phenol	6900	ND	0.59
2-Chlorophenol	2350	ND	0.59
1,3-Dichlorobenzene	3350	ND	0.59
1,4-Dichlorobenzene	3400	ND	0.59
Benzyl alcohol	0880	ND	0.59
1,2-Dichlorobenzene	3300	ND	0.59
2-Methylphenol	5730	ND	0.59
bis(2-Chloroisopropyl) ether	1300	ND	0.59
4-Methylphenol	5734	ND	0.59
N-Nitroso-di-n-propylamine	6250	ND	0.59
Hexachloroethane	5200	ND	0.59
Nitrobenzene	6000	ND	0.59
Isophorone	5400	ND	0.59
2,4-Dimethylphenol	4100	ND	0.59
Benzoic acid	0875	ND	2.0
bis(2-Chloroethoxy)methane	1200	ND	0.59
2,4-Dichlorophenol	3750	ND	0.59
1,2,4-Trichlorobenzene	8500	ND	0.59
Naphthalene	5800	ND	0.59
4-Chloroaniline	1975	ND	0.59
Hexachlorobutadiene	5100	ND	0.59
4-Chloro-3-methylphenol	2250	ND	0.59
2-Methylnaphthalene	5740	ND	0.59
Hexachlorocyclopentadiene	5150	ND	0.78
2,4,6-Trichlorophenol	8750	ND	0.59
2,4,5-Trichlorophenol	8745	ND	0.59
2-Chloronaphthalene	2300	ND	0.59
2-Nitroaniline	5990	ND	0.78
Dimethylphthalate	4150	ND	0.59
Acenaphthylene	0100	ND	0.59
2,6-Dinitrotoluene	4300	ND	0.59
3-Nitroaniline	5992	ND	0.78
Acenaphthene	0050	ND	0.59
2,4-Dinitrophenol	4200	ND	0.78
4-Nitrophenol	6100	ND	0.78
Dibenzofuran	3175	ND	0.59
2,4-Dinitrotoluene	4250	ND	0.59
Diethylphthalate	4050	ND	0.59
Fluorene	4800	ND	0.59
4-Chlorophenyl-phenylether	2425	ND	0.59
4-Nitroaniline	5994	ND	0.78
4,6-Dinitro-2-methylphenol	5700	ND	0.78
4-Bromophenyl-phenylether	1613	ND	0.59
Hexachlorobenzene	5050	ND	0.59
Pentachlorophenol	6400	ND	0.78
Phenanthrene	6850	ND	0.59
Anthracene	0350	ND	0.59
Di-n-butylphthalate	3250	ND	0.59

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75462	Chemist:	KMH
Lab ID:	265569-005	Sampled:	03/24/15 15:20
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 13:29
Diln Fac:	1.000		

Analyte	Code	Result	RL
Fluoranthene	4750	ND	0.59
Pyrene	7100	ND	0.59
Butylbenzylphthalate	1625	ND	0.59
3,3'-Dichlorobenzidine	3450	ND	0.78
Benzo(a)anthracene	0650	ND	0.59
Chrysene	2600	ND	0.59
bis(2-Ethylhexyl)phthalate	1350	ND	0.59
Di-n-octylphthalate	4350	ND	0.59
Benzo(b)fluoranthene	0700	ND	0.59
Benzo(k)fluoranthene	0750	ND	0.59
Benzo(a)pyrene	0850	ND	0.59
Indeno(1,2,3-cd)pyrene	5300	ND	0.59
Dibenz(a,h)anthracene	3150	ND	0.59
Benzo(g,h,i)perylene	0800	ND	0.59

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	55	25-120
Phenol-d5	6903	60	36-120
2,4,6-Tribromophenol	8490	76	27-120
Nitrobenzene-d5	6005	59	44-120
2-Fluorobiphenyl	4833	68	47-120
Terphenyl-d14	8173	71	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75464	Chemist:	KMH
Lab ID:	265569-007	Sampled:	03/24/15 15:35
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 14:04
Diln Fac:	1.000		

Moisture: 15%

Analyte	Code	Result	RL
Phenol	6900	ND	0.59
2-Chlorophenol	2350	ND	0.59
1,3-Dichlorobenzene	3350	ND	0.59
1,4-Dichlorobenzene	3400	ND	0.59
Benzyl alcohol	0880	ND	0.59
1,2-Dichlorobenzene	3300	ND	0.59
2-Methylphenol	5730	ND	0.59
bis(2-Chloroisopropyl) ether	1300	ND	0.59
4-Methylphenol	5734	ND	0.59
N-Nitroso-di-n-propylamine	6250	ND	0.59
Hexachloroethane	5200	ND	0.59
Nitrobenzene	6000	ND	0.59
Isophorone	5400	ND	0.59
2,4-Dimethylphenol	4100	ND	0.59
Benzoic acid	0875	ND	2.0
bis(2-Chloroethoxy)methane	1200	ND	0.59
2,4-Dichlorophenol	3750	ND	0.59
1,2,4-Trichlorobenzene	8500	ND	0.59
Naphthalene	5800	ND	0.59
4-Chloroaniline	1975	ND	0.59
Hexachlorobutadiene	5100	ND	0.59
4-Chloro-3-methylphenol	2250	ND	0.59
2-Methylnaphthalene	5740	ND	0.59
Hexachlorocyclopentadiene	5150	ND	0.78
2,4,6-Trichlorophenol	8750	ND	0.59
2,4,5-Trichlorophenol	8745	ND	0.59
2-Chloronaphthalene	2300	ND	0.59
2-Nitroaniline	5990	ND	0.78
Dimethylphthalate	4150	ND	0.59
Acenaphthylene	0100	ND	0.59
2,6-Dinitrotoluene	4300	ND	0.59
3-Nitroaniline	5992	ND	0.78
Acenaphthene	0050	ND	0.59
2,4-Dinitrophenol	4200	ND	0.78
4-Nitrophenol	6100	ND	0.78
Dibenzofuran	3175	ND	0.59
2,4-Dinitrotoluene	4250	ND	0.59
Diethylphthalate	4050	ND	0.59
Fluorene	4800	ND	0.59
4-Chlorophenyl-phenylether	2425	ND	0.59
4-Nitroaniline	5994	ND	0.78
4,6-Dinitro-2-methylphenol	5700	ND	0.78
4-Bromophenyl-phenylether	1613	ND	0.59
Hexachlorobenzene	5050	ND	0.59
Pentachlorophenol	6400	ND	0.78
Phenanthrene	6850	ND	0.59
Anthracene	0350	ND	0.59
Di-n-butylphthalate	3250	ND	0.59

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75464	Chemist:	KMH
Lab ID:	265569-007	Sampled:	03/24/15 15:35
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 14:04
Diln Fac:	1.000		

Analyte	Code	Result	RL
Fluoranthene	4750	ND	0.59
Pyrene	7100	ND	0.59
Butylbenzylphthalate	1625	ND	0.59
3,3'-Dichlorobenzidine	3450	ND	0.78
Benzo(a)anthracene	0650	ND	0.59
Chrysene	2600	ND	0.59
bis(2-Ethylhexyl)phthalate	1350	ND	0.59
Di-n-octylphthalate	4350	ND	0.59
Benzo(b)fluoranthene	0700	ND	0.59
Benzo(k)fluoranthene	0750	ND	0.59
Benzo(a)pyrene	0850	ND	0.59
Indeno(1,2,3-cd)pyrene	5300	ND	0.59
Dibenz(a,h)anthracene	3150	ND	0.59
Benzo(g,h,i)perylene	0800	ND	0.59

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	52	25-120
Phenol-d5	6903	55	36-120
2,4,6-Tribromophenol	8490	64	27-120
Nitrobenzene-d5	6005	59	44-120
2-Fluorobiphenyl	4833	64	47-120
Terphenyl-d14	8173	63	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75466	Chemist:	KMH
Lab ID:	265569-009	Sampled:	03/24/15 15:50
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 14:40
Diln Fac:	1.000		

Moisture: 13%

Analyte	Code	Result	RL
Phenol	6900	ND	0.57
2-Chlorophenol	2350	ND	0.57
1,3-Dichlorobenzene	3350	ND	0.57
1,4-Dichlorobenzene	3400	ND	0.57
Benzyl alcohol	0880	ND	0.57
1,2-Dichlorobenzene	3300	ND	0.57
2-Methylphenol	5730	ND	0.57
bis(2-Chloroisopropyl) ether	1300	ND	0.57
4-Methylphenol	5734	ND	0.57
N-Nitroso-di-n-propylamine	6250	ND	0.57
Hexachloroethane	5200	ND	0.57
Nitrobenzene	6000	ND	0.57
Isophorone	5400	ND	0.57
2,4-Dimethylphenol	4100	ND	0.57
Benzoic acid	0875	ND	1.9
bis(2-Chloroethoxy)methane	1200	ND	0.57
2,4-Dichlorophenol	3750	ND	0.57
1,2,4-Trichlorobenzene	8500	ND	0.57
Naphthalene	5800	ND	0.57
4-Chloroaniline	1975	ND	0.57
Hexachlorobutadiene	5100	ND	0.57
4-Chloro-3-methylphenol	2250	ND	0.57
2-Methylnaphthalene	5740	ND	0.57
Hexachlorocyclopentadiene	5150	ND	0.76
2,4,6-Trichlorophenol	8750	ND	0.57
2,4,5-Trichlorophenol	8745	ND	0.57
2-Chloronaphthalene	2300	ND	0.57
2-Nitroaniline	5990	ND	0.76
Dimethylphthalate	4150	ND	0.57
Acenaphthylene	0100	ND	0.57
2,6-Dinitrotoluene	4300	ND	0.57
3-Nitroaniline	5992	ND	0.76
Acenaphthene	0050	ND	0.57
2,4-Dinitrophenol	4200	ND	0.76
4-Nitrophenol	6100	ND	0.76
Dibenzofuran	3175	ND	0.57
2,4-Dinitrotoluene	4250	ND	0.57
Diethylphthalate	4050	ND	0.57
Fluorene	4800	ND	0.57
4-Chlorophenyl-phenylether	2425	ND	0.57
4-Nitroaniline	5994	ND	0.76
4,6-Dinitro-2-methylphenol	5700	ND	0.76
4-Bromophenyl-phenylether	1613	ND	0.57
Hexachlorobenzene	5050	ND	0.57
Pentachlorophenol	6400	ND	0.76
Phenanthrene	6850	ND	0.57
Anthracene	0350	ND	0.57
Di-n-butylphthalate	3250	ND	0.57

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75466	Chemist:	KMH
Lab ID:	265569-009	Sampled:	03/24/15 15:50
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 14:40
Diln Fac:	1.000		

Analyte	Code	Result	RL
Fluoranthene	4750	ND	0.57
Pyrene	7100	ND	0.57
Butylbenzylphthalate	1625	ND	0.57
3,3'-Dichlorobenzidine	3450	ND	0.76
Benzo(a)anthracene	0650	ND	0.57
Chrysene	2600	ND	0.57
bis(2-Ethylhexyl)phthalate	1350	ND	0.57
Di-n-octylphthalate	4350	ND	0.57
Benzo(b)fluoranthene	0700	ND	0.57
Benzo(k)fluoranthene	0750	ND	0.57
Benzo(a)pyrene	0850	ND	0.57
Indeno(1,2,3-cd)pyrene	5300	ND	0.57
Dibenz(a,h)anthracene	3150	ND	0.57
Benzo(g,h,i)perylene	0800	ND	0.57

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	60	25-120
Phenol-d5	6903	65	36-120
2,4,6-Tribromophenol	8490	81	27-120
Nitrobenzene-d5	6005	68	44-120
2-Fluorobiphenyl	4833	74	47-120
Terphenyl-d14	8173	73	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75468	Chemist:	KMH
Lab ID:	265569-011	Sampled:	03/24/15 16:05
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 15:16
Diln Fac:	1.000		

Moisture: 17%

Analyte	Code	Result	RL
Phenol	6900	ND	0.61
2-Chlorophenol	2350	ND	0.61
1,3-Dichlorobenzene	3350	ND	0.61
1,4-Dichlorobenzene	3400	ND	0.61
Benzyl alcohol	0880	ND	0.61
1,2-Dichlorobenzene	3300	ND	0.61
2-Methylphenol	5730	ND	0.61
bis(2-Chloroisopropyl) ether	1300	ND	0.61
4-Methylphenol	5734	ND	0.61
N-Nitroso-di-n-propylamine	6250	ND	0.61
Hexachloroethane	5200	ND	0.61
Nitrobenzene	6000	ND	0.61
Isophorone	5400	ND	0.61
2,4-Dimethylphenol	4100	ND	0.61
Benzoic acid	0875	ND	2.0
bis(2-Chloroethoxy)methane	1200	ND	0.61
2,4-Dichlorophenol	3750	ND	0.61
1,2,4-Trichlorobenzene	8500	ND	0.61
Naphthalene	5800	ND	0.61
4-Chloroaniline	1975	ND	0.61
Hexachlorobutadiene	5100	ND	0.61
4-Chloro-3-methylphenol	2250	ND	0.61
2-Methylnaphthalene	5740	ND	0.61
Hexachlorocyclopentadiene	5150	ND	0.81
2,4,6-Trichlorophenol	8750	ND	0.61
2,4,5-Trichlorophenol	8745	ND	0.61
2-Chloronaphthalene	2300	ND	0.61
2-Nitroaniline	5990	ND	0.81
Dimethylphthalate	4150	ND	0.61
Acenaphthylene	0100	ND	0.61
2,6-Dinitrotoluene	4300	ND	0.61
3-Nitroaniline	5992	ND	0.81
Acenaphthene	0050	ND	0.61
2,4-Dinitrophenol	4200	ND	0.81
4-Nitrophenol	6100	ND	0.81
Dibenzofuran	3175	ND	0.61
2,4-Dinitrotoluene	4250	ND	0.61
Diethylphthalate	4050	ND	0.61
Fluorene	4800	ND	0.61
4-Chlorophenyl-phenylether	2425	ND	0.61
4-Nitroaniline	5994	ND	0.81
4,6-Dinitro-2-methylphenol	5700	ND	0.81
4-Bromophenyl-phenylether	1613	ND	0.61
Hexachlorobenzene	5050	ND	0.61
Pentachlorophenol	6400	ND	0.81
Phenanthrene	6850	ND	0.61
Anthracene	0350	ND	0.61
Di-n-butylphthalate	3250	ND	0.61

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75468	Chemist:	KMH
Lab ID:	265569-011	Sampled:	03/24/15 16:05
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 15:16
Diln Fac:	1.000		

Analyte	Code	Result	RL
Fluoranthene	4750	ND	0.61
Pyrene	7100	ND	0.61
Butylbenzylphthalate	1625	ND	0.61
3,3'-Dichlorobenzidine	3450	ND	0.81
Benzo(a)anthracene	0650	ND	0.61
Chrysene	2600	ND	0.61
bis(2-Ethylhexyl)phthalate	1350	ND	0.61
Di-n-octylphthalate	4350	ND	0.61
Benzo(b)fluoranthene	0700	ND	0.61
Benzo(k)fluoranthene	0750	ND	0.61
Benzo(a)pyrene	0850	ND	0.61
Indeno(1,2,3-cd)pyrene	5300	ND	0.61
Dibenz(a,h)anthracene	3150	ND	0.61
Benzo(g,h,i)perylene	0800	ND	0.61

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	67	25-120
Phenol-d5	6903	71	36-120
2,4,6-Tribromophenol	8490	85	27-120
Nitrobenzene-d5	6005	73	44-120
2-Fluorobiphenyl	4833	77	47-120
Terphenyl-d14	8173	77	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75470	Chemist:	KMH
Lab ID:	265569-013	Sampled:	03/24/15 16:20
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 15:52
Diln Fac:	1.000		

Moisture: 14%

Analyte	Code	Result	RL
Phenol	6900	ND	0.58
2-Chlorophenol	2350	ND	0.58
1,3-Dichlorobenzene	3350	ND	0.58
1,4-Dichlorobenzene	3400	ND	0.58
Benzyl alcohol	0880	ND	0.58
1,2-Dichlorobenzene	3300	ND	0.58
2-Methylphenol	5730	ND	0.58
bis(2-Chloroisopropyl) ether	1300	ND	0.58
4-Methylphenol	5734	ND	0.58
N-Nitroso-di-n-propylamine	6250	ND	0.58
Hexachloroethane	5200	ND	0.58
Nitrobenzene	6000	ND	0.58
Isophorone	5400	ND	0.58
2,4-Dimethylphenol	4100	ND	0.58
Benzoic acid	0875	ND	1.9
bis(2-Chloroethoxy)methane	1200	ND	0.58
2,4-Dichlorophenol	3750	ND	0.58
1,2,4-Trichlorobenzene	8500	ND	0.58
Naphthalene	5800	ND	0.58
4-Chloroaniline	1975	ND	0.58
Hexachlorobutadiene	5100	ND	0.58
4-Chloro-3-methylphenol	2250	ND	0.58
2-Methylnaphthalene	5740	ND	0.58
Hexachlorocyclopentadiene	5150	ND	0.78
2,4,6-Trichlorophenol	8750	ND	0.58
2,4,5-Trichlorophenol	8745	ND	0.58
2-Chloronaphthalene	2300	ND	0.58
2-Nitroaniline	5990	ND	0.78
Dimethylphthalate	4150	ND	0.58
Acenaphthylene	0100	ND	0.58
2,6-Dinitrotoluene	4300	ND	0.58
3-Nitroaniline	5992	ND	0.78
Acenaphthene	0050	ND	0.58
2,4-Dinitrophenol	4200	ND	0.78
4-Nitrophenol	6100	ND	0.78
Dibenzofuran	3175	ND	0.58
2,4-Dinitrotoluene	4250	ND	0.58
Diethylphthalate	4050	ND	0.58
Fluorene	4800	ND	0.58
4-Chlorophenyl-phenylether	2425	ND	0.58
4-Nitroaniline	5994	ND	0.78
4,6-Dinitro-2-methylphenol	5700	ND	0.78
4-Bromophenyl-phenylether	1613	ND	0.58
Hexachlorobenzene	5050	ND	0.58
Pentachlorophenol	6400	ND	0.78
Phenanthrene	6850	ND	0.58
Anthracene	0350	ND	0.58
Di-n-butylphthalate	3250	ND	0.58

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75470	Chemist:	KMH
Lab ID:	265569-013	Sampled:	03/24/15 16:20
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 15:52
Diln Fac:	1.000		

Analyte	Code	Result	RL
Fluoranthene	4750	ND	0.58
Pyrene	7100	ND	0.58
Butylbenzylphthalate	1625	ND	0.58
3,3'-Dichlorobenzidine	3450	ND	0.78
Benzo(a)anthracene	0650	ND	0.58
Chrysene	2600	ND	0.58
bis(2-Ethylhexyl)phthalate	1350	ND	0.58
Di-n-octylphthalate	4350	ND	0.58
Benzo(b)fluoranthene	0700	ND	0.58
Benzo(k)fluoranthene	0750	ND	0.58
Benzo(a)pyrene	0850	ND	0.58
Indeno(1,2,3-cd)pyrene	5300	ND	0.58
Dibenz(a,h)anthracene	3150	ND	0.58
Benzo(g,h,i)perylene	0800	ND	0.58

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	64	25-120
Phenol-d5	6903	70	36-120
2,4,6-Tribromophenol	8490	76	27-120
Nitrobenzene-d5	6005	64	44-120
2-Fluorobiphenyl	4833	70	47-120
Terphenyl-d14	8173	69	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75472	Chemist:	KMH
Lab ID:	265569-015	Sampled:	03/24/15 16:35
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 16:28
Diln Fac:	1.000		

Moisture: 15%

Analyte	Code	Result	RL
Phenol	6900	ND	0.60
2-Chlorophenol	2350	ND	0.60
1,3-Dichlorobenzene	3350	ND	0.60
1,4-Dichlorobenzene	3400	ND	0.60
Benzyl alcohol	0880	ND	0.60
1,2-Dichlorobenzene	3300	ND	0.60
2-Methylphenol	5730	ND	0.60
bis(2-Chloroisopropyl) ether	1300	ND	0.60
4-Methylphenol	5734	ND	0.60
N-Nitroso-di-n-propylamine	6250	ND	0.60
Hexachloroethane	5200	ND	0.60
Nitrobenzene	6000	ND	0.60
Isophorone	5400	ND	0.60
2,4-Dimethylphenol	4100	ND	0.60
Benzoic acid	0875	ND	2.0
bis(2-Chloroethoxy)methane	1200	ND	0.60
2,4-Dichlorophenol	3750	ND	0.60
1,2,4-Trichlorobenzene	8500	ND	0.60
Naphthalene	5800	ND	0.60
4-Chloroaniline	1975	ND	0.60
Hexachlorobutadiene	5100	ND	0.60
4-Chloro-3-methylphenol	2250	ND	0.60
2-Methylnaphthalene	5740	ND	0.60
Hexachlorocyclopentadiene	5150	ND	0.80
2,4,6-Trichlorophenol	8750	ND	0.60
2,4,5-Trichlorophenol	8745	ND	0.60
2-Chloronaphthalene	2300	ND	0.60
2-Nitroaniline	5990	ND	0.80
Dimethylphthalate	4150	ND	0.60
Acenaphthylene	0100	ND	0.60
2,6-Dinitrotoluene	4300	ND	0.60
3-Nitroaniline	5992	ND	0.80
Acenaphthene	0050	ND	0.60
2,4-Dinitrophenol	4200	ND	0.80
4-Nitrophenol	6100	ND	0.80
Dibenzofuran	3175	ND	0.60
2,4-Dinitrotoluene	4250	ND	0.60
Diethylphthalate	4050	ND	0.60
Fluorene	4800	ND	0.60
4-Chlorophenyl-phenylether	2425	ND	0.60
4-Nitroaniline	5994	ND	0.80
4,6-Dinitro-2-methylphenol	5700	ND	0.80
4-Bromophenyl-phenylether	1613	ND	0.60
Hexachlorobenzene	5050	ND	0.60
Pentachlorophenol	6400	ND	0.80
Phenanthrene	6850	ND	0.60
Anthracene	0350	ND	0.60
Di-n-butylphthalate	3250	ND	0.60

ND= Not Detected
RL= Reporting Limit

83.0

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75472	Chemist:	KMH
Lab ID:	265569-015	Sampled:	03/24/15 16:35
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 16:28
Diln Fac:	1.000		

Analyte	Code	Result	RL
Fluoranthene	4750	ND	0.60
Pyrene	7100	ND	0.60
Butylbenzylphthalate	1625	ND	0.60
3,3'-Dichlorobenzidine	3450	ND	0.80
Benzo(a)anthracene	0650	ND	0.60
Chrysene	2600	ND	0.60
bis(2-Ethylhexyl)phthalate	1350	ND	0.60
Di-n-octylphthalate	4350	ND	0.60
Benzo(b)fluoranthene	0700	ND	0.60
Benzo(k)fluoranthene	0750	ND	0.60
Benzo(a)pyrene	0850	ND	0.60
Indeno(1,2,3-cd)pyrene	5300	ND	0.60
Dibenz(a,h)anthracene	3150	ND	0.60
Benzo(g,h,i)perylene	0800	ND	0.60

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	50	25-120
Phenol-d5	6903	57	36-120
2,4,6-Tribromophenol	8490	69	27-120
Nitrobenzene-d5	6005	59	44-120
2-Fluorobiphenyl	4833	64	47-120
Terphenyl-d14	8173	66	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75474	Chemist:	KMH
Lab ID:	265569-017	Sampled:	03/24/15 09:40
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 17:04
Diln Fac:	1.000		

Moisture: 10%

Analyte	Code	Result	RL
Phenol	6900	ND	0.56
2-Chlorophenol	2350	ND	0.56
1,3-Dichlorobenzene	3350	ND	0.56
1,4-Dichlorobenzene	3400	ND	0.56
Benzyl alcohol	0880	ND	0.56
1,2-Dichlorobenzene	3300	ND	0.56
2-Methylphenol	5730	ND	0.56
bis(2-Chloroisopropyl) ether	1300	ND	0.56
4-Methylphenol	5734	ND	0.56
N-Nitroso-di-n-propylamine	6250	ND	0.56
Hexachloroethane	5200	ND	0.56
Nitrobenzene	6000	ND	0.56
Isophorone	5400	ND	0.56
2,4-Dimethylphenol	4100	ND	0.56
Benzoic acid	0875	ND	1.9
bis(2-Chloroethoxy)methane	1200	ND	0.56
2,4-Dichlorophenol	3750	ND	0.56
1,2,4-Trichlorobenzene	8500	ND	0.56
Naphthalene	5800	ND	0.56
4-Chloroaniline	1975	ND	0.56
Hexachlorobutadiene	5100	ND	0.56
4-Chloro-3-methylphenol	2250	ND	0.56
2-Methylnaphthalene	5740	ND	0.56
Hexachlorocyclopentadiene	5150	ND	0.75
2,4,6-Trichlorophenol	8750	ND	0.56
2,4,5-Trichlorophenol	8745	ND	0.56
2-Chloronaphthalene	2300	ND	0.56
2-Nitroaniline	5990	ND	0.75
Dimethylphthalate	4150	ND	0.56
Acenaphthylene	0100	ND	0.56
2,6-Dinitrotoluene	4300	ND	0.56
3-Nitroaniline	5992	ND	0.75
Acenaphthene	0050	ND	0.56
2,4-Dinitrophenol	4200	ND	0.75
4-Nitrophenol	6100	ND	0.75
Dibenzofuran	3175	ND	0.56
2,4-Dinitrotoluene	4250	ND	0.56
Diethylphthalate	4050	ND	0.56
Fluorene	4800	ND	0.56
4-Chlorophenyl-phenylether	2425	ND	0.56
4-Nitroaniline	5994	ND	0.75
4,6-Dinitro-2-methylphenol	5700	ND	0.75
4-Bromophenyl-phenylether	1613	ND	0.56
Hexachlorobenzene	5050	ND	0.56
Pentachlorophenol	6400	ND	0.75
Phenanthrene	6850	ND	0.56
Anthracene	0350	ND	0.56
Di-n-butylphthalate	3250	ND	0.56

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75474	Chemist:	KMH
Lab ID:	265569-017	Sampled:	03/24/15 09:40
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 17:04
Diln Fac:	1.000		

Analyte	Code	Result	RL
Fluoranthene	4750	ND	0.56
Pyrene	7100	ND	0.56
Butylbenzylphthalate	1625	ND	0.56
3,3'-Dichlorobenzidine	3450	ND	0.75
Benzo(a)anthracene	0650	ND	0.56
Chrysene	2600	ND	0.56
bis(2-Ethylhexyl)phthalate	1350	ND	0.56
Di-n-octylphthalate	4350	ND	0.56
Benzo(b)fluoranthene	0700	ND	0.56
Benzo(k)fluoranthene	0750	ND	0.56
Benzo(a)pyrene	0850	ND	0.56
Indeno(1,2,3-cd)pyrene	5300	ND	0.56
Dibenz(a,h)anthracene	3150	ND	0.56
Benzo(g,h,i)perylene	0800	ND	0.56

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	59	25-120
Phenol-d5	6903	62	36-120
2,4,6-Tribromophenol	8490	70	27-120
Nitrobenzene-d5	6005	66	44-120
2-Fluorobiphenyl	4833	71	47-120
Terphenyl-d14	8173	66	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75476	Chemist:	KMH
Lab ID:	265569-019	Sampled:	03/24/15 10:20
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 20:04
Diln Fac:	1.000		

Moisture: 15%

Analyte	Code	Result	RL
Phenol	6900	ND	0.60
2-Chlorophenol	2350	ND	0.60
1,3-Dichlorobenzene	3350	ND	0.60
1,4-Dichlorobenzene	3400	ND	0.60
Benzyl alcohol	0880	ND	0.60
1,2-Dichlorobenzene	3300	ND	0.60
2-Methylphenol	5730	ND	0.60
bis(2-Chloroisopropyl) ether	1300	ND	0.60
4-Methylphenol	5734	ND	0.60
N-Nitroso-di-n-propylamine	6250	ND	0.60
Hexachloroethane	5200	ND	0.60
Nitrobenzene	6000	ND	0.60
Isophorone	5400	ND	0.60
2,4-Dimethylphenol	4100	ND	0.60
Benzoic acid	0875	ND	2.0
bis(2-Chloroethoxy)methane	1200	ND	0.60
2,4-Dichlorophenol	3750	ND	0.60
1,2,4-Trichlorobenzene	8500	ND	0.60
Naphthalene	5800	ND	0.60
4-Chloroaniline	1975	ND	0.60
Hexachlorobutadiene	5100	ND	0.60
4-Chloro-3-methylphenol	2250	ND	0.60
2-Methylnaphthalene	5740	ND	0.60
Hexachlorocyclopentadiene	5150	ND	0.80
2,4,6-Trichlorophenol	8750	ND	0.60
2,4,5-Trichlorophenol	8745	ND	0.60
2-Chloronaphthalene	2300	ND	0.60
2-Nitroaniline	5990	ND	0.80
Dimethylphthalate	4150	ND	0.60
Acenaphthylene	0100	ND	0.60
2,6-Dinitrotoluene	4300	ND	0.60
3-Nitroaniline	5992	ND	0.80
Acenaphthene	0050	ND	0.60
2,4-Dinitrophenol	4200	ND	0.80
4-Nitrophenol	6100	ND	0.80
Dibenzofuran	3175	ND	0.60
2,4-Dinitrotoluene	4250	ND	0.60
Diethylphthalate	4050	ND	0.60
Fluorene	4800	ND	0.60
4-Chlorophenyl-phenylether	2425	ND	0.60
4-Nitroaniline	5994	ND	0.80
4,6-Dinitro-2-methylphenol	5700	ND	0.80
4-Bromophenyl-phenylether	1613	ND	0.60
Hexachlorobenzene	5050	ND	0.60
Pentachlorophenol	6400	ND	0.80
Phenanthrene	6850	ND	0.60
Anthracene	0350	ND	0.60
Di-n-butylphthalate	3250	ND	0.60

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75476	Chemist:	KMH
Lab ID:	265569-019	Sampled:	03/24/15 10:20
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 20:04
Diln Fac:	1.000		

Analyte	Code	Result	RL
Fluoranthene	4750	ND	0.60
Pyrene	7100	ND	0.60
Butylbenzylphthalate	1625	ND	0.60
3,3'-Dichlorobenzidine	3450	ND	0.80
Benzo(a)anthracene	0650	ND	0.60
Chrysene	2600	ND	0.60
bis(2-Ethylhexyl)phthalate	1350	ND	0.60
Di-n-octylphthalate	4350	ND	0.60
Benzo(b)fluoranthene	0700	ND	0.60
Benzo(k)fluoranthene	0750	ND	0.60
Benzo(a)pyrene	0850	ND	0.60
Indeno(1,2,3-cd)pyrene	5300	ND	0.60
Dibenz(a,h)anthracene	3150	ND	0.60
Benzo(g,h,i)perylene	0800	ND	0.60

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	55	25-120
Phenol-d5	6903	54	36-120
2,4,6-Tribromophenol	8490	71	27-120
Nitrobenzene-d5	6005	60	44-120
2-Fluorobiphenyl	4833	70	47-120
Terphenyl-d14	8173	74	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75478	Chemist:	KMH
Lab ID:	265569-021	Sampled:	03/24/15 10:40
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 20:41
Diln Fac:	1.000		

Moisture: 15%

Analyte	Code	Result	RL
Phenol	6900	ND	0.59
2-Chlorophenol	2350	ND	0.59
1,3-Dichlorobenzene	3350	ND	0.59
1,4-Dichlorobenzene	3400	ND	0.59
Benzyl alcohol	0880	ND	0.59
1,2-Dichlorobenzene	3300	ND	0.59
2-Methylphenol	5730	ND	0.59
bis(2-Chloroisopropyl) ether	1300	ND	0.59
4-Methylphenol	5734	ND	0.59
N-Nitroso-di-n-propylamine	6250	ND	0.59
Hexachloroethane	5200	ND	0.59
Nitrobenzene	6000	ND	0.59
Isophorone	5400	ND	0.59
2,4-Dimethylphenol	4100	ND	0.59
Benzoic acid	0875	ND	2.0
bis(2-Chloroethoxy)methane	1200	ND	0.59
2,4-Dichlorophenol	3750	ND	0.59
1,2,4-Trichlorobenzene	8500	ND	0.59
Naphthalene	5800	ND	0.59
4-Chloroaniline	1975	ND	0.59
Hexachlorobutadiene	5100	ND	0.59
4-Chloro-3-methylphenol	2250	ND	0.59
2-Methylnaphthalene	5740	ND	0.59
Hexachlorocyclopentadiene	5150	ND	0.79
2,4,6-Trichlorophenol	8750	ND	0.59
2,4,5-Trichlorophenol	8745	ND	0.59
2-Chloronaphthalene	2300	ND	0.59
2-Nitroaniline	5990	ND	0.79
Dimethylphthalate	4150	ND	0.59
Acenaphthylene	0100	ND	0.59
2,6-Dinitrotoluene	4300	ND	0.59
3-Nitroaniline	5992	ND	0.79
Acenaphthene	0050	ND	0.59
2,4-Dinitrophenol	4200	ND	0.79
4-Nitrophenol	6100	ND	0.79
Dibenzofuran	3175	ND	0.59
2,4-Dinitrotoluene	4250	ND	0.59
Diethylphthalate	4050	ND	0.59
Fluorene	4800	ND	0.59
4-Chlorophenyl-phenylether	2425	ND	0.59
4-Nitroaniline	5994	ND	0.79
4,6-Dinitro-2-methylphenol	5700	ND	0.79
4-Bromophenyl-phenylether	1613	ND	0.59
Hexachlorobenzene	5050	ND	0.59
Pentachlorophenol	6400	ND	0.79
Phenanthrene	6850	ND	0.59
Anthracene	0350	ND	0.59
Di-n-butylphthalate	3250	ND	0.59

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75478	Chemist:	KMH
Lab ID:	265569-021	Sampled:	03/24/15 10:40
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 20:41
Diln Fac:	1.000		

Analyte	Code	Result	RL
Fluoranthene	4750	ND	0.59
Pyrene	7100	ND	0.59
Butylbenzylphthalate	1625	ND	0.59
3,3'-Dichlorobenzidine	3450	ND	0.79
Benzo(a)anthracene	0650	ND	0.59
Chrysene	2600	ND	0.59
bis(2-Ethylhexyl)phthalate	1350	ND	0.59
Di-n-octylphthalate	4350	ND	0.59
Benzo(b)fluoranthene	0700	ND	0.59
Benzo(k)fluoranthene	0750	ND	0.59
Benzo(a)pyrene	0850	ND	0.59
Indeno(1,2,3-cd)pyrene	5300	ND	0.59
Dibenz(a,h)anthracene	3150	ND	0.59
Benzo(g,h,i)perylene	0800	ND	0.59

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	59	25-120
Phenol-d5	6903	65	36-120
2,4,6-Tribromophenol	8490	73	27-120
Nitrobenzene-d5	6005	66	44-120
2-Fluorobiphenyl	4833	73	47-120
Terphenyl-d14	8173	75	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75480	Chemist:	KMH
Lab ID:	265569-023	Sampled:	03/24/15 10:55
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 21:17
Diln Fac:	1.000		

Moisture: 13%

Analyte	Code	Result	RL
Phenol	6900	ND	0.58
2-Chlorophenol	2350	ND	0.58
1,3-Dichlorobenzene	3350	ND	0.58
1,4-Dichlorobenzene	3400	ND	0.58
Benzyl alcohol	0880	ND	0.58
1,2-Dichlorobenzene	3300	ND	0.58
2-Methylphenol	5730	ND	0.58
bis(2-Chloroisopropyl) ether	1300	ND	0.58
4-Methylphenol	5734	ND	0.58
N-Nitroso-di-n-propylamine	6250	ND	0.58
Hexachloroethane	5200	ND	0.58
Nitrobenzene	6000	ND	0.58
Isophorone	5400	ND	0.58
2,4-Dimethylphenol	4100	ND	0.58
Benzoic acid	0875	ND	1.9
bis(2-Chloroethoxy)methane	1200	ND	0.58
2,4-Dichlorophenol	3750	ND	0.58
1,2,4-Trichlorobenzene	8500	ND	0.58
Naphthalene	5800	ND	0.58
4-Chloroaniline	1975	ND	0.58
Hexachlorobutadiene	5100	ND	0.58
4-Chloro-3-methylphenol	2250	ND	0.58
2-Methylnaphthalene	5740	ND	0.58
Hexachlorocyclopentadiene	5150	ND	0.78
2,4,6-Trichlorophenol	8750	ND	0.58
2,4,5-Trichlorophenol	8745	ND	0.58
2-Chloronaphthalene	2300	ND	0.58
2-Nitroaniline	5990	ND	0.78
Dimethylphthalate	4150	ND	0.58
Acenaphthylene	0100	ND	0.58
2,6-Dinitrotoluene	4300	ND	0.58
3-Nitroaniline	5992	ND	0.78
Acenaphthene	0050	ND	0.58
2,4-Dinitrophenol	4200	ND	0.78
4-Nitrophenol	6100	ND	0.78
Dibenzofuran	3175	ND	0.58
2,4-Dinitrotoluene	4250	ND	0.58
Diethylphthalate	4050	ND	0.58
Fluorene	4800	ND	0.58
4-Chlorophenyl-phenylether	2425	ND	0.58
4-Nitroaniline	5994	ND	0.78
4,6-Dinitro-2-methylphenol	5700	ND	0.78
4-Bromophenyl-phenylether	1613	ND	0.58
Hexachlorobenzene	5050	ND	0.58
Pentachlorophenol	6400	ND	0.78
Phenanthrene	6850	ND	0.58
Anthracene	0350	ND	0.58
Di-n-butylphthalate	3250	ND	0.58

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75480	Chemist:	KMH
Lab ID:	265569-023	Sampled:	03/24/15 10:55
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 21:17
Diln Fac:	1.000		

Analyte	Code	Result	RL
Fluoranthene	4750	ND	0.58
Pyrene	7100	ND	0.58
Butylbenzylphthalate	1625	ND	0.58
3,3'-Dichlorobenzidine	3450	ND	0.78
Benzo(a)anthracene	0650	ND	0.58
Chrysene	2600	ND	0.58
bis(2-Ethylhexyl)phthalate	1350	ND	0.58
Di-n-octylphthalate	4350	ND	0.58
Benzo(b)fluoranthene	0700	ND	0.58
Benzo(k)fluoranthene	0750	ND	0.58
Benzo(a)pyrene	0850	ND	0.58
Indeno(1,2,3-cd)pyrene	5300	ND	0.58
Dibenz(a,h)anthracene	3150	ND	0.58
Benzo(g,h,i)perylene	0800	ND	0.58

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	41	25-120
Phenol-d5	6903	47	36-120
2,4,6-Tribromophenol	8490	61	27-120
Nitrobenzene-d5	6005	46	44-120
2-Fluorobiphenyl	4833	59	47-120
Terphenyl-d14	8173	63	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75482	Chemist:	KMH
Lab ID:	265569-025	Sampled:	03/24/15 10:45
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 21:54
Diln Fac:	1.000		

Moisture: 14%

Analyte	Code	Result	RL
Phenol	6900	ND	0.58
2-Chlorophenol	2350	ND	0.58
1,3-Dichlorobenzene	3350	ND	0.58
1,4-Dichlorobenzene	3400	ND	0.58
Benzyl alcohol	0880	ND	0.58
1,2-Dichlorobenzene	3300	ND	0.58
2-Methylphenol	5730	ND	0.58
bis(2-Chloroisopropyl) ether	1300	ND	0.58
4-Methylphenol	5734	ND	0.58
N-Nitroso-di-n-propylamine	6250	ND	0.58
Hexachloroethane	5200	ND	0.58
Nitrobenzene	6000	ND	0.58
Isophorone	5400	ND	0.58
2,4-Dimethylphenol	4100	ND	0.58
Benzoic acid	0875	ND	1.9
bis(2-Chloroethoxy)methane	1200	ND	0.58
2,4-Dichlorophenol	3750	ND	0.58
1,2,4-Trichlorobenzene	8500	ND	0.58
Naphthalene	5800	ND	0.58
4-Chloroaniline	1975	ND	0.58
Hexachlorobutadiene	5100	ND	0.58
4-Chloro-3-methylphenol	2250	ND	0.58
2-Methylnaphthalene	5740	ND	0.58
Hexachlorocyclopentadiene	5150	ND	0.77
2,4,6-Trichlorophenol	8750	ND	0.58
2,4,5-Trichlorophenol	8745	ND	0.58
2-Chloronaphthalene	2300	ND	0.58
2-Nitroaniline	5990	ND	0.77
Dimethylphthalate	4150	ND	0.58
Acenaphthylene	0100	ND	0.58
2,6-Dinitrotoluene	4300	ND	0.58
3-Nitroaniline	5992	ND	0.77
Acenaphthene	0050	ND	0.58
2,4-Dinitrophenol	4200	ND	0.77
4-Nitrophenol	6100	ND	0.77
Dibenzofuran	3175	ND	0.58
2,4-Dinitrotoluene	4250	ND	0.58
Diethylphthalate	4050	ND	0.58
Fluorene	4800	ND	0.58
4-Chlorophenyl-phenylether	2425	ND	0.58
4-Nitroaniline	5994	ND	0.77
4,6-Dinitro-2-methylphenol	5700	ND	0.77
4-Bromophenyl-phenylether	1613	ND	0.58
Hexachlorobenzene	5050	ND	0.58
Pentachlorophenol	6400	ND	0.77
Phenanthrene	6850	ND	0.58
Anthracene	0350	ND	0.58
Di-n-butylphthalate	3250	ND	0.58

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75482	Chemist:	KMH
Lab ID:	265569-025	Sampled:	03/24/15 10:45
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 21:54
Diln Fac:	1.000		

Analyte	Code	Result	RL
Fluoranthene	4750	ND	0.58
Pyrene	7100	ND	0.58
Butylbenzylphthalate	1625	ND	0.58
3,3'-Dichlorobenzidine	3450	ND	0.77
Benzo(a)anthracene	0650	ND	0.58
Chrysene	2600	ND	0.58
bis(2-Ethylhexyl)phthalate	1350	ND	0.58
Di-n-octylphthalate	4350	ND	0.58
Benzo(b)fluoranthene	0700	ND	0.58
Benzo(k)fluoranthene	0750	ND	0.58
Benzo(a)pyrene	0850	ND	0.58
Indeno(1,2,3-cd)pyrene	5300	ND	0.58
Dibenz(a,h)anthracene	3150	ND	0.58
Benzo(g,h,i)perylene	0800	ND	0.58

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	56	25-120
Phenol-d5	6903	61	36-120
2,4,6-Tribromophenol	8490	73	27-120
Nitrobenzene-d5	6005	60	44-120
2-Fluorobiphenyl	4833	71	47-120
Terphenyl-d14	8173	72	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75484	Chemist:	KMH
Lab ID:	265569-027	Sampled:	03/24/15 11:50
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 22:33
Diln Fac:	1.000		

Moisture: 14%

Analyte	Code	Result	RL
Phenol	6900	ND	0.59
2-Chlorophenol	2350	ND	0.59
1,3-Dichlorobenzene	3350	ND	0.59
1,4-Dichlorobenzene	3400	ND	0.59
Benzyl alcohol	0880	ND	0.59
1,2-Dichlorobenzene	3300	ND	0.59
2-Methylphenol	5730	ND	0.59
bis(2-Chloroisopropyl) ether	1300	ND	0.59
4-Methylphenol	5734	ND	0.59
N-Nitroso-di-n-propylamine	6250	ND	0.59
Hexachloroethane	5200	ND	0.59
Nitrobenzene	6000	ND	0.59
Isophorone	5400	ND	0.59
2,4-Dimethylphenol	4100	ND	0.59
Benzoic acid	0875	ND	2.0
bis(2-Chloroethoxy)methane	1200	ND	0.59
2,4-Dichlorophenol	3750	ND	0.59
1,2,4-Trichlorobenzene	8500	ND	0.59
Naphthalene	5800	ND	0.59
4-Chloroaniline	1975	ND	0.59
Hexachlorobutadiene	5100	ND	0.59
4-Chloro-3-methylphenol	2250	ND	0.59
2-Methylnaphthalene	5740	ND	0.59
Hexachlorocyclopentadiene	5150	ND	0.78
2,4,6-Trichlorophenol	8750	ND	0.59
2,4,5-Trichlorophenol	8745	ND	0.59
2-Chloronaphthalene	2300	ND	0.59
2-Nitroaniline	5990	ND	0.78
Dimethylphthalate	4150	ND	0.59
Acenaphthylene	0100	ND	0.59
2,6-Dinitrotoluene	4300	ND	0.59
3-Nitroaniline	5992	ND	0.78
Acenaphthene	0050	ND	0.59
2,4-Dinitrophenol	4200	ND	0.78
4-Nitrophenol	6100	ND	0.78
Dibenzofuran	3175	ND	0.59
2,4-Dinitrotoluene	4250	ND	0.59
Diethylphthalate	4050	ND	0.59
Fluorene	4800	ND	0.59
4-Chlorophenyl-phenylether	2425	ND	0.59
4-Nitroaniline	5994	ND	0.78
4,6-Dinitro-2-methylphenol	5700	ND	0.78
4-Bromophenyl-phenylether	1613	ND	0.59
Hexachlorobenzene	5050	ND	0.59
Pentachlorophenol	6400	ND	0.78
Phenanthrene	6850	ND	0.59
Anthracene	0350	ND	0.59
Di-n-butylphthalate	3250	ND	0.59

ND= Not Detected
RL= Reporting Limit

89.0

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75484	Chemist:	KMH
Lab ID:	265569-027	Sampled:	03/24/15 11:50
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 22:33
Diln Fac:	1.000		

Analyte	Code	Result	RL
Fluoranthene	4750	ND	0.59
Pyrene	7100	ND	0.59
Butylbenzylphthalate	1625	ND	0.59
3,3'-Dichlorobenzidine	3450	ND	0.78
Benzo(a)anthracene	0650	ND	0.59
Chrysene	2600	ND	0.59
bis(2-Ethylhexyl)phthalate	1350	ND	0.59
Di-n-octylphthalate	4350	ND	0.59
Benzo(b)fluoranthene	0700	ND	0.59
Benzo(k)fluoranthene	0750	ND	0.59
Benzo(a)pyrene	0850	ND	0.59
Indeno(1,2,3-cd)pyrene	5300	ND	0.59
Dibenz(a,h)anthracene	3150	ND	0.59
Benzo(g,h,i)perylene	0800	ND	0.59

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	46	25-120
Phenol-d5	6903	49	36-120
2,4,6-Tribromophenol	8490	62	27-120
Nitrobenzene-d5	6005	51	44-120
2-Fluorobiphenyl	4833	59	47-120
Terphenyl-d14	8173	63	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75486	Chemist:	KMH
Lab ID:	265569-029	Sampled:	03/24/15 12:05
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 23:11
Diln Fac:	1.000		

Moisture: 14%

Analyte	Code	Result	RL
Phenol	6900	ND	0.58
2-Chlorophenol	2350	ND	0.58
1,3-Dichlorobenzene	3350	ND	0.58
1,4-Dichlorobenzene	3400	ND	0.58
Benzyl alcohol	0880	ND	0.58
1,2-Dichlorobenzene	3300	ND	0.58
2-Methylphenol	5730	ND	0.58
bis(2-Chloroisopropyl) ether	1300	ND	0.58
4-Methylphenol	5734	ND	0.58
N-Nitroso-di-n-propylamine	6250	ND	0.58
Hexachloroethane	5200	ND	0.58
Nitrobenzene	6000	ND	0.58
Isophorone	5400	ND	0.58
2,4-Dimethylphenol	4100	ND	0.58
Benzoic acid	0875	ND	1.9
bis(2-Chloroethoxy)methane	1200	ND	0.58
2,4-Dichlorophenol	3750	ND	0.58
1,2,4-Trichlorobenzene	8500	ND	0.58
Naphthalene	5800	ND	0.58
4-Chloroaniline	1975	ND	0.58
Hexachlorobutadiene	5100	ND	0.58
4-Chloro-3-methylphenol	2250	ND	0.58
2-Methylnaphthalene	5740	ND	0.58
Hexachlorocyclopentadiene	5150	ND	0.78
2,4,6-Trichlorophenol	8750	ND	0.58
2,4,5-Trichlorophenol	8745	ND	0.58
2-Chloronaphthalene	2300	ND	0.58
2-Nitroaniline	5990	ND	0.78
Dimethylphthalate	4150	ND	0.58
Acenaphthylene	0100	ND	0.58
2,6-Dinitrotoluene	4300	ND	0.58
3-Nitroaniline	5992	ND	0.78
Acenaphthene	0050	ND	0.58
2,4-Dinitrophenol	4200	ND	0.78
4-Nitrophenol	6100	ND	0.78
Dibenzofuran	3175	ND	0.58
2,4-Dinitrotoluene	4250	ND	0.58
Diethylphthalate	4050	ND	0.58
Fluorene	4800	ND	0.58
4-Chlorophenyl-phenylether	2425	ND	0.58
4-Nitroaniline	5994	ND	0.78
4,6-Dinitro-2-methylphenol	5700	ND	0.78
4-Bromophenyl-phenylether	1613	ND	0.58
Hexachlorobenzene	5050	ND	0.58
Pentachlorophenol	6400	ND	0.78
Phenanthrene	6850	ND	0.58
Anthracene	0350	ND	0.58
Di-n-butylphthalate	3250	ND	0.58

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75486	Chemist:	KMH
Lab ID:	265569-029	Sampled:	03/24/15 12:05
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/27/15 23:11
Diln Fac:	1.000		

Analyte	Code	Result	RL
Fluoranthene	4750	ND	0.58
Pyrene	7100	ND	0.58
Butylbenzylphthalate	1625	ND	0.58
3,3'-Dichlorobenzidine	3450	ND	0.78
Benzo(a)anthracene	0650	ND	0.58
Chrysene	2600	ND	0.58
bis(2-Ethylhexyl)phthalate	1350	ND	0.58
Di-n-octylphthalate	4350	ND	0.58
Benzo(b)fluoranthene	0700	ND	0.58
Benzo(k)fluoranthene	0750	ND	0.58
Benzo(a)pyrene	0850	ND	0.58
Indeno(1,2,3-cd)pyrene	5300	ND	0.58
Dibenz(a,h)anthracene	3150	ND	0.58
Benzo(g,h,i)perylene	0800	ND	0.58

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	67	25-120
Phenol-d5	6903	72	36-120
2,4,6-Tribromophenol	8490	90	27-120
Nitrobenzene-d5	6005	76	44-120
2-Fluorobiphenyl	4833	81	47-120
Terphenyl-d14	8173	82	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75488	Chemist:	NPM
Lab ID:	265569-031	Sampled:	03/24/15 12:20
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/31/15 19:31
Diln Fac:	1.000		

Moisture: 15%

Analyte	Code	Result	RL
Phenol	6900	ND	0.58
2-Chlorophenol	2350	ND	0.58
1,3-Dichlorobenzene	3350	ND	0.58
1,4-Dichlorobenzene	3400	ND	0.58
Benzyl alcohol	0880	ND	0.58
1,2-Dichlorobenzene	3300	ND	0.58
2-Methylphenol	5730	ND	0.58
bis(2-Chloroisopropyl) ether	1300	ND	0.58
4-Methylphenol	5734	ND	0.58
N-Nitroso-di-n-propylamine	6250	ND	0.58
Hexachloroethane	5200	ND	0.58
Nitrobenzene	6000	ND	0.58
Isophorone	5400	ND	0.58
2,4-Dimethylphenol	4100	ND	0.58
Benzoic acid	0875	ND	1.9
bis(2-Chloroethoxy)methane	1200	ND	0.58
2,4-Dichlorophenol	3750	ND	0.58
1,2,4-Trichlorobenzene	8500	ND	0.58
Naphthalene	5800	ND	0.58
4-Chloroaniline	1975	ND	0.58
Hexachlorobutadiene	5100	ND	0.58
4-Chloro-3-methylphenol	2250	ND	0.58
2-Methylnaphthalene	5740	ND	0.58
Hexachlorocyclopentadiene	5150	ND	0.77
2,4,6-Trichlorophenol	8750	ND	0.58
2,4,5-Trichlorophenol	8745	ND	0.58
2-Chloronaphthalene	2300	ND	0.58
2-Nitroaniline	5990	ND	0.77
Dimethylphthalate	4150	ND	0.58
Acenaphthylene	0100	ND	0.58
2,6-Dinitrotoluene	4300	ND	0.58
3-Nitroaniline	5992	ND	0.77
Acenaphthene	0050	ND	0.58
2,4-Dinitrophenol	4200	ND	0.77
4-Nitrophenol	6100	ND	0.77
Dibenzofuran	3175	ND	0.58
2,4-Dinitrotoluene	4250	ND	0.58
Diethylphthalate	4050	ND	0.58
Fluorene	4800	ND	0.58
4-Chlorophenyl-phenylether	2425	ND	0.58
4-Nitroaniline	5994	ND	0.77
4,6-Dinitro-2-methylphenol	5700	ND	0.77
4-Bromophenyl-phenylether	1613	ND	0.58
Hexachlorobenzene	5050	ND	0.58
Pentachlorophenol	6400	ND	0.77
Phenanthrene	6850	ND	0.58
Anthracene	0350	ND	0.58
Di-n-butylphthalate	3250	ND	0.58

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75488	Chemist:	NPM
Lab ID:	265569-031	Sampled:	03/24/15 12:20
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/31/15 19:31
Diln Fac:	1.000		

Analyte	Code	Result	RL
Fluoranthene	4750	ND	0.58
Pyrene	7100	ND	0.58
Butylbenzylphthalate	1625	ND	0.58
3,3'-Dichlorobenzidine	3450	ND	0.77
Benzo(a)anthracene	0650	ND	0.58
Chrysene	2600	ND	0.58
bis(2-Ethylhexyl)phthalate	1350	ND	0.58
Di-n-octylphthalate	4350	ND	0.58
Benzo(b)fluoranthene	0700	ND	0.58
Benzo(k)fluoranthene	0750	ND	0.58
Benzo(a)pyrene	0850	ND	0.58
Indeno(1,2,3-cd)pyrene	5300	ND	0.58
Dibenz(a,h)anthracene	3150	ND	0.58
Benzo(g,h,i)perylene	0800	ND	0.58

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	71	25-120
Phenol-d5	6903	76	36-120
2,4,6-Tribromophenol	8490	94	27-120
Nitrobenzene-d5	6005	84	44-120
2-Fluorobiphenyl	4833	92	47-120
Terphenyl-d14	8173	90	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75490	Chemist:	NPM
Lab ID:	265569-033	Sampled:	03/24/15 12:35
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/31/15 20:09
Diln Fac:	1.000		

Moisture: 16%

Analyte	Code	Result	RL
Phenol	6900	ND	0.60
2-Chlorophenol	2350	ND	0.60
1,3-Dichlorobenzene	3350	ND	0.60
1,4-Dichlorobenzene	3400	ND	0.60
Benzyl alcohol	0880	ND	0.60
1,2-Dichlorobenzene	3300	ND	0.60
2-Methylphenol	5730	ND	0.60
bis(2-Chloroisopropyl) ether	1300	ND	0.60
4-Methylphenol	5734	ND	0.60
N-Nitroso-di-n-propylamine	6250	ND	0.60
Hexachloroethane	5200	ND	0.60
Nitrobenzene	6000	ND	0.60
Isophorone	5400	ND	0.60
2,4-Dimethylphenol	4100	ND	0.60
Benzoic acid	0875	ND	2.0
bis(2-Chloroethoxy)methane	1200	ND	0.60
2,4-Dichlorophenol	3750	ND	0.60
1,2,4-Trichlorobenzene	8500	ND	0.60
Naphthalene	5800	ND	0.60
4-Chloroaniline	1975	ND	0.60
Hexachlorobutadiene	5100	ND	0.60
4-Chloro-3-methylphenol	2250	ND	0.60
2-Methylnaphthalene	5740	ND	0.60
Hexachlorocyclopentadiene	5150	ND	0.79
2,4,6-Trichlorophenol	8750	ND	0.60
2,4,5-Trichlorophenol	8745	ND	0.60
2-Chloronaphthalene	2300	ND	0.60
2-Nitroaniline	5990	ND	0.79
Dimethylphthalate	4150	ND	0.60
Acenaphthylene	0100	ND	0.60
2,6-Dinitrotoluene	4300	ND	0.60
3-Nitroaniline	5992	ND	0.79
Acenaphthene	0050	ND	0.60
2,4-Dinitrophenol	4200	ND	0.79
4-Nitrophenol	6100	ND	0.79
Dibenzofuran	3175	ND	0.60
2,4-Dinitrotoluene	4250	ND	0.60
Diethylphthalate	4050	ND	0.60
Fluorene	4800	ND	0.60
4-Chlorophenyl-phenylether	2425	ND	0.60
4-Nitroaniline	5994	ND	0.79
4,6-Dinitro-2-methylphenol	5700	ND	0.79
4-Bromophenyl-phenylether	1613	ND	0.60
Hexachlorobenzene	5050	ND	0.60
Pentachlorophenol	6400	ND	0.79
Phenanthrene	6850	ND	0.60
Anthracene	0350	ND	0.60
Di-n-butylphthalate	3250	ND	0.60

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75490	Chemist:	NPM
Lab ID:	265569-033	Sampled:	03/24/15 12:35
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/31/15 20:09
Diln Fac:	1.000		

Analyte	Code	Result	RL
Fluoranthene	4750	ND	0.60
Pyrene	7100	ND	0.60
Butylbenzylphthalate	1625	ND	0.60
3,3'-Dichlorobenzidine	3450	ND	0.79
Benzo(a)anthracene	0650	ND	0.60
Chrysene	2600	ND	0.60
bis(2-Ethylhexyl)phthalate	1350	ND	0.60
Di-n-octylphthalate	4350	ND	0.60
Benzo(b)fluoranthene	0700	ND	0.60
Benzo(k)fluoranthene	0750	ND	0.60
Benzo(a)pyrene	0850	ND	0.60
Indeno(1,2,3-cd)pyrene	5300	ND	0.60
Dibenz(a,h)anthracene	3150	ND	0.60
Benzo(g,h,i)perylene	0800	ND	0.60

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	59	25-120
Phenol-d5	6903	63	36-120
2,4,6-Tribromophenol	8490	75	27-120
Nitrobenzene-d5	6005	65	44-120
2-Fluorobiphenyl	4833	73	47-120
Terphenyl-d14	8173	79	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75492	Chemist:	NPM
Lab ID:	265569-035	Sampled:	03/24/15 12:50
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/31/15 20:47
Diln Fac:	1.000		

Moisture: 16%

Analyte	Code	Result	RL
Phenol	6900	ND	0.60
2-Chlorophenol	2350	ND	0.60
1,3-Dichlorobenzene	3350	ND	0.60
1,4-Dichlorobenzene	3400	ND	0.60
Benzyl alcohol	0880	ND	0.60
1,2-Dichlorobenzene	3300	ND	0.60
2-Methylphenol	5730	ND	0.60
bis(2-Chloroisopropyl) ether	1300	ND	0.60
4-Methylphenol	5734	ND	0.60
N-Nitroso-di-n-propylamine	6250	ND	0.60
Hexachloroethane	5200	ND	0.60
Nitrobenzene	6000	ND	0.60
Isophorone	5400	ND	0.60
2,4-Dimethylphenol	4100	ND	0.60
Benzoic acid	0875	ND	2.0
bis(2-Chloroethoxy)methane	1200	ND	0.60
2,4-Dichlorophenol	3750	ND	0.60
1,2,4-Trichlorobenzene	8500	ND	0.60
Naphthalene	5800	ND	0.60
4-Chloroaniline	1975	ND	0.60
Hexachlorobutadiene	5100	ND	0.60
4-Chloro-3-methylphenol	2250	ND	0.60
2-Methylnaphthalene	5740	ND	0.60
Hexachlorocyclopentadiene	5150	ND	0.80
2,4,6-Trichlorophenol	8750	ND	0.60
2,4,5-Trichlorophenol	8745	ND	0.60
2-Chloronaphthalene	2300	ND	0.60
2-Nitroaniline	5990	ND	0.80
Dimethylphthalate	4150	ND	0.60
Acenaphthylene	0100	ND	0.60
2,6-Dinitrotoluene	4300	ND	0.60
3-Nitroaniline	5992	ND	0.80
Acenaphthene	0050	ND	0.60
2,4-Dinitrophenol	4200	ND	0.80
4-Nitrophenol	6100	ND	0.80
Dibenzofuran	3175	ND	0.60
2,4-Dinitrotoluene	4250	ND	0.60
Diethylphthalate	4050	ND	0.60
Fluorene	4800	ND	0.60
4-Chlorophenyl-phenylether	2425	ND	0.60
4-Nitroaniline	5994	ND	0.80
4,6-Dinitro-2-methylphenol	5700	ND	0.80
4-Bromophenyl-phenylether	1613	ND	0.60
Hexachlorobenzene	5050	ND	0.60
Pentachlorophenol	6400	ND	0.80
Phenanthrene	6850	ND	0.60
Anthracene	0350	ND	0.60
Di-n-butylphthalate	3250	ND	0.60

ND= Not Detected
RL= Reporting Limit

93.0

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75492	Chemist:	NPM
Lab ID:	265569-035	Sampled:	03/24/15 12:50
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/31/15 20:47
Diln Fac:	1.000		

Analyte	Code	Result	RL
Fluoranthene	4750	ND	0.60
Pyrene	7100	ND	0.60
Butylbenzylphthalate	1625	ND	0.60
3,3'-Dichlorobenzidine	3450	ND	0.80
Benzo(a)anthracene	0650	ND	0.60
Chrysene	2600	ND	0.60
bis(2-Ethylhexyl)phthalate	1350	ND	0.60
Di-n-octylphthalate	4350	ND	0.60
Benzo(b)fluoranthene	0700	ND	0.60
Benzo(k)fluoranthene	0750	ND	0.60
Benzo(a)pyrene	0850	ND	0.60
Indeno(1,2,3-cd)pyrene	5300	ND	0.60
Dibenz(a,h)anthracene	3150	ND	0.60
Benzo(g,h,i)perylene	0800	ND	0.60

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	57	25-120
Phenol-d5	6903	62	36-120
2,4,6-Tribromophenol	8490	80	27-120
Nitrobenzene-d5	6005	64	44-120
2-Fluorobiphenyl	4833	75	47-120
Terphenyl-d14	8173	77	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75494	Chemist:	NPM
Lab ID:	265569-037	Sampled:	03/24/15 13:00
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/31/15 21:24
Diln Fac:	1.000		

Moisture: 16%

Analyte	Code	Result	RL
Phenol	6900	ND	0.59
2-Chlorophenol	2350	ND	0.59
1,3-Dichlorobenzene	3350	ND	0.59
1,4-Dichlorobenzene	3400	ND	0.59
Benzyl alcohol	0880	ND	0.59
1,2-Dichlorobenzene	3300	ND	0.59
2-Methylphenol	5730	ND	0.59
bis(2-Chloroisopropyl) ether	1300	ND	0.59
4-Methylphenol	5734	ND	0.59
N-Nitroso-di-n-propylamine	6250	ND	0.59
Hexachloroethane	5200	ND	0.59
Nitrobenzene	6000	ND	0.59
Isophorone	5400	ND	0.59
2,4-Dimethylphenol	4100	ND	0.59
Benzoic acid	0875	ND	2.0
bis(2-Chloroethoxy)methane	1200	ND	0.59
2,4-Dichlorophenol	3750	ND	0.59
1,2,4-Trichlorobenzene	8500	ND	0.59
Naphthalene	5800	ND	0.59
4-Chloroaniline	1975	ND	0.59
Hexachlorobutadiene	5100	ND	0.59
4-Chloro-3-methylphenol	2250	ND	0.59
2-Methylnaphthalene	5740	ND	0.59
Hexachlorocyclopentadiene	5150	ND	0.78
2,4,6-Trichlorophenol	8750	ND	0.59
2,4,5-Trichlorophenol	8745	ND	0.59
2-Chloronaphthalene	2300	ND	0.59
2-Nitroaniline	5990	ND	0.78
Dimethylphthalate	4150	ND	0.59
Acenaphthylene	0100	ND	0.59
2,6-Dinitrotoluene	4300	ND	0.59
3-Nitroaniline	5992	ND	0.78
Acenaphthene	0050	ND	0.59
2,4-Dinitrophenol	4200	ND	0.78
4-Nitrophenol	6100	ND	0.78
Dibenzofuran	3175	ND	0.59
2,4-Dinitrotoluene	4250	ND	0.59
Diethylphthalate	4050	ND	0.59
Fluorene	4800	ND	0.59
4-Chlorophenyl-phenylether	2425	ND	0.59
4-Nitroaniline	5994	ND	0.78
4,6-Dinitro-2-methylphenol	5700	ND	0.78
4-Bromophenyl-phenylether	1613	ND	0.59
Hexachlorobenzene	5050	ND	0.59
Pentachlorophenol	6400	ND	0.78
Phenanthrene	6850	ND	0.59
Anthracene	0350	ND	0.59
Di-n-butylphthalate	3250	ND	0.59

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221707
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75494	Chemist:	NPM
Lab ID:	265569-037	Sampled:	03/24/15 13:00
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 15:15
Basis:	dry	Analyzed:	03/31/15 21:24
Diln Fac:	1.000		

Analyte	Code	Result	RL
Fluoranthene	4750	ND	0.59
Pyrene	7100	ND	0.59
Butylbenzylphthalate	1625	ND	0.59
3,3'-Dichlorobenzidine	3450	ND	0.78
Benzo(a)anthracene	0650	ND	0.59
Chrysene	2600	ND	0.59
bis(2-Ethylhexyl)phthalate	1350	ND	0.59
Di-n-octylphthalate	4350	ND	0.59
Benzo(b)fluoranthene	0700	ND	0.59
Benzo(k)fluoranthene	0750	ND	0.59
Benzo(a)pyrene	0850	ND	0.59
Indeno(1,2,3-cd)pyrene	5300	ND	0.59
Dibenz(a,h)anthracene	3150	ND	0.59
Benzo(g,h,i)perylene	0800	ND	0.59

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	62	25-120
Phenol-d5	6903	66	36-120
2,4,6-Tribromophenol	8490	71	27-120
Nitrobenzene-d5	6005	71	44-120
2-Fluorobiphenyl	4833	76	47-120
Terphenyl-d14	8173	77	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221799
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75496	Chemist:	NPM
Lab ID:	265569-039	Sampled:	03/24/15 13:10
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/30/15 14:50
Basis:	dry	Analyzed:	03/31/15 17:06
Diln Fac:	1.000		

Moisture: 16%

Analyte	Code	Result	RL
Phenol	6900	ND	0.60
2-Chlorophenol	2350	ND	0.60
1,3-Dichlorobenzene	3350	ND	0.60
1,4-Dichlorobenzene	3400	ND	0.60
Benzyl alcohol	0880	ND	0.60
1,2-Dichlorobenzene	3300	ND	0.60
2-Methylphenol	5730	ND	0.60
bis(2-Chloroisopropyl) ether	1300	ND	0.60
4-Methylphenol	5734	ND	0.60
N-Nitroso-di-n-propylamine	6250	ND	0.60
Hexachloroethane	5200	ND	0.60
Nitrobenzene	6000	ND	0.60
Isophorone	5400	ND	0.60
2,4-Dimethylphenol	4100	ND	0.60
Benzoic acid	0875	ND	2.0
bis(2-Chloroethoxy)methane	1200	ND	0.60
2,4-Dichlorophenol	3750	ND	0.60
1,2,4-Trichlorobenzene	8500	ND	0.60
Naphthalene	5800	ND	0.60
4-Chloroaniline	1975	ND	0.60
Hexachlorobutadiene	5100	ND	0.60
4-Chloro-3-methylphenol	2250	ND	0.60
2-Methylnaphthalene	5740	ND	0.60
Hexachlorocyclopentadiene	5150	ND	0.80
2,4,6-Trichlorophenol	8750	ND	0.60
2,4,5-Trichlorophenol	8745	ND	0.60
2-Chloronaphthalene	2300	ND	0.60
2-Nitroaniline	5990	ND	0.80
Dimethylphthalate	4150	ND	0.60
Acenaphthylene	0100	ND	0.60
2,6-Dinitrotoluene	4300	ND	0.60
3-Nitroaniline	5992	ND	0.80
Acenaphthene	0050	ND	0.60
2,4-Dinitrophenol	4200	ND	0.80
4-Nitrophenol	6100	ND	0.80
Dibenzofuran	3175	ND	0.60
2,4-Dinitrotoluene	4250	ND	0.60
Diethylphthalate	4050	ND	0.60
Fluorene	4800	ND	0.60
4-Chlorophenyl-phenylether	2425	ND	0.60
4-Nitroaniline	5994	ND	0.80
4,6-Dinitro-2-methylphenol	5700	ND	0.80
4-Bromophenyl-phenylether	1613	ND	0.60
Hexachlorobenzene	5050	ND	0.60
Pentachlorophenol	6400	ND	0.80
Phenanthrene	6850	ND	0.60
Anthracene	0350	ND	0.60
Di-n-butylphthalate	3250	ND	0.60

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221799
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75496	Chemist:	NPM
Lab ID:	265569-039	Sampled:	03/24/15 13:10
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/30/15 14:50
Basis:	dry	Analyzed:	03/31/15 17:06
Diln Fac:	1.000		

Analyte	Code	Result	RL
Fluoranthene	4750	ND	0.60
Pyrene	7100	ND	0.60
Butylbenzylphthalate	1625	ND	0.60
3,3'-Dichlorobenzidine	3450	ND	0.80
Benzo(a)anthracene	0650	ND	0.60
Chrysene	2600	ND	0.60
bis(2-Ethylhexyl)phthalate	1350	ND	0.60
Di-n-octylphthalate	4350	ND	0.60
Benzo(b)fluoranthene	0700	ND	0.60
Benzo(k)fluoranthene	0750	ND	0.60
Benzo(a)pyrene	0850	ND	0.60
Indeno(1,2,3-cd)pyrene	5300	ND	0.60
Dibenz(a,h)anthracene	3150	ND	0.60
Benzo(g,h,i)perylene	0800	ND	0.60

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	41	25-120
Phenol-d5	6903	50	36-120
2,4,6-Tribromophenol	8490	55	27-120
Nitrobenzene-d5	6005	52	44-120
2-Fluorobiphenyl	4833	52	47-120
Terphenyl-d14	8173	72	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221799
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75498	Chemist:	NPM
Lab ID:	265569-041	Sampled:	03/24/15 13:25
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/30/15 14:50
Basis:	dry	Analyzed:	03/31/15 17:42
Diln Fac:	1.000		

Moisture: 14%

Analyte	Code	Result	RL
Phenol	6900	ND	0.58
2-Chlorophenol	2350	ND	0.58
1,3-Dichlorobenzene	3350	ND	0.58
1,4-Dichlorobenzene	3400	ND	0.58
Benzyl alcohol	0880	ND	0.58
1,2-Dichlorobenzene	3300	ND	0.58
2-Methylphenol	5730	ND	0.58
bis(2-Chloroisopropyl) ether	1300	ND	0.58
4-Methylphenol	5734	ND	0.58
N-Nitroso-di-n-propylamine	6250	ND	0.58
Hexachloroethane	5200	ND	0.58
Nitrobenzene	6000	ND	0.58
Isophorone	5400	ND	0.58
2,4-Dimethylphenol	4100	ND	0.58
Benzoic acid	0875	ND	1.9
bis(2-Chloroethoxy)methane	1200	ND	0.58
2,4-Dichlorophenol	3750	ND	0.58
1,2,4-Trichlorobenzene	8500	ND	0.58
Naphthalene	5800	ND	0.58
4-Chloroaniline	1975	ND	0.58
Hexachlorobutadiene	5100	ND	0.58
4-Chloro-3-methylphenol	2250	ND	0.58
2-Methylnaphthalene	5740	ND	0.58
Hexachlorocyclopentadiene	5150	ND	0.77
2,4,6-Trichlorophenol	8750	ND	0.58
2,4,5-Trichlorophenol	8745	ND	0.58
2-Chloronaphthalene	2300	ND	0.58
2-Nitroaniline	5990	ND	0.77
Dimethylphthalate	4150	ND	0.58
Acenaphthylene	0100	ND	0.58
2,6-Dinitrotoluene	4300	ND	0.58
3-Nitroaniline	5992	ND	0.77
Acenaphthene	0050	ND	0.58
2,4-Dinitrophenol	4200	ND	0.77
4-Nitrophenol	6100	ND	0.77
Dibenzofuran	3175	ND	0.58
2,4-Dinitrotoluene	4250	ND	0.58
Diethylphthalate	4050	ND	0.58
Fluorene	4800	ND	0.58
4-Chlorophenyl-phenylether	2425	ND	0.58
4-Nitroaniline	5994	ND	0.77
4,6-Dinitro-2-methylphenol	5700	ND	0.77
4-Bromophenyl-phenylether	1613	ND	0.58
Hexachlorobenzene	5050	ND	0.58
Pentachlorophenol	6400	ND	0.77
Phenanthrene	6850	ND	0.58
Anthracene	0350	ND	0.58
Di-n-butylphthalate	3250	ND	0.58

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221799
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75498	Chemist:	NPM
Lab ID:	265569-041	Sampled:	03/24/15 13:25
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/30/15 14:50
Basis:	dry	Analyzed:	03/31/15 17:42
Diln Fac:	1.000		

Analyte	Code	Result	RL
Fluoranthene	4750	ND	0.58
Pyrene	7100	ND	0.58
Butylbenzylphthalate	1625	ND	0.58
3,3'-Dichlorobenzidine	3450	ND	0.77
Benzo(a)anthracene	0650	ND	0.58
Chrysene	2600	ND	0.58
bis(2-Ethylhexyl)phthalate	1350	ND	0.58
Di-n-octylphthalate	4350	ND	0.58
Benzo(b)fluoranthene	0700	ND	0.58
Benzo(k)fluoranthene	0750	ND	0.58
Benzo(a)pyrene	0850	ND	0.58
Indeno(1,2,3-cd)pyrene	5300	ND	0.58
Dibenz(a,h)anthracene	3150	ND	0.58
Benzo(g,h,i)perylene	0800	ND	0.58

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	47	25-120
Phenol-d5	6903	56	36-120
2,4,6-Tribromophenol	8490	60	27-120
Nitrobenzene-d5	6005	58	44-120
2-Fluorobiphenyl	4833	62	47-120
Terphenyl-d14	8173	77	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221799
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75500	Chemist:	NPM
Lab ID:	265569-043	Sampled:	03/24/15 13:35
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/30/15 14:50
Basis:	dry	Analyzed:	03/31/15 18:18
Diln Fac:	1.000		

Moisture: 14%

Analyte	Code	Result	RL
Phenol	6900	ND	0.58
2-Chlorophenol	2350	ND	0.58
1,3-Dichlorobenzene	3350	ND	0.58
1,4-Dichlorobenzene	3400	ND	0.58
Benzyl alcohol	0880	ND	0.58
1,2-Dichlorobenzene	3300	ND	0.58
2-Methylphenol	5730	ND	0.58
bis(2-Chloroisopropyl) ether	1300	ND	0.58
4-Methylphenol	5734	ND	0.58
N-Nitroso-di-n-propylamine	6250	ND	0.58
Hexachloroethane	5200	ND	0.58
Nitrobenzene	6000	ND	0.58
Isophorone	5400	ND	0.58
2,4-Dimethylphenol	4100	ND	0.58
Benzoic acid	0875	ND	1.9
bis(2-Chloroethoxy)methane	1200	ND	0.58
2,4-Dichlorophenol	3750	ND	0.58
1,2,4-Trichlorobenzene	8500	ND	0.58
Naphthalene	5800	ND	0.58
4-Chloroaniline	1975	ND	0.58
Hexachlorobutadiene	5100	ND	0.58
4-Chloro-3-methylphenol	2250	ND	0.58
2-Methylnaphthalene	5740	ND	0.58
Hexachlorocyclopentadiene	5150	ND	0.77
2,4,6-Trichlorophenol	8750	ND	0.58
2,4,5-Trichlorophenol	8745	ND	0.58
2-Chloronaphthalene	2300	ND	0.58
2-Nitroaniline	5990	ND	0.77
Dimethylphthalate	4150	ND	0.58
Acenaphthylene	0100	ND	0.58
2,6-Dinitrotoluene	4300	ND	0.58
3-Nitroaniline	5992	ND	0.77
Acenaphthene	0050	ND	0.58
2,4-Dinitrophenol	4200	ND	0.77
4-Nitrophenol	6100	ND	0.77
Dibenzofuran	3175	ND	0.58
2,4-Dinitrotoluene	4250	ND	0.58
Diethylphthalate	4050	ND	0.58
Fluorene	4800	ND	0.58
4-Chlorophenyl-phenylether	2425	ND	0.58
4-Nitroaniline	5994	ND	0.77
4,6-Dinitro-2-methylphenol	5700	ND	0.77
4-Bromophenyl-phenylether	1613	ND	0.58
Hexachlorobenzene	5050	ND	0.58
Pentachlorophenol	6400	ND	0.77
Phenanthrene	6850	ND	0.58
Anthracene	0350	ND	0.58
Di-n-butylphthalate	3250	ND	0.58

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221799
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75500	Chemist:	NPM
Lab ID:	265569-043	Sampled:	03/24/15 13:35
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/30/15 14:50
Basis:	dry	Analyzed:	03/31/15 18:18
Diln Fac:	1.000		

Analyte	Code	Result	RL
Fluoranthene	4750	ND	0.58
Pyrene	7100	ND	0.58
Butylbenzylphthalate	1625	ND	0.58
3,3'-Dichlorobenzidine	3450	ND	0.77
Benzo(a)anthracene	0650	ND	0.58
Chrysene	2600	ND	0.58
bis(2-Ethylhexyl)phthalate	1350	ND	0.58
Di-n-octylphthalate	4350	ND	0.58
Benzo(b)fluoranthene	0700	ND	0.58
Benzo(k)fluoranthene	0750	ND	0.58
Benzo(a)pyrene	0850	ND	0.58
Indeno(1,2,3-cd)pyrene	5300	ND	0.58
Dibenz(a,h)anthracene	3150	ND	0.58
Benzo(g,h,i)perylene	0800	ND	0.58

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	50	25-120
Phenol-d5	6903	60	36-120
2,4,6-Tribromophenol	8490	60	27-120
Nitrobenzene-d5	6005	66	44-120
2-Fluorobiphenyl	4833	69	47-120
Terphenyl-d14	8173	82	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221799
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75502	Chemist:	KMH
Lab ID:	265569-045	Sampled:	03/24/15 13:50
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/30/15 14:50
Basis:	dry	Analyzed:	03/31/15 15:18
Diln Fac:	1.000		

Moisture: 15%

Analyte	Code	Result	RL
Phenol	6900	ND	0.59
2-Chlorophenol	2350	ND	0.59
1,3-Dichlorobenzene	3350	ND	0.59
1,4-Dichlorobenzene	3400	ND	0.59
Benzyl alcohol	0880	ND	0.59
1,2-Dichlorobenzene	3300	ND	0.59
2-Methylphenol	5730	ND	0.59
bis(2-Chloroisopropyl) ether	1300	ND	0.59
4-Methylphenol	5734	ND	0.59
N-Nitroso-di-n-propylamine	6250	ND	0.59
Hexachloroethane	5200	ND	0.59
Nitrobenzene	6000	ND	0.59
Isophorone	5400	ND	0.59
2,4-Dimethylphenol	4100	ND	0.59
Benzoic acid	0875	ND	2.0
bis(2-Chloroethoxy)methane	1200	ND	0.59
2,4-Dichlorophenol	3750	ND	0.59
1,2,4-Trichlorobenzene	8500	ND	0.59
Naphthalene	5800	ND	0.59
4-Chloroaniline	1975	ND	0.59
Hexachlorobutadiene	5100	ND	0.59
4-Chloro-3-methylphenol	2250	ND	0.59
2-Methylnaphthalene	5740	ND	0.59
Hexachlorocyclopentadiene	5150	ND	0.79
2,4,6-Trichlorophenol	8750	ND	0.59
2,4,5-Trichlorophenol	8745	ND	0.59
2-Chloronaphthalene	2300	ND	0.59
2-Nitroaniline	5990	ND	0.79
Dimethylphthalate	4150	ND	0.59
Acenaphthylene	0100	ND	0.59
2,6-Dinitrotoluene	4300	ND	0.59
3-Nitroaniline	5992	ND	0.79
Acenaphthene	0050	ND	0.59
2,4-Dinitrophenol	4200	ND	0.79
4-Nitrophenol	6100	ND	0.79
Dibenzofuran	3175	ND	0.59
2,4-Dinitrotoluene	4250	ND	0.59
Diethylphthalate	4050	ND	0.59
Fluorene	4800	ND	0.59
4-Chlorophenyl-phenylether	2425	ND	0.59
4-Nitroaniline	5994	ND	0.79
4,6-Dinitro-2-methylphenol	5700	ND	0.79
4-Bromophenyl-phenylether	1613	ND	0.59
Hexachlorobenzene	5050	ND	0.59
Pentachlorophenol	6400	ND	0.79
Phenanthrene	6850	ND	0.59
Anthracene	0350	ND	0.59
Di-n-butylphthalate	3250	ND	0.59

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221799
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75502	Chemist:	KMH
Lab ID:	265569-045	Sampled:	03/24/15 13:50
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/30/15 14:50
Basis:	dry	Analyzed:	03/31/15 15:18
Diln Fac:	1.000		

Analyte	Code	Result	RL
Fluoranthene	4750	ND	0.59
Pyrene	7100	ND	0.59
Butylbenzylphthalate	1625	ND	0.59
3,3'-Dichlorobenzidine	3450	ND	0.79
Benzo(a)anthracene	0650	ND	0.59
Chrysene	2600	ND	0.59
bis(2-Ethylhexyl)phthalate	1350	ND	0.59
Di-n-octylphthalate	4350	ND	0.59
Benzo(b)fluoranthene	0700	ND	0.59
Benzo(k)fluoranthene	0750	ND	0.59
Benzo(a)pyrene	0850	ND	0.59
Indeno(1,2,3-cd)pyrene	5300	ND	0.59
Dibenz(a,h)anthracene	3150	ND	0.59
Benzo(g,h,i)perylene	0800	ND	0.59

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	45	25-120
Phenol-d5	6903	56	36-120
2,4,6-Tribromophenol	8490	53	27-120
Nitrobenzene-d5	6005	57	44-120
2-Fluorobiphenyl	4833	55	47-120
Terphenyl-d14	8173	73	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221799
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75504	Chemist:	NPM
Lab ID:	265569-047	Sampled:	03/24/15 14:00
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/30/15 14:50
Basis:	dry	Analyzed:	03/31/15 18:54
Diln Fac:	1.000		

Moisture: 16%

Analyte	Code	Result	RL
Phenol	6900	ND	0.60
2-Chlorophenol	2350	ND	0.60
1,3-Dichlorobenzene	3350	ND	0.60
1,4-Dichlorobenzene	3400	ND	0.60
Benzyl alcohol	0880	ND	0.60
1,2-Dichlorobenzene	3300	ND	0.60
2-Methylphenol	5730	ND	0.60
bis(2-Chloroisopropyl) ether	1300	ND	0.60
4-Methylphenol	5734	ND	0.60
N-Nitroso-di-n-propylamine	6250	ND	0.60
Hexachloroethane	5200	ND	0.60
Nitrobenzene	6000	ND	0.60
Isophorone	5400	ND	0.60
2,4-Dimethylphenol	4100	ND	0.60
Benzoic acid	0875	ND	2.0
bis(2-Chloroethoxy)methane	1200	ND	0.60
2,4-Dichlorophenol	3750	ND	0.60
1,2,4-Trichlorobenzene	8500	ND	0.60
Naphthalene	5800	ND	0.60
4-Chloroaniline	1975	ND	0.60
Hexachlorobutadiene	5100	ND	0.60
4-Chloro-3-methylphenol	2250	ND	0.60
2-Methylnaphthalene	5740	ND	0.60
Hexachlorocyclopentadiene	5150	ND	0.80
2,4,6-Trichlorophenol	8750	ND	0.60
2,4,5-Trichlorophenol	8745	ND	0.60
2-Chloronaphthalene	2300	ND	0.60
2-Nitroaniline	5990	ND	0.80
Dimethylphthalate	4150	ND	0.60
Acenaphthylene	0100	ND	0.60
2,6-Dinitrotoluene	4300	ND	0.60
3-Nitroaniline	5992	ND	0.80
Acenaphthene	0050	ND	0.60
2,4-Dinitrophenol	4200	ND	0.80
4-Nitrophenol	6100	ND	0.80
Dibenzofuran	3175	ND	0.60
2,4-Dinitrotoluene	4250	ND	0.60
Diethylphthalate	4050	ND	0.60
Fluorene	4800	ND	0.60
4-Chlorophenyl-phenylether	2425	ND	0.60
4-Nitroaniline	5994	ND	0.80
4,6-Dinitro-2-methylphenol	5700	ND	0.80
4-Bromophenyl-phenylether	1613	ND	0.60
Hexachlorobenzene	5050	ND	0.60
Pentachlorophenol	6400	ND	0.80
Phenanthrene	6850	ND	0.60
Anthracene	0350	ND	0.60
Di-n-butylphthalate	3250	ND	0.60

ND= Not Detected
RL= Reporting Limit

99.0

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Batch#:	221799
Requested:	E8270	Instrument:	MSBNA06
Field ID:	75504	Chemist:	NPM
Lab ID:	265569-047	Sampled:	03/24/15 14:00
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/30/15 14:50
Basis:	dry	Analyzed:	03/31/15 18:54
Diln Fac:	1.000		

Analyte	Code	Result	RL
Fluoranthene	4750	ND	0.60
Pyrene	7100	ND	0.60
Butylbenzylphthalate	1625	ND	0.60
3,3'-Dichlorobenzidine	3450	ND	0.80
Benzo(a)anthracene	0650	ND	0.60
Chrysene	2600	ND	0.60
bis(2-Ethylhexyl)phthalate	1350	0.61	0.60
Di-n-octylphthalate	4350	ND	0.60
Benzo(b)fluoranthene	0700	ND	0.60
Benzo(k)fluoranthene	0750	ND	0.60
Benzo(a)pyrene	0850	ND	0.60
Indeno(1,2,3-cd)pyrene	5300	ND	0.60
Dibenz(a,h)anthracene	3150	ND	0.60
Benzo(g,h,i)perylene	0800	ND	0.60

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	43	25-120
Phenol-d5	6903	55	36-120
2,4,6-Tribromophenol	8490	49	27-120
Nitrobenzene-d5	6005	55	44-120
2-Fluorobiphenyl	4833	53	47-120
Terphenyl-d14	8173	76	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
Requested:	E8270	Batch#:	221707
Type:	BLANK	Instrument:	MSBNA06
Lab ID:	QC782175	Chemist:	NPM
Matrix:	Soil	Prepared:	03/26/15 15:15
Units:	mg/Kg	Analyzed:	03/27/15 12:15
Diln Fac:	1.000		

Analyte	Code	Result	RL
Phenol	6900	ND	0.50
2-Chlorophenol	2350	ND	0.50
1,3-Dichlorobenzene	3350	ND	0.50
1,4-Dichlorobenzene	3400	ND	0.50
Benzyl alcohol	0880	ND	0.50
1,2-Dichlorobenzene	3300	ND	0.50
2-Methylphenol	5730	ND	0.50
bis(2-Chloroisopropyl) ether	1300	ND	0.50
4-Methylphenol	5734	ND	0.50
N-Nitroso-di-n-propylamine	6250	ND	0.50
Hexachloroethane	5200	ND	0.50
Nitrobenzene	6000	ND	0.50
Isophorone	5400	ND	0.50
2,4-Dimethylphenol	4100	ND	0.50
Benzoic acid	0875	ND	1.7
bis(2-Chloroethoxy)methane	1200	ND	0.50
2,4-Dichlorophenol	3750	ND	0.50
1,2,4-Trichlorobenzene	8500	ND	0.50
Naphthalene	5800	ND	0.50
4-Chloroaniline	1975	ND	0.50
Hexachlorobutadiene	5100	ND	0.50
4-Chloro-3-methylphenol	2250	ND	0.50
2-Methylnaphthalene	5740	ND	0.50
Hexachlorocyclopentadiene	5150	ND	0.66
2,4,6-Trichlorophenol	8750	ND	0.50
2,4,5-Trichlorophenol	8745	ND	0.50
2-Chloronaphthalene	2300	ND	0.50
2-Nitroaniline	5990	ND	0.66
Dimethylphthalate	4150	ND	0.50
Acenaphthylene	0100	ND	0.50
2,6-Dinitrotoluene	4300	ND	0.50
3-Nitroaniline	5992	ND	0.66
Acenaphthene	0050	ND	0.50
2,4-Dinitrophenol	4200	ND	0.66
4-Nitrophenol	6100	ND	0.66
Dibenzofuran	3175	ND	0.50
2,4-Dinitrotoluene	4250	ND	0.50
Diethylphthalate	4050	ND	0.50
Fluorene	4800	ND	0.50
4-Chlorophenyl-phenylether	2425	ND	0.50
4-Nitroaniline	5994	ND	0.66
4,6-Dinitro-2-methylphenol	5700	ND	0.66
4-Bromophenyl-phenylether	1613	ND	0.50
Hexachlorobenzene	5050	ND	0.50
Pentachlorophenol	6400	ND	0.66
Phenanthrene	6850	ND	0.50
Anthracene	0350	ND	0.50
Di-n-butylphthalate	3250	ND	0.50
Fluoranthene	4750	ND	0.50
Pyrene	7100	ND	0.50
Butylbenzylphthalate	1625	ND	0.50

ND= Not Detected
RL= Reporting Limit

100.0

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
Requested:	E8270	Batch#:	221707
Type:	BLANK	Instrument:	MSBNA06
Lab ID:	QC782175	Chemist:	NPM
Matrix:	Soil	Prepared:	03/26/15 15:15
Units:	mg/Kg	Analyzed:	03/27/15 12:15
Diln Fac:	1.000		

Analyte	Code	Result	RL
3,3'-Dichlorobenzidine	3450	ND	0.66
Benzo(a)anthracene	0650	ND	0.50
Chrysene	2600	ND	0.50
bis(2-Ethylhexyl)phthalate	1350	ND	0.50
Di-n-octylphthalate	4350	ND	0.50
Benzo(b)fluoranthene	0700	ND	0.50
Benzo(k)fluoranthene	0750	ND	0.50
Benzo(a)pyrene	0850	ND	0.50
Indeno(1,2,3-cd)pyrene	5300	ND	0.50
Dibenz(a,h)anthracene	3150	ND	0.50
Benzo(g,h,i)perylene	0800	ND	0.50

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	45	25-120
Phenol-d5	6903	47	36-120
2,4,6-Tribromophenol	8490	49	27-120
Nitrobenzene-d5	6005	52	44-120
2-Fluorobiphenyl	4833	58	47-120
Terphenyl-d14	8173	64	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Requested:	E8270	Batch#:	221707
Type:	LCS	Instrument:	MSBNA06
Lab ID:	QC782176	Chemist:	KMH
Matrix:	Soil	Prepared:	03/26/15 15:15
Units:	mg/Kg	Analyzed:	03/27/15 12:52
Diln Fac:	2.000		

Analyte	Code	Spiked	Result	%REC	Limits
Phenol	6900	2.689	2.193	82	42-120
2-Chlorophenol	2350	2.689	2.158	80	45-120
1,4-Dichlorobenzene	3400	2.689	1.871	70	48-120
N-Nitroso-di-n-propylamine	6250	2.689	2.209	82	27-123
1,2,4-Trichlorobenzene	8500	2.689	2.141	80	50-120
4-Chloro-3-methylphenol	2250	2.689	2.507	93	59-120
Acenaphthene	0050	1.008	0.8664	86	53-120
4-Nitrophenol	6100	2.689	2.363	88	47-120
2,4-Dinitrotoluene	4250	2.689	2.352	87	55-120
Pentachlorophenol	6400	2.689	2.314	86	32-120
Pyrene	7100	1.008	0.9730	96	52-120

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	71	25-120
Phenol-d5	6903	79	36-120
2,4,6-Tribromophenol	8490	89	27-120
Nitrobenzene-d5	6005	71	44-120
2-Fluorobiphenyl	4833	71	47-120
Terphenyl-d14	8173	87	49-120

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
Requested:	E8270	Batch#:	221707
Field ID:	75474	Instrument:	MSBNA06
MSS Lab ID:	265569-017	Chemist:	KMH
Matrix:	Soil	Sampled:	03/24/15 09:40
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Prepared:	03/26/15 15:15
Diln Fac:	2.000		

Type:	MS	Moisture:	10%
Lab ID:	QC782177	Analyzed:	03/27/15 17:40

Analyte	Code	MSS Result	Spiked	Result	%REC	Limits
Phenol	6900	<0.05236	2.937	2.121	72	47-120
2-Chlorophenol	2350	<0.06174	2.937	2.109	72	44-120
1,4-Dichlorobenzene	3400	<0.01654	2.937	1.885	64	49-120
N-Nitroso-di-n-propylamine	6250	<0.05578	2.937	2.132	73	42-120
1,2,4-Trichlorobenzene	8500	<0.01448	2.937	2.069	70	54-120
4-Chloro-3-methylphenol	2250	<0.01585	2.937	2.407	82	55-120
Acenaphthene	0050	<0.01253	1.101	0.8331	76	51-120
4-Nitrophenol	6100	<0.05845	2.937	2.228	76	36-120
2,4-Dinitrotoluene	4250	<0.01099	2.937	2.234	76	52-120
Pentachlorophenol	6400	<0.06936	2.937	1.848	63	14-120
Pyrene	7100	<0.01315	1.101	0.9024	82	46-124

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	63	25-120
Phenol-d5	6903	70	36-120
2,4,6-Tribromophenol	8490	78	27-120
Nitrobenzene-d5	6005	62	44-120
2-Fluorobiphenyl	4833	65	47-120
Terphenyl-d14	8173	75	49-120

Type:	MSD	Moisture:	10%
Lab ID:	QC782178	Analyzed:	03/27/15 18:16

Analyte	Code	Spiked	Result	%REC	Limits	RPD	Lim
Phenol	6900	2.962	2.284	77	47-120	7	39
2-Chlorophenol	2350	2.962	2.354	79	44-120	10	38
1,4-Dichlorobenzene	3400	2.962	2.181	74	49-120	14	45
N-Nitroso-di-n-propylamine	6250	2.962	2.354	79	42-120	9	40
1,2,4-Trichlorobenzene	8500	2.962	2.380	80	54-120	13	38
4-Chloro-3-methylphenol	2250	2.962	2.549	86	55-120	5	41
Acenaphthene	0050	1.111	0.8820	79	51-120	5	47
4-Nitrophenol	6100	2.962	2.332	79	36-120	4	41
2,4-Dinitrotoluene	4250	2.962	2.314	78	52-120	3	40
Pentachlorophenol	6400	2.962	1.661	56	14-120	11	53
Pyrene	7100	1.111	0.9516	86	46-124	4	50

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	68	25-120
Phenol-d5	6903	75	36-120
2,4,6-Tribromophenol	8490	78	27-120
Nitrobenzene-d5	6005	70	44-120
2-Fluorobiphenyl	4833	70	47-120
Terphenyl-d14	8173	77	49-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
Requested:	E8270	Batch#:	221799
Type:	BLANK	Instrument:	MSBNA06
Lab ID:	QC782501	Chemist:	KMH
Matrix:	Soil	Prepared:	03/30/15 14:50
Units:	mg/Kg	Analyzed:	03/31/15 11:39
Diln Fac:	1.000		

Analyte	Code	Result	RL
Phenol	6900	ND	0.51
2-Chlorophenol	2350	ND	0.51
1,3-Dichlorobenzene	3350	ND	0.51
1,4-Dichlorobenzene	3400	ND	0.51
Benzyl alcohol	0880	ND	0.51
1,2-Dichlorobenzene	3300	ND	0.51
2-Methylphenol	5730	ND	0.51
bis(2-Chloroisopropyl) ether	1300	ND	0.51
4-Methylphenol	5734	ND	0.51
N-Nitroso-di-n-propylamine	6250	ND	0.51
Hexachloroethane	5200	ND	0.51
Nitrobenzene	6000	ND	0.51
Isophorone	5400	ND	0.51
2,4-Dimethylphenol	4100	ND	0.51
Benzoic acid	0875	ND	1.7
bis(2-Chloroethoxy)methane	1200	ND	0.51
2,4-Dichlorophenol	3750	ND	0.51
1,2,4-Trichlorobenzene	8500	ND	0.51
Naphthalene	5800	ND	0.51
4-Chloroaniline	1975	ND	0.51
Hexachlorobutadiene	5100	ND	0.51
4-Chloro-3-methylphenol	2250	ND	0.51
2-Methylnaphthalene	5740	ND	0.51
Hexachlorocyclopentadiene	5150	ND	0.67
2,4,6-Trichlorophenol	8750	ND	0.51
2,4,5-Trichlorophenol	8745	ND	0.51
2-Chloronaphthalene	2300	ND	0.51
2-Nitroaniline	5990	ND	0.67
Dimethylphthalate	4150	ND	0.51
Acenaphthylene	0100	ND	0.51
2,6-Dinitrotoluene	4300	ND	0.51
3-Nitroaniline	5992	ND	0.67
Acenaphthene	0050	ND	0.51
2,4-Dinitrophenol	4200	ND	0.67
4-Nitrophenol	6100	ND	0.67
Dibenzofuran	3175	ND	0.51
2,4-Dinitrotoluene	4250	ND	0.51
Diethylphthalate	4050	ND	0.51
Fluorene	4800	ND	0.51
4-Chlorophenyl-phenylether	2425	ND	0.51
4-Nitroaniline	5994	ND	0.67
4,6-Dinitro-2-methylphenol	5700	ND	0.67
4-Bromophenyl-phenylether	1613	ND	0.51
Hexachlorobenzene	5050	ND	0.51
Pentachlorophenol	6400	ND	0.67
Phenanthrene	6850	ND	0.51
Anthracene	0350	ND	0.51
Di-n-butylphthalate	3250	ND	0.51
Fluoranthene	4750	ND	0.51
Pyrene	7100	ND	0.51
Butylbenzylphthalate	1625	ND	0.51

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
Requested:	E8270	Batch#:	221799
Type:	BLANK	Instrument:	MSBNA06
Lab ID:	QC782501	Chemist:	KMH
Matrix:	Soil	Prepared:	03/30/15 14:50
Units:	mg/Kg	Analyzed:	03/31/15 11:39
Diln Fac:	1.000		

Analyte	Code	Result	RL
3,3'-Dichlorobenzidine	3450	ND	0.67
Benzo(a)anthracene	0650	ND	0.51
Chrysene	2600	ND	0.51
bis(2-Ethylhexyl)phthalate	1350	ND	0.51
Di-n-octylphthalate	4350	ND	0.51
Benzo(b)fluoranthene	0700	ND	0.51
Benzo(k)fluoranthene	0750	ND	0.51
Benzo(a)pyrene	0850	ND	0.51
Indeno(1,2,3-cd)pyrene	5300	ND	0.51
Dibenz(a,h)anthracene	3150	ND	0.51
Benzo(g,h,i)perylene	0800	ND	0.51

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	48	25-120
Phenol-d5	6903	57	36-120
2,4,6-Tribromophenol	8490	42	27-120
Nitrobenzene-d5	6005	64	44-120
2-Fluorobiphenyl	4833	68	47-120
Terphenyl-d14	8173	77	49-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
Requested:	E8270	Batch#:	221799
Type:	LCS	Instrument:	MSBNA06
Lab ID:	QC782502	Chemist:	KMH
Matrix:	Soil	Prepared:	03/30/15 14:50
Units:	mg/Kg	Analyzed:	03/31/15 12:15
Diln Fac:	2.000		

Analyte	Code	Spiked	Result	%REC	Limits
Phenol	6900	2.649	2.013	76	42-120
2-Chlorophenol	2350	2.649	2.096	79	45-120
1,4-Dichlorobenzene	3400	2.649	2.008	76	48-120
N-Nitroso-di-n-propylamine	6250	2.649	2.158	81	27-123
1,2,4-Trichlorobenzene	8500	2.649	2.151	81	50-120
4-Chloro-3-methylphenol	2250	2.649	2.330	88	59-120
Acenaphthene	0050	0.9934	0.8269	83	53-120
4-Nitrophenol	6100	2.649	2.161	82	47-120
2,4-Dinitrotoluene	4250	2.649	2.164	82	55-120
Pentachlorophenol	6400	2.649	2.022	76	32-120
Pyrene	7100	0.9934	0.9065	91	52-120

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	65	25-120
Phenol-d5	6903	73	36-120
2,4,6-Tribromophenol	8490	82	27-120
Nitrobenzene-d5	6005	71	44-120
2-Fluorobiphenyl	4833	69	47-120
Terphenyl-d14	8173	84	49-120

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8270C
Location:	WSDP - RFS Soil Disposal Testing 3/24		
Requested:	E8270	Batch#:	221799
Field ID:	75502	Instrument:	MSBNA06
MSS Lab ID:	265569-045	Chemist:	KMH
Matrix:	Soil	Sampled:	03/24/15 13:50
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Prepared:	03/30/15 14:50
Diln Fac:	1.000		

Type:	MS	Moisture:	15%
Lab ID:	QC782503	Analyzed:	03/31/15 22:40

Analyte	Code	MSS Result	Spiked	Result	%REC	Limits
Phenol	6900	<0.05535	3.172	2.206	70	47-120
2-Chlorophenol	2350	<0.06526	3.172	2.608	82	44-120
1,4-Dichlorobenzene	3400	<0.01748	3.172	2.572	81	49-120
N-Nitroso-di-n-propylamine	6250	<0.05897	3.172	2.632	83	42-120
1,2,4-Trichlorobenzene	8500	<0.01531	3.172	2.623	83	54-120
4-Chloro-3-methylphenol	2250	<0.01675	3.172	2.836	89	55-120
Acenaphthene	0050	<0.01325	1.190	1.029	86	51-120
4-Nitrophenol	6100	<0.06178	3.172	2.627	83	36-120
2,4-Dinitrotoluene	4250	<0.01162	3.172	2.659	84	52-120
Pentachlorophenol	6400	<0.07332	3.172	1.947	61	14-120
Pyrene	7100	<0.01390	1.190	1.086	91	46-124

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	66	25-120
Phenol-d5	6903	67	36-120
2,4,6-Tribromophenol	8490	82	27-120
Nitrobenzene-d5	6005	69	44-120
2-Fluorobiphenyl	4833	69	47-120
Terphenyl-d14	8173	80	49-120

Type:	MSD	Moisture:	15%
Lab ID:	QC782504	Analyzed:	03/31/15 22:02

Analyte	Code	Spiked	Result	%REC	Limits	RPD	Lim
Phenol	6900	3.124	1.746	56	47-120	22	39
2-Chlorophenol	2350	3.124	1.833	59	44-120	33	38
1,4-Dichlorobenzene	3400	3.124	1.519	49	49-120	50 *	45
N-Nitroso-di-n-propylamine	6250	3.124	1.869	60	42-120	32	40
1,2,4-Trichlorobenzene	8500	3.124	1.794	57	54-120	36	38
4-Chloro-3-methylphenol	2250	3.124	2.237	72	55-120	22	41
Acenaphthene	0050	1.171	0.8033	69	51-120	23	47
4-Nitrophenol	6100	3.124	2.205	71	36-120	16	41
2,4-Dinitrotoluene	4250	3.124	2.161	69	52-120	19	40
Pentachlorophenol	6400	3.124	1.679	54	14-120	13	53
Pyrene	7100	1.171	0.8771	75	46-124	20	50

Surrogate	Code	%REC	Limits
2-Fluorophenol	4835	47	25-120
Phenol-d5	6903	55	36-120
2,4,6-Tribromophenol	8490	70	27-120
Nitrobenzene-d5	6005	50	44-120
2-Fluorobiphenyl	4833	54	47-120
Terphenyl-d14	8173	70	49-120

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

COC #:	08381	Batch#:	221704
Requested:	E8081	Instrument:	GC30
Field ID:	75458	Chemist:	BJP
Lab ID:	265569-001	Sampled:	03/24/15 14:50
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 14:30
Basis:	dry	Analyzed:	03/30/15 16:25
Diln Fac:	1.000		

Moisture: 12%

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0023
beta-BHC	1000	ND	0.0023
gamma-BHC	1100	ND	0.0023
Heptachlor	4950	ND	0.0023
Aldrin	0250	ND	0.0023
Heptachlor epoxide	5000	ND	0.0023
Endosulfan I	4450	ND	0.0023
Dieldrin	4000	ND	0.0038
4,4'-DDE	2950	ND	0.0038
Endrin	4600	ND	0.0038
Endosulfan II	4500	ND	0.0038
Endosulfan sulfate	4550	ND	0.0038
4,4'-DDD	2900	ND	0.0038
Endrin aldehyde	4650	ND	0.0038
4,4'-DDT	3000	ND	0.0038
Chlordane (Technical)	1900	ND	0.034
Methoxychlor	5650	ND	0.020
Toxaphene	8400	ND	0.069

Surrogate	Code	%REC	Limits
TCMX	8256	86	44-125
Decachlorobiphenyl	3111	86	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

COC #:	08381	Batch#:	221704
Requested:	E8081	Instrument:	GC30
Field ID:	75460	Chemist:	BJP
Lab ID:	265569-003	Sampled:	03/24/15 15:05
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 14:30
Basis:	dry	Analyzed:	03/30/15 16:47
Diln Fac:	1.000		

Moisture: 15%

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0024
beta-BHC	1000	ND	0.0024
gamma-BHC	1100	ND	0.0024
Heptachlor	4950	ND	0.0024
Aldrin	0250	ND	0.0024
Heptachlor epoxide	5000	ND	0.0024
Endosulfan I	4450	ND	0.0024
Dieldrin	4000	ND	0.0039
4,4'-DDE	2950	ND	0.0039
Endrin	4600	ND	0.0039
Endosulfan II	4500	ND	0.0039
Endosulfan sulfate	4550	ND	0.0039
4,4'-DDD	2900	ND	0.0039
Endrin aldehyde	4650	ND	0.0039
4,4'-DDT	3000	ND	0.0039
Chlordane (Technical)	1900	ND	0.035
Methoxychlor	5650	ND	0.020
Toxaphene	8400	ND	0.071

Surrogate	Code	%REC	Limits
TCMX	8256	81	44-125
Decachlorobiphenyl	3111	80	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

COC #:	08381	Batch#:	221704
Requested:	E8081	Instrument:	GC30
Field ID:	75462	Chemist:	BJP
Lab ID:	265569-005	Sampled:	03/24/15 15:20
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 14:30
Basis:	dry	Analyzed:	03/30/15 17:09
Diln Fac:	1.000		

Moisture: 14%

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0024
beta-BHC	1000	ND	0.0024
gamma-BHC	1100	ND	0.0024
Heptachlor	4950	ND	0.0024
Aldrin	0250	ND	0.0024
Heptachlor epoxide	5000	ND	0.0024
Endosulfan I	4450	ND	0.0024
Dieldrin	4000	ND	0.0039
4,4'-DDE	2950	ND	0.0039
Endrin	4600	ND	0.0039
Endosulfan II	4500	ND	0.0039
Endosulfan sulfate	4550	ND	0.0039
4,4'-DDD	2900	ND	0.0039
Endrin aldehyde	4650	ND	0.0039
4,4'-DDT	3000	ND	0.0039
Chlordane (Technical)	1900	ND	0.035
Methoxychlor	5650	ND	0.020
Toxaphene	8400	ND	0.071

Surrogate	Code	%REC	Limits
TCMX	8256	88	44-125
Decachlorobiphenyl	3111	73	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

COC #:	08381	Batch#:	221704
Requested:	E8081	Instrument:	GC30
Field ID:	75464	Chemist:	BJP
Lab ID:	265569-007	Sampled:	03/24/15 15:35
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 14:30
Basis:	dry	Analyzed:	03/30/15 17:30
Diln Fac:	1.000		

Moisture: 15%

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0024
beta-BHC	1000	ND	0.0024
gamma-BHC	1100	ND	0.0024
Heptachlor	4950	ND	0.0024
Aldrin	0250	ND	0.0024
Heptachlor epoxide	5000	ND	0.0024
Endosulfan I	4450	ND	0.0024
Dieldrin	4000	ND	0.0039
4,4'-DDE	2950	ND	0.0039
Endrin	4600	ND	0.0039
Endosulfan II	4500	ND	0.0039
Endosulfan sulfate	4550	ND	0.0039
4,4'-DDD	2900	ND	0.0039
Endrin aldehyde	4650	ND	0.0039
4,4'-DDT	3000	ND	0.0039
Chlordane (Technical)	1900	ND	0.035
Methoxychlor	5650	ND	0.020
Toxaphene	8400	ND	0.071

Surrogate	Code	%REC	Limits
TCMX	8256	79	44-125
Decachlorobiphenyl	3111	77	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

COC #:	08381	Batch#:	221704
Requested:	E8081	Instrument:	GC30
Field ID:	75466	Chemist:	BJP
Lab ID:	265569-009	Sampled:	03/24/15 15:50
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 14:30
Basis:	dry	Analyzed:	03/30/15 17:52
Diln Fac:	1.000		

Moisture: 13%

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0023
beta-BHC	1000	ND	0.0023
gamma-BHC	1100	ND	0.0023
Heptachlor	4950	ND	0.0023
Aldrin	0250	ND	0.0023
Heptachlor epoxide	5000	ND	0.0023
Endosulfan I	4450	ND	0.0023
Dieldrin	4000	ND	0.0038
4,4'-DDE	2950	ND	0.0038
Endrin	4600	ND	0.0038
Endosulfan II	4500	ND	0.0038
Endosulfan sulfate	4550	ND	0.0038
4,4'-DDD	2900	ND	0.0038
Endrin aldehyde	4650	ND	0.0038
4,4'-DDT	3000	ND	0.0038
Chlordane (Technical)	1900	ND	0.035
Methoxychlor	5650	ND	0.020
Toxaphene	8400	ND	0.069

Surrogate	Code	%REC	Limits
TCMX	8256	84	44-125
Decachlorobiphenyl	3111	81	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

COC #:	08381	Batch#:	221704
Requested:	E8081	Instrument:	GC30
Field ID:	75468	Chemist:	BJP
Lab ID:	265569-011	Sampled:	03/24/15 16:05
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 14:30
Basis:	dry	Analyzed:	03/30/15 18:14
Diln Fac:	1.000		

Moisture: 17%

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0024
beta-BHC	1000	ND	0.0024
gamma-BHC	1100	ND	0.0024
Heptachlor	4950	ND	0.0024
Aldrin	0250	ND	0.0024
Heptachlor epoxide	5000	ND	0.0024
Endosulfan I	4450	ND	0.0024
Dieldrin	4000	ND	0.0040
4,4'-DDE	2950	ND	0.0040
Endrin	4600	ND	0.0040
Endosulfan II	4500	ND	0.0040
Endosulfan sulfate	4550	ND	0.0040
4,4'-DDD	2900	ND	0.0040
Endrin aldehyde	4650	ND	0.0040
4,4'-DDT	3000	ND	0.0040
Chlordane (Technical)	1900	ND	0.036
Methoxychlor	5650	ND	0.020
Toxaphene	8400	ND	0.072

Surrogate	Code	%REC	Limits
TCMX	8256	69	44-125
Decachlorobiphenyl	3111	85	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

COC #:	08381	Batch#:	221704
Requested:	E8081	Instrument:	GC30
Field ID:	75470	Chemist:	BJP
Lab ID:	265569-013	Sampled:	03/24/15 16:20
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 14:30
Basis:	dry	Analyzed:	03/30/15 18:36
Diln Fac:	1.000		

Moisture: 14%

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0023
beta-BHC	1000	ND	0.0023
gamma-BHC	1100	ND	0.0023
Heptachlor	4950	ND	0.0023
Aldrin	0250	ND	0.0023
Heptachlor epoxide	5000	ND	0.0023
Endosulfan I	4450	ND	0.0023
Dieldrin	4000	ND	0.0038
4,4'-DDE	2950	ND	0.0038
Endrin	4600	ND	0.0038
Endosulfan II	4500	ND	0.0038
Endosulfan sulfate	4550	ND	0.0038
4,4'-DDD	2900	ND	0.0038
Endrin aldehyde	4650	ND	0.0038
4,4'-DDT	3000	ND	0.0038
Chlordane (Technical)	1900	ND	0.035
Methoxychlor	5650	ND	0.020
Toxaphene	8400	ND	0.069

Surrogate	Code	%REC	Limits
TCMX	8256	92	44-125
Decachlorobiphenyl	3111	82	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

COC #:	08381	Batch#:	221704
Requested:	E8081	Instrument:	GC30
Field ID:	75472	Chemist:	BJP
Lab ID:	265569-015	Sampled:	03/24/15 16:35
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 14:30
Basis:	dry	Analyzed:	03/30/15 18:57
Diln Fac:	1.000		

Moisture: 15%

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0024
beta-BHC	1000	ND	0.0024
gamma-BHC	1100	ND	0.0024
Heptachlor	4950	ND	0.0024
Aldrin	0250	ND	0.0024
Heptachlor epoxide	5000	ND	0.0024
Endosulfan I	4450	ND	0.0024
Dieldrin	4000	ND	0.0039
4,4'-DDE	2950	ND	0.0039
Endrin	4600	ND	0.0039
Endosulfan II	4500	ND	0.0039
Endosulfan sulfate	4550	ND	0.0039
4,4'-DDD	2900	ND	0.0039
Endrin aldehyde	4650	ND	0.0039
4,4'-DDT	3000	ND	0.0039
Chlordane (Technical)	1900	ND	0.036
Methoxychlor	5650	ND	0.020
Toxaphene	8400	ND	0.072

Surrogate	Code	%REC	Limits
TCMX	8256	84	44-125
Decachlorobiphenyl	3111	85	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

COC #:	08381	Batch#:	221704
Requested:	E8081	Instrument:	GC30
Field ID:	75474	Chemist:	BJP
Lab ID:	265569-017	Sampled:	03/24/15 09:40
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 14:30
Basis:	dry	Analyzed:	03/31/15 14:00
Diln Fac:	2.000		

Moisture: 10%

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0045
beta-BHC	1000	ND	0.0045
gamma-BHC	1100	ND	0.0045
Heptachlor	4950	ND	0.0045
Aldrin	0250	ND	0.0045
Heptachlor epoxide	5000	ND	0.0045
Endosulfan I	4450	ND	0.0045
Dieldrin	4000	ND	0.0074
4,4'-DDE	2950	ND	0.0074
Endrin	4600	ND	0.0074
Endosulfan II	4500	ND	0.0074
Endosulfan sulfate	4550	ND	0.0074
4,4'-DDD	2900	ND	0.0074
Endrin aldehyde	4650	ND	0.0074
4,4'-DDT	3000	ND	0.0074
Chlordane (Technical)	1900	ND	0.067
Methoxychlor	5650	ND	0.038
Toxaphene	8400	ND	0.13

Surrogate	Code	%REC	Limits
TCMX	8256	81	44-125
Decachlorobiphenyl	3111	85	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

COC #:	08381	Batch#:	221704
Requested:	E8081	Instrument:	GC30
Field ID:	75476	Chemist:	BJP
Lab ID:	265569-019	Sampled:	03/24/15 10:20
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 14:30
Basis:	dry	Analyzed:	03/30/15 19:41
Diln Fac:	1.000		

Moisture: 15%

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0023
beta-BHC	1000	ND	0.0023
gamma-BHC	1100	ND	0.0023
Heptachlor	4950	ND	0.0023
Aldrin	0250	ND	0.0023
Heptachlor epoxide	5000	ND	0.0023
Endosulfan I	4450	ND	0.0023
Dieldrin	4000	ND	0.0039
4,4'-DDE	2950	ND	0.0039
Endrin	4600	ND	0.0039
Endosulfan II	4500	ND	0.0039
Endosulfan sulfate	4550	ND	0.0039
4,4'-DDD	2900	ND	0.0039
Endrin aldehyde	4650	ND	0.0039
4,4'-DDT	3000	ND	0.0039
Chlordane (Technical)	1900	ND	0.035
Methoxychlor	5650	ND	0.020
Toxaphene	8400	ND	0.070

Surrogate	Code	%REC	Limits
TCMX	8256	84	44-125
Decachlorobiphenyl	3111	68	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

COC #:	08381	Batch#:	221704
Requested:	E8081	Instrument:	GC30
Field ID:	75478	Chemist:	BJP
Lab ID:	265569-021	Sampled:	03/24/15 10:40
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 14:30
Basis:	dry	Analyzed:	03/30/15 22:14
Diln Fac:	2.000		

Moisture: 15%

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0048
beta-BHC	1000	ND	0.0048
gamma-BHC	1100	ND	0.0048
Heptachlor	4950	ND	0.0048
Aldrin	0250	ND	0.0048
Heptachlor epoxide	5000	ND	0.0048
Endosulfan I	4450	ND	0.0048
Dieldrin	4000	ND	0.0079
4,4'-DDE	2950	ND	0.0079
Endrin	4600	ND	0.0079
Endosulfan II	4500	ND	0.0079
Endosulfan sulfate	4550	ND	0.0079
4,4'-DDD	2900	ND	0.0079
Endrin aldehyde	4650	ND	0.0079
4,4'-DDT	3000	ND	0.0079
Chlordane (Technical)	1900	ND	0.072
Methoxychlor	5650	ND	0.041
Toxaphene	8400	ND	0.14

Surrogate	Code	%REC	Limits
TCMX	8256	93	44-125
Decachlorobiphenyl	3111	78	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

COC #:	08381	Batch#:	221704
Requested:	E8081	Instrument:	GC30
Field ID:	75480	Chemist:	BJP
Lab ID:	265569-023	Sampled:	03/24/15 10:55
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 14:30
Basis:	dry	Analyzed:	03/30/15 22:35
Diln Fac:	5.000		

Moisture: 13%

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.012
beta-BHC	1000	ND	0.012
gamma-BHC	1100	ND	0.012
Heptachlor	4950	ND	0.012
Aldrin	0250	ND	0.012
Heptachlor epoxide	5000	ND	0.012
Endosulfan I	4450	ND	0.012
Dieldrin	4000	ND	0.019
4,4'-DDE	2950	ND	0.019
Endrin	4600	ND	0.019
Endosulfan II	4500	ND	0.019
Endosulfan sulfate	4550	ND	0.019
4,4'-DDD	2900	ND	0.019
Endrin aldehyde	4650	ND	0.019
4,4'-DDT	3000	ND	0.019
Chlordane (Technical)	1900	ND	0.17
Methoxychlor	5650	ND	0.099
Toxaphene	8400	ND	0.35

Surrogate	Code	%REC	Limits
TCMX	8256	117	44-125
Decachlorobiphenyl	3111	108	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

COC #:	08381	Batch#:	221704
Requested:	E8081	Instrument:	GC30
Field ID:	75482	Chemist:	BJP
Lab ID:	265569-025	Sampled:	03/24/15 10:45
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/26/15 14:30
Basis:	dry	Analyzed:	03/30/15 22:57
Diln Fac:	1.000		

Moisture: 14%

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0023
beta-BHC	1000	ND	0.0023
gamma-BHC	1100	ND	0.0023
Heptachlor	4950	ND	0.0023
Aldrin	0250	ND	0.0023
Heptachlor epoxide	5000	ND	0.0023
Endosulfan I	4450	ND	0.0023
Dieldrin	4000	ND	0.0038
4,4'-DDE	2950	ND	0.0038
Endrin	4600	ND	0.0038
Endosulfan II	4500	ND	0.0038
Endosulfan sulfate	4550	ND	0.0038
4,4'-DDD	2900	ND	0.0038
Endrin aldehyde	4650	ND	0.0038
4,4'-DDT	3000	ND	0.0038
Chlordane (Technical)	1900	ND	0.035
Methoxychlor	5650	ND	0.020
Toxaphene	8400	ND	0.070

Surrogate	Code	%REC	Limits
TCMX	8256	83	44-125
Decachlorobiphenyl	3111	78	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

COC #:	08381	Batch#:	221732
Requested:	E8081	Instrument:	GC30
Field ID:	75484	Chemist:	BJP
Lab ID:	265569-027	Sampled:	03/24/15 11:50
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/27/15 13:30
Basis:	dry	Analyzed:	03/31/15 03:18
Diln Fac:	1.000		

Moisture: 14%

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0023
beta-BHC	1000	ND	0.0023
gamma-BHC	1100	ND	0.0023
Heptachlor	4950	ND	0.0023
Aldrin	0250	ND	0.0023
Heptachlor epoxide	5000	ND	0.0023
Endosulfan I	4450	ND	0.0023
Dieldrin	4000	ND	0.0039
4,4'-DDE	2950	ND	0.0039
Endrin	4600	ND #	0.0039
Endosulfan II	4500	ND	0.0039
Endosulfan sulfate	4550	ND	0.0039
4,4'-DDD	2900	ND	0.0039
Endrin aldehyde	4650	ND	0.0039
4,4'-DDT	3000	ND	0.0039
Chlordane (Technical)	1900	ND	0.035
Methoxychlor	5650	ND	0.020
Toxaphene	8400	ND	0.070

Surrogate	Code	%REC	Limits
TCMX	8256	89	44-125
Decachlorobiphenyl	3111	85	39-121

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

COC #:	08381	Batch#:	221860
Requested:	E8081	Instrument:	GC30
Field ID:	75486	Chemist:	BJP
Lab ID:	265569-029	Sampled:	03/24/15 12:05
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	04/01/15 13:47
Basis:	dry	Analyzed:	04/01/15 18:33
Diln Fac:	1.000		

Moisture: 14%

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0023
beta-BHC	1000	ND	0.0023
gamma-BHC	1100	ND	0.0023
Heptachlor	4950	ND	0.0023
Aldrin	0250	ND	0.0023
Heptachlor epoxide	5000	ND	0.0023
Endosulfan I	4450	ND	0.0023
Dieldrin	4000	ND	0.0038
4,4'-DDE	2950	ND	0.0038
Endrin	4600	ND	0.0038
Endosulfan II	4500	ND	0.0038
Endosulfan sulfate	4550	ND	0.0038
4,4'-DDD	2900	ND	0.0038
Endrin aldehyde	4650	ND	0.0038
4,4'-DDT	3000	ND	0.0038
Chlordane (Technical)	1900	ND	0.035
Methoxychlor	5650	ND	0.020
Toxaphene	8400	ND	0.069

Surrogate	Code	%REC	Limits
TCMX	8256	87	44-125
Decachlorobiphenyl	3111	70	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

COC #:	08381	Batch#:	221732
Requested:	E8081	Instrument:	GC30
Field ID:	75488	Chemist:	BJP
Lab ID:	265569-031	Sampled:	03/24/15 12:20
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/27/15 13:30
Basis:	dry	Analyzed:	03/31/15 04:02
Diln Fac:	1.000		

Moisture: 15%

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0024
beta-BHC	1000	ND	0.0024
gamma-BHC	1100	ND	0.0024
Heptachlor	4950	ND	0.0024
Aldrin	0250	ND	0.0024
Heptachlor epoxide	5000	ND	0.0024
Endosulfan I	4450	ND	0.0024
Dieldrin	4000	ND	0.0039
4,4'-DDE	2950	ND	0.0039
Endrin	4600	ND #	0.0039
Endosulfan II	4500	ND	0.0039
Endosulfan sulfate	4550	ND	0.0039
4,4'-DDD	2900	ND	0.0039
Endrin aldehyde	4650	ND	0.0039
4,4'-DDT	3000	ND	0.0039
Chlordane (Technical)	1900	ND	0.035
Methoxychlor	5650	ND	0.020
Toxaphene	8400	ND	0.071

Surrogate	Code	%REC	Limits
TCMX	8256	97	44-125
Decachlorobiphenyl	3111	88	39-121

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

COC #:	08381	Batch#:	221732
Requested:	E8081	Instrument:	GC30
Field ID:	75490	Chemist:	BJP
Lab ID:	265569-033	Sampled:	03/24/15 12:35
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/27/15 13:30
Basis:	dry	Analyzed:	03/31/15 04:23
Diln Fac:	1.000		

Moisture: 16%

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0024
beta-BHC	1000	ND	0.0024
gamma-BHC	1100	ND	0.0024
Heptachlor	4950	ND	0.0024
Aldrin	0250	ND	0.0024
Heptachlor epoxide	5000	ND	0.0024
Endosulfan I	4450	ND	0.0024
Dieldrin	4000	ND	0.0040
4,4'-DDE	2950	ND	0.0040
Endrin	4600	ND #	0.0040
Endosulfan II	4500	ND	0.0040
Endosulfan sulfate	4550	ND	0.0040
4,4'-DDD	2900	ND	0.0040
Endrin aldehyde	4650	ND	0.0040
4,4'-DDT	3000	ND	0.0040
Chlordane (Technical)	1900	ND	0.036
Methoxychlor	5650	ND	0.020
Toxaphene	8400	ND	0.072

Surrogate	Code	%REC	Limits
TCMX	8256	77	44-125
Decachlorobiphenyl	3111	81	39-121

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

COC #:	08381	Batch#:	221732
Requested:	E8081	Instrument:	GC30
Field ID:	75492	Chemist:	BJP
Lab ID:	265569-035	Sampled:	03/24/15 12:50
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/27/15 13:30
Basis:	dry	Analyzed:	03/30/15 23:19
Diln Fac:	1.000		

Moisture: 16%

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0024
beta-BHC	1000	ND	0.0024
gamma-BHC	1100	ND	0.0024
Heptachlor	4950	ND	0.0024
Aldrin	0250	ND	0.0024
Heptachlor epoxide	5000	ND	0.0024
Endosulfan I	4450	ND	0.0024
Dieldrin	4000	ND	0.0040
4,4'-DDE	2950	ND	0.0040
Endrin	4600	ND	0.0040
Endosulfan II	4500	ND	0.0040
Endosulfan sulfate	4550	ND	0.0040
4,4'-DDD	2900	ND	0.0040
Endrin aldehyde	4650	ND	0.0040
4,4'-DDT	3000	ND	0.0040
Chlordane (Technical)	1900	ND	0.036
Methoxychlor	5650	ND	0.020
Toxaphene	8400	ND	0.072

Surrogate	Code	%REC	Limits
TCMX	8256	92	44-125
Decachlorobiphenyl	3111	79	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

COC #:	08381	Batch#:	221732
Requested:	E8081	Instrument:	GC30
Field ID:	75494	Chemist:	BJP
Lab ID:	265569-037	Sampled:	03/24/15 13:00
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/27/15 13:30
Basis:	dry	Analyzed:	03/31/15 04:45
Diln Fac:	1.000		

Moisture: 16%

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0024
beta-BHC	1000	ND	0.0024
gamma-BHC	1100	ND	0.0024
Heptachlor	4950	ND	0.0024
Aldrin	0250	ND	0.0024
Heptachlor epoxide	5000	ND	0.0024
Endosulfan I	4450	ND	0.0024
Dieldrin	4000	ND	0.0040
4,4'-DDE	2950	ND	0.0040
Endrin	4600	ND #	0.0040
Endosulfan II	4500	ND	0.0040
Endosulfan sulfate	4550	ND	0.0040
4,4'-DDD	2900	ND	0.0040
Endrin aldehyde	4650	ND	0.0040
4,4'-DDT	3000	ND	0.0040
Chlordane (Technical)	1900	ND	0.036
Methoxychlor	5650	ND	0.020
Toxaphene	8400	ND	0.072

Surrogate	Code	%REC	Limits
TCMX	8256	116	44-125
Decachlorobiphenyl	3111	100	39-121

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

COC #:	08381	Batch#:	221732
Requested:	E8081	Instrument:	GC30
Field ID:	75496	Chemist:	BJP
Lab ID:	265569-039	Sampled:	03/24/15 13:10
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/27/15 13:30
Basis:	dry	Analyzed:	03/31/15 05:07
Diln Fac:	1.000		

Moisture: 16%

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0024
beta-BHC	1000	ND	0.0024
gamma-BHC	1100	ND	0.0024
Heptachlor	4950	ND	0.0024
Aldrin	0250	ND	0.0024
Heptachlor epoxide	5000	ND	0.0024
Endosulfan I	4450	ND	0.0024
Dieldrin	4000	ND	0.0039
4,4'-DDE	2950	ND	0.0039
Endrin	4600	ND #	0.0039
Endosulfan II	4500	ND	0.0039
Endosulfan sulfate	4550	ND	0.0039
4,4'-DDD	2900	ND	0.0039
Endrin aldehyde	4650	ND	0.0039
4,4'-DDT	3000	ND	0.0039
Chlordane (Technical)	1900	ND	0.036
Methoxychlor	5650	ND	0.020
Toxaphene	8400	ND	0.072

Surrogate	Code	%REC	Limits
TCMX	8256	109	44-125
Decachlorobiphenyl	3111	98	39-121

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

COC #:	08381	Batch#:	221732
Requested:	E8081	Instrument:	GC30
Field ID:	75498	Chemist:	BJP
Lab ID:	265569-041	Sampled:	03/24/15 13:25
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/27/15 13:30
Basis:	dry	Analyzed:	03/31/15 05:29
Diln Fac:	1.000		

Moisture: 14%

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0023
beta-BHC	1000	ND	0.0023
gamma-BHC	1100	ND	0.0023
Heptachlor	4950	ND	0.0023
Aldrin	0250	ND	0.0023
Heptachlor epoxide	5000	ND	0.0023
Endosulfan I	4450	ND	0.0023
Dieldrin	4000	ND	0.0038
4,4'-DDE	2950	ND	0.0038
Endrin	4600	ND #	0.0038
Endosulfan II	4500	ND	0.0038
Endosulfan sulfate	4550	ND	0.0038
4,4'-DDD	2900	ND	0.0038
Endrin aldehyde	4650	ND	0.0038
4,4'-DDT	3000	ND	0.0038
Chlordane (Technical)	1900	ND	0.035
Methoxychlor	5650	ND	0.020
Toxaphene	8400	ND	0.069

Surrogate	Code	%REC	Limits
TCMX	8256	97	44-125
Decachlorobiphenyl	3111	90	39-121

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

COC #:	08381	Batch#:	221732
Requested:	E8081	Instrument:	GC30
Field ID:	75500	Chemist:	BJP
Lab ID:	265569-043	Sampled:	03/24/15 13:35
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/27/15 13:30
Basis:	dry	Analyzed:	03/31/15 05:50
Diln Fac:	1.000		

Moisture: 14%

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0023
beta-BHC	1000	ND	0.0023
gamma-BHC	1100	ND	0.0023
Heptachlor	4950	ND	0.0023
Aldrin	0250	ND	0.0023
Heptachlor epoxide	5000	ND	0.0023
Endosulfan I	4450	ND	0.0023
Dieldrin	4000	ND	0.0038
4,4'-DDE	2950	ND	0.0038
Endrin	4600	ND #	0.0038
Endosulfan II	4500	ND	0.0038
Endosulfan sulfate	4550	ND	0.0038
4,4'-DDD	2900	ND	0.0038
Endrin aldehyde	4650	ND	0.0038
4,4'-DDT	3000	ND	0.0038
Chlordane (Technical)	1900	ND	0.034
Methoxychlor	5650	ND	0.019
Toxaphene	8400	ND	0.069

Surrogate	Code	%REC	Limits
TCMX	8256	99	44-125
Decachlorobiphenyl	3111	84	39-121

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

COC #:	08381	Batch#:	221732
Requested:	E8081	Instrument:	GC30
Field ID:	75502	Chemist:	BJP
Lab ID:	265569-045	Sampled:	03/24/15 13:50
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/27/15 13:30
Basis:	dry	Analyzed:	03/31/15 06:12
Diln Fac:	1.000		

Moisture: 15%

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0023
beta-BHC	1000	ND	0.0023
gamma-BHC	1100	ND	0.0023
Heptachlor	4950	ND	0.0023
Aldrin	0250	ND	0.0023
Heptachlor epoxide	5000	ND	0.0023
Endosulfan I	4450	ND	0.0023
Dieldrin	4000	ND	0.0039
4,4'-DDE	2950	ND	0.0039
Endrin	4600	ND #	0.0039
Endosulfan II	4500	ND	0.0039
Endosulfan sulfate	4550	ND	0.0039
4,4'-DDD	2900	ND	0.0039
Endrin aldehyde	4650	ND	0.0039
4,4'-DDT	3000	ND	0.0039
Chlordane (Technical)	1900	ND	0.035
Methoxychlor	5650	ND	0.020
Toxaphene	8400	ND	0.070

Surrogate	Code	%REC	Limits
TCMX	8256	74	44-125
Decachlorobiphenyl	3111	78	39-121

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

COC #:	08381	Batch#:	221732
Requested:	E8081	Instrument:	GC30
Field ID:	75504	Chemist:	BJP
Lab ID:	265569-047	Sampled:	03/24/15 14:00
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/27/15 13:30
Basis:	dry	Analyzed:	03/31/15 06:34
Diln Fac:	1.000		

Moisture: 16%

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0023
beta-BHC	1000	ND	0.0023
gamma-BHC	1100	ND	0.0023
Heptachlor	4950	ND	0.0023
Aldrin	0250	ND	0.0023
Heptachlor epoxide	5000	ND	0.0023
Endosulfan I	4450	ND	0.0023
Dieldrin	4000	ND	0.0039
4,4'-DDE	2950	ND	0.0039
Endrin	4600	ND #	0.0039
Endosulfan II	4500	ND	0.0039
Endosulfan sulfate	4550	ND	0.0039
4,4'-DDD	2900	ND	0.0039
Endrin aldehyde	4650	ND	0.0039
4,4'-DDT	3000	ND	0.0039
Chlordane (Technical)	1900	ND	0.035
Methoxychlor	5650	ND	0.020
Toxaphene	8400	ND	0.070

Surrogate	Code	%REC	Limits
TCMX	8256	102	44-125
Decachlorobiphenyl	3111	84	39-121

#= CCV drift outside limits; average CCV drift within limits per method requirements
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Requested:	E8081	Batch#:	221704
Type:	BLANK	Instrument:	GC30
Lab ID:	QC782160	Chemist:	BJP
Matrix:	Soil	Prepared:	03/26/15 14:30
Units:	mg/Kg	Analyzed:	03/30/15 20:24
Diln Fac:	1.000		

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0020
beta-BHC	1000	ND	0.0020
gamma-BHC	1100	ND	0.0020
Heptachlor	4950	ND	0.0020
Aldrin	0250	ND	0.0020
Heptachlor epoxide	5000	ND	0.0020
Endosulfan I	4450	ND	0.0020
Dieldrin	4000	ND	0.0033
4,4'-DDE	2950	ND	0.0033
Endrin	4600	ND	0.0033
Endosulfan II	4500	ND	0.0033
Endosulfan sulfate	4550	ND	0.0033
4,4'-DDD	2900	ND	0.0033
Endrin aldehyde	4650	ND	0.0033
4,4'-DDT	3000	ND	0.0033
Chlordane (Technical)	1900	ND	0.030
Methoxychlor	5650	ND	0.017
Toxaphene	8400	ND	0.060

Surrogate	Code	%REC	Limits
TCMX	8256	86	44-125
Decachlorobiphenyl	3111	77	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		
Requested:	E8081	Batch#:	221704
Type:	LCS	Instrument:	GC30
Lab ID:	QC782164	Chemist:	BJP
Matrix:	Soil	Prepared:	03/26/15 14:30
Units:	mg/Kg	Analyzed:	03/30/15 20:03
Diln Fac:	1.000		

Analyte	Code	Spiked	Result	%REC	Limits
gamma-BHC	1100	0.01331	0.008666	65	44-121
Heptachlor	4950	0.01331	0.009615	72	45-129
Aldrin	0250	0.01331	0.008635	65	45-120
Dieldrin	4000	0.01331	0.009427	71	49-131
Endrin	4600	0.01331	0.009869	74	43-135
4,4'-DDT	3000	0.01331	0.009307	70	37-141

Surrogate	Code	%REC	Limits
TCMX	8256	93	44-125
Decachlorobiphenyl	3111	76	39-121

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Requested:	E8081	Batch#:	221704
Field ID:	75474	Instrument:	GC30
MSS Lab ID:	265569-017	Chemist:	BJP
Matrix:	Soil	Sampled:	03/24/15 09:40
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Prepared:	03/26/15 14:30
Diln Fac:	2.000		

Type:	MS	Moisture:	10%
Lab ID:	QC782165	Analyzed:	03/30/15 23:41

Analyte	Code	MSS Result	Spiked	Result	%REC	Limits
gamma-BHC	1100	<0.0004784	0.01498	0.01038	69	51-126
Heptachlor	4950	<0.0005563	0.01498	0.01180 #	79	53-135
Aldrin	0250	<0.0004999	0.01498	0.01052	70	52-121
Dieldrin	4000	<0.0005758	0.01498	0.01120	75	50-138
Endrin	4600	<0.0005904	0.01498	0.01150	77	41-156
4,4'-DDT	3000	0.0009850	0.01498	0.01075	65	30-156

Surrogate	Code	%REC	Limits
TCMX	8256	97	44-125
Decachlorobiphenyl	3111	77	39-121

Type:	MSD	Moisture:	10%
Lab ID:	QC782166	Analyzed:	03/31/15 00:02

Analyte	Code	Spiked	Result	%REC	Limits	RPD	Lim
gamma-BHC	1100	0.01479	0.01153	78	51-126	12	40
Heptachlor	4950	0.01479	0.01302 #	88	53-135	11	34
Aldrin	0250	0.01479	0.01172	79	52-121	12	44
Dieldrin	4000	0.01479	0.01303	88	50-138	16	38
Endrin	4600	0.01479	0.01342	91	41-156	17	38
4,4'-DDT	3000	0.01479	0.01317	82	30-156	21	58

Surrogate	Code	%REC	Limits
TCMX	8256	99	44-125
Decachlorobiphenyl	3111	84	39-121

#= CCV drift outside limits; average CCV drift within limits per method requirements
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Requested:	E8081	Batch#:	221732
Type:	BLANK	Instrument:	GC30
Lab ID:	QC782257	Chemist:	BJP
Matrix:	Soil	Prepared:	03/27/15 13:30
Units:	mg/Kg	Analyzed:	03/31/15 01:29
Diln Fac:	1.000		

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0020
beta-BHC	1000	ND	0.0020
gamma-BHC	1100	ND	0.0020
Heptachlor	4950	ND	0.0020
Aldrin	0250	ND	0.0020
Heptachlor epoxide	5000	ND	0.0020
Endosulfan I	4450	ND	0.0020
Dieldrin	4000	ND	0.0033
4,4'-DDE	2950	ND	0.0033
Endrin	4600	ND	0.0033
Endosulfan II	4500	ND	0.0033
Endosulfan sulfate	4550	ND	0.0033
4,4'-DDD	2900	ND	0.0033
Endrin aldehyde	4650	ND	0.0033
4,4'-DDT	3000	ND	0.0033
Chlordane (Technical)	1900	ND	0.030
Methoxychlor	5650	ND	0.017
Toxaphene	8400	ND	0.060

Surrogate	Code	%REC	Limits
TCMX	8256	116	44-125
Decachlorobiphenyl	3111	103	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Requested:	E8081	Batch#:	221732
Type:	LCS	Instrument:	GC30
Lab ID:	QC782261	Chemist:	BJP
Matrix:	Soil	Prepared:	03/27/15 13:30
Units:	mg/Kg	Analyzed:	03/31/15 01:08
Diln Fac:	1.000		

Analyte	Code	Spiked	Result	%REC	Limits
gamma-BHC	1100	0.01311	0.01246	95	44-121
Heptachlor	4950	0.01311	0.01424 #	109	45-129
Aldrin	0250	0.01311	0.01265	96	45-120
Dieldrin	4000	0.01311	0.01391	106	49-131
Endrin	4600	0.01311	0.01469	112	43-135
4,4'-DDT	3000	0.01311	0.01446	110	37-141

Surrogate	Code	%REC	Limits
TCMX	8256	118	44-125
Decachlorobiphenyl	3111	100	39-121

#= CCV drift outside limits; average CCV drift within limits per method requirements

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Requested:	E8081	Batch#:	221732
Field ID:	75492	Instrument:	GC30
MSS Lab ID:	265569-035	Chemist:	BJP
Matrix:	Soil	Sampled:	03/24/15 12:50
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Prepared:	03/27/15 13:30
Diln Fac:	1.000		

Type:	MS	Moisture:	16%
Lab ID:	QC782262	Analyzed:	03/31/15 00:24

Analyte	Code	MSS Result	Spiked	Result	%REC	Limits
gamma-BHC	1100	<0.0002581	0.01581	0.01048	66	51-126
Heptachlor	4950	<0.0003001	0.01581	0.01261 #	80	53-135
Aldrin	0250	<0.0002697	0.01581	0.01148	73	52-121
Dieldrin	4000	<0.0003107	0.01581	0.01292	82	50-138
Endrin	4600	<0.0003185	0.01581	0.01345	85	41-156
4,4'-DDT	3000	0.0003277	0.01581	0.01385	86	30-156

Surrogate	Code	%REC	Limits
TCMX	8256	88	44-125
Decachlorobiphenyl	3111	81	39-121

Type:	MSD	Moisture:	16%
Lab ID:	QC782263	Analyzed:	03/31/15 00:46

Analyte	Code	Spiked	Result	%REC	Limits	RPD	Lim
gamma-BHC	1100	0.01600	0.01118	70	51-126	5	40
Heptachlor	4950	0.01600	0.01327 #	83	53-135	4	34
Aldrin	0250	0.01600	0.01213	76	52-121	4	44
Dieldrin	4000	0.01600	0.01422	89	50-138	8	38
Endrin	4600	0.01600	0.01485	93	41-156	9	38
4,4'-DDT	3000	0.01600	0.01481	91	30-156	6	58

Surrogate	Code	%REC	Limits
TCMX	8256	89	44-125
Decachlorobiphenyl	3111	87	39-121

#= CCV drift outside limits; average CCV drift within limits per method requirements
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Requested:	E8081	Batch#:	221860
Type:	BLANK	Instrument:	GC30
Lab ID:	QC782758	Chemist:	BJP
Matrix:	Soil	Prepared:	04/01/15 13:47
Units:	mg/Kg	Analyzed:	04/01/15 20:22
Diln Fac:	1.000		

Analyte	Code	Result	RL
alpha-BHC	0950	ND	0.0020
beta-BHC	1000	ND	0.0020
gamma-BHC	1100	ND	0.0020
Heptachlor	4950	ND	0.0020
Aldrin	0250	ND	0.0020
Heptachlor epoxide	5000	ND	0.0020
Endosulfan I	4450	ND	0.0020
Dieldrin	4000	ND	0.0033
4,4'-DDE	2950	ND	0.0033
Endrin	4600	ND	0.0033
Endosulfan II	4500	ND	0.0033
Endosulfan sulfate	4550	ND	0.0033
4,4'-DDD	2900	ND	0.0033
Endrin aldehyde	4650	ND	0.0033
4,4'-DDT	3000	ND	0.0033
Chlordane (Technical)	1900	ND	0.030
Methoxychlor	5650	ND	0.017
Toxaphene	8400	ND	0.060

Surrogate	Code	%REC	Limits
TCMX	8256	81	44-125
Decachlorobiphenyl	3111	89	39-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Requested:	E8081	Batch#:	221860
Type:	LCS	Instrument:	GC30
Lab ID:	QC782759	Chemist:	BJP
Matrix:	Soil	Prepared:	04/01/15 13:47
Units:	mg/Kg	Analyzed:	04/01/15 20:00
Diln Fac:	1.000		

Analyte	Code	Spiked	Result	%REC	Limits
gamma-BHC	1100	0.01351	0.01021	76	44-121
Heptachlor	4950	0.01351	0.01168 #	86	45-129
Aldrin	0250	0.01351	0.009966	74	45-120
Dieldrin	4000	0.01351	0.01164	86	49-131
Endrin	4600	0.01351	0.01247	92	43-135
4,4'-DDT	3000	0.01351	0.01273	94	37-141

Surrogate	Code	%REC	Limits
TCMX	8256	68	44-125
Decachlorobiphenyl	3111	89	39-121

#= CCV drift outside limits; average CCV drift within limits per method requirements

Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8081A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Requested:	E8081	Batch#:	221860
Field ID:	75486	Instrument:	GC30
MSS Lab ID:	265569-029	Chemist:	BJP
Matrix:	Soil	Sampled:	03/24/15 12:05
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Prepared:	04/01/15 13:47
Diln Fac:	1.000		

Type:	MS	Moisture:	14%
Lab ID:	QC782760	Analyzed:	04/01/15 18:55

Analyte	Code	MSS Result	Spiked	Result	%REC	Limits
gamma-BHC	1100	<0.0002479	0.01556	0.01243	80	51-126
Heptachlor	4950	<0.0002883	0.01556	0.01401 #	90	53-135
Aldrin	0250	<0.0002591	0.01556	0.01239	80	52-121
Dieldrin	4000	<0.0002984	0.01556	0.01354	87	50-138
Endrin	4600	<0.0003060	0.01556	0.01452	93	41-156
4,4'-DDT	3000	0.0005105	0.01556	0.01363	84	30-156

Surrogate	Code	%REC	Limits
TCMX	8256	97	44-125
Decachlorobiphenyl	3111	77	39-121

Type:	MSD	Moisture:	14%
Lab ID:	QC782761	Analyzed:	04/01/15 19:17

Analyte	Code	Spiked	Result	%REC	Limits	RPD	Lim
gamma-BHC	1100	0.01559	0.008877	57	51-126	34	40
Heptachlor	4950	0.01559	0.01273 #	82	53-135	10	34
Aldrin	0250	0.01559	0.01116	72	52-121	11	44
Dieldrin	4000	0.01559	0.01239	79	50-138	9	38
Endrin	4600	0.01559	0.01336	86	41-156	9	38
4,4'-DDT	3000	0.01559	0.01265	78	30-156	8	58

Surrogate	Code	%REC	Limits
TCMX	8256	66	44-125
Decachlorobiphenyl	3111	70	39-121

#= CCV drift outside limits; average CCV drift within limits per method requirements
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	E8082C	Diln Fac:	1.000
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg		

Field ID:	75458	Instrument:	GC16
Type:	SAMPLE	Chemist:	AVW
Lab ID:	265569-001	Sampled:	03/24/15 14:50
Moisture:	12%	Prepared:	03/26/15 14:30
Batch#:	221704	Analyzed:	03/27/15 18:31

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.011
Aroclor-1221	6500	ND	0.022
Aroclor-1232	6550	ND	0.011
Aroclor-1242	6600	ND	0.011
Aroclor-1248	6650	ND	0.011
Aroclor-1254	6700	ND	0.011
Aroclor-1260	6750	ND	0.011

Surrogate	Code	%REC	Limits
TCMX	8256	98	46-141
Decachlorobiphenyl	3111	105	25-135

Field ID:	75460	Instrument:	GC16
Type:	SAMPLE	Chemist:	AVW
Lab ID:	265569-003	Sampled:	03/24/15 15:05
Moisture:	15%	Prepared:	03/26/15 14:30
Batch#:	221704	Analyzed:	03/27/15 18:59

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.011
Aroclor-1221	6500	ND	0.023
Aroclor-1232	6550	ND	0.011
Aroclor-1242	6600	ND	0.011
Aroclor-1248	6650	ND	0.011
Aroclor-1254	6700	ND	0.011
Aroclor-1260	6750	ND	0.011

Surrogate	Code	%REC	Limits
TCMX	8256	107	46-141
Decachlorobiphenyl	3111	107	25-135

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	E8082C	Diln Fac:	1.000
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg		

Field ID:	75462	Instrument:	GC16
Type:	SAMPLE	Chemist:	ICK
Lab ID:	265569-005	Sampled:	03/24/15 15:20
Moisture:	14%	Prepared:	03/26/15 14:30
Batch#:	221704	Analyzed:	03/26/15 22:27

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.011
Aroclor-1221	6500	ND	0.023
Aroclor-1232	6550	ND	0.011
Aroclor-1242	6600	ND	0.011
Aroclor-1248	6650	ND	0.011
Aroclor-1254	6700	ND	0.011
Aroclor-1260	6750	ND	0.011

Surrogate	Code	%REC	Limits
TCMX	8256	91	46-141
Decachlorobiphenyl	3111	86	25-135

Field ID:	75464	Instrument:	GC16
Type:	SAMPLE	Chemist:	AVW
Lab ID:	265569-007	Sampled:	03/24/15 15:35
Moisture:	15%	Prepared:	03/26/15 14:30
Batch#:	221704	Analyzed:	03/27/15 19:27

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.011
Aroclor-1221	6500	ND	0.023
Aroclor-1232	6550	ND	0.011
Aroclor-1242	6600	ND	0.011
Aroclor-1248	6650	ND	0.011
Aroclor-1254	6700	ND	0.011
Aroclor-1260	6750	ND	0.011

Surrogate	Code	%REC	Limits
TCMX	8256	104	46-141
Decachlorobiphenyl	3111	108	25-135

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	E8082C	Diln Fac:	1.000
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg		

Field ID:	75466	Instrument:	GC16
Type:	SAMPLE	Chemist:	AVW
Lab ID:	265569-009	Sampled:	03/24/15 15:50
Moisture:	13%	Prepared:	03/26/15 14:30
Batch#:	221704	Analyzed:	03/27/15 19:55

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.011
Aroclor-1221	6500	ND	0.022
Aroclor-1232	6550	ND	0.011
Aroclor-1242	6600	ND	0.011
Aroclor-1248	6650	ND	0.011
Aroclor-1254	6700	ND	0.011
Aroclor-1260	6750	ND	0.011

Surrogate	Code	%REC	Limits
TCMX	8256	104	46-141
Decachlorobiphenyl	3111	95	25-135

Field ID:	75468	Instrument:	GC16
Type:	SAMPLE	Chemist:	AVW
Lab ID:	265569-011	Sampled:	03/24/15 16:05
Moisture:	17%	Prepared:	03/26/15 14:30
Batch#:	221704	Analyzed:	03/27/15 20:23

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.012
Aroclor-1221	6500	ND	0.023
Aroclor-1232	6550	ND	0.012
Aroclor-1242	6600	ND	0.012
Aroclor-1248	6650	ND	0.012
Aroclor-1254	6700	ND	0.012
Aroclor-1260	6750	ND	0.012

Surrogate	Code	%REC	Limits
TCMX	8256	98	46-141
Decachlorobiphenyl	3111	102	25-135

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	E8082C	Diln Fac:	1.000
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg		

Field ID:	75470	Instrument:	GC16
Type:	SAMPLE	Chemist:	AVW
Lab ID:	265569-013	Sampled:	03/24/15 16:20
Moisture:	14%	Prepared:	03/26/15 14:30
Batch#:	221704	Analyzed:	03/27/15 23:38

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.011
Aroclor-1221	6500	ND	0.022
Aroclor-1232	6550	ND	0.011
Aroclor-1242	6600	ND	0.011
Aroclor-1248	6650	ND	0.011
Aroclor-1254	6700	ND	0.011
Aroclor-1260	6750	ND	0.011

Surrogate	Code	%REC	Limits
TCMX	8256	78	46-141
Decachlorobiphenyl	3111	98	25-135

Field ID:	75472	Instrument:	GC16
Type:	SAMPLE	Chemist:	AVW
Lab ID:	265569-015	Sampled:	03/24/15 16:35
Moisture:	15%	Prepared:	03/26/15 14:30
Batch#:	221704	Analyzed:	03/28/15 00:06

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.011
Aroclor-1221	6500	ND	0.023
Aroclor-1232	6550	ND	0.011
Aroclor-1242	6600	ND	0.011
Aroclor-1248	6650	ND	0.011
Aroclor-1254	6700	ND	0.011
Aroclor-1260	6750	ND	0.011

Surrogate	Code	%REC	Limits
TCMX	8256	87	46-141
Decachlorobiphenyl	3111	97	25-135

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	E8082C	Diln Fac:	1.000
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg		

Field ID:	75474	Instrument:	GC16
Type:	SAMPLE	Chemist:	AVW
Lab ID:	265569-017	Sampled:	03/24/15 09:40
Moisture:	10%	Prepared:	03/26/15 14:30
Batch#:	221704	Analyzed:	03/28/15 00:34

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.011
Aroclor-1221	6500	ND	0.021
Aroclor-1232	6550	ND	0.011
Aroclor-1242	6600	ND	0.011
Aroclor-1248	6650	ND	0.011
Aroclor-1254	6700	ND	0.011
Aroclor-1260	6750	ND	0.011

Surrogate	Code	%REC	Limits
TCMX	8256	81	46-141
Decachlorobiphenyl	3111	74	25-135

Field ID:	75476	Instrument:	GC16
Type:	SAMPLE	Chemist:	AVW
Lab ID:	265569-019	Sampled:	03/24/15 10:20
Moisture:	15%	Prepared:	03/26/15 14:30
Batch#:	221704	Analyzed:	03/28/15 01:02

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.011
Aroclor-1221	6500	ND	0.022
Aroclor-1232	6550	ND	0.011
Aroclor-1242	6600	ND	0.011
Aroclor-1248	6650	ND	0.011
Aroclor-1254	6700	ND	0.011
Aroclor-1260	6750	ND	0.011

Surrogate	Code	%REC	Limits
TCMX	8256	89	46-141
Decachlorobiphenyl	3111	94	25-135

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	E8082C	Diln Fac:	1.000
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg		

Field ID:	75478	Instrument:	GC16
Type:	SAMPLE	Chemist:	AVW
Lab ID:	265569-021	Sampled:	03/24/15 10:40
Moisture:	15%	Prepared:	03/26/15 14:30
Batch#:	221704	Analyzed:	03/28/15 01:30

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.011
Aroclor-1221	6500	ND	0.023
Aroclor-1232	6550	ND	0.011
Aroclor-1242	6600	ND	0.011
Aroclor-1248	6650	ND	0.011
Aroclor-1254	6700	ND	0.011
Aroclor-1260	6750	ND	0.011

Surrogate	Code	%REC	Limits
TCMX	8256	94	46-141
Decachlorobiphenyl	3111	95	25-135

Field ID:	75480	Instrument:	GC16
Type:	SAMPLE	Chemist:	AVW
Lab ID:	265569-023	Sampled:	03/24/15 10:55
Moisture:	13%	Prepared:	03/26/15 14:30
Batch#:	221704	Analyzed:	03/28/15 01:58

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.011
Aroclor-1221	6500	ND	0.022
Aroclor-1232	6550	ND	0.011
Aroclor-1242	6600	ND	0.011
Aroclor-1248	6650	ND	0.011
Aroclor-1254	6700	ND	0.011
Aroclor-1260	6750	ND	0.011

Surrogate	Code	%REC	Limits
TCMX	8256	89	46-141
Decachlorobiphenyl	3111	87	25-135

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	E8082C	Diln Fac:	1.000
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg		

Field ID:	75482	Instrument:	GC16
Type:	SAMPLE	Chemist:	ICK
Lab ID:	265569-025	Sampled:	03/24/15 10:45
Moisture:	14%	Prepared:	03/26/15 14:30
Batch#:	221704	Analyzed:	03/28/15 02:25

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.011
Aroclor-1221	6500	ND	0.022
Aroclor-1232	6550	ND	0.011
Aroclor-1242	6600	ND	0.011
Aroclor-1248	6650	ND	0.011
Aroclor-1254	6700	ND	0.011
Aroclor-1260	6750	ND	0.011

Surrogate	Code	%REC	Limits
TCMX	8256	87	46-141
Decachlorobiphenyl	3111	94	25-135

Field ID:	75484	Instrument:	GC25
Type:	SAMPLE	Chemist:	ICK
Lab ID:	265569-027	Sampled:	03/24/15 11:50
Moisture:	14%	Prepared:	03/27/15 13:30
Batch#:	221732	Analyzed:	03/31/15 06:14

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.011
Aroclor-1221	6500	ND	0.022
Aroclor-1232	6550	ND	0.011
Aroclor-1242	6600	ND	0.011
Aroclor-1248	6650	ND	0.011
Aroclor-1254	6700	ND	0.011
Aroclor-1260	6750	ND	0.011

Surrogate	Code	%REC	Limits
TCMX	8256	74	46-141
Decachlorobiphenyl	3111	86	25-135

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	E8082C	Diln Fac:	1.000
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg		

Field ID:	75486	Instrument:	GC16
Type:	SAMPLE	Chemist:	ICK
Lab ID:	265569-029	Sampled:	03/24/15 12:05
Moisture:	14%	Prepared:	04/01/15 06:55
Batch#:	221838	Analyzed:	04/01/15 20:30

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.014
Aroclor-1221	6500	ND	0.028
Aroclor-1232	6550	ND	0.014
Aroclor-1242	6600	ND	0.014
Aroclor-1248	6650	ND	0.014
Aroclor-1254	6700	ND	0.014
Aroclor-1260	6750	ND	0.014

Surrogate	Code	%REC	Limits
TCMX	8256	99	46-141
Decachlorobiphenyl	3111	96	25-135

Field ID:	75488	Instrument:	GC25
Type:	SAMPLE	Chemist:	ICK
Lab ID:	265569-031	Sampled:	03/24/15 12:20
Moisture:	15%	Prepared:	03/27/15 13:30
Batch#:	221732	Analyzed:	03/31/15 07:09

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.011
Aroclor-1221	6500	ND	0.023
Aroclor-1232	6550	ND	0.011
Aroclor-1242	6600	ND	0.011
Aroclor-1248	6650	ND	0.011
Aroclor-1254	6700	ND	0.011
Aroclor-1260	6750	ND	0.011

Surrogate	Code	%REC	Limits
TCMX	8256	87	46-141
Decachlorobiphenyl	3111	81	25-135

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	E8082C	Diln Fac:	1.000
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg		

Field ID:	75490	Instrument:	GC25
Type:	SAMPLE	Chemist:	ICK
Lab ID:	265569-033	Sampled:	03/24/15 12:35
Moisture:	16%	Prepared:	03/27/15 13:30
Batch#:	221732	Analyzed:	03/31/15 07:36

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.012
Aroclor-1221	6500	ND	0.023
Aroclor-1232	6550	ND	0.012
Aroclor-1242	6600	ND	0.012
Aroclor-1248	6650	ND	0.012
Aroclor-1254	6700	ND	0.012
Aroclor-1260	6750	ND	0.012

Surrogate	Code	%REC	Limits
TCMX	8256	89	46-141
Decachlorobiphenyl	3111	83	25-135

Field ID:	75492	Instrument:	GC25
Type:	SAMPLE	Chemist:	ICK
Lab ID:	265569-035	Sampled:	03/24/15 12:50
Moisture:	16%	Prepared:	03/27/15 13:30
Batch#:	221732	Analyzed:	03/31/15 08:04

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.012
Aroclor-1221	6500	ND	0.023
Aroclor-1232	6550	ND	0.012
Aroclor-1242	6600	ND	0.012
Aroclor-1248	6650	ND	0.012
Aroclor-1254	6700	ND	0.012
Aroclor-1260	6750	ND	0.012

Surrogate	Code	%REC	Limits
TCMX	8256	70	46-141
Decachlorobiphenyl	3111	73	25-135

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	E8082C	Diln Fac:	1.000
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg		

Field ID:	75494	Instrument:	GC25
Type:	SAMPLE	Chemist:	ICK
Lab ID:	265569-037	Sampled:	03/24/15 13:00
Moisture:	16%	Prepared:	03/27/15 13:30
Batch#:	221732	Analyzed:	03/31/15 08:31

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.011
Aroclor-1221	6500	ND	0.023
Aroclor-1232	6550	ND	0.011
Aroclor-1242	6600	ND	0.011
Aroclor-1248	6650	ND	0.011
Aroclor-1254	6700	ND	0.011
Aroclor-1260	6750	ND	0.011

Surrogate	Code	%REC	Limits
TCMX	8256	112	46-141
Decachlorobiphenyl	3111	105	25-135

Field ID:	75496	Instrument:	GC25
Type:	SAMPLE	Chemist:	ICK
Lab ID:	265569-039	Sampled:	03/24/15 13:10
Moisture:	16%	Prepared:	03/27/15 13:30
Batch#:	221732	Analyzed:	03/31/15 08:59

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.011
Aroclor-1221	6500	ND	0.023
Aroclor-1232	6550	ND	0.011
Aroclor-1242	6600	ND	0.011
Aroclor-1248	6650	ND	0.011
Aroclor-1254	6700	ND	0.011
Aroclor-1260	6750	ND	0.011

Surrogate	Code	%REC	Limits
TCMX	8256	87	46-141
Decachlorobiphenyl	3111	79	25-135

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	E8082C	Diln Fac:	1.000
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg		

Field ID:	75498	Instrument:	GC25
Type:	SAMPLE	Chemist:	ICK
Lab ID:	265569-041	Sampled:	03/24/15 13:25
Moisture:	14%	Prepared:	03/27/15 13:30
Batch#:	221732	Analyzed:	03/31/15 09:26

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.011
Aroclor-1221	6500	ND	0.022
Aroclor-1232	6550	ND	0.011
Aroclor-1242	6600	ND	0.011
Aroclor-1248	6650	ND	0.011
Aroclor-1254	6700	ND	0.011
Aroclor-1260	6750	ND	0.011

Surrogate	Code	%REC	Limits
TCMX	8256	103	46-141
Decachlorobiphenyl	3111	93	25-135

Field ID:	75500	Instrument:	GC25
Type:	SAMPLE	Chemist:	ICK
Lab ID:	265569-043	Sampled:	03/24/15 13:35
Moisture:	14%	Prepared:	03/27/15 13:30
Batch#:	221732	Analyzed:	03/31/15 09:54

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.011
Aroclor-1221	6500	ND	0.022
Aroclor-1232	6550	ND	0.011
Aroclor-1242	6600	ND	0.011
Aroclor-1248	6650	ND	0.011
Aroclor-1254	6700	ND	0.011
Aroclor-1260	6750	ND	0.011

Surrogate	Code	%REC	Limits
TCMX	8256	91	46-141
Decachlorobiphenyl	3111	82	25-135

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	E8082C	Diln Fac:	1.000
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg		

Field ID:	75502	Instrument:	GC25
Type:	SAMPLE	Chemist:	ICK
Lab ID:	265569-045	Sampled:	03/24/15 13:50
Moisture:	15%	Prepared:	03/27/15 13:30
Batch#:	221732	Analyzed:	03/31/15 10:21

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.011
Aroclor-1221	6500	ND	0.022
Aroclor-1232	6550	ND	0.011
Aroclor-1242	6600	ND	0.011
Aroclor-1248	6650	ND	0.011
Aroclor-1254	6700	ND	0.011
Aroclor-1260	6750	ND	0.011

Surrogate	Code	%REC	Limits
TCMX	8256	75	46-141
Decachlorobiphenyl	3111	90	25-135

Field ID:	75504	Instrument:	GC25
Type:	SAMPLE	Chemist:	ICK
Lab ID:	265569-047	Sampled:	03/24/15 14:00
Moisture:	16%	Prepared:	03/27/15 13:30
Batch#:	221732	Analyzed:	03/30/15 23:50

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.011
Aroclor-1221	6500	ND	0.022
Aroclor-1232	6550	ND	0.011
Aroclor-1242	6600	ND	0.011
Aroclor-1248	6650	ND	0.011
Aroclor-1254	6700	ND	0.011
Aroclor-1260	6750	ND	0.011

Surrogate	Code	%REC	Limits
TCMX	8256	82	46-141
Decachlorobiphenyl	3111	71	25-135

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	E8082C	Diln Fac:	1.000
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg		

Type:	BLANK	Chemist:	ICK
Lab ID:	QC782160	Prepared:	03/26/15 14:30
Batch#:	221704	Analyzed:	03/26/15 21:31
Instrument:	GC16		

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.0096
Aroclor-1221	6500	ND	0.019
Aroclor-1232	6550	ND	0.0096
Aroclor-1242	6600	ND	0.0096
Aroclor-1248	6650	ND	0.0096
Aroclor-1254	6700	ND	0.0096
Aroclor-1260	6750	ND	0.0096

Surrogate	Code	%REC	Limits
TCMX	8256	108	46-141
Decachlorobiphenyl	3111	103	25-135

Type:	BLANK	Chemist:	AVW
Lab ID:	QC782257	Prepared:	03/27/15 13:30
Batch#:	221732	Analyzed:	03/30/15 11:27
Instrument:	GC16		

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.0095
Aroclor-1221	6500	ND	0.019
Aroclor-1232	6550	ND	0.0095
Aroclor-1242	6600	ND	0.0095
Aroclor-1248	6650	ND	0.0095
Aroclor-1254	6700	ND	0.0095
Aroclor-1260	6750	ND	0.0095

Surrogate	Code	%REC	Limits
TCMX	8256	92	46-141
Decachlorobiphenyl	3111	91	25-135

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Location:	WSDP - RFS Soil Disposal Testing 3/24		
COC #:	08381	Basis:	dry
Requested:	E8082C	Diln Fac:	1.000
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg		

Type:	BLANK	Chemist:	ICK
Lab ID:	QC782668	Prepared:	04/01/15 06:55
Batch#:	221838	Analyzed:	04/02/15 01:10
Instrument:	GC16		

Analyte	Code	Result	RL
Aroclor-1016	6450	ND	0.012
Aroclor-1221	6500	ND	0.024
Aroclor-1232	6550	ND	0.012
Aroclor-1242	6600	ND	0.012
Aroclor-1248	6650	ND	0.012
Aroclor-1254	6700	ND	0.012
Aroclor-1260	6750	ND	0.012

Surrogate	Code	%REC	Limits
TCMX	8256	93	46-141
Decachlorobiphenyl	3111	96	25-135

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Requested:	E8082C	Batch#:	221704
Type:	LCS	Instrument:	GC16
Lab ID:	QC782161	Chemist:	ICK
Matrix:	Soil	Prepared:	03/26/15 14:30
Units:	mg/Kg	Analyzed:	03/26/15 21:59
Diln Fac:	1.000		

Analyte	Code	Spiked	Result	%REC	Limits
Aroclor-1016	6450	0.1652	0.1965	119	64-140
Aroclor-1260	6750	0.1652	0.1930	117	65-146

Surrogate	Code	%REC	Limits
TCMX	8256	117	46-141
Decachlorobiphenyl	3111	117	25-135

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Requested:	E8082C	Batch#:	221704
Field ID:	75462	Instrument:	GC16
MSS Lab ID:	265569-005	Chemist:	EAH
Matrix:	Soil	Sampled:	03/24/15 15:20
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Prepared:	03/26/15 14:30
Diln Fac:	1.000		

Type:	MS	Moisture:	14%
Lab ID:	QC782162	Analyzed:	03/26/15 22:55

Analyte	Code	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1016	6450	<0.002791	0.1951	0.2390	122	60-161
Aroclor-1260	6750	<0.001825	0.1951	0.2347	120	42-166

Surrogate	Code	%REC	Limits
TCMX	8256	116	46-141
Decachlorobiphenyl	3111	104	25-135

Type:	MSD	Moisture:	14%
Lab ID:	QC782163	Analyzed:	03/26/15 23:23

Analyte	Code	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1016	6450	0.1956	0.2132	109	60-161	12	43
Aroclor-1260	6750	0.1956	0.2156	110	42-166	9	51

Surrogate	Code	%REC	Limits
TCMX	8256	100	46-141
Decachlorobiphenyl	3111	96	25-135

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Requested:	E8082C	Batch#:	221732
Type:	LCS	Instrument:	GC16
Lab ID:	QC782258	Chemist:	AVW
Matrix:	Soil	Prepared:	03/27/15 13:30
Units:	mg/Kg	Analyzed:	03/30/15 11:54
Diln Fac:	1.000		

Analyte	Code	Spiked	Result	%REC	Limits
Aroclor-1016	6450	0.1692	0.1823	108	64-140
Aroclor-1260	6750	0.1692	0.1850	109	65-146

Surrogate	Code	%REC	Limits
TCMX	8256	82	46-141
Decachlorobiphenyl	3111	87	25-135

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Requested:	E8082C	Batch#:	221732
Field ID:	75504	Instrument:	GC25
MSS Lab ID:	265569-047	Chemist:	ICK
Matrix:	Soil	Sampled:	03/24/15 14:00
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Prepared:	03/27/15 13:30
Diln Fac:	1.000		

Type:	MS	Moisture:	16%
Lab ID:	QC782259	Analyzed:	03/31/15 00:17

Analyte	Code	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1016	6450	<0.002771	0.1959	0.2050	105	60-161
Aroclor-1260	6750	<0.001812	0.1959	0.1766	90	42-166

Surrogate	Code	%REC	Limits
TCMX	8256	82	46-141
Decachlorobiphenyl	3111	73	25-135

Type:	MSD	Moisture:	16%
Lab ID:	QC782260	Analyzed:	03/31/15 00:45

Analyte	Code	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1016	6450	0.1966	0.2048	104	60-161	0	43
Aroclor-1260	6750	0.1966	0.1797	91	42-166	1	51

Surrogate	Code	%REC	Limits
TCMX	8256	86	46-141
Decachlorobiphenyl	3111	74	25-135

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Requested:	E8082C	Batch#:	221838
Type:	LCS	Instrument:	GC16
Lab ID:	QC782669	Chemist:	ICK
Matrix:	Soil	Prepared:	04/01/15 06:55
Units:	mg/Kg	Analyzed:	04/02/15 01:38
Diln Fac:	1.000		

Analyte	Code	Spiked	Result	%REC	Limits
Aroclor-1016	6450	0.1646	0.1325	81	64-140
Aroclor-1260	6750	0.1646	0.1594	97	65-146

Surrogate	Code	%REC	Limits
TCMX	8256	83	46-141
Decachlorobiphenyl	3111	74	25-135

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3550B
Project#:	STANDARD	Analysis:	EPA 8082
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Requested:	E8082C	Batch#:	221838
Field ID:	75486	Instrument:	GC16
MSS Lab ID:	265569-029	Chemist:	ICK
Matrix:	Soil	Sampled:	03/24/15 12:05
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Prepared:	04/01/15 06:55
Diln Fac:	1.000		

Type:	MS	Moisture:	14%
Lab ID:	QC782670	Analyzed:	04/01/15 20:58

Analyte	Code	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1016	6450	<0.003482	0.1943	0.1921	99	60-161
Aroclor-1260	6750	<0.002277	0.1943	0.2356	121	42-166

Surrogate	Code	%REC	Limits
TCMX	8256	94	46-141
Decachlorobiphenyl	3111	96	25-135

Type:	MSD	Moisture:	14%
Lab ID:	QC782671	Analyzed:	04/01/15 21:26

Analyte	Code	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1016	6450	0.1957	0.1951	100	60-161	1	43
Aroclor-1260	6750	0.1957	0.2288	117	42-166	4	51

Surrogate	Code	%REC	Limits
TCMX	8256	99	46-141
Decachlorobiphenyl	3111	91	25-135

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	265569	Location:	WSDP - RFS Soil Disposal Testing 3/24
Client:	Lawrence Berkeley National Lab	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Project#:	STANDARD		
COC #:	08381	Units:	mg/Kg
Requested:	TTLCLBNL	Basis:	dry
Field ID:	75458	Sampled:	03/24/15 14:50
Lab ID:	265569-001	Received:	03/25/15
Matrix:	Soil		

Moisture: 12%

Analyte	Code	Result	RL	Diln Fac	Batch#	Instrument	Chemist	Prepared	Analyzed	Prep	Analysis
Antimony	0400	0.77	0.28	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:01	EPA 3050B	EPA 6020
Arsenic	0450	12	0.28	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:01	EPA 3050B	EPA 6020
Barium	0475	230	0.28	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:01	EPA 3050B	EPA 6020
Beryllium	0900	0.70	0.28	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:01	EPA 3050B	EPA 6020
Cadmium	1650	ND	0.28	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:01	EPA 3050B	EPA 6020
Chromium	2450	46	0.28	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:01	EPA 3050B	EPA 6020
Cobalt	2625	15	0.28	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:01	EPA 3050B	EPA 6020
Copper	2800	46	0.31	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:01	EPA 3050B	EPA 6020
Lead	5450	13	0.28	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:01	EPA 3050B	EPA 6020
Mercury	5600	0.042	0.020	1.000	221795	MET54	NCD	03/30/15 15:28	03/31/15 13:37	METHOD	EPA 7471A
Molybdenum	5775	0.80	0.46	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 17:41	EPA 3050B	EPA 6020
Nickel	5850	48	0.44	25.00	221821	MET16	NT	03/31/15 13:50	04/07/15 08:46	EPA 3050B	EPA 6020
Selenium	7600	0.33	0.28	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:01	EPA 3050B	EPA 6020
Silver	7800	ND	0.28	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:01	EPA 3050B	EPA 6020
Thallium	8300	ND	0.28	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:01	EPA 3050B	EPA 6020
Vanadium	8875	55	0.50	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:01	EPA 3050B	EPA 6020
Zinc	9050	100	1.1	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:01	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	265569	Location:	WSDP - RFS Soil Disposal Testing 3/24
Client:	Lawrence Berkeley National Lab	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Project#:	STANDARD		
COC #:	08381	Units:	mg/Kg
Requested:	TTLCLBNL	Basis:	dry
Field ID:	75460	Sampled:	03/24/15 15:05
Lab ID:	265569-003	Received:	03/25/15
Matrix:	Soil		

Moisture: 15%

Analyte	Code	Result	RL	Diln Fac	Batch#	Instrument	Chemist	Prepared	Analyzed	Prep	Analysis
Antimony	0400	0.60	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:20	EPA 3050B	EPA 6020
Arsenic	0450	12	0.30	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:20	EPA 3050B	EPA 6020
Barium	0475	190	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:20	EPA 3050B	EPA 6020
Beryllium	0900	0.76	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:20	EPA 3050B	EPA 6020
Cadmium	1650	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:20	EPA 3050B	EPA 6020
Chromium	2450	42	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:20	EPA 3050B	EPA 6020
Cobalt	2625	15	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:20	EPA 3050B	EPA 6020
Copper	2800	42	0.33	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:20	EPA 3050B	EPA 6020
Lead	5450	12	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:20	EPA 3050B	EPA 6020
Mercury	5600	0.053	0.020	1.000	221795	MET54	NCD	03/30/15 15:28	03/31/15 13:41	METHOD	EPA 7471A
Molybdenum	5775	0.90	0.49	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 18:00	EPA 3050B	EPA 6020
Nickel	5850	49	0.47	25.00	221821	MET16	NT	03/31/15 13:50	04/07/15 09:11	EPA 3050B	EPA 6020
Selenium	7600	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:20	EPA 3050B	EPA 6020
Silver	7800	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:20	EPA 3050B	EPA 6020
Thallium	8300	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:20	EPA 3050B	EPA 6020
Vanadium	8875	58	0.53	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:20	EPA 3050B	EPA 6020
Zinc	9050	96	1.2	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:20	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	265569	Location:	WSDP - RFS Soil Disposal Testing 3/24
Client:	Lawrence Berkeley National Lab	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Project#:	STANDARD		
COC #:	08381	Units:	mg/Kg
Requested:	TTLCLBNL	Basis:	dry
Field ID:	75462	Sampled:	03/24/15 15:20
Lab ID:	265569-005	Received:	03/25/15
Matrix:	Soil		

Moisture: 14%

Analyte	Code	Result	RL	Diln Fac	Batch#	Instrument	Chemist	Prepared	Analyzed	Prep	Analysis
Antimony	0400	0.54	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:26	EPA 3050B	EPA 6020
Arsenic	0450	14	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:26	EPA 3050B	EPA 6020
Barium	0475	250	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:26	EPA 3050B	EPA 6020
Beryllium	0900	0.89	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:26	EPA 3050B	EPA 6020
Cadmium	1650	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:26	EPA 3050B	EPA 6020
Chromium	2450	50	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:26	EPA 3050B	EPA 6020
Cobalt	2625	23	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:26	EPA 3050B	EPA 6020
Copper	2800	45	0.32	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:26	EPA 3050B	EPA 6020
Lead	5450	14	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:26	EPA 3050B	EPA 6020
Mercury	5600	0.051	0.020	1.000	221795	MET54	NCD	03/30/15 15:28	03/31/15 13:42	METHOD	EPA 7471A
Molybdenum	5775	0.90	0.47	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 18:07	EPA 3050B	EPA 6020
Nickel	5850	51	0.45	25.00	221821	MET16	NT	03/31/15 13:50	04/07/15 09:18	EPA 3050B	EPA 6020
Selenium	7600	0.36	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:26	EPA 3050B	EPA 6020
Silver	7800	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:26	EPA 3050B	EPA 6020
Thallium	8300	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:26	EPA 3050B	EPA 6020
Vanadium	8875	67	0.51	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:26	EPA 3050B	EPA 6020
Zinc	9050	99	1.2	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:26	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	265569	Location:	WSDP - RFS Soil Disposal Testing 3/24
Client:	Lawrence Berkeley National Lab	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Project#:	STANDARD		
COC #:	08381	Units:	mg/Kg
Requested:	TTLCLBNL	Basis:	dry
Field ID:	75464	Sampled:	03/24/15 15:35
Lab ID:	265569-007	Received:	03/25/15
Matrix:	Soil		

Moisture: 15%

Analyte	Code	Result	RL	Diln Fac	Batch#	Instrument	Chemist	Prepared	Analyzed	Prep	Analysis
Antimony	0400	0.47	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:33	EPA 3050B	EPA 6020
Arsenic	0450	13	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:33	EPA 3050B	EPA 6020
Barium	0475	200	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:33	EPA 3050B	EPA 6020
Beryllium	0900	0.86	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:33	EPA 3050B	EPA 6020
Cadmium	1650	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:33	EPA 3050B	EPA 6020
Chromium	2450	47	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:33	EPA 3050B	EPA 6020
Cobalt	2625	15	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:33	EPA 3050B	EPA 6020
Copper	2800	45	0.32	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:33	EPA 3050B	EPA 6020
Lead	5450	11	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:33	EPA 3050B	EPA 6020
Mercury	5600	0.052	0.019	1.000	221795	MET54	NCD	03/30/15 15:28	03/31/15 13:43	METHOD	EPA 7471A
Molybdenum	5775	0.61	0.47	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 18:13	EPA 3050B	EPA 6020
Nickel	5850	46	0.45	25.00	221821	MET16	NT	03/31/15 13:50	04/07/15 09:24	EPA 3050B	EPA 6020
Selenium	7600	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:33	EPA 3050B	EPA 6020
Silver	7800	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:33	EPA 3050B	EPA 6020
Thallium	8300	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:33	EPA 3050B	EPA 6020
Vanadium	8875	66	0.51	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:33	EPA 3050B	EPA 6020
Zinc	9050	100	1.2	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:33	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	265569	Location:	WSDP - RFS Soil Disposal Testing 3/24
Client:	Lawrence Berkeley National Lab	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Project#:	STANDARD		
COC #:	08381	Units:	mg/Kg
Requested:	TTLCLBNL	Basis:	dry
Field ID:	75466	Sampled:	03/24/15 15:50
Lab ID:	265569-009	Received:	03/25/15
Matrix:	Soil		

Moisture: 13%

Analyte	Code	Result	RL	Diln Fac	Batch#	Instrument	Chemist	Prepared	Analyzed	Prep	Analysis
Antimony	0400	0.52	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:39	EPA 3050B	EPA 6020
Arsenic	0450	14	0.30	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:39	EPA 3050B	EPA 6020
Barium	0475	210	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:39	EPA 3050B	EPA 6020
Beryllium	0900	0.87	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:39	EPA 3050B	EPA 6020
Cadmium	1650	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:39	EPA 3050B	EPA 6020
Chromium	2450	47	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:39	EPA 3050B	EPA 6020
Cobalt	2625	17	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:39	EPA 3050B	EPA 6020
Copper	2800	45	0.33	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:39	EPA 3050B	EPA 6020
Lead	5450	14	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:39	EPA 3050B	EPA 6020
Mercury	5600	0.047	0.019	1.000	221795	MET54	NCD	03/30/15 15:28	03/31/15 13:44	METHOD	EPA 7471A
Molybdenum	5775	0.78	0.49	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 18:21	EPA 3050B	EPA 6020
Nickel	5850	49	0.47	25.00	221821	MET16	NT	03/31/15 13:50	04/07/15 09:30	EPA 3050B	EPA 6020
Selenium	7600	0.30	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:39	EPA 3050B	EPA 6020
Silver	7800	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:39	EPA 3050B	EPA 6020
Thallium	8300	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:39	EPA 3050B	EPA 6020
Vanadium	8875	64	0.53	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:39	EPA 3050B	EPA 6020
Zinc	9050	110	1.2	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:39	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	265569	Location:	WSDP - RFS Soil Disposal Testing 3/24
Client:	Lawrence Berkeley National Lab	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Project#:	STANDARD		
COC #:	08381	Units:	mg/Kg
Requested:	TTLCLBNL	Basis:	dry
Field ID:	75468	Sampled:	03/24/15 16:05
Lab ID:	265569-011	Received:	03/25/15
Matrix:	Soil		

Moisture: 17%

Analyte	Code	Result	RL	Diln Fac	Batch#	Instrument	Chemist	Prepared	Analyzed	Prep	Analysis
Antimony	0400	0.38	0.30	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:46	EPA 3050B	EPA 6020
Arsenic	0450	9.8	0.32	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:46	EPA 3050B	EPA 6020
Barium	0475	170	0.30	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:46	EPA 3050B	EPA 6020
Beryllium	0900	0.76	0.30	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:46	EPA 3050B	EPA 6020
Cadmium	1650	ND	0.30	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:46	EPA 3050B	EPA 6020
Chromium	2450	42	0.30	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:46	EPA 3050B	EPA 6020
Cobalt	2625	14	0.30	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:46	EPA 3050B	EPA 6020
Copper	2800	34	0.36	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:46	EPA 3050B	EPA 6020
Lead	5450	9.9	0.30	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:46	EPA 3050B	EPA 6020
Mercury	5600	0.048	0.020	1.000	221795	MET54	NCD	03/30/15 15:28	03/31/15 13:45	METHOD	EPA 7471A
Molybdenum	5775	0.56	0.53	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 18:28	EPA 3050B	EPA 6020
Nickel	5850	42	0.50	25.00	221821	MET16	NT	03/31/15 13:50	04/07/15 09:37	EPA 3050B	EPA 6020
Selenium	7600	ND	0.31	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:46	EPA 3050B	EPA 6020
Silver	7800	ND	0.30	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:46	EPA 3050B	EPA 6020
Thallium	8300	ND	0.30	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:46	EPA 3050B	EPA 6020
Vanadium	8875	62	0.57	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:46	EPA 3050B	EPA 6020
Zinc	9050	84	1.3	25.00	221821	MET16	NT	03/31/15 13:50	03/31/15 23:46	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	265569	Location:	WSDP - RFS Soil Disposal Testing 3/24
Client:	Lawrence Berkeley National Lab	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Project#:	STANDARD		
COC #:	08381	Units:	mg/Kg
Requested:	TTLCLBNL	Basis:	dry
Field ID:	75470	Sampled:	03/24/15 16:20
Lab ID:	265569-013	Received:	03/25/15
Matrix:	Soil		

Moisture: 14%

Analyte	Code	Result	RL	Diln Fac	Batch#	Instrument	Chemist	Prepared	Analyzed	Prep	Analysis
Antimony	0400	0.54	0.28	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:12	EPA 3050B	EPA 6020
Arsenic	0450	13	0.28	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:12	EPA 3050B	EPA 6020
Barium	0475	190	0.28	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 18:53	EPA 3050B	EPA 6020
Beryllium	0900	0.82	0.28	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:12	EPA 3050B	EPA 6020
Cadmium	1650	ND	0.28	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:12	EPA 3050B	EPA 6020
Chromium	2450	45	0.28	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:12	EPA 3050B	EPA 6020
Cobalt	2625	16	0.28	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:12	EPA 3050B	EPA 6020
Copper	2800	45	0.31	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:12	EPA 3050B	EPA 6020
Lead	5450	13	0.28	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:12	EPA 3050B	EPA 6020
Mercury	5600	0.046	0.018	1.000	221795	MET54	NCD	03/30/15 15:28	03/31/15 13:46	METHOD	EPA 7471A
Molybdenum	5775	0.74	0.46	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 18:53	EPA 3050B	EPA 6020
Nickel	5850	45	0.44	25.00	221821	MET16	NT	03/31/15 13:50	04/07/15 10:10	EPA 3050B	EPA 6020
Selenium	7600	0.31	0.28	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:12	EPA 3050B	EPA 6020
Silver	7800	ND	0.28	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:12	EPA 3050B	EPA 6020
Thallium	8300	ND	0.28	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:12	EPA 3050B	EPA 6020
Vanadium	8875	64	0.50	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:12	EPA 3050B	EPA 6020
Zinc	9050	100	1.1	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:12	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	265569	Location:	WSDP - RFS Soil Disposal Testing 3/24
Client:	Lawrence Berkeley National Lab	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Project#:	STANDARD		
COC #:	08381	Units:	mg/Kg
Requested:	TTLCLBNL	Basis:	dry
Field ID:	75472	Sampled:	03/24/15 16:35
Lab ID:	265569-015	Received:	03/25/15
Matrix:	Soil		

Moisture: 15%

Analyte	Code	Result	RL	Diln Fac	Batch#	Instrument	Chemist	Prepared	Analyzed	Prep	Analysis
Antimony	0400	0.50	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:18	EPA 3050B	EPA 6020
Arsenic	0450	13	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:18	EPA 3050B	EPA 6020
Barium	0475	190	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:00	EPA 3050B	EPA 6020
Beryllium	0900	0.78	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:18	EPA 3050B	EPA 6020
Cadmium	1650	ND	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:18	EPA 3050B	EPA 6020
Chromium	2450	49	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:18	EPA 3050B	EPA 6020
Cobalt	2625	16	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:18	EPA 3050B	EPA 6020
Copper	2800	46	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:18	EPA 3050B	EPA 6020
Lead	5450	13	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:18	EPA 3050B	EPA 6020
Mercury	5600	0.054	0.019	1.000	221795	MET54	NCD	03/30/15 15:28	03/31/15 13:47	METHOD	EPA 7471A
Molybdenum	5775	0.76	0.43	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:00	EPA 3050B	EPA 6020
Nickel	5850	53	0.42	25.00	221821	MET16	NT	03/31/15 13:50	04/07/15 10:16	EPA 3050B	EPA 6020
Selenium	7600	ND	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:18	EPA 3050B	EPA 6020
Silver	7800	ND	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:18	EPA 3050B	EPA 6020
Thallium	8300	ND	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:18	EPA 3050B	EPA 6020
Vanadium	8875	63	0.47	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:18	EPA 3050B	EPA 6020
Zinc	9050	100	1.1	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:18	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	265569	Location:	WSDP - RFS Soil Disposal Testing 3/24
Client:	Lawrence Berkeley National Lab	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Project#:	STANDARD		
COC #:	08381	Units:	mg/Kg
Requested:	TTLCLBNL	Basis:	dry
Field ID:	75474	Sampled:	03/24/15 09:40
Lab ID:	265569-017	Received:	03/25/15
Matrix:	Soil		

Moisture: 10%

Analyte	Code	Result	RL	Diln Fac	Batch#	Instrument	Chemist	Prepared	Analyzed	Prep	Analysis
Antimony	0400	0.51	0.25	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:25	EPA 3050B	EPA 6020
Arsenic	0450	13	0.25	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:25	EPA 3050B	EPA 6020
Barium	0475	180	0.25	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:06	EPA 3050B	EPA 6020
Beryllium	0900	0.89	0.25	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:25	EPA 3050B	EPA 6020
Cadmium	1650	ND	0.25	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:25	EPA 3050B	EPA 6020
Chromium	2450	49	0.25	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:25	EPA 3050B	EPA 6020
Cobalt	2625	16	0.25	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:25	EPA 3050B	EPA 6020
Copper	2800	46	0.28	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:25	EPA 3050B	EPA 6020
Lead	5450	13	0.25	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:25	EPA 3050B	EPA 6020
Mercury	5600	0.046	0.019	1.000	221795	MET54	NCD	03/30/15 15:28	03/31/15 13:49	METHOD	EPA 7471A
Molybdenum	5775	0.75	0.41	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:06	EPA 3050B	EPA 6020
Nickel	5850	48	0.40	25.00	221821	MET16	NT	03/31/15 13:50	04/07/15 10:23	EPA 3050B	EPA 6020
Selenium	7600	0.29	0.25	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:25	EPA 3050B	EPA 6020
Silver	7800	ND	0.25	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:25	EPA 3050B	EPA 6020
Thallium	8300	ND	0.25	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:25	EPA 3050B	EPA 6020
Vanadium	8875	65	0.45	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:25	EPA 3050B	EPA 6020
Zinc	9050	110	1.0	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:25	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	265569	Location:	WSDP - RFS Soil Disposal Testing 3/24
Client:	Lawrence Berkeley National Lab	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Project#:	STANDARD		
COC #:	08381	Units:	mg/Kg
Requested:	TTLCLBNL	Basis:	dry
Field ID:	75476	Sampled:	03/24/15 10:20
Lab ID:	265569-019	Received:	03/25/15
Matrix:	Soil		

Moisture: 15%

Analyte	Code	Result	RL	Diln Fac	Batch#	Instrument	Chemist	Prepared	Analyzed	Prep	Analysis
Antimony	0400	0.53	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:31	EPA 3050B	EPA 6020
Arsenic	0450	13	0.31	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:31	EPA 3050B	EPA 6020
Barium	0475	180	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:12	EPA 3050B	EPA 6020
Beryllium	0900	0.88	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:31	EPA 3050B	EPA 6020
Cadmium	1650	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:31	EPA 3050B	EPA 6020
Chromium	2450	49	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:31	EPA 3050B	EPA 6020
Cobalt	2625	17	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:31	EPA 3050B	EPA 6020
Copper	2800	45	0.35	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:31	EPA 3050B	EPA 6020
Lead	5450	13	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:31	EPA 3050B	EPA 6020
Mercury	5600	0.046	0.019	1.000	221795	MET54	NCD	03/30/15 15:28	03/31/15 13:50	METHOD	EPA 7471A
Molybdenum	5775	0.74	0.51	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:12	EPA 3050B	EPA 6020
Nickel	5850	48	0.49	25.00	221821	MET16	NT	03/31/15 13:50	04/07/15 10:29	EPA 3050B	EPA 6020
Selenium	7600	ND	0.31	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:31	EPA 3050B	EPA 6020
Silver	7800	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:31	EPA 3050B	EPA 6020
Thallium	8300	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:31	EPA 3050B	EPA 6020
Vanadium	8875	69	0.56	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:31	EPA 3050B	EPA 6020
Zinc	9050	110	1.3	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:31	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	265569	Location:	WSDP - RFS Soil Disposal Testing 3/24
Client:	Lawrence Berkeley National Lab	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Project#:	STANDARD		
COC #:	08381	Units:	mg/Kg
Requested:	TTLCLBNL	Basis:	dry
Field ID:	75478	Sampled:	03/24/15 10:40
Lab ID:	265569-021	Received:	03/25/15
Matrix:	Soil		

Moisture: 15%

Analyte	Code	Result	RL	Diln Fac	Batch#	Instrument	Chemist	Prepared	Analyzed	Prep	Analysis
Antimony	0400	0.55	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:37	EPA 3050B	EPA 6020
Arsenic	0450	13	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:37	EPA 3050B	EPA 6020
Barium	0475	200	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:19	EPA 3050B	EPA 6020
Beryllium	0900	0.84	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:37	EPA 3050B	EPA 6020
Cadmium	1650	ND	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:37	EPA 3050B	EPA 6020
Chromium	2450	53	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:37	EPA 3050B	EPA 6020
Cobalt	2625	18	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:37	EPA 3050B	EPA 6020
Copper	2800	46	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:37	EPA 3050B	EPA 6020
Lead	5450	14	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:37	EPA 3050B	EPA 6020
Mercury	5600	0.054	0.021	1.000	221812	MET54	NCD	03/31/15 10:35	03/31/15 14:10	METHOD	EPA 7471A
Molybdenum	5775	0.85	0.44	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:19	EPA 3050B	EPA 6020
Nickel	5850	53	0.42	25.00	221821	MET16	NT	03/31/15 13:50	04/07/15 10:36	EPA 3050B	EPA 6020
Selenium	7600	ND	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:37	EPA 3050B	EPA 6020
Silver	7800	ND	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:37	EPA 3050B	EPA 6020
Thallium	8300	ND	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:37	EPA 3050B	EPA 6020
Vanadium	8875	67	0.48	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:37	EPA 3050B	EPA 6020
Zinc	9050	100	1.1	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:37	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	265569	Location:	WSDP - RFS Soil Disposal Testing 3/24
Client:	Lawrence Berkeley National Lab	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Project#:	STANDARD		
COC #:	08381	Units:	mg/Kg
Requested:	TTLCLBNL	Basis:	dry
Field ID:	75480	Sampled:	03/24/15 10:55
Lab ID:	265569-023	Received:	03/25/15
Matrix:	Soil		

Moisture: 13%

Analyte	Code	Result	RL	Diln Fac	Batch#	Instrument	Chemist	Prepared	Analyzed	Prep	Analysis
Antimony	0400	0.29	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:44	EPA 3050B	EPA 6020
Arsenic	0450	8.2	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:44	EPA 3050B	EPA 6020
Barium	0475	160	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:25	EPA 3050B	EPA 6020
Beryllium	0900	0.64	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:44	EPA 3050B	EPA 6020
Cadmium	1650	ND	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:44	EPA 3050B	EPA 6020
Chromium	2450	32	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:44	EPA 3050B	EPA 6020
Cobalt	2625	8.6	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:44	EPA 3050B	EPA 6020
Copper	2800	22	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:44	EPA 3050B	EPA 6020
Lead	5450	6.3	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:44	EPA 3050B	EPA 6020
Mercury	5600	0.040	0.017	1.000	221812	MET54	NCD	03/31/15 10:35	03/31/15 14:11	METHOD	EPA 7471A
Molybdenum	5775	ND	0.43	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:44	EPA 3050B	EPA 6020
Nickel	5850	25	0.41	25.00	221821	MET16	NT	03/31/15 13:50	04/07/15 10:42	EPA 3050B	EPA 6020
Selenium	7600	ND	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:44	EPA 3050B	EPA 6020
Silver	7800	ND	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:44	EPA 3050B	EPA 6020
Thallium	8300	ND	0.27	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:44	EPA 3050B	EPA 6020
Vanadium	8875	57	0.47	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:44	EPA 3050B	EPA 6020
Zinc	9050	66	1.1	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:44	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	265569	Location:	WSDP - RFS Soil Disposal Testing 3/24
Client:	Lawrence Berkeley National Lab	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Project#:	STANDARD		
COC #:	08381	Units:	mg/Kg
Requested:	TTLCLBNL	Basis:	dry
Field ID:	75482	Sampled:	03/24/15 10:45
Lab ID:	265569-025	Received:	03/25/15
Matrix:	Soil		

Moisture: 14%

Analyte	Code	Result	RL	Diln Fac	Batch#	Instrument	Chemist	Prepared	Analyzed	Prep	Analysis
Antimony	0400	0.46	0.28	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:50	EPA 3050B	EPA 6020
Arsenic	0450	12	0.28	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:50	EPA 3050B	EPA 6020
Barium	0475	170	0.28	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:32	EPA 3050B	EPA 6020
Beryllium	0900	0.71	0.28	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:50	EPA 3050B	EPA 6020
Cadmium	1650	ND	0.28	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:50	EPA 3050B	EPA 6020
Chromium	2450	41	0.28	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:50	EPA 3050B	EPA 6020
Cobalt	2625	13	0.28	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:50	EPA 3050B	EPA 6020
Copper	2800	37	0.32	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:50	EPA 3050B	EPA 6020
Lead	5450	12	0.28	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:50	EPA 3050B	EPA 6020
Mercury	5600	0.049	0.021	1.000	221812	MET54	NCD	03/31/15 10:35	03/31/15 14:12	METHOD	EPA 7471A
Molybdenum	5775	0.73	0.46	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:32	EPA 3050B	EPA 6020
Nickel	5850	46	0.44	25.00	221821	MET16	NT	03/31/15 13:50	04/07/15 10:49	EPA 3050B	EPA 6020
Selenium	7600	ND	0.28	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:50	EPA 3050B	EPA 6020
Silver	7800	ND	0.28	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:50	EPA 3050B	EPA 6020
Thallium	8300	ND	0.28	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:50	EPA 3050B	EPA 6020
Vanadium	8875	54	0.50	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:50	EPA 3050B	EPA 6020
Zinc	9050	88	1.1	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:50	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	265569	Location:	WSDP - RFS Soil Disposal Testing 3/24
Client:	Lawrence Berkeley National Lab	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Project#:	STANDARD		
COC #:	08381	Units:	mg/Kg
Requested:	TTLCLBNL	Basis:	dry
Field ID:	75484	Sampled:	03/24/15 11:50
Lab ID:	265569-027	Received:	03/25/15
Matrix:	Soil		

Moisture: 14%

Analyte	Code	Result	RL	Diln Fac	Batch#	Instrument	Chemist	Prepared	Analyzed	Prep	Analysis
Antimony	0400	0.44	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:57	EPA 3050B	EPA 6020
Arsenic	0450	11	0.31	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:57	EPA 3050B	EPA 6020
Barium	0475	180	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:38	EPA 3050B	EPA 6020
Beryllium	0900	0.72	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:57	EPA 3050B	EPA 6020
Cadmium	1650	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:57	EPA 3050B	EPA 6020
Chromium	2450	39	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:57	EPA 3050B	EPA 6020
Cobalt	2625	13	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:57	EPA 3050B	EPA 6020
Copper	2800	35	0.35	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:57	EPA 3050B	EPA 6020
Lead	5450	11	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:57	EPA 3050B	EPA 6020
Mercury	5600	0.042	0.020	1.000	221812	MET54	NCD	03/31/15 10:35	03/31/15 14:13	METHOD	EPA 7471A
Molybdenum	5775	0.64	0.51	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:38	EPA 3050B	EPA 6020
Nickel	5850	44	0.49	25.00	221821	MET16	NT	03/31/15 13:50	04/07/15 10:55	EPA 3050B	EPA 6020
Selenium	7600	ND	0.31	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:57	EPA 3050B	EPA 6020
Silver	7800	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:57	EPA 3050B	EPA 6020
Thallium	8300	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:57	EPA 3050B	EPA 6020
Vanadium	8875	57	0.56	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:57	EPA 3050B	EPA 6020
Zinc	9050	80	1.3	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 00:57	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	265569	Location:	WSDP - RFS Soil Disposal Testing 3/24
Client:	Lawrence Berkeley National Lab	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Project#:	STANDARD		
COC #:	08381	Units:	mg/Kg
Requested:	TTLCLBNL	Basis:	dry
Field ID:	75486	Sampled:	03/24/15 12:05
Lab ID:	265569-029	Received:	03/25/15
Matrix:	Soil		

Moisture: 14%

Analyte	Code	Result	RL	Diln Fac	Batch#	Instrument	Chemist	Prepared	Analyzed	Prep	Analysis
Antimony	0400	0.54	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:03	EPA 3050B	EPA 6020
Arsenic	0450	13	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:03	EPA 3050B	EPA 6020
Barium	0475	190	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:44	EPA 3050B	EPA 6020
Beryllium	0900	0.88	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:03	EPA 3050B	EPA 6020
Cadmium	1650	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:03	EPA 3050B	EPA 6020
Chromium	2450	48	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:03	EPA 3050B	EPA 6020
Cobalt	2625	18	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:03	EPA 3050B	EPA 6020
Copper	2800	43	0.33	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:03	EPA 3050B	EPA 6020
Lead	5450	13	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:03	EPA 3050B	EPA 6020
Mercury	5600	0.054	0.019	1.000	221812	MET54	NCD	03/31/15 10:35	03/31/15 14:15	METHOD	EPA 7471A
Molybdenum	5775	0.80	0.49	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:44	EPA 3050B	EPA 6020
Nickel	5850	48	0.47	25.00	221821	MET16	NT	03/31/15 13:50	04/07/15 17:29	EPA 3050B	EPA 6020
Selenium	7600	0.36	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:03	EPA 3050B	EPA 6020
Silver	7800	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:03	EPA 3050B	EPA 6020
Thallium	8300	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:03	EPA 3050B	EPA 6020
Vanadium	8875	67	0.53	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:03	EPA 3050B	EPA 6020
Zinc	9050	100	1.2	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:03	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	265569	Location:	WSDP - RFS Soil Disposal Testing 3/24
Client:	Lawrence Berkeley National Lab	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Project#:	STANDARD		
COC #:	08381	Units:	mg/Kg
Requested:	TTLCLBNL	Basis:	dry
Field ID:	75488	Sampled:	03/24/15 12:20
Lab ID:	265569-031	Received:	03/25/15
Matrix:	Soil		

Moisture: 15%

Analyte	Code	Result	RL	Diln Fac	Batch#	Instrument	Chemist	Prepared	Analyzed	Prep	Analysis
Antimony	0400	0.51	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:51	EPA 3050B	EPA 6020
Arsenic	0450	14	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:51	EPA 3050B	EPA 6020
Barium	0475	100	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:51	EPA 3050B	EPA 6020
Beryllium	0900	0.43	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:51	EPA 3050B	EPA 6020
Cadmium	1650	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:51	EPA 3050B	EPA 6020
Chromium	2450	29	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:51	EPA 3050B	EPA 6020
Cobalt	2625	9.0	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:51	EPA 3050B	EPA 6020
Copper	2800	25	0.33	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:51	EPA 3050B	EPA 6020
Lead	5450	9.4	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:51	EPA 3050B	EPA 6020
Mercury	5600	0.058	0.021	1.000	221812	MET54	NCD	03/31/15 10:35	03/31/15 14:16	METHOD	EPA 7471A
Molybdenum	5775	0.66	0.48	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:51	EPA 3050B	EPA 6020
Nickel	5850	25	0.46	25.00	221821	MET16	NT	03/31/15 13:50	04/07/15 17:42	EPA 3050B	EPA 6020
Selenium	7600	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/07/15 13:40	EPA 3050B	EPA 6020
Silver	7800	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:51	EPA 3050B	EPA 6020
Thallium	8300	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:51	EPA 3050B	EPA 6020
Vanadium	8875	41	0.52	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:51	EPA 3050B	EPA 6020
Zinc	9050	56	1.2	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 19:51	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	265569	Location:	WSDP - RFS Soil Disposal Testing 3/24
Client:	Lawrence Berkeley National Lab	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Project#:	STANDARD		
COC #:	08381	Units:	mg/Kg
Requested:	TTLCLBNL	Basis:	dry
Field ID:	75490	Sampled:	03/24/15 12:35
Lab ID:	265569-033	Received:	03/25/15
Matrix:	Soil		

Moisture: 16%

Analyte	Code	Result	RL	Diln Fac	Batch#	Instrument	Chemist	Prepared	Analyzed	Prep	Analysis
Antimony	0400	0.58	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:35	EPA 3050B	EPA 6020
Arsenic	0450	13	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:35	EPA 3050B	EPA 6020
Barium	0475	190	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 20:16	EPA 3050B	EPA 6020
Beryllium	0900	0.85	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:35	EPA 3050B	EPA 6020
Cadmium	1650	ND	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:35	EPA 3050B	EPA 6020
Chromium	2450	46	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:35	EPA 3050B	EPA 6020
Cobalt	2625	15	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:35	EPA 3050B	EPA 6020
Copper	2800	44	0.34	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:35	EPA 3050B	EPA 6020
Lead	5450	13	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:35	EPA 3050B	EPA 6020
Mercury	5600	0.049	0.020	1.000	221812	MET54	NCD	03/31/15 10:35	03/31/15 14:17	METHOD	EPA 7471A
Molybdenum	5775	0.82	0.49	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 20:16	EPA 3050B	EPA 6020
Nickel	5850	46	0.47	25.00	221821	MET16	NT	03/31/15 13:50	04/07/15 17:55	EPA 3050B	EPA 6020
Selenium	7600	0.31	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:35	EPA 3050B	EPA 6020
Silver	7800	ND	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:35	EPA 3050B	EPA 6020
Thallium	8300	ND	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:35	EPA 3050B	EPA 6020
Vanadium	8875	67	0.54	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:35	EPA 3050B	EPA 6020
Zinc	9050	99	1.2	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:35	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	265569	Location:	WSDP - RFS Soil Disposal Testing 3/24
Client:	Lawrence Berkeley National Lab	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Project#:	STANDARD		
COC #:	08381	Units:	mg/Kg
Requested:	TTLCLBNL	Basis:	dry
Field ID:	75492	Sampled:	03/24/15 12:50
Lab ID:	265569-035	Received:	03/25/15
Matrix:	Soil		

Moisture: 16%

Analyte	Code	Result	RL	Diln Fac	Batch#	Instrument	Chemist	Prepared	Analyzed	Prep	Analysis
Antimony	0400	0.53	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:42	EPA 3050B	EPA 6020
Arsenic	0450	14	0.32	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:42	EPA 3050B	EPA 6020
Barium	0475	210	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 20:23	EPA 3050B	EPA 6020
Beryllium	0900	0.90	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:42	EPA 3050B	EPA 6020
Cadmium	1650	ND	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:42	EPA 3050B	EPA 6020
Chromium	2450	53	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:42	EPA 3050B	EPA 6020
Cobalt	2625	17	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:42	EPA 3050B	EPA 6020
Copper	2800	49	0.36	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:42	EPA 3050B	EPA 6020
Lead	5450	13	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:42	EPA 3050B	EPA 6020
Mercury	5600	0.041	0.019	1.000	221812	MET54	NCD	03/31/15 10:35	03/31/15 14:18	METHOD	EPA 7471A
Molybdenum	5775	0.78	0.53	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 20:23	EPA 3050B	EPA 6020
Nickel	5850	49	0.51	25.00	221821	MET16	NT	03/31/15 13:50	04/07/15 18:08	EPA 3050B	EPA 6020
Selenium	7600	ND	0.32	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:42	EPA 3050B	EPA 6020
Silver	7800	ND	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:42	EPA 3050B	EPA 6020
Thallium	8300	ND	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:42	EPA 3050B	EPA 6020
Vanadium	8875	70	0.58	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:42	EPA 3050B	EPA 6020
Zinc	9050	110	1.3	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:42	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	265569	Location:	WSDP - RFS Soil Disposal Testing 3/24
Client:	Lawrence Berkeley National Lab	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Project#:	STANDARD		
COC #:	08381	Units:	mg/Kg
Requested:	TTLCLBNL	Basis:	dry
Field ID:	75494	Sampled:	03/24/15 13:00
Lab ID:	265569-037	Received:	03/25/15
Matrix:	Soil		

Moisture: 16%

Analyte	Code	Result	RL	Diln Fac	Batch#	Instrument	Chemist	Prepared	Analyzed	Prep	Analysis
Antimony	0400	0.55	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:48	EPA 3050B	EPA 6020
Arsenic	0450	13	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:48	EPA 3050B	EPA 6020
Barium	0475	190	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 20:29	EPA 3050B	EPA 6020
Beryllium	0900	0.82	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:48	EPA 3050B	EPA 6020
Cadmium	1650	ND	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:48	EPA 3050B	EPA 6020
Chromium	2450	47	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:48	EPA 3050B	EPA 6020
Cobalt	2625	16	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:48	EPA 3050B	EPA 6020
Copper	2800	42	0.33	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:48	EPA 3050B	EPA 6020
Lead	5450	12	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:48	EPA 3050B	EPA 6020
Mercury	5600	0.054	0.020	1.000	221812	MET54	NCD	03/31/15 10:35	03/31/15 14:21	METHOD	EPA 7471A
Molybdenum	5775	0.75	0.48	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 20:29	EPA 3050B	EPA 6020
Nickel	5850	49	0.46	25.00	221821	MET16	NT	03/31/15 13:50	04/07/15 18:21	EPA 3050B	EPA 6020
Selenium	7600	ND	0.30	25.00	221821	MET26	NT	03/31/15 13:50	04/02/15 02:00	EPA 3050B	EPA 6020
Silver	7800	ND	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:48	EPA 3050B	EPA 6020
Thallium	8300	ND	0.30	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:48	EPA 3050B	EPA 6020
Vanadium	8875	62	0.52	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:48	EPA 3050B	EPA 6020
Zinc	9050	93	1.2	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:48	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	265569	Location:	WSDP - RFS Soil Disposal Testing 3/24
Client:	Lawrence Berkeley National Lab	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Project#:	STANDARD		
COC #:	08381	Units:	mg/Kg
Requested:	TTLCLBNL	Basis:	dry
Field ID:	75496	Sampled:	03/24/15 13:10
Lab ID:	265569-039	Received:	03/25/15
Matrix:	Soil		

Moisture: 16%

Analyte	Code	Result	RL	Diln Fac	Batch#	Instrument	Chemist	Prepared	Analyzed	Prep	Analysis
Antimony	0400	0.45	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:55	EPA 3050B	EPA 6020
Arsenic	0450	12	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:55	EPA 3050B	EPA 6020
Barium	0475	180	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 20:35	EPA 3050B	EPA 6020
Beryllium	0900	0.76	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:55	EPA 3050B	EPA 6020
Cadmium	1650	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:55	EPA 3050B	EPA 6020
Chromium	2450	43	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:55	EPA 3050B	EPA 6020
Cobalt	2625	14	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:55	EPA 3050B	EPA 6020
Copper	2800	42	0.32	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:55	EPA 3050B	EPA 6020
Lead	5450	12	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:55	EPA 3050B	EPA 6020
Mercury	5600	0.053	0.022	1.000	221812	MET54	NCD	03/31/15 10:35	03/31/15 14:22	METHOD	EPA 7471A
Molybdenum	5775	0.74	0.47	25.00	221821	MET16	NT	03/31/15 13:50	04/02/15 20:35	EPA 3050B	EPA 6020
Nickel	5850	49	0.45	25.00	221821	MET16	NT	03/31/15 13:50	04/07/15 18:34	EPA 3050B	EPA 6020
Selenium	7600	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:55	EPA 3050B	EPA 6020
Silver	7800	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:55	EPA 3050B	EPA 6020
Thallium	8300	ND	0.29	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:55	EPA 3050B	EPA 6020
Vanadium	8875	55	0.51	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:55	EPA 3050B	EPA 6020
Zinc	9050	92	1.2	25.00	221821	MET16	NT	03/31/15 13:50	04/01/15 01:55	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	265569	Location:	WSDP - RFS Soil Disposal Testing 3/24
Client:	Lawrence Berkeley National Lab	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Project#:	STANDARD		
COC #:	08381	Units:	mg/Kg
Requested:	TTLCLBNL	Basis:	dry
Field ID:	75498	Sampled:	03/24/15 13:25
Lab ID:	265569-041	Received:	03/25/15
Matrix:	Soil		

Moisture: 14%

Analyte	Code	Result	RL	Diln Fac	Batch#	Instrument	Chemist	Prepared	Analyzed	Prep	Analysis
Antimony	0400	0.74	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 13:30	EPA 3050B	EPA 6020
Arsenic	0450	15	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:07	EPA 3050B	EPA 6020
Barium	0475	170	0.29	25.00	221763	MET16	CRT	03/30/15 06:00	04/01/15 18:28	EPA 3050B	EPA 6020
Beryllium	0900	0.81	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 13:30	EPA 3050B	EPA 6020
Cadmium	1650	ND	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:07	EPA 3050B	EPA 6020
Chromium	2450	51	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:07	EPA 3050B	EPA 6020
Cobalt	2625	16	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:07	EPA 3050B	EPA 6020
Copper	2800	49	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:07	EPA 3050B	EPA 6020
Lead	5450	17	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 13:30	EPA 3050B	EPA 6020
Mercury	5600	0.051	0.020	1.000	221812	MET54	NCD	03/31/15 10:35	03/31/15 14:24	METHOD	EPA 7471A
Molybdenum	5775	0.94	0.48	25.00	221763	MET16	CRT	03/30/15 06:00	04/01/15 18:28	EPA 3050B	EPA 6020
Nickel	5850	58	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:07	EPA 3050B	EPA 6020
Selenium	7600	0.34	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	04/02/15 21:57	EPA 3050B	EPA 6020
Silver	7800	ND	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:07	EPA 3050B	EPA 6020
Thallium	8300	ND	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:07	EPA 3050B	EPA 6020
Vanadium	8875	58	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:07	EPA 3050B	EPA 6020
Zinc	9050	120	1.2	25.00	221763	MET16	CRT	03/30/15 06:00	04/01/15 18:28	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	265569	Location:	WSDP - RFS Soil Disposal Testing 3/24
Client:	Lawrence Berkeley National Lab	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Project#:	STANDARD		
COC #:	08381	Units:	mg/Kg
Requested:	TTLCLBNL	Basis:	dry
Field ID:	75500	Sampled:	03/24/15 13:35
Lab ID:	265569-043	Received:	03/25/15
Matrix:	Soil		

Moisture: 14%

Analyte	Code	Result	RL	Diln Fac	Batch#	Instrument	Chemist	Prepared	Analyzed	Prep	Analysis
Antimony	0400	0.54	0.27	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 13:35	EPA 3050B	EPA 6020
Arsenic	0450	14	0.27	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:12	EPA 3050B	EPA 6020
Barium	0475	190	0.27	25.00	221763	MET16	CRT	03/30/15 06:00	04/01/15 18:34	EPA 3050B	EPA 6020
Beryllium	0900	0.77	0.27	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 13:35	EPA 3050B	EPA 6020
Cadmium	1650	ND	0.27	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:12	EPA 3050B	EPA 6020
Chromium	2450	50	0.27	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:12	EPA 3050B	EPA 6020
Cobalt	2625	18	0.27	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:12	EPA 3050B	EPA 6020
Copper	2800	49	0.27	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:12	EPA 3050B	EPA 6020
Lead	5450	15	0.27	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 13:35	EPA 3050B	EPA 6020
Mercury	5600	0.042	0.019	1.000	221812	MET54	NCD	03/31/15 10:35	03/31/15 14:25	METHOD	EPA 7471A
Molybdenum	5775	0.62	0.27	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 13:35	EPA 3050B	EPA 6020
Nickel	5850	59	0.27	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:12	EPA 3050B	EPA 6020
Selenium	7600	0.34	0.27	25.00	221763	MET16	CRT	03/30/15 06:00	04/01/15 18:34	EPA 3050B	EPA 6020
Silver	7800	ND	0.27	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:12	EPA 3050B	EPA 6020
Thallium	8300	ND	0.27	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:12	EPA 3050B	EPA 6020
Vanadium	8875	59	0.27	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:12	EPA 3050B	EPA 6020
Zinc	9050	130	1.1	25.00	221763	MET16	CRT	03/30/15 06:00	04/01/15 18:34	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	265569	Location:	WSDP - RFS Soil Disposal Testing 3/24
Client:	Lawrence Berkeley National Lab	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Project#:	STANDARD		
COC #:	08381	Units:	mg/Kg
Requested:	TTLCLBNL	Basis:	dry
Field ID:	75502	Sampled:	03/24/15 13:50
Lab ID:	265569-045	Received:	03/25/15
Matrix:	Soil		

Moisture: 15%

Analyte	Code	Result	RL	Diln Fac	Batch#	Instrument	Chemist	Prepared	Analyzed	Prep	Analysis
Antimony	0400	0.44	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 13:39	EPA 3050B	EPA 6020
Arsenic	0450	12	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:17	EPA 3050B	EPA 6020
Barium	0475	180	0.29	25.00	221763	MET16	CRT	03/30/15 06:00	04/01/15 19:00	EPA 3050B	EPA 6020
Beryllium	0900	0.74	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 13:39	EPA 3050B	EPA 6020
Cadmium	1650	ND	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:17	EPA 3050B	EPA 6020
Chromium	2450	41	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:17	EPA 3050B	EPA 6020
Cobalt	2625	17	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:17	EPA 3050B	EPA 6020
Copper	2800	41	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:17	EPA 3050B	EPA 6020
Lead	5450	13	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 13:39	EPA 3050B	EPA 6020
Mercury	5600	0.056	0.018	1.000	221812	MET54	NCD	03/31/15 10:35	03/31/15 14:26	METHOD	EPA 7471A
Molybdenum	5775	0.61	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 13:39	EPA 3050B	EPA 6020
Nickel	5850	49	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:17	EPA 3050B	EPA 6020
Selenium	7600	ND	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	04/02/15 22:02	EPA 3050B	EPA 6020
Silver	7800	ND	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:17	EPA 3050B	EPA 6020
Thallium	8300	ND	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:17	EPA 3050B	EPA 6020
Vanadium	8875	56	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:17	EPA 3050B	EPA 6020
Zinc	9050	120	1.2	25.00	221763	MET16	CRT	03/30/15 06:00	04/01/15 19:00	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	265569	Location:	WSDP - RFS Soil Disposal Testing 3/24
Client:	Lawrence Berkeley National Lab	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Project#:	STANDARD		
COC #:	08381	Units:	mg/Kg
Requested:	TTLCLBNL	Basis:	dry
Field ID:	75504	Sampled:	03/24/15 14:00
Lab ID:	265569-047	Received:	03/25/15
Matrix:	Soil		

Moisture: 16%

Analyte	Code	Result	RL	Diln Fac	Batch#	Instrument	Chemist	Prepared	Analyzed	Prep	Analysis
Antimony	0400	0.44	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 13:44	EPA 3050B	EPA 6020
Arsenic	0450	13	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:21	EPA 3050B	EPA 6020
Barium	0475	170	0.29	25.00	221763	MET16	CRT	03/30/15 06:00	04/01/15 19:06	EPA 3050B	EPA 6020
Beryllium	0900	0.77	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 13:44	EPA 3050B	EPA 6020
Cadmium	1650	ND	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:21	EPA 3050B	EPA 6020
Chromium	2450	42	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:21	EPA 3050B	EPA 6020
Cobalt	2625	17	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:21	EPA 3050B	EPA 6020
Copper	2800	39	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:21	EPA 3050B	EPA 6020
Lead	5450	12	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 13:44	EPA 3050B	EPA 6020
Mercury	5600	0.063	0.018	1.000	221812	MET54	NCD	03/31/15 10:35	03/31/15 14:27	METHOD	EPA 7471A
Molybdenum	5775	0.64	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 13:44	EPA 3050B	EPA 6020
Nickel	5850	46	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:21	EPA 3050B	EPA 6020
Selenium	7600	ND	0.29	25.00	221763	MET16	CRT	03/30/15 06:00	04/01/15 19:06	EPA 3050B	EPA 6020
Silver	7800	ND	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:21	EPA 3050B	EPA 6020
Thallium	8300	ND	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:21	EPA 3050B	EPA 6020
Vanadium	8875	55	0.29	25.00	221763	MET26	CRT	03/30/15 06:00	03/31/15 11:21	EPA 3050B	EPA 6020
Zinc	9050	110	1.2	25.00	221763	MET16	CRT	03/30/15 06:00	04/01/15 19:06	EPA 3050B	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3050B
Project#:	STANDARD	Analysis:	EPA 6020
Location:	WSDP - RFS Soil Disposal Testing 3/24		
Requested:	TTLCLBNL	Diln Fac:	25.00
Type:	BLANK	Batch#:	221763
Lab ID:	QC782376	Chemist:	CRT
Matrix:	Miscell.	Prepared:	03/30/15 06:00
Units:	mg/Kg		

Analyte	Code	Result	RL	Instrument	Analyzed
Antimony	0400	ND	0.25	MET26	03/31/15 13:07
Arsenic	0450	ND	0.25	MET26	03/31/15 10:44
Barium	0475	ND	0.25	MET26	03/31/15 10:44
Beryllium	0900	ND	0.25	MET26	03/31/15 10:44
Cadmium	1650	ND	0.25	MET26	03/31/15 10:44
Chromium	2450	ND	0.25	MET26	03/31/15 10:44
Cobalt	2625	ND	0.25	MET26	03/31/15 10:44
Copper	2800	ND	0.28	MET16	04/01/15 17:32
Lead	5450	ND	0.25	MET26	03/31/15 10:44
Molybdenum	5775	ND	0.25	MET26	03/31/15 10:44
Nickel	5850	ND	0.25	MET26	03/31/15 10:44
Selenium	7600	ND	0.25	MET16	04/01/15 17:32
Silver	7800	ND	0.25	MET26	03/31/15 10:44
Thallium	8300	ND	0.25	MET26	03/31/15 10:44
Vanadium	8875	ND	0.25	MET26	03/31/15 10:44
Zinc	9050	ND	1.0	MET16	04/01/15 17:32

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3050B
Project#:	STANDARD	Analysis:	EPA 6020
Location:	WSDP - RFS Soil Disposal Testing 3/24		
Requested:	TTLCLBNL	Diln Fac:	25.00
Type:	LCS	Batch#:	221763
Lab ID:	QC782377	Chemist:	CRT
Matrix:	Miscell.	Prepared:	03/30/15 06:00
Units:	mg/Kg		

Analyte	Code	Spiked	Result	%REC	Limits	Instrument	Analyzed
Antimony	0400	25.00	24.13	97	80-120	MET26	03/31/15 13:11
Arsenic	0450	25.00	25.56	102	80-121	MET26	03/31/15 10:49
Barium	0475	25.00	28.34	113	80-121	MET16	04/01/15 17:39
Beryllium	0900	25.00	25.09	100	80-120	MET26	03/31/15 13:11
Cadmium	1650	25.00	25.91	104	80-120	MET26	03/31/15 13:11
Chromium	2450	25.00	24.90	100	80-131	MET26	03/31/15 10:49
Cobalt	2625	25.00	24.90	100	80-132	MET26	03/31/15 10:49
Copper	2800	25.00	26.88	108	80-137	MET26	03/31/15 10:49
Lead	5450	25.00	25.20	101	80-125	MET26	03/31/15 13:11
Molybdenum	5775	25.00	24.08	96	80-120	MET26	03/31/15 13:11
Nickel	5850	25.00	25.94	104	77-141	MET26	03/31/15 10:49
Selenium	7600	25.00	29.13	117	80-129	MET16	04/01/15 17:39
Silver	7800	25.00	25.73	103	80-122	MET26	03/31/15 13:11
Thallium	8300	25.00	22.20	89	80-120	MET26	03/31/15 13:11
Vanadium	8875	25.00	24.98	100	80-128	MET26	03/31/15 10:49
Zinc	9050	25.00	30.06	120	80-133	MET16	04/01/15 17:39

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3050B
Project#:	STANDARD	Analysis:	EPA 6020
Location:	WSDP - RFS Soil Disposal Testing 3/24		
Requested:	TTLCLBNL	Diln Fac:	25.00
Field ID:	ZZZZZZZZZZ	Batch#:	221763
MSS Lab ID:	265477-002	Chemist:	CRT
Matrix:	Miscell.	Sampled:	03/20/15 12:55
Units:	mg/Kg	Received:	03/20/15
Basis:	dry	Prepared:	03/30/15 06:00

Type: MS Moisture: 92%
Lab ID: QC782378

Analyte	Code	MSS Result	Spiked	Result	%REC	Limits	Instrument	Analyzed
Antimony	0400	2.018	343.4	320.6	93	21-120	MET16	04/01/15 18:07
Arsenic	0450	2.673	343.4	345.0	100	75-122	MET26	03/31/15 13:21
Barium	0475	78.93	343.4	451.9	109	54-148	MET16	04/01/15 18:07
Beryllium	0900	<0.5396	343.4	346.5	101	80-120	MET26	03/31/15 13:21
Cadmium	1650	0.8239	343.4	353.4	103	80-120	MET26	03/31/15 13:21
Chromium	2450	21.83	343.4	360.2	99	60-158	MET26	03/31/15 10:58
Cobalt	2625	2.099	343.4	342.2	99	73-142	MET26	03/31/15 10:58
Copper	2800	248.6	343.4	544.0	86	59-150	MET26	03/31/15 10:58
Lead	5450	16.09	343.4	357.1	99	68-137	MET26	03/31/15 13:21
Molybdenum	5775	7.868	343.4	341.7	97	71-120	MET26	03/31/15 13:21
Nickel	5850	25.74	343.4	372.6	101	57-161	MET26	03/31/15 10:58
Selenium	7600	<0.9162	343.4	397.1	116	75-128	MET16	04/01/15 18:07
Silver	7800	<0.3170	343.4	353.2	103	77-120	MET26	03/31/15 13:21
Thallium	8300	0.2131	343.4	306.1	89	76-120	MET26	03/31/15 13:21
Vanadium	8875	11.39	343.4	356.1	100	65-150	MET26	03/31/15 10:58
Zinc	9050	1,642	343.4	1,808	48 NM	44-158	MET16	04/01/15 18:07

Type: MSD Moisture: 92%
Lab ID: QC782379

Analyte	Code	Spiked	Result	%REC	Limits	RPD	Lim	Instrument	Analyzed
Antimony	0400	318.9	301.5	94	21-120	1	29	MET16	04/01/15 18:21
Arsenic	0450	318.9	322.5	100	75-122	1	24	MET26	03/31/15 13:25
Barium	0475	318.9	422.4	108	54-148	1	28	MET16	04/01/15 18:21
Beryllium	0900	318.9	318.7	100	80-120	1	20	MET26	03/31/15 13:25
Cadmium	1650	318.9	322.1	101	80-120	2	20	MET26	03/31/15 13:25
Chromium	2450	318.9	340.2	100	60-158	1	36	MET26	03/31/15 11:03
Cobalt	2625	318.9	326.2	102	73-142	3	34	MET26	03/31/15 11:03
Copper	2800	318.9	522.8	86	59-150	0	52	MET26	03/31/15 11:03
Lead	5450	318.9	328.1	98	68-137	1	32	MET26	03/31/15 13:25
Molybdenum	5775	318.9	316.2	97	71-120	1	20	MET26	03/31/15 13:25
Nickel	5850	318.9	350.6	102	57-161	1	47	MET26	03/31/15 11:03
Selenium	7600	318.9	340.2	107	75-128	8	20	MET16	04/01/15 18:21
Silver	7800	318.9	326.1	102	77-120	1	20	MET26	03/31/15 13:25
Thallium	8300	318.9	279.7	88	76-120	2	20	MET26	03/31/15 13:25
Vanadium	8875	318.9	337.2	102	65-150	2	28	MET26	03/31/15 11:03
Zinc	9050	318.9	1,562	-25 NM	44-158	13	33	MET16	04/01/15 18:21

NM= Not Meaningful: Sample concentration > 4X spike concentration
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 7471A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Analyte:	Mercury	Diln Fac:	1.000
Code:	5600	Batch#:	221795
Requested:	TTLCLBNL	Instrument:	MET54
Type:	BLANK	Chemist:	NCD
Lab ID:	QC782489	Prepared:	03/30/15 15:28
Matrix:	Soil	Analyzed:	03/31/15 13:27
Units:	mg/Kg		

Result	RL
ND	0.017

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 7471A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Analyte:	Mercury	Diln Fac:	1.000
Code:	5600	Batch#:	221795
Requested:	TTLCLBNL	Instrument:	MET54
Type:	LCS	Chemist:	NCD
Lab ID:	QC782490	Prepared:	03/30/15 15:28
Matrix:	Soil	Analyzed:	03/31/15 13:28
Units:	mg/Kg		

Spiked	Result	%REC	Limits
0.2083	0.1933	93	80-120

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 7471A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Analyte:	Mercury	Diln Fac:	1.000
Code:	5600	Batch#:	221795
Requested:	TTLCLBNL	Instrument:	MET54
Field ID:	ZZZZZZZZZZ	Chemist:	NCD
MSS Lab ID:	265552-001	Sampled:	03/24/15 08:45
Matrix:	Soil	Received:	03/25/15
Units:	mg/Kg	Prepared:	03/30/15 15:28
Basis:	dry		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	Moisture	RPD	Lim	Analyzed
MS	QC782491	0.04827	0.2848	0.3528	107	69-142	23%			03/31/15 13:31
MSD	QC782492		0.2751	0.3248	101	69-142	23%	5	36	03/31/15 13:32

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 7471A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Analyte:	Mercury	Diln Fac:	1.000
Code:	5600	Batch#:	221812
Requested:	TTLCLBNL	Instrument:	MET54
Type:	BLANK	Chemist:	NCD
Lab ID:	QC782563	Prepared:	03/31/15 10:35
Matrix:	Soil	Analyzed:	03/31/15 14:00
Units:	mg/Kg		

Result	RL
ND	0.017

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 7471A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Analyte:	Mercury	Diln Fac:	1.000
Code:	5600	Batch#:	221812
Requested:	TTLCLBNL	Instrument:	MET54
Type:	LCS	Chemist:	NCD
Lab ID:	QC782564	Prepared:	03/31/15 10:35
Matrix:	Soil	Analyzed:	03/31/15 14:01
Units:	mg/Kg		

Spiked	Result	%REC	Limits
0.2083	0.2089	100	80-120

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 7471A
Location:	WSDP - RFS Soil Disposal Testing 3/24		

Analyte:	Mercury	Diln Fac:	1.000
Code:	5600	Batch#:	221812
Requested:	TTLCLBNL	Instrument:	MET54
Field ID:	ZZZZZZZZZZ	Chemist:	NCD
MSS Lab ID:	265661-001	Sampled:	03/27/15 13:35
Matrix:	Soil	Received:	03/27/15
Units:	mg/Kg	Prepared:	03/31/15 10:35
Basis:	as received		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim	Analyzed
MS	QC782566	0.02787	0.2193	0.2516	102	69-142			03/31/15 14:03
MSD	QC782567		0.2193	0.2321	93	69-142	8	36	03/31/15 14:04

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3050B
Project#:	STANDARD	Analysis:	EPA 6020
Location:	WSDP - RFS Soil Disposal Testing 3/24		
Requested:	TTLCLBNL	Diln Fac:	25.00
Type:	BLANK	Batch#:	221821
Lab ID:	QC782604	Instrument:	MET16
Matrix:	Soil	Chemist:	NT
Units:	mg/Kg	Prepared:	03/31/15 13:50

Analyte	Code	Result	RL	Analyzed
Antimony	0400	ND	0.25	03/31/15 22:48
Arsenic	0450	ND	0.25	03/31/15 22:48
Barium	0475	ND	0.25	03/31/15 22:48
Beryllium	0900	ND	0.25	03/31/15 22:48
Cadmium	1650	ND	0.25	03/31/15 22:48
Chromium	2450	ND	0.25	03/31/15 22:48
Cobalt	2625	ND	0.25	03/31/15 22:48
Copper	2800	ND	0.28	03/31/15 22:48
Lead	5450	ND	0.25	03/31/15 22:48
Molybdenum	5775	ND	0.41	04/02/15 17:29
Nickel	5850	ND	0.39	04/07/15 08:33
Selenium	7600	ND	0.25	03/31/15 22:48
Silver	7800	ND	0.25	03/31/15 22:48
Thallium	8300	ND	0.25	03/31/15 22:48
Vanadium	8875	ND	0.44	03/31/15 22:48
Zinc	9050	ND	1.0	03/31/15 22:48

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3050B
Project#:	STANDARD	Analysis:	EPA 6020
Location:	WSDP - RFS Soil Disposal Testing 3/24		
Requested:	TTLCLBNL	Diln Fac:	25.00
Type:	LCS	Batch#:	221821
Lab ID:	QC782605	Instrument:	MET16
Matrix:	Soil	Chemist:	NT
Units:	mg/Kg	Prepared:	03/31/15 13:50

Analyte	Code	Spiked	Result	%REC	Limits	Analyzed
Antimony	0400	25.00	25.20	101	80-120	03/31/15 22:54
Arsenic	0450	25.00	29.41	118	80-121	03/31/15 22:54
Barium	0475	25.00	30.03	120	80-121	03/31/15 22:54
Beryllium	0900	25.00	26.80	107	80-120	03/31/15 22:54
Cadmium	1650	25.00	27.14	109	80-120	03/31/15 22:54
Chromium	2450	25.00	30.23	121	80-131	03/31/15 22:54
Cobalt	2625	25.00	30.14	121	80-132	03/31/15 22:54
Copper	2800	25.00	30.73	123	80-137	03/31/15 22:54
Lead	5450	25.00	25.63	103	80-125	03/31/15 22:54
Molybdenum	5775	25.00	26.19	105	80-120	03/31/15 22:54
Nickel	5850	25.00	29.06	116	77-141	04/07/15 08:40
Selenium	7600	25.00	29.49	118	80-129	03/31/15 22:54
Silver	7800	25.00	27.14	109	80-122	03/31/15 22:54
Thallium	8300	25.00	26.49	106	80-120	03/31/15 22:54
Vanadium	8875	25.00	30.60	122	80-128	03/31/15 22:54
Zinc	9050	25.00	30.15	121	80-133	03/31/15 22:54

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	265569	Cert #:	CA ELAP# 2896, NELAP# 4044-001
Client:	Lawrence Berkeley National Lab	Prep:	EPA 3050B
Project#:	STANDARD	Analysis:	EPA 6020
Location:	WSDP - RFS Soil Disposal Testing 3/24		
Requested:	TTLCLBNL	Batch#:	221821
Field ID:	75458	Instrument:	MET16
MSS Lab ID:	265569-001	Chemist:	NT
Matrix:	Soil	Sampled:	03/24/15 14:50
Units:	mg/Kg	Received:	03/25/15
Basis:	dry	Prepared:	03/31/15 13:50
Diln Fac:	25.00		

Type: MS Moisture: 12%
Lab ID: QC782606

Analyte	Code	MSS Result	Spiked	Result	%REC	Limits	Analyzed
Antimony	0400	0.7679	28.41	11.93	39	21-120	03/31/15 23:07
Arsenic	0450	12.40	28.41	49.43	130 *	75-122	03/31/15 23:07
Barium	0475	233.2	28.41	243.9	38 NM	54-148	03/31/15 23:07
Beryllium	0900	0.7014	28.41	32.80	113	80-120	03/31/15 23:07
Cadmium	1650	0.1186	28.41	31.21	109	80-120	03/31/15 23:07
Chromium	2450	46.44	28.41	87.94	146	60-158	03/31/15 23:07
Cobalt	2625	15.47	28.41	49.89	121	73-142	03/31/15 23:07
Copper	2800	45.76	28.41	86.75	144	59-150	03/31/15 23:07
Lead	5450	13.36	28.41	43.41	106	68-137	03/31/15 23:07
Molybdenum	5775	0.7995	28.41	27.26	93	71-120	03/31/15 23:07
Nickel	5850	47.90	28.41	75.84	98	57-161	04/07/15 08:58
Selenium	7600	0.3333	28.41	33.38	116	75-128	03/31/15 23:07
Silver	7800	0.07299	28.41	30.99	109	77-120	03/31/15 23:07
Thallium	8300	0.2429	28.41	30.82	108	76-120	03/31/15 23:07
Vanadium	8875	54.96	28.41	103.8	172 *	65-150	03/31/15 23:07
Zinc	9050	102.6	28.41	148.0	160 *	44-158	03/31/15 23:07

Type: MSD Moisture: 12%
Lab ID: QC782607

Analyte	Code	Spiked	Result	%REC	Limits	RPD	Lim	Analyzed
Antimony	0400	28.13	11.56	38	21-120	2	29	03/31/15 23:14
Arsenic	0450	28.13	45.09	116	75-122	8	24	03/31/15 23:14
Barium	0475	28.13	229.8	-12 NM	54-148	6	28	03/31/15 23:14
Beryllium	0900	28.13	31.63	110	80-120	3	20	03/31/15 23:14
Cadmium	1650	28.13	30.57	108	80-120	1	20	03/31/15 23:14
Chromium	2450	28.13	79.49	118	60-158	10	36	03/31/15 23:14
Cobalt	2625	28.13	46.68	111	73-142	6	34	03/31/15 23:14
Copper	2800	28.13	77.67	113	59-150	11	52	03/31/15 23:14
Lead	5450	28.13	40.55	97	68-137	6	32	03/31/15 23:14
Molybdenum	5775	28.13	25.86	89	71-120	4	20	03/31/15 23:14
Nickel	5850	28.13	78.27	108	57-161	4	47	04/07/15 09:05
Selenium	7600	28.13	32.78	115	75-128	1	20	03/31/15 23:14
Silver	7800	28.13	29.80	106	77-120	3	20	03/31/15 23:14
Thallium	8300	28.13	29.56	104	76-120	3	20	03/31/15 23:14
Vanadium	8875	28.13	96.11	146	65-150	7	28	03/31/15 23:14
Zinc	9050	28.13	135.7	118	44-158	8	33	03/31/15 23:14

*= Value outside of QC limits; see narrative
NM= Not Meaningful: Sample concentration > 4X spike concentration
RPD= Relative Percent Difference

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Curtis & Tompkins Ltd
Isabelle Choy
2323 Fifth St.

Berkeley, CA 94710

Client ID: 1137
Report Number: B203362
Date Received: 03/26/15
Date Analyzed: 04/02/15
Date Printed: 04/02/15
First Reported: 04/02/15

Job ID/Site: 265569 - WSDP, RFS Soil Disposal Testing 3/24

Date(s) Collected: 03/24/2015

FALI Job ID: 1137
Total Samples Submitted: 26
Total Samples Analyzed: 24

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
75458	11624204						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75460	11624205						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75462	11624206						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75464	11624207						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75466	11624208						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75468	11624209						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75470	11624210						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75472	11624211						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

Report Number: B203362
Client Name: Curtis & Tompkins Ltd **Date Printed:** 04/02/15

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
75474	11624212						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75476	11624213						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75478	11624214						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75480	11624215						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75482	11624216						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75484	11624217						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75486	11624218						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75488	11624219						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75490	11624220						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75492	11624221						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

Report Number: B203362

Client Name: Curtis & Tompkins Ltd **Date Printed:** 04/02/15

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
75494	11624222						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75496	11624223						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75498	11624224						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75500	11624225						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75502	11624226						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75504	11624227						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

Tad Thrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

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Laboratory Job Number 265569

Subcontracted Products

Forensic Analytical

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Curtis & Tompkins Ltd
Isabelle Choy
2323 Fifth St.

Berkeley, CA 94710

Client ID: 1137
Report Number: B203362
Date Received: 03/26/15
Date Analyzed: 04/02/15
Date Printed: 04/02/15
First Reported: 04/02/15

Job ID/Site: 265569 - WSDP, RFS Soil Disposal Testing 3/24

Date(s) Collected: 03/24/2015

FALI Job ID: 1137
Total Samples Submitted: 26
Total Samples Analyzed: 24

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
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Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75462	11624206						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75464	11624207						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75466	11624208						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75468	11624209						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75470	11624210						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75472	11624211						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

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Report Number: B203362
Client Name: Curtis & Tompkins Ltd **Date Printed:** 04/02/15

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Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75480	11624215						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75482	11624216						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75484	11624217						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75486	11624218						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75488	11624219						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75490	11624220						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75492	11624221						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

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Client Name: Curtis & Tompkins Ltd **Date Printed:** 04/02/15

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75498	11624224						
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75500	11624225						
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75502	11624226						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
75504	11624227						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

Tad Thrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

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Presidio Trust

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T (415) 561-5300
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June 13, 2016

Mr. George Chow
Department of Toxic Substances Control
700 Heinz Avenue, Building F, Suite 200
Berkeley, CA 94710-2721

Subject: Transmittal of LBNL Soil Amendment Information
Lendrum Court, Presidio of San Francisco

Dear Mr. Chow:

Pursuant to our March 4, 2016 meeting, enclosed is information on the proposed amendments to the Lawrence Berkeley National Laboratory (LBNL) soil that will be used to construct the soil cap at the Lendrum Court site.

In a letter dated July 14, 2015, DTSC approved the use of LBNL soil in the former Phase 1 area of the Lendrum Court site. Since Phase 1 construction was delayed, the Trust will perform remediation of the entire site in one construction season this summer and will use LBNL soil to build the cap through-out the Lendrum Court site.

As discussed in our meeting, the Trust conducted additional analysis on the horticultural suitability of the LBNL soil to support native and ornamental plants following remedial construction. Based on this analysis the Trust plans to amend the LBNL soil with sand, compost, and gypsum as described below.

LBNL Soil will be mixed with sand to achieve a target mix of 65% sand by volume or approximately 2 parts sand to 5 parts soil (by volume). Compost will then be mixed in at a rate of 5% by volume (i.e., the volume of compost will represent 5% of the final volume of the mixed soil). Gypsum (calcium sulfate) will be added at a rate of 7 pounds per cubic yard of mixed soil. The amendments will be uniformly mixed with the LBNL soil using a pug mill. The proposed sand amendment is currently stockpiled at the Presidio and was generated from excavation of the former Cathedral Hill Hotel site on Van Ness Blvd. in San Francisco. This material was characterized and approved by DTSC for use as backfill within LUC areas on the Doyle Drive Replacement project in an email dated July 7, 2014, which is attached. The sand will improve the overall soil texture and permeability. In addition to the sand, the Trust is adding organic compost from the West Marin nursery and agricultural gypsum.

The proposed soil mixing approach has been evaluated by the project engineer, who has determined it meets the geotechnical requirements for use as a cover soil. Geotechnical testing of the mixed material generated in a pilot study using a similar sand is also attached (Mixed soil is identified as "Complete Mix" on the lab sheets). Please give me a call if you have any questions or wish to discuss, I can be reached at (415) 561- 5421.

Sincerely,

Nina Larssen
Remediation Project Manager

Enclosure

cc: Eileen Fanelli, TRC Solutions, Inc.

From: Chow, George@DTSC [mailto:George.Chow@dtsc.ca.gov]
Sent: Monday, July 7, 2014 10:21 AM
To: Yam, David@DOT <david.yam@dot.ca.gov>; Fanelli, Eileen <efanelli@presidiotrust.gov>
Cc: Tsuji, Denise@DTSC <Denise.Tsuji@dtsc.ca.gov>
Subject: RE: Request Approval of Cathedral Hill Soil as backfill throughout the Doyle Drive Replacement Project limits, including LUC areas.

Eileen and David,

Thanks for providing the additional information to address my comments. DTSC approves the use of this backfill in LUC areas. DTSC will expect to see the specific locations of soil placement within LUC areas in the annual report.

George Chow
Project Manager
Brownfields and Environmental Restoration Program
Department of Toxic Substances Control
510.540.3879

From: Yam, David@DOT
Sent: Thursday, July 03, 2014 8:16 AM
To: Fanelli, Eileen; Chow, George@DTSC
Cc: Tsuji, Denise@DTSC
Subject: RE: Request Approval of Cathedral Hill Soil as backfill throughout the Doyle Drive Replacement Project limits, including LUC areas.

1. Please specify what areas (on map) and depths at the Cathedral Hill site the backfill will come from. (Documenting that the high-lead earthquake fill won't be used.)

I will ask Dave to prepare a couple of sections showing the source area for the import fill. I believe the request however is to approval any soil from the footprint of the Cathedral Hill excavation with the exception of the area adjacent to Van Ness where the fill was noted.

Dave – can you email a couple of schematic sections showing the prism of import soil from the Cathedral Hill site please.

Hi Eileen/George,

I have attached 2 files as follows;

1. The CH Quake fill file illustrates the approximate limits of the Quake sand material that will be disposed of by the Cathedral Hill project.

2. The CH sand profile file illustrates the fill limits of the Quake sand that will not be brought to Doyle (yellow polygon). In addition, the illustration shows both the dune sand (green layer) in the upper strata that will be used at Doyle in addition to the deeper sandy clay sands (brown blocks).

I believe that the attachments address item #3. Thank you all for addressing our request expeditiously.

Regards

Dave

David Yam
Branch Chief, Erosion and Sediment control and Mitigation Branch
Office of Water Quality
Division of Environmental Planning and Engineering
Caltrans District 4
510-286-5662

From: Fanelli, Eileen [mailto:efanelli@presidiotrust.gov]
Sent: Wednesday, July 02, 2014 1:13 PM
To: Chow, George@DTSC
Cc: Tsuji, Denise@DTSC; Yam, David@DOT
Subject: RE: Request Approval of Cathedral Hill Soil as backfill throughout the Doyle Drive Replacement Project limits, including LUC areas.

George –

My responses below. Dave, I have copied you in the hopes you can respond to the request for a figure showing the prism that soil from the Cathedral Hill site would be imported from.

Eileen Fanelli
Environmental Remediation Program Manager

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From: Chow, George@DTSC [mailto:George.Chow@dtsc.ca.gov]
Sent: Wednesday, July 02, 2014 10:11 AM
To: Fanelli, Eileen
Cc: Tsuji, Denise@DTSC
Subject: RE: Request Approval of Cathedral Hill Soil as backfill throughout the Doyle Drive Replacement Project limits, including LUC areas.

Eileen,

I have some follow up questions/comments-

2. Please specify where in the LUC areas the backfill will be placed, so that we can ensure that the LUCs remain accurate.

Because construction of Doyle is on-going, it is difficult to state specifically where soil from Cathedral Hill would be place, except that it would primarily be within the area disturbed by the Doyle construction. I can tell you that the Trust is tracking soil movement and disturbance within LUC areas with the specific intention of documenting where soil containing residual contamination was removed and backfilled with clean soil (such as Cathedral Hill soil) or where soil containing residual contaminants was left in place and covered with clean soil. In the former case, we would request DTSC approval to redraw the LUC area to accurately reflect the LUC limits, In the latter case the limits of the LUC would not change but the description of the LUC might.

Will deferring the description of the soil placement in the LUC to the annual report be acceptable to DTSC?

3. The email from Caltrans says that up to 100,000 cubic yards will be removed from the Cathedral Hill location. Please include the estimated volume that will be placed in the LUC areas.

The last estimate of import fill need I heard from the Flatiron/Kiewit Joint Venture, was about 60,000 yards. The project hopes to import this from the Cathedral Hill project site. The sand will be either direct hauled to the Presidio, or will be temporarily stored at a Caltrans site at the intersection of highway 280 and 380 before being hauled to the Presidio. Similar to the discussion above, I do not have an estimate of the amount of Cathedral Hill soil that will ultimately end up in an LUC area. Again, we are tracking it and will report the approximate volumes as part of the Annual report. That said, the Trust understands that the majority of the Cathedral Hill soils will be used to backfill around the battery and main post tunnels. The main post tunnel is partially constructed in the Com/PX LUC area. The majority of the highway work in FS6B LUC area is cut, so I expect a lesser amount would be replaced in that area. There are several non-LUC/non-remediation areas where the soil will be placed as well, primarily as a horticultural layer for final landscaping.

4. Please specify what areas (on map) and depths at the Cathedral Hill site the backfill will come from. (Documenting that the high-lead earthquake fill won't be used.)

I will ask Dave to prepare a couple of sections showing the source area for the import fill. I believe the request however is to approval any soil from the footprint of the Cathedral Hill excavation with the exception of the area adjacent to Van Ness where the fill was noted.

Dave – can you email a couple of schematic sections showing the prism of import soil from the Cathedral Hill site please.

5. Clarify whether the proposed fill materials are all native soils.

Based on the logs included in the geotechnical report, the majority of the soil is native dune sands underlain by native silty to clayey sands.

6. I believe the detection limit for BAP and dibenzo[a,h]anthracene was 0.250 ppm and the cleanup level was 0.046 ppm.

You are correct – I have made the correction below in green.

Thanks
George

From: Fanelli, Eileen [mailto:efanelli@presidiotrust.gov]
Sent: Monday, June 30, 2014 11:38 AM
To: Chow, George@DTSC
Cc: Tsuji, Denise@DTSC
Subject: RE: Request Approval of Cathedral Hill Soil as backfill throughout the Doyle Drive Replacement Project limits, including LUC areas.

George –

One key correction to my note below. In red.

Eileen Fanelli
Environmental Remediation Program Manager

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From: Fanelli, Eileen
Sent: Monday, June 30, 2014 11:08 AM
To: Chow, George@DTSC
Cc: denise.tsuji@dtsc.ca.gov; Larssen, Nina; David Yam (david.yam@dot.ca.gov)
Subject: FW: Request Approval of Cathedral Hill Soil as backfill throughout the Doyle Drive Replacement Project limits, including LUC areas.

George –

Caltrans is requesting approval to import soils, primarily dune and Colma formation sands, to the Presidio for use as embankment fill, structural fill, and horticultural soils on the Doyle Drive Project. Caltrans proposes to use these sands as backfill with in the current Com/PX and FS6B land use control areas (LUC). I am requesting DTSC review and approval of these soils as unrestricted backfill for use in LUC areas.

The Presidio Trust Remediation Department has reviewed the attached documentation and concurs with Caltrans that the soils meet the Trust's criteria for unrestricted reuse when compared to dune/Colma cleanup levels as outlined in the 2002 Cleanup Level Document (EKI, 2002, as amended). The sampling frequency also meets DTSC's 2001 advisory for Clean Import Fill Material. A total of 14 boreholes were sampled at the approximately 2.4 acre site. The boreholes, were sampled at approximately 10-foot intervals, and ranged in depths to 60 feet below ground surface. The laboratory analytical results were below the Trust unrestricted screening criteria with specific exceptions below.

One borehole (B-4) encountered fill soils, from ground surface to about 12-feet below ground surface, thought to be derived from the 1906 earthquake. A sample from 11 feet below ground surface contained lead at 680 ppm. *Fill soil from this area will not be imported to the Presidio*.

Three samples contained nickel at concentrations of 73, 76 and 82 ppm. These concentrations are between the Trust's screening levels for dune sand (70 ppm) and Colma (110 ppm) and are believe to reflect background concentrations and not contamination.

The detection limit (0.250 ppm) for select PAHs was above the screening level for Benzo[a]pyrene and dibenzo[a,h]anthracene (0.046 ppm). The Trust believes the potential for PAH contamination to be low given the source of the soil from several feet below ground surface and that no other PAHs were detected in the soil. Additionally, the detection limit of 0.25 is within the acceptable risk range for human health assuming a residential exposure scenario. This plus the lack of other contaminants in soil indicate the extremely low probability the soil contains for Benzo[a]pyrene and dibenzo[a,h]anthracene at concentrations posing potential human health risk.

Please let me know at your earliest convenience if DTSC approves this material for use at LUC sites. Please give me a call if you have any questions.

Eileen Fanelli
Environmental Remediation Program Manager

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From: Yam, David@DOT [mailto:david.yam@dot.ca.gov]
Sent: Thursday, June 26, 2014 5:04 PM
To: Fanelli, Eileen

Cc: Helmbrecht, Mark; Sowko, Skip R@DOT; Daams, Frank; Ron Richardson (ron.richardson@glc-presidioparkway.com)
Subject: Request Approval of Cathedral Hill Soil as backfill throughout the Doyle Drive Replacement Project limits, including LUC areas.

Dear Eileen:

The California Department of Transportation requests the Presidio Trust (Trust) approval of use of import soil from the Cathedral Hill site as backfill in the Doyle Drive Replacement Project Limits, including land use control (LUC) areas. The following summarizes testing of the material to document it meets the Trust's unrestricted reuse criteria. If acceptable, I understand that for use in LUC areas, the Trust will need to obtain the Department of Toxic Substances Control (DTSC) approval.

Backfill Source Area

The Source of the material comes from an approximately 2.4 acre site in San Francisco bordered by Van Ness Ave. and Franklin St. between Geary Blvd. and Post Street. The site is commonly referred to as the Cathedral Hill Hospital site (1101 Van Ness Avenue).

The California Pacific Medical Center (CPMC) has a project to build a new hospital at this site. As much as 100,000 cubic yards of a sandy material is scheduled to be removed from this site. FERMA demolition contractors are charged with the disposal of the sand material. The Doyle project seeks to use the excavated sand as fill material in Land Use Control (LUC) and throughout the Doyle Drive project limits.

Previous Investigations

In 2003, CPMC hired Treadwell & Rollo, Environmental and Geotechnical Engineers, to perform An Environmental Site Assessment (ESA) at the site to evaluate the potential for hazardous materials. Specifically, the ESA assesses the presence of hydrocarbons and hazardous materials in the site soils and groundwater. A two (2) Phase ESA was prepared for the site. In general, the Phase 1 ESA assesses the potential for release of hazardous materials and/or petroleum hydrocarbons to the site soil and/or groundwater. The ESA also includes information related to site history, review of public records and status of Underground Storage Tanks (USTs). The Phase 2 ESA evaluated soil/sand ranging in depth from approximately Ground Surface (GS) to 60 feet below GS. Five (5) bores were initially implemented within the site. In May of 2013, nine (9) additional bores were implemented. The second set of 9 bores was a result of the San Francisco Department of Public Health (SFPDH) expanding the locations for sampling in compliance with the Maher Ordinance following the initial 5 bores. Please refer to Attachment A for the Phase 1 and 2 ESAs and Attachment B for a site aerial with boring locations

UST Closure In-Place/ Historic fill

Three (3) Underground Storage Tanks (USTs), one waste oil UST (550-gallon) and one (10,000-gallon) diesel UST were installed at the site in 1958. All USTs were closed between 1987-1988 under the City and County of San Francisco local Oversight Program.

Along the driveway located at the northeast corner of the site, historic fill containing debris was observed containing red brick fragments. This debris is commonly referred to as earthquake fill derived from the 1906 earthquake and fire, and typically contains elevated concentrations of lead and petroleum hydrocarbons. The debris was found in the vicinity of boring B-4. The Treadwell & Rollo Phase 2 ESA recommends this material to be disposed of at a Class 1 hazardous waste landfill. Our understanding is that the disposal of the Class 1 material will be performed as part of the excavation work associated with the Cathedral Hill project.

McCampbell Analytical Data

Soil samples from all 14 bores were analyzed by McCampbell Analytical, inc. of Pittsburg Ca. Attachment C provides a Soil Data Summary that includes test results at varying depths. QC summary reports are available for samples analyzed.

Samples were analyzed as follows:

Organochlorine Pesticides by EPA SW8018A
Polychlorinated Biphenyls (PCBs) Aroclors by EPA SW8082
Chlorinated Herbicides by GC-ECD by EPA 8151A
Volatile Organics by PT&T and GC/MS by EPA SW8260B
Semi-volatile Organics by GC/MS by EPA SW8270C
CAM/CCR 17 Metals SW6020
Cyanide, Total by SM4500-CN ABCE
Gasoline range (C6-C12) volatile hydrocarbons as gasoline with BTEX and MTBE by EPA 8021B/8015BM
LUFT 5 Metals by EPA SW6020
pH by EPA SW9045D
Total Extractable Petroleum Hydrocarbons by EPA SW8015B

TPH was tested on samples taken at all boring locations at varying depths. Shallow soil at bore B-4 showed elevated TPH-motor oil and diesel. Boring B-5 showed a slight exceedance (5.1) at B-7/40 feet. The Treadwell & Rollo Phase 2 ESA recommends this material to be disposed of at a Class 2 or 3 non- hazardous waste landfill.

Lead concentrations are generally low with the exception of shallow samples in B-4 and B-3. The sample from 11 feet at B-4 contained 680mg/kg of lead. All other samples show below level concentrations of metals with respect to Presidio Trust ESL levels. The Treadwell & Rollo Phase 2 ESA recommends this soil be disposed of at a Class 1 California or Non-RCRA hazardous soil. Our understanding is that the disposal of the Class 1 material will be performed as part of the excavation work associated with the Cathedral Hill project.

VOCs and PCBs in Soil

No PCBs and VOCs were detected above laboratory reporting limits.

Soil Analytical Data

For purposes of reuse within LUC areas and throughout the project limits, the chemical data for the Cathedral Hill soil is compared against the Trust's criteria for unrestricted reuse as presented in *Table 1 Unrestricted Use Criteria for Contaminants of Concern (COCs)/Presidio Parkway Project, Presidio Of San Francisco* (Attachment D). Given that the soil from Cathedral Hill is a predominantly sandy material, the threshold limits for Unrestricted Use criteria (No Wetland) Colma / Beach/Dune sand are the specific thresholds used when comparing test results for each boring.

Cathedral Hill borings and test results are consistent with protocols and guidance outlined in the Department of Toxic Substances Control information Advisory/Clean Imported Fill Material October 2001. As noted earlier, Fourteen (14) borings were conducted over the approximately 2.43 acre site to depths ranging from 55 – 60 feet below ground surface at each boring location. Soil testing was performed on soil material at approximately 10 foot intervals.

Please see Attachment E for chemical data comparison of the Cathedral Hill soils against the Trust's criteria for unrestricted reuse for Unrestricted Use criteria (No Wetland) Colma/Beach/Dune sand. All exceedances with are shaded and/or text color. Please look at the notes in the tables for descriptions attached to colors and shading. The green color only indicates that the laboratory reporting limit was above the screening level. The constituent may or may not be present above the screening level.

Geotechnical testing

Geotechnical testing of the sand material for unrestricted reuse as embankment fill or structural backfill will be approved by the DBJV prior to use. Due to the presence of different types of sand that occurs at varying depth, testing will occur when samples are made available.

Horticultural Testing

A sample of dune sand was sent to Santa Clara Soils and Plant Lab. The dune sand material appears to be acceptable as a horticultural soil subject to amendments with fertilizers and compost. Although the dune sand sample registered a pH of 8.3, Caltrans and McCampbell testing of the dune sand yielded results of pH 7.9.

Summary

Evaluation of analytical results for the Cathedral Hill soil at varying depths indicates the soil (sand) is acceptable for unrestricted use in LUC areas and at other locations within the Doyle Drive project. The sand material is intended to be used as embankment fill, structural backfill and as a horticultural soil. Additional testing for geotechnical and horticultural properties will be conducted on sand material yielded at deeper depths that are not presently available for testing. Concurrence is requested from the Presidio Trust that the soil (sand) is appropriate for unrestricted reuse as backfill in LUC areas and throughout the project limits within the Doyle Drive project.

Sincerely,

Dave

David Yam
Branch Chief, Erosion and Sediment control and Mitigation Branch
Office of Water Quality
Division of Environmental Planning and Engineering
Caltrans District 4
510-286-5662

Attachments:
Attachment A and A1: Phase 1 and 2 ESAs for Cathedral Hill
Attachment B: Site Aerial with Boring locations
Attachment C: Soil Sample Data Summary
Attachment D: Table 1, Applicable Soil Cleanup Levels
Attachment E and E1: Soil comparison against Trust's criteria for unrestricted use

MODIFIED PROCTOR TEST DATA – ASTM D1557

JOB NUMBER:	229649
JOB NAME:	Lendrum Court
SOURCE:	Complete Mix
SOIL DESCRIPTION:	Olive brown clayey sand w/ gravel

REFERENCE NO.	1
Maximium Dry Density (pcf)	125
Optimum Moisture (%)	11.0

Date Sampled: 3-23-16 By: NB

Date Performed: 3-29-16 By: AC

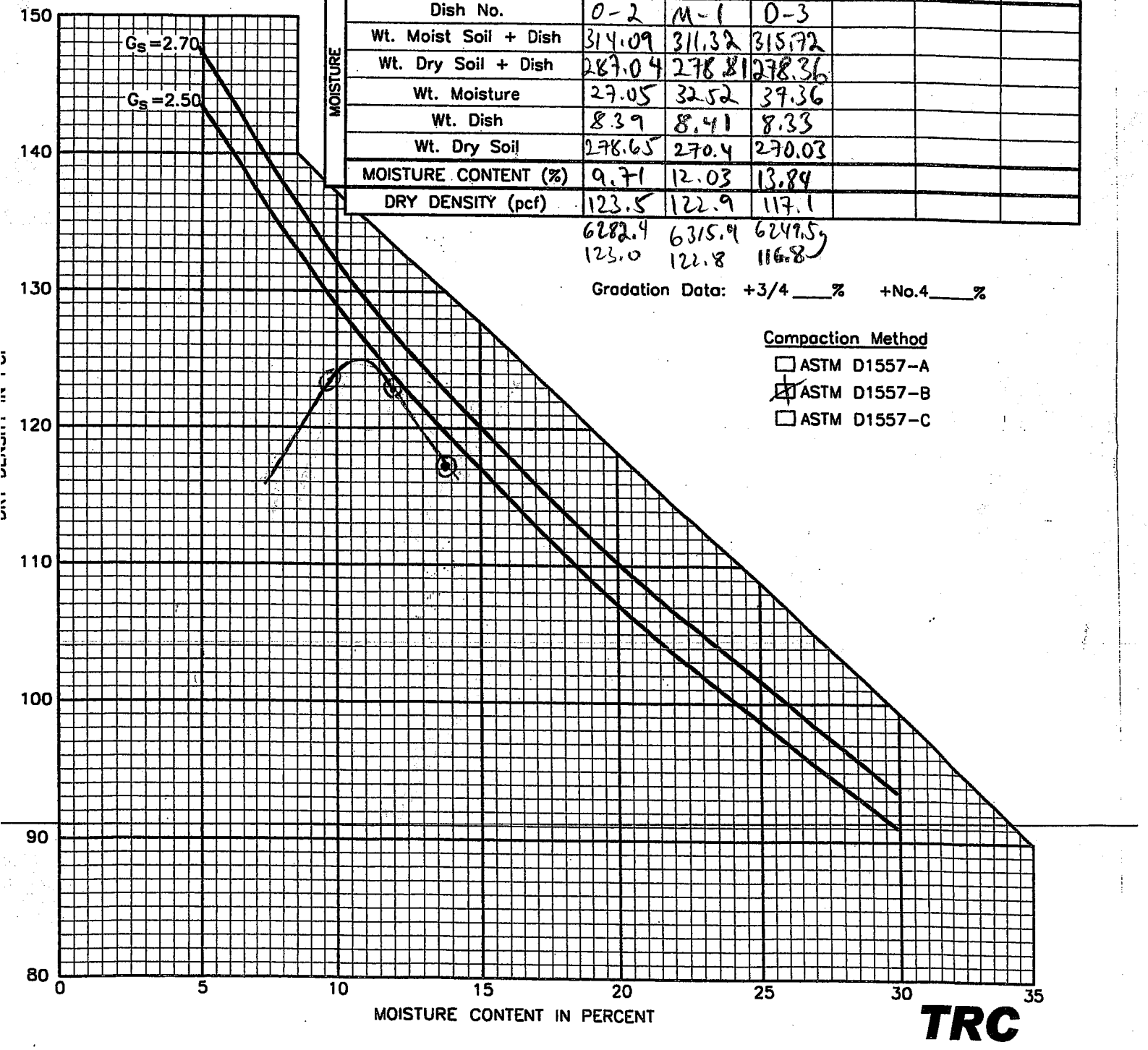
tar – 236.35
wet – 464.90
dry – 447.68
17.22 = 8.2
211.33

			+5 10.2%	+1 13.2%	+8 14.2%			
DENSITY	Wt. Mold + Moist Soil	13.84	13.91	13.77				
	Wt. Mold	9.32	→	→				
	Wt. Moist Soil	4.52	4.59	4.44				
	1/Vol. of Mold (cu.ft.)	30	→	→				
	WET DENSITY (pcf)	135.54	137.75	133.36				
MOISTURE	Dish No.	O-2	M-1	O-3				
	Wt. Moist Soil + Dish	314.09	311.32	315.72				
	Wt. Dry Soil + Dish	287.04	278.81	278.36				
	Wt. Moisture	27.05	32.52	37.36				
	Wt. Dish	8.39	8.41	8.33				
	Wt. Dry Soil	278.65	270.4	270.03				
	MOISTURE CONTENT (%)	9.71	12.03	13.84				
	DRY DENSITY (pcf)	123.5	122.9	117.1				

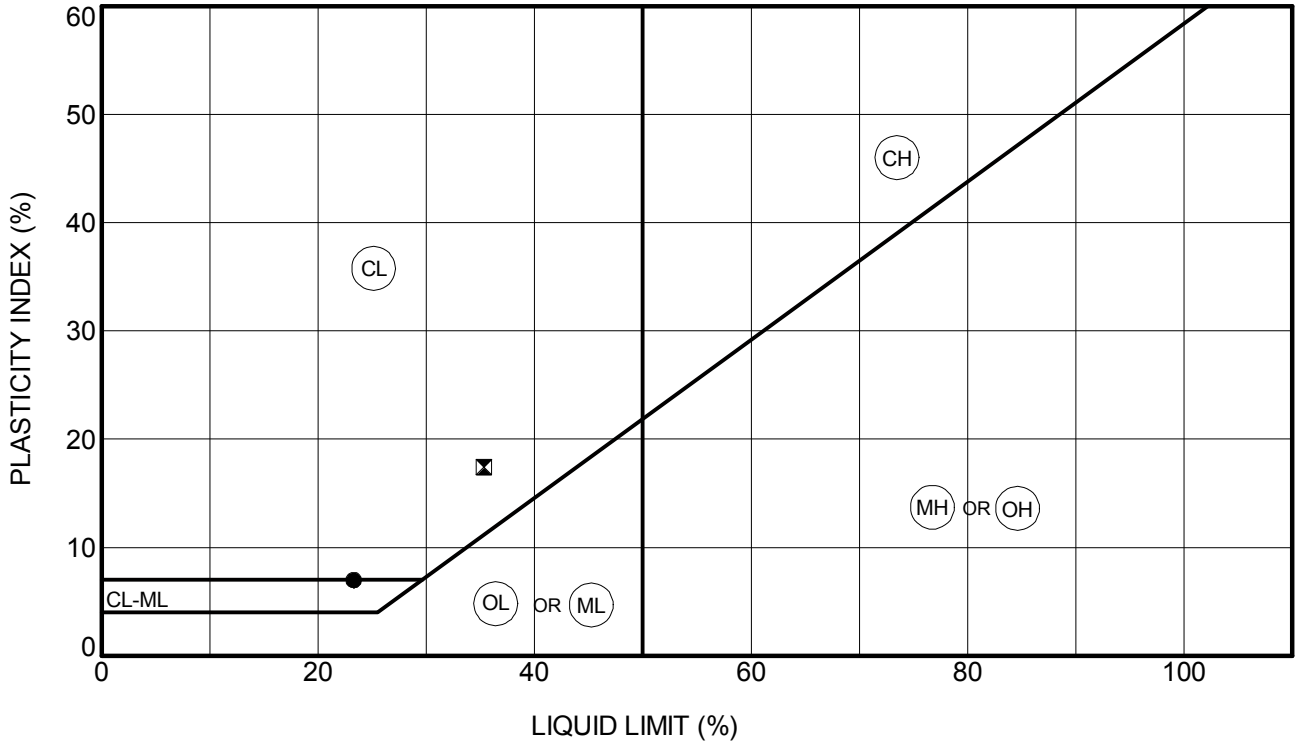
6282.4 6315.9 6249.5g
123.0 122.8 116.8

Gradation Data: +3/4 ____% +No.4 ____%

Compaction Method
- ☐ ASTM D1557-A
- ☒ ASTM D1557-B
- ☐ ASTM D1557-C



TRC



Symbol	Boring No.	Depth (ft.)	Natural Water Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Passing No. 200 Sieve	Unified Soil Classification Description
●	**COMP. MIX**	**1.0**		**23**	**16**	**7**	**28**	**CLAYEY SAND**
⊠	**LBNL**	**1.0**		**35**	**18**	**17**	**43**	**CLAYEY SAND**

LA_CORP.GDT 4/6/16 MV*

TRC

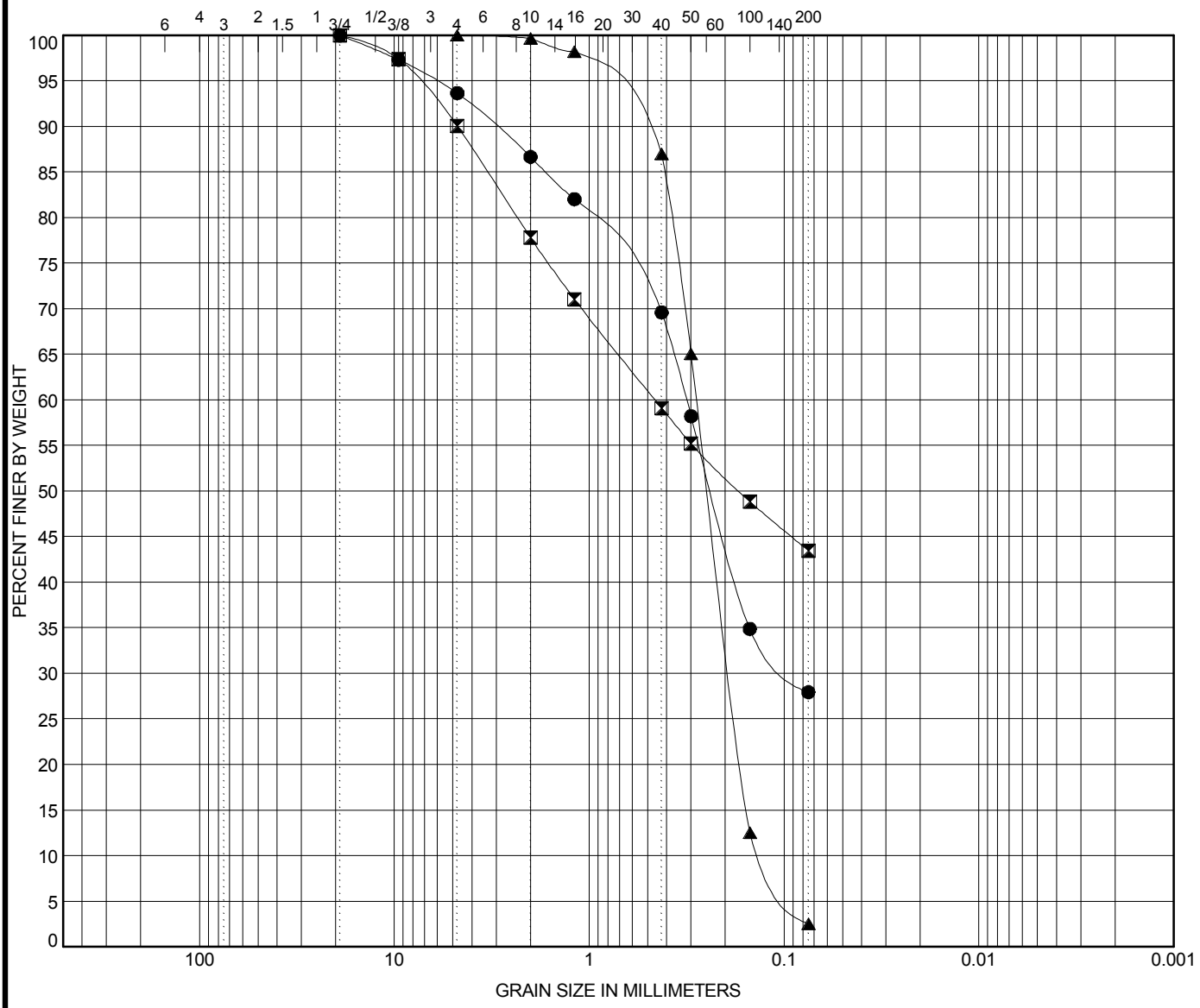
PLASTICITY CHART AND DATA

Project: LENDRUM COURT

Location: PRESIDIO, CA

Project No.: 229649

FIGURE B-1



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification			Classification	LL	PL	PI	Cc	Cu
●	**COMP. MIX**	**1.0**	**CLAYEY SAND**	**23**	**16**	**7**		
⊠	**LBNL**	**1.0**	**CLAYEY SAND**	**35**	**18**	**17**		
▲	**SAND**	**1.0**	**POORLY GRADED SAND**				**1.01**	**2.23**

Specimen Identification			D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**COMP. MIX**	**1.0**	**19**	**0.317**	**0.092**		**6.3**	**65.7**	**27.9**	
⊠	**LBNL**	**1.0**	**19**	**0.459**			**9.9**	**46.6**	**43.5**	
▲	**SAND**	**1.0**	**4.75**	**0.281**	**0.189**	**0.126**	**0.0**	**97.5**	**2.5**	

TRC

GRAIN SIZE DISTRIBUTION

Project: LENDRUM COURT

Location: PRESIDIO, CA

Project No.: 229649

FIGURE B-2

LA_CORP.GDT 4/6/16 MV*

APPENDIX J

COMPACTION DATA

Job # 229649.5.A
Job Name Lendrum Court
Location San Francisco, CA

Gauge: CPN
Serial #: MC-1DR-P

Test #	Date	Taken By	Elevation bgs	Mode & Depth	Wet Density PCF	Moisture PCF	Dry Density PCF	% Moisture	Max Density PCF	Optimum Moisture	% Relative Compaction	Pass / Fail	Passing Retest Number	NOTES
1	7/13/2016	JC	-1.5	6"/60	106.2	17.8	83.5	20.1	105	12	84.3	F	54	Front of 1278+1279
2	7/13/2016	JC	-2	6"/60	113.2	14.4	98.8	14.59	105	12	94.1	P	--	SE Corner of 1279
3	7/15/2016	JC	-1.5	6"/60	109.6	16	93.6	17.1	105	12	89.2	F	10	NE Corner if 1278
4	7/15/2016	JC	-1.5	6"/60	106.7	18.2	88.5	20.53	105	12	84.3	F	34	E of middle of 1278
5	7/20/2016	JC	-1.5	6"/60	109.3	12.7	96.7	13.09	105	12	92.1	P	--	25' off SE corner of 1278
6	7/20/2016	JC	-1.5	6"/60	107.1	15.3	91.8	16.6	105	12	87.5	F	34	40' east of 1278
7	7/20/2016	JC	-1.5	6"/60	104.3	10.9	93.3	11.7	105	12	88.9	F	17	North of 1278 between 1279
8	7/22/2016	JC	-1.5	6"/60	95.6	6.4	89.3	7.14	105	12	85	F	21	Front of 1259
9	7/22/2016	JC	-1.5	6"/60	104.3	16.2	88.1	18.35	105	12	83.9	F	10	SW Corner of 1278
10	7/22/2016	JC	-1.5	6"/60	119.1	23	96.1	23.98	105	12	91.5	P	--	Slope between 1259 + 1278
11	7/22/2016	JC	-1.5	6"/60	100.6	17.3	83.2	20.82	105	12	79.25	F	21	Front of 1259
12	7/22/2016	JC	-1.5	6"/60	104.4	14.4	90	15.99	105	12	85.7	F	21	Front of 1259
13	7/22/2016	JC	-1.5	6"/60	108	23.4	84.6	29.67	105	12	80.6	F	21	SW Corner of 1278
14	7/26/2016	JC	-1.5	6"/60	118.1	16.8	101.4	16.54	105	12	96.5	P	--	Front 1279 between storage
15	7/26/2016	JC	-1.5	6"/60	120.7	14.6	106.1	13.79	105	12	100	P	--	NW Corner 1279 (15.5')
16	7/26/2016	JC	-1.5	6"/60	108.8	17.7	91.2	19.37	105	12	86.8	F	31	Behind 1279 (25') on slope
17	7/26/2016	JC	-1.5	6"/60	114.1	14.53	99.6	14.53	110	15.5	90.5	P	--	Between 1278 + 1279
18	7/26/2016	JC	-1.5	6"/60	92.8	19.2	73.6	26.02	110	15.5	66.9	F		Front of 1278 between storage
19	7/27/2016	JC	-2.5	6"/60	124.1	19.7	104.4	18.88	110	15.5	94.9	P	--	Key Trench 30' from N end. Down from 1279A
20	7/27/2016	JC	-2.5	6"/60	121.7	18.8	102.9	18.31	110	15.5	93.5	P	--	Key Trench 60' from N end. Down from 1279C
21	7/27/2016	JC	-1.5	6"/60	117.1	12.7	104.4	12.16	110	15.5	94.9	P	--	Front of 1259A. Flat spot by sidewalk next to ramp
22	7/27/2016	JC	-1.5	6"/60	97.7	17.1	80.7	21.17	110	15.5	73.3	F	37	Front of 1278C between storage
23	7/27/2016	JC	-1.5	6"/60	103.2	21.7	81.5	26.63	110	15.5	74.09	F	30	Front 1278B between storage
24	7/28/2016	NB	-2	12"/60	17.8		114.3	15.61	110	15.15	95.29	P	--	Trench NE of 1279. 20' from DW 1279
25	7/29/2016	NB	-2	12"/61	130.3	15.9	114.3	13.93	110	15.15	95.29	P	--	Trench NE of 1279. 46' from DW 1279
26	7/29/2016	NB	-2	12"/62	128.2	20.8	107.5	19.34	110	15.15	89.55	P	--	Trench NE of 1279
27	7/29/2016	NB	-1.5	10"/60	128.5	26.2	102.2	25.66	110	15.15	85.91	F	30	S. side of sidewalk 1278 N end subgrade
28	7/29/2016	NB	-1.5	10"/60	106.2	19.7	86.5	22.78	110	15.15	78.05	F	30	S. side of sidewalk 1278 N end subgrade. Dry fine sand
29	7/29/2016	NB	-1.5	10"/60	109.6	20.1	89.5	22.45	105	15.15	85.21	F	30	Dry fine sand w/ some clay
30	7/29/2016	NB	-1.5	10"/60	129.1	21	103.1	20.32	110	15.15	93.72	P	--	Dry fine sand w/ some clay
31	7/29/2016	NB	-1.5	11"/60	134.1	17.1	117	14.6	128	10	91.41	P	--	1279W
32	7/29/2016	NB	-1.5	11"/60	127.5	21.9	105.6	20.73	110	15.15	95.98	P	--	1279E
33	7/29/2016	NB	-1.5	10"/60	124.3	15.2	109.1	13.97	110	15.15	99.15	P	--	1278W
34	7/29/2016	NB	-1.5	10"/60	129.1	20.7	108.4	19.09	110	15.15	98.53	P	--	1278E
35	7/29/2016	NB	-1.5	10"/60	129.8	20.9	109.4	19.61	110	15.15	99.12	P	--	1259W
36	7/29/2016	NB	-1.5	6"/60	113	22.3	90.6	24.62	105	12	86.31	F	--	N Landscape 1278B
37	7/29/2016	NB	-1.5	6"/60	119.8	20.3	99.5	20.4	105	12	94.72	P	37	1278C
38	8/1/2016	NB	-3		106.2	18.4	87.8	20.99	110	15.15	79.78	F	98, 99, 106, 110	20' E of W end of Trench (Seep zone area reworked)
39	8/1/2016	NB	-2.5		103.7	15.2	88.5	17.13	105	12.5	84.29	F	98, 99, 106, 110	40' E of W end of Trench (Seep zone area reworked)
40	8/1/2016	NB	-2.5		108.4	26.7	81.7	32.68	105	12.6	77.82	F	98, 99, 106, 110	20' E of W end of Trench (Seep zone area reworked)
41	8/2/2016	JC	-1	6"/60	117.1	13.7	103.5	13.23	128	10	80.8	F	45	Front of 1279A. Flat by concrete. Clean backfill
42	8/2/2016	JC	-1	6"/60	114.6	9.7	104.9	9.24	128	10	82	F	46	N of 1279A (slope). Clean backfill

Job # 229649.5.A
Job Name Lendrum Court
Location San Francisco, CA

Gauge: CPN
Serial #: MC-1DR-P

Test #	Date	Taken By	Elevation bgs	Mode & Depth	Wet Density PCF	Moisture PCF	Dry Density PCF	% Moisture	Max Density PCF	Optimum Moisture	% Relative Compaction	Pass / Fail	Passing Retest Number	NOTES
43	8/2/2016	JC	-1	6"/60	108.5	10.6	97.9	10.86	128	10	76.47	F	45	15' N of Test 1. Clean backfill
44	8/3/2016	JC	-1	6"/60	114.7	11.1	103.7	10.68	128	10	81	F	45	Front of 1279 (flat by concrete). Clean Backfill
45	8/3/2016	JC	-1	6"/60	129.1	14.4	114.8	12.51	128	10	89.7	P	--	Front of 1279 (flat by concrete). Clean Backfill
46	8/3/2016	JC	-1	6"/60	121.8	11.6	110.2	10.5	128	10	86.1	P	--	N of 1279A (slope). Clean backfill
47	8/8/2016	JC	-0.5	6"/60	117.7	9.7	108	8.98	128	10	84.4	F	48	Front of 1279A (flat). Clean backfill
48	8/8/2016	JC	-0.5	6"/60	120.4	9.5	110.9	8.54	128	10	86.7	P	--	10' to W. Clean backfill
49	8/8/2016	JC	-1	6"/60	122	12.1	109.9	11.04	128	10	85.9	P	--	Front 1279B&C (between storage). Clean backfill
50	8/8/2016	JC	-0.5	6"/60	114	8.7	105.3	8.26	128	10	82.3	F	48	W (N?) of 1279A. Slope. Clean backfill
51	8/8/2016	JC	-1	6"/60	120.7	12.6	108.2	11.61	128	10	84.5	F	52, 54	Front 1278 & 1279. Flat triangle area. Clean backfill
52	8/8/2016	JC	-1	6"/60	116.6	12.7	104	12.16	128	10	81.2	F	54	10' to E. Clean backfill
53	8/9/2016	JC	-1	6"/60	119.1	12.4	106.6	11.67	128	10	83.3	F	54	Front of 1278 & 1279. Triangular area. 10' E of sidewalk. Clean backfill
54	8/9/2016	JC	-1	6"/60	123.5	11.9	111.7	10.62	128	10	87.2	P	--	Front of 1278 & 1279. Triangular area. 10' E of sidewalk. Clean backfill
55	8/9/2016	JC	-1	6"/60	115.2	10.8	104.4	10.31	128	10	81.6	F	56	Between 1278 + 1279. Clean backfill
56	8/9/2016	JC	-1	6"/60	122.9	10.5	112.5	9.32	128	10	87.9	P	--	10' to West. Clean backfill
57	8/10/2016	JC	0	6"/60	126.1	11.6	114.5	10.16	128	10	89.5	P	--	Front of 1279 B&C. Between building and storage. Clean backfill
58	8/16/2016	JC	-1	6"/60	116.4	11.4	104.9	10.88	128	10	82	F	73	Front of 1259 (top flat). 3' to E of sidewalk
59	8/16/2016	JC	-1	6"/60	121.5	14	107.5	13.02	128	10	84	F	73	Front of 1259 (top flat). 12' to N of Test 1
60	8/16/2016	JC	-0.5	6"/60	114.5	9.6	105	9.1	128	10	82	F	76	Under deck 1278C. Behind building
61 - 69	Skipped	by	accident	.										TEST #s 61-69 were skipped over unintentionally
70	8/16/2016	JC	0	6"/60	115.3	9.2	106.1	8.66	128	10	83	F	71, 82	Front triangle. 1279A. Flat (10' from sidewalk)
71	8/16/2016	JC	0	6"/60	113	10	102.9	9.74	128	10	80	F	82	Front triangle. 1279A. Flat 10' E of Test 4
72	8/16/2016	JC	-1	6"/60	117.6	12.2	105.4	11.58	128	10	82	F	73	Front 1259 (top flat) 3' to E of sidewalk
73	8/16/2016	JC	-1	5"/60	120.7	12.3	108.4	11.36	128	10	85	P	--	Front 1259 (top flat) 3' to E of sidewalk
74	8/16/2016	JC	-0.5	5"/60	118.8	9.7	109	8.94	128	10	85.2	P	--	Under deck 1278D. Behind building
75	8/16/2016	JC	-0.5	5"/60	118.9	10.6	108.3	9.8	128	10	85	P	--	Under deck 1278B. Behind building
76	8/16/2016	JC	0	6"/60	124.2	9.8	114.5	8.55	128	10	89.4	P	--	Under deck 1278C. Behind building
77	8/16/2016	JC	-0.5	6"/60	121.6	9.9	111.7	8.9	128	10	87.3	P	--	Behind 1279C
78	8/16/2016	JC	-1	4"/60	116.8	12.7	104.1	12.17	128	10	81.3	F	79	Behind 1279C
79	8/16/2016	JC	-1	3"/60	122	13.6	108.4	12.5	128	10	85	P	--	Behind 1279C
80	8/16/2016	JC	0	6"/60	123.1	10.7	112.4	9.52	128	10	88	P	--	Behind 1279B. 30' downhill
81	8/16/2016	JC	-0.5	6"/60	122.1	11	1111	9.93	128	10	86.8	P	--	Behind 1279B. 30' downhill
82	8/16/2016	JC	0	6"/60	120	9.5	110.5	8.6	128	10	86.4	P	--	Front triangle. 1279A
83	8/16/2016	JC	0	6"/60	120.3	11.1	109.2	10.16	128	10	85.4	P	--	Front 1279A. 15' W of door
84	8/16/2016	JC	-0.5	6"/60	120.5	12.7	107.8	11.83	128	10	84	F	85	Front 1259A (top flat)
85	8/16/2016	JC	-0.5	6"/60	118.1	9.7	108.4	8.96	128	10	85	P	--	Front 1259A (top flat)
86	8/16/2016	JC	-0.5	6"/60	119	10.6	108.4	9.8	128	10	85	P	--	Front 1259A (bottom flat)
87	8/16/2016	JC	-0.5	6"/60	119.9	10.9	109	10	128	10	85.1	P	--	Under deck 1278A. Behind buiding
88	8/17/2016	JC	0	6"/60	121.7	9.3	112.5	8.24	128	10	87.9	P	--	Triangle front of 1278 & 1279. 10' from tip of triangle.
89	8/17/2016	JC	-0.5	11"/60	125.4	9.1	116.3	7.79	128	10	90	P	--	Triangle front of 1278 & 1279. 10' from tip of triangle.

Job # 229649.5.A
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Test #	Date	Taken By	Elevation bgs	Mode & Depth	Wet Density PCF	Moisture PCF	Dry Density PCF	% Moisture	Max Density PCF	Optimum Moisture	% Relative Compaction	Pass / Fail	Passing Retest Number	NOTES
90	8/17/2016	JC	-0.5	6"/60	124.1	10.9	113.1	9.67	128	10	88.4	P	--	Between 1278 & 1279. Between two front corners of buildings.
91	8/17/2016	JC	0	6"/60	123.9	10.8	113.1	9.51	128	10	88.4	P	--	Between 1278 & 1279. Between two front corners of buildings.
92	8/17/2016	JC	0	6"/60	119.6	9.4	110.2	8.52	128	10	86.1	P	--	Front 1259A (top flat). Top, 5' from sidewalk
93	8/17/2016	JC	0	6"/60	123.3	11.2	112.2	9.95	128	10	87.7	P	--	Front 1259A (bottom flat). 15' from sidewalk
94	8/19/2016	JC	-0.5	11"/60	137.4	10.5	126.8	8.3	128	10	99	P	--	Front 1278B&C
95	8/19/2016	JC	0	6"/60	126.5	10.4	116.1	8.96	128	10	90	P	--	Front 1278B&C
96	8/19/2016	JC	0	3"/60	122.9	10.5	112.4	9.35	128	10	87.8	P	--	Front 1278B&C
97	8/22/2016	JC	-1	4"/60	120.8	10.5	110.2	9.54	128	10	86.1	P	--	Front 1259B (between storage). Clean Backfill
98	8/22/2016	JC	-3.5	6"/60	119.9	34.2	46.38	24.4	106	18.5	91	P	--	Mid slope key trence. 20' from S end botton of trench
99	8/22/2016	JC	-3.5	6"/60	117	28.8	47.3	20.2	106	18.5	92	P	--	Mid slope key trence. 20' further to N end botton of trench
100	8/22/2016	JC	-0.5	6"/60	122.5	10.2	112.2	9.13	128	10	87.7	P	--	Front 1239B (between storage)
101	8/22/2016	JC	-0.5	6"/60	123.7	11.6	112	10.4	128	10	87.5	P	--	Front 1239B (between storage)
102	8/26/2016	JC	-1	6"/60	131.9	23.5	108.4	21.69	110	15.15	98.5	P	--	S of Lendrum Clean Closure. East Portion- middle. Subgrade
103	8/26/2016	JC	-0.5	6"/60	117.9	24.7	93.1	26.56	110	15.15	85	P	--	S of Lendrum Clean Closure. West Portion- middle. Subgrade
104	8/29/2016	JC	-3	6"/60	115.4	25.9	100.35	14.98	106	18.5	95	P	--	30' from S end. Mid slope. Key triangle.
105	8/29/2016	JC	-3	6"/60	104.6	25.6	88.8	18.41	106	18.5	84	F	106	30' from S end of Bottom slope. Key triangle.
106	8/29/2016	JC	-3	6"/60	111.8	26.3	95.6	16.7	106	18.5	90	P	--	30' from S end of Bottom slope. Key triangle.
107	8/29/2016	JC	-3	6"/60	110	26.7	92.6	18.84	106	18.5	87	F	109	30' from S end of mid slope. Key trench.
108	8/29/2016	JC	-2.5	6"/60	111.5	25.1	97	15.11	106	18.5	91	P	--	20' from S end of bottom slope. Key trench.
109	8/29/2016	JC	-2.5	6"/60	113	27.3	95.8	17.79	106	18.5	90	P	--	30' from S end of mid slope. Key trench.
110	8/29/2016	JC	-2	6"/60	108.7	22.2	97.05	11.66	106	18.5	92	P	--	20' from S end of bottom slope. Key trench.
111	8/29/2016	JC	-2	6"/60	112	25.6	96.6	15.63	106	18.5	91	P	--	30' from S end of mid slope. Key trench.
112	8/29/2016	JC	-3	6"/60	103.5	23.4	90	15.24	106	18.5	85	F	115	50' from S end of bottom slope key trench (before seep)
113	8/29/2016	JC	-3	6"/60	108.7	26.1	92	17.53	106	18.5	87	F	115	50' from S end of bottom slope key trench (before seep)
114	8/29/2016	JC	-3	5"/60	108	23.6	94.7	13.94	106	18.5	89	F	115	50' from S end of bottom slope key trench (10' to N) (before seep)
115	8/29/2016	JC	-3	6"/60	114.8	21.9	103.4	9.6	106	18.5	93	P	--	50' from S end of bottom slope key trench (before seep)
116	8/29/2016	JC	-3	6"/60	107.5	23.8	93.48	14.48	106	18.5	88	F	120	60' from S end of mid slope key trench (Before seep)
117	8/30/2016	JC	-2.5	6"/60	117.3	24.3	93.1	26.08	106	18.5	87.8	F	119	Mid slop key trench. 1st lift above drain rock. Below 1278C
118	8/30/2016	JC	-2.5	6"/60	118.3	24	94.3	25.48	106	18.5	89	F	119	Mid slop key trench. 1st lift above drain rock. Below 1278C. After recompaction
119	8/30/2016	JC	-2.5	5"/60	115.7	24.3	102.4	12.65	106	18.5	96	P	--	Mid slop key trench. 1st lift above drain rock. Below 1278C. After recompaction
120	8/30/2016	JC	-3	6"/60	111.1	24.3	98.3	13.15	106	18.5	93	P	--	60' from S end of mid slope key trench (1st lift) before seep
121	8/30/2016	JC	-2	6"/60	107.1	22.5	94.78	12.66	106	18.5	89	F	122	Mid slope key trence. 2nd lift above drain rock. Below 1278C
122	8/30/2016	JC	-2	5"/60	113	23.3	100.89	11.94	106	18.5	95	P	--	Mid slope key trence. 2nd lift above drain rock. Below 1278C

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123	8/31/2016	JC	-2	6"/60	113.5	25.5	88	28.95	102.5	20	86	F	128	Bottom slope key trench. 1st lift above drain rock. Below 1278 D
124	8/31/2016	JC	-2	6"/60	114.2	25.1	89	28.23	102.5	20	87	F	128	Bottom slope key trench. 1st lift above drain rock. Below 1278 D. Retest of 123
125	8/31/2016	JC	-2	5"/60	115.4	26.8	88.6	30.26	102.5	20	86.4	F	128	Bottom slope key trench. 1st lift above drain rock. Below 1278 D. Retest of 123
126	8/31/2016	JC	-2	5"/60	113.4	25.9	87.5	29.6	102.5	20	85.1	F	128	Bottom slope key trench. 1st lift above drain rock. Below 1278D
127	8/31/2016	JC	-2	5"/60	118.4	24.9	93.5	26.67	102.5	20	91	P	--	Bottom slope key trench. 1st lift above drain rock. Below 1278D. 12' to N
128	8/31/2016	JC	-2	5"/60	117.9	24.2	93.7	25.77	102.5	20	91.4	P	--	Bottom slope key trench. 1st lift above drain rock. Below 1278D
129	9/1/2016	JC	-1.5	6"/60	115.5	22.8	92.8	24.52	102.5	20	90.5	P	--	Station 20. Bottom slope key trench. 2nd lift above drain rock. Below 1278 D
130	9/1/2016	JC	-2.5	5"/60	109.2	25.8	93.3	16.98	102.5	20	91	P	--	Station 16. Bottom slope key trench. 1st lift above drain rock. Below 1278 B
131	9/1/2016	JC	-2	6"/60	104.7	23.7	81	29.25	102.5	20	79	F		Station 16. Bottom slope key trench. 1st lift above drain rock. Below 1278 A
132	9/1/2016	JC	-0.5	5"/60	126.3	16.6	109.7	13.11	128	10	86	P	--	Station 22. S of Lendrum East Portion Import -.05 fbg
133	9/1/2016	JC	0	5"/60	113	9.4	103.6	9.03	128	10	81	F		Station 22. S of Lendrum East Portion Import. Final grade
134	9/1/2016	JC	-2	5"/60	112.1	24.9	87.2	28.55	102.5	20	85	F	135	Station 16. Bottom slope key trench. 2nd lift above drain rock. Below 1278A
135	9/1/2016	JC	-2	5"/60	116.6	23.7	92.9	23.46	102.5	20	91	P	--	Station 16. Bottom slope key trench. 2nd lift above drain rock. Below 1278A. Retest after compaction
136	9/1/2016	JC	-1.5	5"/60	111.8	23.2	88.6	26.14	102.5	20	86	F	137	Station 16. Bottom slope key trench. 3rd lift above drain rock. Below 1278A. Subgrade
137	9/2/2016	JC	-1.5	6"/60	123.4	24.8	98.5	25.22	102.5	20	96	P	--	Bottom slope key trench. Final lift above drain rock. Below 1278A
138	9/7/2016	JC	-1.5	6"/60	115.5	14.7	100.8	14.56	105	12	96	P	--	Station 14. Rough grade, 20' to E of 1275B
139	9/7/2016	JC	-1.5	6"/60	100.4	18.2	82.3	22.09	102.5	22	80	F	149	Station 16. Rough grade, 46' E of 1278B
140	9/7/2016	JC	-1.5	6"/60	118.1	21	97	21.67	102.5	20	95	P	--	Station 20. Rough grade, about 40' E of 1278D
141	9/7/2016	JC	-1.5	6"/60	105.3	21.3	84	25.37	102.5	20	82	F	143	Station 20. Rough grade, betweeen mid and bottom slope key trenches. Below 1278D
142	9/7/2016	JC	-1.5	6"/60	118.5	23.1	95.4	24.2	102.5	20	93	P	--	Station 19. Rough grade, 20' Below opening between 1259 and 1278
143	9/8/2016	JC	-1.5	6"/60	112.8	18.7	94.1	19.89	102.5	20	92	P	--	Station 20. Rough grade between mid and bottom slope key trenches. About 60' below 1278D
144	9/9/2016	JC	-1.5	6"/60	114.1	12.6	101.3	12.39	105	12	97	P	--	Station 14. Rough grade between 1278 and 1279 (down slope corners)
145	9/9/2016	JC	-1.5	6"/60	111.5	10.6	100.9	10.54	105	12	96	P	--	Station 15. Rough grade down slope between 1278 and 1279. NE of TPZ

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146	9/9/2016	JC	-1.5	6"/60	106.7	10.7	96	11.12	105	12	91	P	--	Station 14.Rough grade down slope between 1278 and 1279. NW of TPZ
147	9/9/2016	JC	-1.5	6"/60	112.4	15	97.4	15.38	105	12	93	P	--	Station 16. Rough grade about 25' down slope from NE corner of 1278. Next to TPZ
148	9/9/2016	JC	-1.5	6"/60	112.1	17.4	94.7	18.38	105	12	90	P	--	Station 16. Rough grade about 50' down slope from 1278A. Between mid and bottom key trenches
149	9/9/2016	JC	-1.5	6"/60	112.2	24.2	95.9	17.43	102.5	20	94	P	--	Station 16. Rough grade, below 1278B. Between mid and bottom key trenches
150	9/12/2016	JC	-1.5	6"/60	119.3	19.7	99.6	19.83	105	12	95	P	--	Station 19. Rough grade, 25' to E of 1278C
151	9/12/2016	JC	-1.5	6"/60	119.3	21.4	98	21.82	105	12	93	P	--	Station 20. Rough grade, Downslope 1259A, between bottom and mid key trenches
152	9/12/2016	JC	-1.5	6"/60	108.1	24.4	90.8	19.17	102.5	20	89	F	153	Station 21. Rough grade, downslope 1259B, between mottom and mid key trenches
153	9/12/2016	JC	-1.5	6"/60	120.4	28.9	98.7	21.56	102.5	20	96	P	--	Station 21. Rough grade, downslope 1259B, between mottom and mid key trenches
154	9/12/2016	JC	-1.5	6"/60	112.2	15	97.1	15.44	105	12	93	P	--	Station 19. Rough grade about 10' E of 1259B
155	9/13/2016	JC	-1	5"/60	121	12.6	108.4	11.59	128	10	85	P	--	Station 14. 1st Lift, final grade, between down slope corners of 1278 and 1279. Import fill
156	9/13/2016	JC	-1	10"/60	128.2	13.9	114.3	12.16	128	10	89	P	--	Station 15. 1st lift, final grade about 45' down slope of SE corner of 1279 (cap)
157	9/13/2016	JC	-0.5	6"/60	128.6	13.8	114.8	12	128	10	89	P	--	Station 15. 2nd lift, final grade, about 45' downslope of SE corner of 1279 (cap)
158	9/13/2016	JC	-1	6"/60	121.8	11.3	110.5	10.27	128	10	86	P	--	Station 14. 1st lift, final grade, 20' to SE of SE corner of 1279
159	9/15/2016	JC	-0.5	11"/60	133.3	11	122.3	8.95	128	10	95	P	--	Station 14. 2nd lift, final grade, between 1278 and 1279 (cap)
160	9/15/2016	JC	0	6"/60	122.7	11.2	111.5	10.04	128	10	87	P	--	Station 14. 3rd lift, final grade, between 1278 and 1279 (cap)
161	9/15/2016	JC	0	6"/60	130.5	11.6	118.9	9.77	128	10	92	P	--	Station 15. 3rd (final) lift, final grade, downslope of area between 1279 and 1279 (cap)
162	9/16/2016	JC	-1	5"/60	122.2	9.9	112.3	8.84	128	10	88	P	--	Station 14. 1st lift, Final Grade, ~15' E pf 1278B Cap.
163	9/16/2016	JC	-1	5"/60	121.2	10.2	111	9.23	128	10	87	P	--	Station 19. 1st lift, Final Grade, ~15' E pf 1278C Cap.
164	9/16/2016	JC	-1	5"/60	119.2	9.8	109.3	8.97	128	10	85	P	--	Station 16. 1st lift, Final Grade, ~40' E of NE corner of 1278A, Cap.
165	9/16/2016	JC	-1	5"/60	131.5	12.9	118.6	10.88	128	10	92	P	--	Station 16. 1st lift, Final Grade, ~60' E of NE corner of 1278A, Cap.
166	9/20/2016	JC	-1	5"/60	122.2	10.6	111.6	9.49	128	10	87	P	--	Station 16. 1st lift, Final grade, ~35' E of 1278B Cap.
167	9/20/2016	JC	-1	5"/60	122.6	12	110.6	10.81	128	10	86	P	--	Station 16. 1st lift, Final grade, ~65' E of 1278B Cap.
168	9/20/2016	JC	-1	5"/60	124	11.6	112.3	10.36	128	10	88	P	--	Station 20. 1st lift, Final grade, ~40' E of 1278D Cap.
169	9/20/2016	JC	-1	5"/60	124	12.9	111.1	11.57	128	10	87	P	--	Station 20. 1st lift, Final grade, ~70' E of 1278D Cap.
170	9/20/2016	JC	-1	5"/60	125.9	11.7	114.1	10.26	128	10	89	P	--	Station 20. 1st lift, Final grade, ~75' E of 1259A. Cap.

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171	9/21/2016	JC	-0.5	6"/60	123.5	9.4	114.2	8.2	128	10	89	P	--	Station 14. Second lift final grade ~15' E pf 1279A. Cap.
172	9/21/2016	JC	-0.5	6"/60	119.8	9.3	110.5	8.43	128	10	86	P	--	Station 19. Second lift final grade ~15' E pf 1278C. Cap.
173	9/21/2016	JC	-0.5	6"/60	120.7	11.8	108.9	10.8	128	10	85	P	--	Station 16. Second lift final grade ~40' E of NE corner of 1278A. Cap.
174	9/21/2016	JC	-0.5	5"/60	118.7	32.4	92.7	27.62	102.5	20	90	P	--	Station 21. 1st lift, rough grade, S slope E key trench, ~15' SE of corner 1257B.*Moisture Correction Applied.
175	9/21/2016	JC	-0.5	5"/60	122.7	31.3	98.95	29.24	102.5	20	96	P	--	Station 21. 1st lift, rough grade, S slope E key trench, ~15' from E end. *Moisture Correction Applied.
176	9/21/2016	JC	-0.5	6"/60	123.9	11.6	112.3	10.36	128	10	88	P	--	Station 16. Second lift final grade ~35' E of 1278B. Cap.
177	9/21/2016	JC	-0.5	6"/60	121.2	11.4	109.8	10.34	128	10	86	P	--	Station 16. Second lift final grade ~65' E of 1278B. Cap.
178	9/21/2016	JC	-0.5	6"/60	117.9	27.9	97.44	21.04	102.5	20	95	P	--	Station 21. 2nd lift, rough grade, S slope E key trench, ~15' SE of corner 1259B.*Moisture Correction Applied.
179	9/21/2016	JC	-0.5	6"/60	115.7	28.4	94.07	22.55	102.5	20	92	P	--	Station 21. 2nd lift, rough grade, S slope E key trench, ~15' from E end. *Moisture Correction Applied.
180	9/21/2016	JC	-0.5	6"/60	132.1	11.9	120.1	9.92	128	10	93	P	--	Station 20. 2nd lift, final grade, ~40E of 1278D. Cap.
181	9/21/2016	JC	-0.5	6"/60	124.8	11.7	113.1	10.3	128	10	88	P	--	Station 20. 2nd lift, final grade, ~70E of 1278D. Cap.
182	9/21/2016	JC	-0.5	6"/60	122.1	9.5	112.6	8.47	128	10	88	P	--	Station 20. 2nd lift, final grade, ~75 E of 1259A. Cap.
183	9/21/2016	JC	0	6"/60	119.6	27.6	92	30	102.5	20	90	P	--	Station 21. Final lift, rough grade. S slope E key trench ~15' SE of corner of 1259B.
184	9/21/2016	JC	0	6"/60	112.1	25.6	93.42	19.59	102.5	20	91	P	--	Station 21. Final lift, rough grade. S slope E key trench ~15' E end.
185	9/21/2016	JC	0	5"/60	111	27.8	89.5	23.58	102.5	20	87	P	--	Station 21. 1st lift, Rough grade, S slope W key trench, ~50' from W end.
186	9/21/2016	JC	0	5"/60	118	27	98.33	19.65	102.5	20	96	P	--	Station 21. 1st lift, Rough grade, S slope W key trench, ~50' from W end.
187	9/22/2016	JC	-1.5	6"/60	115.6	29.7	92.43	24.49	102.5	20	90	P	--	Station 21. 2nd lift, rough grade, S slope, W key trench, ~50' from W end. Moisture correction of 10% applied.
188	9/22/2016	JC	-1.5	6"/60	119.5	14.3	105.2	13.55	110	15.15	96	P	--	Station 21. 2nd lift, rough grade, S slope, W key trench, ~5' S of 1259
189	9/22/2016	JC	-1.5	6"/60	110.8	25.9	92.33	20.43	102.5	20	90	P	--	Station 21. 1st lift, rough grade, S slope, W key trench, ~20' S from W end. Moisture correction of 10% applied.
190	9/22/2016	JC	-1.5	6"/60	109.8	26	90.74	21.09	102.5	20	89	P	--	Station 21. 2nd lift (final), rough grade, S slope, W key trench, ~20' from W end. Moisture correction of 10% applied.
191	9/22/2016	JC	-1.5	6"/60	112.7	27.8	91.63	22.7	102.5	20	89	P	--	Station 21. 2nd lift (final), rough grade, S slope, W key trench, ~20' from W end. Moisture correction of 10% applied.
192	9/22/2016	JC	-1.5	6"/60	113.7	28.2	92.47	22.9	102.5	20	90	P	--	Station 21. 2nd lift (final), rough grade, S slope, W key trench, ~20' from W end. After recompaction. Moisture correction of 10% applied.
193	9/22/2016	JC	-1.5	6"/60	113	17.9	95	18.85	105	12	91	P	--	Station 21. 2nd lift (final), rough grade, SW of 1259. 5' from parking space.
194	9/23/2016	JC	0	6"/60	125.1	11.2	114	9.79	128	10	86	P	--	Station 14. Final lift, final grade. ~15' E of 1278A. Cap.
195	9/23/2016	JC	0	6"/60	137.5	14.2	123.3	11.49	128	10	96	P	--	Station 21. Final lift, final grade. ~15' E of 1278C. Cap.

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196	9/23/2016	JC	0	6"/60	126.6	10.6	115.9	9.18	128	10	90	P	--	Station 16. Final lift, final grade. ~35' E of 1278B. Cap.
197	9/23/2016	JC	0	6"/60	124.8	12.6	112.1	11.26	128	10	88	P	--	Station 16. Final lift, final grade. ~65' E of 1278B. Cap.
198	9/23/2016	JC	-1	5"/60	123.2	12.2	111.1	10.97	128	10	87	P	--	Station 19. First lift, final grade. ~5' E of 1259A. Cap.
199	9/26/2016	JC	0	6"/60	117.3	8	109.3	7.32	128	10	85	P	--	Station 20. Final lift, final grade. ~75' E of 1259A. Cap.
200	9/26/2016	JC	-1	5"/60	123.7	10	113.7	8.82	128	10	89	P	--	Station 21. First lift, final grade. ~405' E of 1259B. Cap.
201	9/27/2016	JC	-0.5	6"/60	123.9	10.8	113.1	9.53	128	10	88	P	--	Station 21. 2nd Lift, Final Grade. ~40E of 1259B. Cap.
202	9/27/2016	JC	0	6"/60	126.4	15.5	110.9	14.01	128	10	87	P	--	Station 20. Final Lift, Final Grade. ~50E of 1278D. Cap.
203	9/27/2016	JC	0	6"/60	124.2	13.8	150.4	12.51	128	10	86	P	--	Station 20. Final Lift, Final Grade. ~75E of 1278D. Cap.
204	9/27/2016	JC		6"/60	129.7	12.5	117.2	10.65	128	10	92	P	--	Station 21. 1st lift, rough grade, S slope lower bench clean closure
205	9/27/2016	JC		6"/60	127.4	11.4	116	9.84	128	10	91	P	--	Station 21. 2nd lift, rough grade, S slope lower bench clean closure ~15' S of 1259B.
206	9/28/2016	JC		5"/60	128.1	13.1	114.9	11.43	128	10	90	P	--	Station 21. Final Lift, Rough Grade. S lope lower bench, clean closure, ~15' S of 1259B. Cap.
207	9/28/2016	JC	-0.5	6"/60	120.9	12	108.9	11.05	128	10	85	P	--	Station 19. 2nd lift, final grade, ~5' E of 1259B, Cap.
208	9/28/2016	JC	-1.5	6"/60	113.9	17.7	96.2	18.35	105	12	92	P	--	Station 17. Rough Grade, ~1' S of Power POK
209	9/28/2016	JC	-1	4"/60	125	9.9	115	8.61	128	10	90	P	--	Station 17. 1st lift, final grade, ~45' W of 1278D. Cap.
210	9/28/2016	JC	-1	4"/60	119.2	11	108.2	10.21	128	10	85	P	--	Station 18. 1st Lift, Final Grade, ~8' W of 1278D. Cap.
211	9/29/2016	JC	-0.5	6"/60	119.9	10.8	109.1	9.87	128	10	85	P	--	Station 17. Second lift, Final grade. ~45' W of 1278D. Cap
212	9/29/2016	JC	-0.5	6"/60	129	12.6	116.4	10.79	128	10	91	P	--	Station 18. Second lift, final grade ~10' W of 1278D. Cap.
213	9/29/2016	JC	-1	4"/60	120.8	11.2	109.6	10.22	128	10	86	P	--	Station 21. 1st Lift, final grade, ~35' from SW corner of 1259B. Cap.
214	9/29/2016	JC	-1	4"/60	122.9	11.3	111.6	10.09	128	10	87	P	--	Station 21. 1st Lift, final grade, ~5' from S corner of 1259B. Cap.
215	9/29/2016	JC	-0.5	6"/60	122.9	11.9	111	10.71	128	10	87	P	--	Station 21. Second Lift, final grade, ~5' from S corner of 1259B. Cap.
216	9/29/2016	JC	-0.5	6"/60	127.4	12.4	115	10.82	128	10	90	P	--	Station 21. 2nd Lift, final grade, ~35' from SW corner of 1259B. Cap.
217	9/30/2016	JC	0	6"/60	128.2	12.2	116	10.56	128	10	91	P	--	Station 21. Final Lift, Final Grade, ~5' S of 1259B. Cap.
218	9/30/2016	JC	0	3"/60	139.3	9.8	129.5	7.56	142	5.5	91	P	--	Station 20. AB Pad, Final Grade, behind 1278C.
219	10/3/2016	JC	-1	5"/60	120	11.3	108.6	10.43	128	10	85	P	--	Station 18. 1st lift, final grade, between 1259 + 1278. Cap.
220	10/3/2016	JC	0	5"/60	141.1	9.6	132.5	6.51	142	6	93	P	--	Station 19. Final Grade, AB behind 1259.
221	10/3/2016	JC	0	5"/60	142.5	10.7	131.8	8.14	142	6	93	P	--	Station 11. AB Pad, Final grade behind 1279B.
222	10/4/2016	JC	-0.5	12"/60	125.1	11.5	113.6	10.08	128	10	89	P	--	Station 18. 2nd lift, final grade, between 1259 + 1278. Cap.
223	10/4/2016	JC	0	6"/60	125.1	12.2	112.9	10.79	128	10	88	P	--	Station 18. Final lift, final grade, between 1259 + 1278. Cap.
224	10/4/2016	JC	0	6"/60	129.9	12.6	117.2	10.76	128	10	91	P	--	Station 21. Final lift, final grade, ~30' from SW corner of 1259. Cap.
225	10/4/2016	JC	0	6"/60	123.8	10.7	113.2	9.42	128	10	88	P	--	Station 21. Final Grade, S slope clean closure, ~40' from SE corner of 1259. Cap.
226	10/4/2016	JC	0	6"/60	125.1	10.5	114.6	9.13	128	10	89	P	--	Station 19. Final Lift, final grade, ~15' E of 1259A. Cap.

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227	10/5/2016	JC	-0.5	12"/60	132.6	9.8	122.8	7.96	128	10	93	P	--	Station 22. Clean Closure, 1st lift, final grade, S of Lendrum
228	10/5/2016	JC	0	6"/60	122.7	8.3	114.3	7.28	128	10	89	P	--	Station 22. Clean Closure, 2nd lift, final grade, S of Lendrum
229	10/5/2016	JC	0	6"/60	116.2	7.8	108.4	7.24	128	10	85	P	--	Station 22. Clean Closure, Final lift, final grade, S of Lendrum
230	10/10/2016	JC	0	4"/60	125.4	11.8	113.6	10.3	121	11.5	94	P	--	Station 10. AB Patio Pad, front of 1279A
231	10/1/2016	JC	0	4"/60	124.8	10.8	114	9.5	121	11.5	94	P	--	Station 10. AB Patio Pad, front of 1279B
232	10/11/2016	JC	0	5"/60	136.7	16.8	119.9	14.02	121	11.5	99	P	--	Station 10. AB Patio Pad, front of 1279C
233	10/11/2016	JC	0	4"/60	134.1	15.5	118.6	13.07	121	11.5	98	P	--	Station 13. AB Patio Pad, front of 1279D
234	10/11/2016	JC	0	4"/60	128.5	14.5	114	12.69	121	11.5	94	P	--	Station 13. AB Patio Pad, front of 1278A
235	10/11/2016	JC	0	4"/60	129.7	15.5	114.2	13.59	121	11.5	94	P	--	Station 13. AB Patio Pad, front of 1278B
236	10/11/2016	JC	0	4"/60	133.7	17.4	116.2	15.01	121	11.5	96	P	--	Station 18. AB Patio Pad, front of 1278C
237	10/11/2016	JC	0	4"/60	127.7	13.6	114.1	11.92	121	11.5	94	P	--	Station 18. AB Patio Pad, front of 1278D
238	10/11/2016	JC	0	4"/60	137.2	17.4	119.8	14.51	121	11.5	99	P	--	Station 17. AB Patio Pad, front of 1259A
239	10/11/2016	JC	0	4"/60	137	13.8	123.2	11.18	121	11.5	99	P	--	Station 17. AB Patio Pad, front of 1259B
240	10/12/2016	JC	-3.5	6"/60	129.2	19.8	109.4	18.09	110	15.15	99	P	--	Station 3. Bottom , bottom slope west side key trench. Down from 1257A
241	10/12/2016	JC	-2.5	6"/60	122.8	19.7	103.1	19.07	110	15.15	94	P	--	Station 3. 1st lift, bottom slope west side key trench, down from 1257A
242	10/12/2016	JC	-1.5	6"/60	117.2	17.4	99.7	17.48	110	15.15	91	P	--	Station 3. 2nd lift, bottom slope, west side key trench, down from 1257A
243	10/18/2016	JC	-3.5	6"/60	129.2	24.1	105.1	22.88	110	15.15	96	P	--	Station 6. Bottom, bottom slope, west side key trench, down from 1258A.
244	10/19/2016	JC	-3.5	6"/60	127.6	23.9	103.7	23.08	110	15.15	94	P	--	Station 5. Bottom. Bottom slope, west side key trench, down from 1257+1258.
245	10/19/2016	JC	-2.5	6"/60	131.2	24	107.2	22.38	110	15.15	97	P	--	Station 5. 1st lift bottom slope, westside key trench. Down from 1257+1258
246	10/19/2016	JC	-2.5	6"/60	130.7	24.3	106.4	22.88	110	15.15	97	P	--	Station 6. 1st lift bottom slope, west side key trench down from 1258.
247	10/19/2016	JC	-1.5	6"/60	127.1	23.9	103.2	23.17	110	15.15	94	P	--	Station 5. 2nd lift bottom slope, westside key trench. Down from 1257+1258
248	10/19/2016	JC	-1.5	6"/60	129.6	22.9	106.8	21.41	110	15.15	97	P	--	Station 6. 1st lift bottom slope, west side key trench down from 1258.
249	10/20/2016	JC	-2.5	6"/60	117.1	32	85	37.67	102.5	20	83	F	--	Station 8. Bottom slope key trench down from 1258. Bottom of key trench was unyielding bedrock (Hand probe could not penetrate rock base of the key trench) which was thought to have caused problematic compaction test readings. The professional opinion of the field technician and engineer is that the bottom of the trench is competent bedrock and therefore sufficient as a subgrade to the key trench.
250	10/24/2016	JC	-1.5	6"/60	117.9	23.6	94.4	24.96	105	12	90	P	--	Station 2. Rough Grade adjacent to 1257A.

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251	10/24/2016	JC	-1.5	6"/60	128.5	19.3	109.2	17.64	110	15.15	99	P	--	Station 1. Rough Grade ~20' to N of 1257A.
252	10/24/2016	JC	-1.5	6"/60	120.2	17.4	102.8	16.89	110	15.15	93	P	--	Station 4. Rough Grade ~ 35' E of 1257B.
253	10/26/2016	JC	-3.5	6"/60	127.7	24.6	103.1	23.88	110	15.15	94	P	--	Station 4. Bottom of top slope key trench down from 1257B(~25')
254	10/26/2016	JC	-2.5	6"/60	123.4	25.7	97.6	26.34	105	12	93	P	--	Station 4. 1st lift, top slope key trench down from 1257B(~25')
255	10/26/2016	JC	-1.5	6"/60	125.2	22.7	102.5	27.12	110	15.15	93	P	--	Station 4. 2nd lift, top slope key trench down from 1257B(~25')
256	11/2/2016	JC	-0.75	6"/60	125.5	12.7	112.7	11.3	128	10	88	P	--	Hot spot clean closure, front of 1258B. S of Stairs
257	11/2/2016	JC	0	6"/60	128.1	12.4	115.7	10.76	128	10	90	P	--	Hot spot clean closure, front of 1258B. S of Stairs
258	11/2/2016	JC	-0.75	6"/60	125	14.2	110.7	12.84	128	10	87	P	--	Hot spot clean closure, front of 1258B. N of Stairs
259	11/2/2016	JC	0	6"/60	129.4	14.1	115.4	12.22	128	10	90	P	--	Hot spot clean closure, front of 1258B. N of Stairs
260	11/4/2016	JC	0	5"/60	140.2	10.3	129.9	7.94	146	6	92	P	--	Station 13. AB Pad Front of 1278.
261	11/4/2016	JC	-3.5	6"/60	128.4	22.6	105.7	21.4	110	15.15	96	P	--	Station 3. Bottom, mid slope key trench down from 1257A.
262	11/4/2016	JC	-3.5	6"/60	107.4	14.7	92.7	15.88	102.5	20	90	P	--	Station 4. Bottom, mid slope key trench down from between 1257+1258.
263	11/4/2016	JC	-2.5	6"/60	125.7	25	100.8	24.78	110	15.15	92	P	--	Station 3. First lift, mid slope key trench, down from 1257A.
264	11/4/2016	JC	-2.5	6"/60	121	22.9	98.1	23.32	106	18.5	92	P	--	Station 4. First lift, mid slope key trench down from between 1257+1258.
265	11/4/2016	JC	-1.5	6"/60	126.5	24.2	102.3	23.69	110	15.15	93	P	--	Station 3. Second lift, mid slope key trench, down from 1257A.
266	11/4/2016	JC	-1.5	6"/60	126.1	24.1	102	23.63	110	15.15	93	P	--	Station 4. Second lift, mid slope key trench down from between 1257+1258.
267	11/7/2016	JC	0	5"/60	143.1	10.5	132.6	7.96	142	6	93	P	--	Station 17. AB Pad, Front of 1259B.
268	11/7/2016	JC	-1.5	6"/60	121.5	24.2	97.2	24.93	106	18.5	92	P	--	Station 2. Rough Grade adjacent to 1257A.
269	11/7/2016	JC	-1.5	6"/60	122.8	22.4	100.3	22.33	106	18.5	95	P	--	Station 5. Rough Grade adjacent to 1257B.
270	11/9/2016	JC	-3.5	6"/60	122	20.4	101.6	20.09	110	15.15	92	P	--	Station 7. Bottom of midslope key trench, down from 1253B.
271	11/10/2016	JC	-2.5	6"/60	130.4	24.3	106.1	22.91	110	15.15	96	P	--	Station 7. First lift of midslope key trench, down from 1253B.
272	11/10/2016	JC	-1.5	6"/60	121	21.8	99.2	22.03	110	15.15	90	P	--	Station 7. Second lift of midslope key trench, down from 1253B.
273	11/11/2016	NB	-1.5	10"/60	124.3	18.6	105.8	17.56	110	15.15	96.13	P	--	Station 7 on mid slope halfway between 1258 and steep slope
274a	11/11/2016	NB	-1.5	6"/60	111.1	18.67	93.5	17.5	110	15.15	85.67	F	274c	Station 8 mid slope between lendrum and flat area behind 1258.
274b	11/11/2016	NB	-1.5	4"/60	114.3	21.37	94.2	20.1	110	15.15	95.59	F	274c	Station 8 mid slope between lendrum and flat area behind 1258.
274c	11/11/2016	NB	-1.5	10"/60	113.9	18.33	100.17	15.1	110	15.15	90	P	--	Station 8. Mid slope near lendrum and armistead behind 1258.
275	11/11/2016	NB	-1.5	10"/60	118.5	15	98.9	19	110	15.15	91.1	P	--	Station 8 mid slope between lendrum and flat area behind 1258.

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276	11/15/2016	JC	-1	4"/60	126	15.4	110.6	13.91	128	10	86	P	--	Station 1. Cap, 1st lift, N of 1257A.
277	11/15/2016	JC	-1	4"/60	127.7	16.8	110.9	15.16	128	10	87	P	--	Station 2. Cap, 1st lift, E of 1257A. Top Slope.
278	11/15/2016	JC	-1	3"/60	124.8	14.6	110.1	13.29	128	10	86	P	--	Station 5. Cap, First lift, E of 1257B, Bottom Slope.
279	11/15/2016	JC	-1	3"/60	124.7	15.5	109.1	14.25	128	10	85	P	--	Station 4. Cap, 1st lift, E of 1257B, Top Slope.
280	11/15/2016	JC	-1	4"/60	124.2	15.2	109	13.93	128	10	85	P	--	Station 3. Cap, 1st lift, E of 1257A, Bottom Slope.
281	11/15/2016	JC	-1	4"/60	131.8	15.4	116.4	13.23	128	10	91	P	--	Station 8. Cap, 1st lift, E of 1258B, Bottom Slope.
282	11/15/2016	JC	-1	4"/60	124.4	14	110.4	12.65	128	10	86	P	--	Station 8. Cap, 1st lift, SE of corner of 1258B. Bottom Slope.
283	11/15/2016	JC	-1	4"/60	130.6	15	115.6	13	128	10	90	P	--	Station 7. Cap, 1st lift, E of 1258B, Top Flat.
284	11/16/2016	JC	-0.5	6"/60	126.5	14.5	112	12.93	128	10	88	P	--	Station 1. Cap, 2nd llift, N of 1257A.
285	11/16/2016	JC	-0.5	6"/60	122.2	12.4	109.8	11.32	128	10	86	P	--	Station 2. Cap, 2nd lift, E of 1257A, Top Flat.
286	11/16/2016	JC	-0.5	6"/60	122.7	13.8	108.9	12.69	128	10	85	P	--	Station 3. Cap, 2nd lift, E of 1257A, Bottom Slope.
287	11/16/2016	JC	-0.5	6"/60	121.6	12.4	109.2	11.36	128	10	85	P	--	Station 4. Cap, 2nd lift, E of 1257B, Top Flat
288	11/16/2016	JC	-0.5	6"/60	125	13.9	111.5	12.03	128	10	87	P	--	Station 5. Cap, 2nd lift, E of area between 1257 + 1258. Bottom Slope.
289	11/17/2016	JC	-0.5	6"/60	126.4	10.3	116	8.91	128	10	90	P	--	Station 7. Cap, 2nd lift, E of 1258B, Top, Flat.
290	11/17/2016	JC	-0.5	6"/60	121	10.7	110.3	9.75	128	10	86	P	--	Station 8. Cap, 2nd lift, E of 1258A, Bottom Slope.
291	11/17/2016	JC	-0.5	6"/60	122.9	10.5	112.4	9.36	128	10	88	P	--	Station 8. Cap, 2nd lift, E of 1258A, Bottom Slope.
292	11/21/2016	JC	0	6"/60	127.4	12.4	115	10.8	128	10	90	P	--	Station 1. Cap, Final grade, N of 1257.
293	11/21/2016	JC	0	6"/60	125.7	11.3	114.4	9.87	128	10	89	P	--	Station 2. Cap, Final grade, NE of 1257A, Top Flat.
294	11/21/2016	JC	0	6"/60	118.8	8.9	110	8.05	128	10	86	P	--	Station 4. Cap, Final Grade, E of 1257B, Top Flat.
295	11/21/2016	JC	0	6"/60	121.9	11.2	110.7	10.1	128	10	86	P	--	Station 3. Cap, Final grade, E of 1257A, Bottom slope.
296	11/21/2016	JC	0	6"/60	118.6	10.3	108.3	9.49	128	10	85	P	--	Station 5. Cap, Final grade, E of 1257B, Bottom Slope.
297	11/22/2016	JC	-1.5	6"/60	126.1	18.3	107.8	16.98	110	15.15	98	P	--	Station 3. Rough Grade, E of 1257A, Bottom Slope.
298	11/28/2016	JC	-1.5	6"/60	118.2	19.7	98.5	20.01	110	15.15	90	P	--	Station 9. Rough grade, front of 1280D.
299	11/29/2016	JC	-1	4"/60	134.5	19.4	115.1	16.85	128	10	90	P	--	Station 10. Cap, 1st lift, front of 1280D.
300	11/30/2016	JC	-0.5	6"/60	132.1	16.5	115.6	14.24	128	10	90	P	--	Station 10. Cap, 2nd lift, front of 1280D.
301	12/1/2016	JC	0	6"/60	131.8	17.3	114.5	15.11	128	10	89	P	--	Station 10. Cap, final grade, front of 1280D.
302	12/2/2016	JC	-1.5	6"/60	123.5	22.1	101.4	21.81	110	15.15	92	P	--	Station 6. Rough grade, West side slope, down from 1258A.
303	12/2/2016	JC	0	6"/60	126.6	15.3	111.4	13.73	128	10	87	P	--	Station 7. Cap, Final grade, top flat E of 1258.
304	12/2/2016	JC	0	6"/60	126.3	14.4	111.9	12.88	128	10	87	P	--	Station 8. Cap, Final grade, west side slope, E of 1258B.
305	12/2/2016	JC	0	6"/60	119.3	10.5	108.8	9.67	128	10	85	P	--	Station 8. Cap, Final grade, west side slope, E of 1258A/B.

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306	12/5/2016	JC	-1	4"/60	125.2	14.9	110.2	13.54	128	10	86	P	--	Station 6. Cap, 1st lift, west side slope, E of 1259A.
307	12/6/2016	JC	-0.5	6"/60	123.8	13.8	110	12.58	128	10	86	P	--	Station 6. Cap, 2nd lift, west side slope, E of 1258A.
308	12/6/2016	JC	0	6"/60	127.4	15.9	111.5	14.28	128	10	87	P	--	Station 6. Cap, Final grade, west side slope, E of 1258A.
309	12/28/2016	JC	-2	4"/60	144.5	11.4	133.1	8.59	142	6	94	P	--	Station 3. Power Pole Key Trench AB. (Slope Repair Area)
310	12/29/2016	JC	-1.5	5"/60	133.5	15.7	117.8	13.31	128	10	92	P	--	Station 3. Power Pole Key Trench. Rough Grade. (Import Soil)
311	12/29/2016	JC	-1	6"/60	132.4	14.8	117.6	12.61	128	10	92	P	--	Station 3. Power Pole Key Trench. 1st Lift. Final Grade. Key Trench.
312	12/29/2016	JC	-0.5	6"/60	123	13	110.1	11.79	128	10	86	P	--	Station 3. Power Pole Key Trench. 2nd Lift. Final Grade. Key Trench.
313	12/29/2016	JC	-1	5"/60	130.2	15.3	114.9	13.29	128	10	90	P	--	Station 3, 1st lift. Final grade.
314	12/29/2016	JC	-0.5	6"/60	133.9	13.7	120.2	11.43	128	10	94	P	--	Station 3, 2nd lift. Final grade.
315	12/30/2016	JC	-0.5	6"/60	128.4	15.5	112.9	13.77	128	10	88	P	--	Station 3. Slope, 2nd lift. Final grade.
316	12/30/2016	JC	0	6"/60	129.8	15.6	114.2	13.64	128	10	89	P	--	Station 3. Slope, Final lift. Final grade.
317	3/1/2017	NB	-2	10"/60	120.4	16.3	104.1	15.71	110	15.15	99.8	P	--	Station 12. Backfill 3.5 foot hole above transite pipe.
318	3/1/2017	NB	-1.5	8"/60	129	17.7	111.3	15.92	122	12	91.2	P	--	Station 12. Backfill 3.5 foot hole above transite pipe.
319	3/1/2017	NB	-1	8"/60	123	16	107	14.93	122	12	87.72	P	--	Station 12. Backfill 3.5 foot hole above transite pipe.
320	3/1/2017	NB	0	6"/60	126.7	16.7	109.9	15.19	122	12	90.19	P	--	Station 12. Backfill 3.5 foot hole above transite pipe.
321	3/1/2017	NB	0	6"/60	127.1	16.8	110.2	15.29	122	12	90.35	P	--	Station 12. Backfill 3.5 foot hole above transite pipe.
322	3/9/2017	JC	-0.5	7"/60	127	16.2	110.7	14.67	121	11.5	92	P	--	Station 7. AB Pad behind 1258B.
323	3/9/2017	JC	-0.5	8"/60	129.5	19.1	110.4	17.28	121	11.5	91	P	--	Station 7. AB Pad behind 1258A.
324	3/9/2017	JC	-0.5	8"/60	125.9	16.7	108.7	15.33	121	11.5	90	P	--	Station 4. AB Pad behind 1257B.
325	3/9/2017	JC	-0.5	8"/60	128.8	13.3	115.6	11.5	121	11.5	95	P	--	Station 2. AB Pad behind 1257A.
326	3/9/2017	JC	-0.5	8"/60	126.9	13.2	113.7	11.64	121	11.5	94	P	--	Station 11. AB Pad Front 1280D.
327	3/16/2017	NB	-1.5	6"/60	130.6	17.6	113.5	14.98	122	12	94	P	--	Station 12. Curve @ Reuse 1278/1279.
328	3/16/2017	NB	-1.5	6"/60	131.4	17.7	113.6	15.61	122	12	94	P	--	Station 12. Curve @ Reuse 1278/1279.
329	3/16/2017	NB	-0.7	6"/60	135.3	18	117.4	15.3	122	12	97	P	--	Station 12. Curve @ Reuse 1278/1279.
330	3/16/2017	NB	-0.7	8"/60	127.9	16.2	111.7	14.53	122	12	92	P	--	Station 12. Curve @ Reuse 1278/1279.
331	3/16/2017	NB	-0.4	8"/60	132.3	17.7	114.6	15.49	122	12	95	P	--	Station 12. Curve @ Reuse 1278/1279.
332	3/16/2017	NB	-0.25	8"/60	129.1	21.7	107.4	20.19	122	12	89	P	--	Station 21. Curve @ Reuse 1278/1279.
333	3/16/2017	NB	-0.25	8"/60	131.4	22.9	108.5	21.13	122	12	90	P	--	Station 21. Curve @ Reuse 1278/1279.
334	3/17/2017	JC	-1.5	6"/60	136	16.9	119.2	14.16	121	11.5	98	P	--	Station 17. 1st Lift AB Trench Front 1278D.
335	3/17/2017	JC	-1.5	6"/60	135.7	17.8	117.9	15.13	121	11.5	97	P	--	Station 12. 1st lift AB trench front of 1279D.

Job # 229649.5.A
Job Name Lendrum Court
Location San Francisco, CA

Gauge: CPN
Serial #: MC-1DR-P

Test #	Date	Taken By	Elevation bgs	Mode & Depth	Wet Density PCF	Moisture PCF	Dry Density PCF	% Moisture	Max Density PCF	Optimum Moisture	% Relative Compaction	Pass / Fail	Passing Retest Number	NOTES
336	3/17/2017	JC	-1	6"/60	136.1	11.4	124.7	9.12	121	11.5	102	P	--	Station 12. 2nd lift AB trench front of 1279D.
337	3/17/2017	JC	-1	6"/60	140.3	11.7	128.5	9.14	142	6	91	P	--	Station 12. Retest of previous test with curver for virgin AB.
338	3/17/2017	JC	-1	6"/60	138.5	18.3	120.2	15.22	121	11.5	98	P	--	Station 17. 2nd lift AB trench front of 1278D.
339	3/17/2017	JC	-0.5	6"/60	130.2	13.2	113	11.25	121	11.5	96	P	--	Station 12. 3rd lift AB trench front of 1279D.
340	3/17/2017	JC	0	6"/60	139.5	10.5	129	8.12	142	6	91	P	--	Station 12. Final Lift AB Trench Front 1279D.
341	3/17/2017	JC	-0.5	6"/60	127.9	13.5	114.4	11.77	121	11.5	94	P	--	Station 17. 3rd lift trench front of 1278D.
342	3/17/2017	JC	0	6"/60	144.7	10.1	134.6	7.49	142	6	95	P	--	Station 17. Final lift trench front of 1278D.
343	3/17/2017	JC	0	6"/60	135.5	10.3	117.2	15.59	128	10	91	P	--	Station 12. Final Lift AB Trench Cap. Front of 1279D.
344	4/4/2017	JC	-1	6"/60	125.9	12.3	113.6	10.81	121	11.5	94	P	--	Station 9/12. 2nd lift AB, trench in front of 1279.
345	4/4/2017	JC	0	6"/60	125.6	6	119.6	5.01	121	11.5	98	P	--	Station 9/12. Final lift AB, trench in front of 1279.
346	4/4/2017	JC	-1.5	5"/60	131.2	12.5	118.6	10.58	121	11.5	98	P	--	Station 12/17. 1st lift AB, Trench in front of 1278.
347	4/4/2017	JC	-1	6"/60	133.9	17.4	116.5	14.9	121	11.5	96	P	--	Station 12/17. 2nd lift AB, Trench in front of 1278.
348	4/4/2017	JC	-0.5	10"/60	138.8	14.1	124.7	11.28	121	11.5	103	P	--	Station 12/17. 3rd lift AB, Trench in front of 1278.
349	4/4/2017	JC	0	5"/60	135.5	14	121.5	11.53	121	11.5	100	P	--	Station 12/17. Final lift AB, Trench in front of 1278.
350	4/5/2017	JA	-1	10"/60	132.3	15.8	116.5	13.6	121	11.5	96	P	--	Front of 1280.
351	4/5/2017	JA	0	10"/60	12.2	15	117.2	12.8	121	11.5	97	P	--	Front of 1280.
352	4/5/2017	JA	-1	10"/60	131.1	15.2	115.9	13.1	121	11.5	96	P	--	Street in front fo 1278.
353	4/5/2017	JA	0	10"/60	130.3	13.9	116.4	11.9	121	11.5	96	P	--	Street in front fo 1278.
354	4/6/2017	JC	-1	5"/60	138.1	21	117.2	17.88	121	11.5	97	P	--	Station 8/17. 1st lift AB Trench perpendicular to 1278 across Lendrum
355	4/6/2017	JC	-1	5"/60	127.3	11.7	115.6	10.12	121	11.5	96	P	--	Station 21/22. 1st lift AB, Trench across Lendrum, 1259 to 101.
356	4/6/2017	JC	-0.5	6"/60	123	8.7	114.3	7.62	121	11.5	94	P	--	Station 21/22. 2nd lift AB, Trench across Lendrum, 1259 to 101.
357	4/6/2017	JC	0	5"/60	122.9	8.8	114.1	7.73	121	11.5	94	P	--	Station 21/22. Final lift AB, Trench across Lendrum, 1259 to 101.
358	4/6/2017	JC	-0.5	5"/60	129.9	15.1	114.9	13.11	121	11.5	95	P	--	Station 8/17. 2nd lift AB Trench perpendicular to 1278 across Lendrum
359	4/6/2017	JC	0	6"/60	135.6	17.8	117.7	15.16	121	11.5	97	P	--	Station 8/17. Final lift AB Trench perpendicular to 1278 across Lendrum
360	4/6/2017	JC	-0.5	10"/60	122.3	8.6	113.8	7.52	121	11.5	94	P	--	Station 21/22. 2nd lift AB, Trench across Lendrum, 1259 to 101.
361	4/6/2017	JC	0	5"/60	123.6	8.5	115	7.43	121	11.5	95	P	--	Station 21/22. Final lift AB, Trench across Lendrum, 1259 to 101.
362	4/12/2017	JC	0	4"/60	123.5	14.8	108.7	13.61	121	11.5	90	P	--	Station 9. AB for sidewalk repair, front of 1279B.
363	4/12/2017	JC	0	4"/60	139.2	20.1	119.1	16.85	121	11.5	98	P	--	AB for sidewalk repair, front of 1280B.
364	4/12/2017	JC	0	4"/60	132.6	15.9	116.8	13.59	121	11.5	96	P	--	Station 17. AB for sidewalk repair, front of 1278D.
365	4/12/2017	JC	0	4"/60	125.9	17	108.9	15.57	121	11.5	90	P	--	Station 17. AB for sidewalk repair, front of 1278D.
366	4/14/2017	JC	0	5"/60	124.5	15.3	109.2	14.03	121	11.5	90	P	--	Station 17. AB Pad around fire hydrant.
367	4/14/2017	JC	0	6"/60	126.3	18.6	107.7	17.27	121	11.5	89	P	--	Station 17. AB Pad around fire hydrant.
368	5/26/2017	JC	0	4"/60	123.3	12.7	110.6	11.48	121	11.5	91	P	--	Station 9. AB pad for sidewalk, Front of 1279A.

Job # 229649.5.A
Job Name Lendrum Court
Location San Francisco, CA

Gauge: CPN
Serial #: MC-1DR-P

Test #	Date	Taken By	Elevation bgs	Mode & Depth	Wet Density PCF	Moisture PCF	Dry Density PCF	% Moisture	Max Density PCF	Optimum Moisture	% Relative Compaction	Pass / Fail	Passing Retest Number	NOTES
369	5/26/2017	JC	0	4"/60	134.9	15.6	119.3	13.09	121	11.5	98	P	--	Station 9. AB pad for sidewalk, by powerpole, between 1279 + 1280.
370	5/26/2017	JC	0	4"/60	124.9	10.8	114.1	9.45	121	11.5	94	P	--	Station 9. AB pad for sidewalk, Front of 1280D.
371	6/1/2017	JC	-1.5	4"/60	137.3	21.1	116.3	18.12	121	11.5	96	P	--	Station 3. AB for concrete stairs footer.
372	6/1/2017	JC	-1.5	3"/60	130.9	15.7	115.3	13.58	121	11.5	95	P	--	Station 3. AB for concrete stairs header.
373	6/1/2017	JC	-1.5	6"/60	122.6	14.1	108.5	12.96	110	15.5	98	P	--	Station 3. Subgrade Soil. Middle of concrete stairs.
374	6/1/2017	JC	0	4"/60	124.1	15.4	108.8	14.14	121	11.5	90	P	--	Station 3. Rec Concrete AB Path. Near stairs.
375	6/1/2017	JC	0	4"/60	126.4	16.4	110	14.88	121	11.5	91	P	--	Station 2. Rec Concrete AB Path. Behind 1257A
376	6/1/2017	JC	0	4"/60	123.4	15	108.4	13.81	121	11.5	90	P	--	Staion 4. Rec. Concrete AB Path, Behind 1257B
377	6/1/2017	JC	0	3"/60	121.2	13.9	107.3	12.98	121	11.5	89	P	--	Station 2. AB for AC path below 1256
378	6/2/2017	JC	0	4"/60	132	16.8	115.1	14.63	121	11.5	95	P	--	Station 4. Rec. Concrete AB Path. E of area between 1257 + 1258.
379	6/2/2017	JC	0	4"/60	129.8	15.2	114.7	13.22	121	11.5	95	P	--	Station 4. Rec. Concrete AB Path. Top of Box Stops.
380	6/2/2017	JC	0	3"/60	125.4	14.6	110.9	13.12	121	11.5	92	P	--	Station 1. AB for AC path. Below 1255/1256.
381	6/15/2017	NB	-1.5	7"/60	124.8	14.3	109.2	14.3	110	15.15	99.27	P	--	Between 1255/1256 Patio Areas
382	6/15/2017	NB	-1.5	10"/60	123.7	15	107.5	15	110	15.15	97.7	P	--	Between 1255/1256 Patio Areas Further E
383	6/15/2017	NB	-3.5	10"/60	131.6	13.76	115.7	13.76	110	15.15	105.76	P	--	Behind 1256
384	6/15/2017	NB	-1.5	10"/60	126.4	18.22	106.9	18.22	110	15.15	97.15	P	--	
385	6/15/2017	NB	-3.5	11"/60	114.6	13.08	101.3	13.08	110	15.15	92.09	P	--	
386	6/15/2017	NB	-1.5	11"/60	125.3	13.77	110.1	13.77	110	15.15	100.07	P	--	
387	6/15/2017	NB	-1.5	12"/60	125.5	14.48	109.6	14.48	110	15.15	99.62	P	--	
388	6/16/2017	NB	-1.5	12"/60	127.4	16.1	111.3	14.17	122	12	91.22	P	--	Behind 1255.
389	6/16/2017	NB	-1.5	12"/60	129.8	17.4	112.4	15.17	122	12	92.17	P	--	Behind 1256.
390	6/16/2017	NB	-1.5	12"/60	130.4	16.4	114	14.36	122	12	93.48	P	--	Behind 1256.
391	6/16/2017	NB	-0.5	12"/60	130.6	17.3	113.3	15.3	122	12	92.89	P	--	Behind 1256.
392	6/19/2017	JC	-1	6"/60	128.3	15.8	112.4	14.07	128	10	88	P	--	Station 1.5' Excavation. Between 1255 + 1256. Closer to 1255
393	6/19/2017	JC	-1	6"/60	135.2	13.9	121.3	11.47	128	10	95	P	--	Station 3.5' Excavation. Down from 1256.
394	6/19/2017	JC	-0.5	6"/60	124.9	15.3	109.7	13.92	128	10	86	P	--	Station 1.5' Excavation. Between 1255 + 1256. Closer to 1255
395	6/22/2017	JC	-0.5	12"/60	122.7	14.5	108.2	13.35	128	10	85	P	--	Station 2.0' Excavation. Down from area between 1255 + 1256.
396	6/22/2017	JC	0	6"/60	124.6	13	111.5	11.69	128	10	87	P	--	Station 2.0' Excavation. Down from area between 1255 + 1256.
397	6/22/2017	JC	0	6"/60	122	12.9	109.1	11.79	128	10	85	P	--	Station 1.5' Excavation. Down from 1256.
398	6/22/2017	JC	-0.5	11"/60	125.7	14.9	110.8	13.45	128	10	87	P	--	Station 1.5' Excavation. Down from 1256.
399	6/22/2017	JC	0	6"/60	129.4	14.7	114.7	12.8	128	10	89	P	--	Station 1.5' Excavation. Down from 1256.

HOFFMAN
AREA OF TELEPHONE POLE NOT COMPLETED
RAMP
POWER POLE GUY WIRE AREA (NOT COMPLETED)
ESTIMATED AREA WHERE SERPENTINITE BEDROCK IS LESS THAN 6 INCHES BELOW EXISTING GROUND SURFACE. SHALLOW AND EXPOSED BEDROCK AREA TO BE CLEAN CLOSED.
KEY TRENCHES (APPROX. LOCATION)
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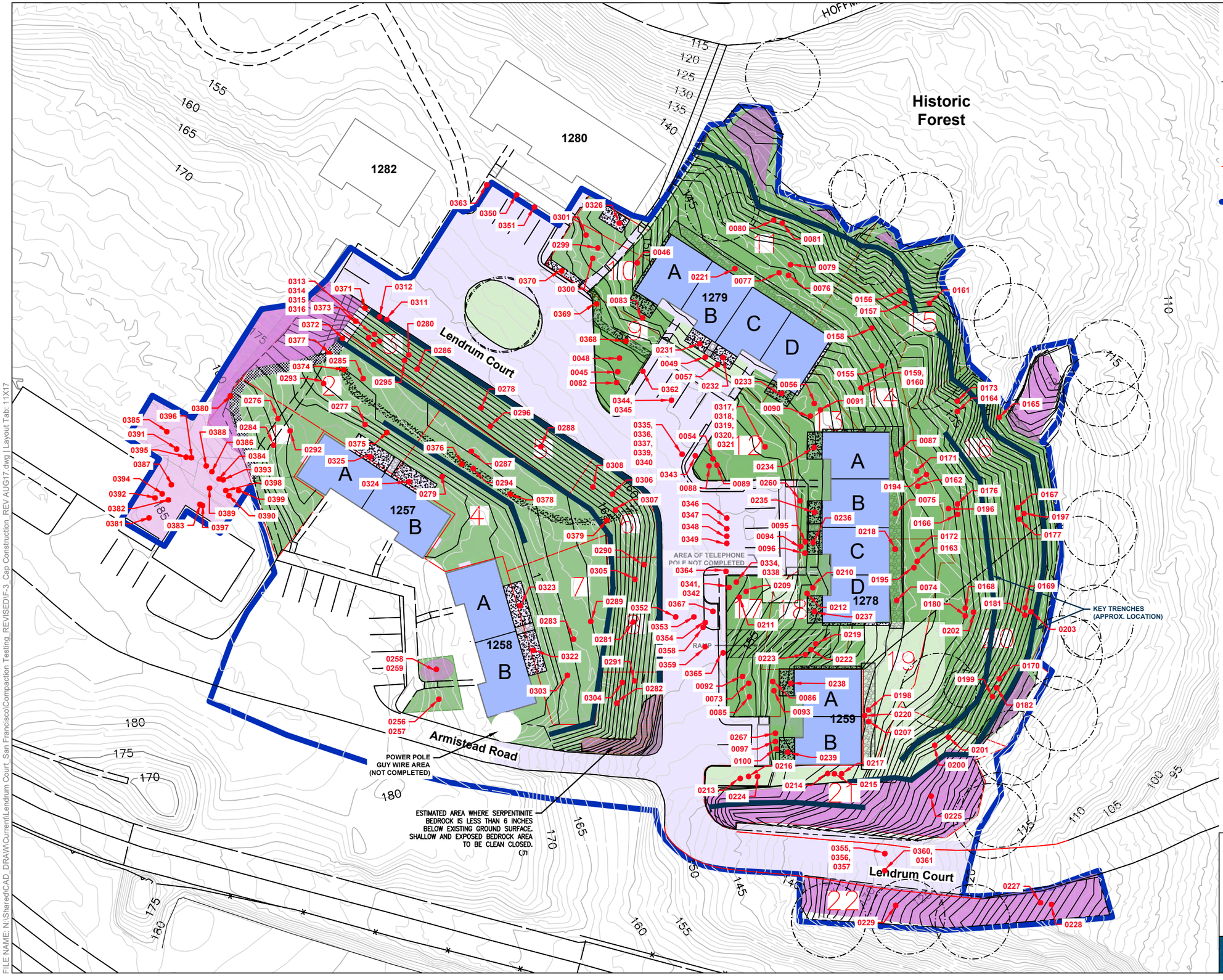


LEGEND

- 140 — Remedial grade contour elevation
- 140 — Existing contour elevation
- 21 — Compaction testing area
- Compaction testing area border
- Approximate extent of remedial action area
- Approximate limits of cap
- Approximate areas of building that serve as cap
- Areas of asphalt, pavement and hardscape that serve as cap
- Approximate areas to be excavated and clean closed
- Work has been completed
- 0046 — Approximate location of soil compaction test

PASSING SOIL COMPACTION TEST LOCATIONS
CAP CONSTRUCTION
August 2017

Lendrum Court Area
The Presidio Trust
San Francisco, California

TRC | 229649 | **FIGURE F-3**

FILE NAME: N:\Shared\CAD_DRAW\Current\Lendrum Court_San Francisco\Compaction Testing_REVISED\F-3_Cap Construction_REV AUG17.dwg | Layout Tab: 11X17

APPENDIX K

CONSTRUCTION QUALITY ASSURANCE REPORTS

CQA Inspection Report
Lendrum Court Inspection Report #1

Project Details:

Project: Lendrum Court Improvements			Project No.: 229649
Address: Lendrum Court, San Francisco			
CQA Report No.: 01			Date: March 24, 2016

Site Conditions during Inspection:

Weather: A.M	P.M. _12:30	Temp. (°F): High 64	Low	Sunny

Reason for Inspection: Tree Removal Program - Prior to implementation of earthwork

Contractor	No. of People	Equip Description	Comments
Professional Tree Services		Wood Chipper, Loader, Crane	Contractor not on site

General Observations:				Comments
Work Performed According to Plans/Specifications	**Y**	N	N/A	
Safety Measures	**Y**	N	N/A	Orange fencing blown down by wind
BMPs Established	Y	**N**	N/A	Mulch spread out to provide protection
General Housekeeping:	**Y**	N	N/A	Site is clean, left in good condition
	Y	N	N/A	
	Y	N	N/A	
	Y	N	N/A	
Photographic Documentation	**Y**	N	N/A	

Additional Notes or Comments:

Good ground cover with mulch, no damage to surrounding buildings or infrastructure observed.
Toyon 182 branch damage before trimming

Deficiencies Noted: None

Suggested Improvements: remove branch litter and remaining tree trunks in area east of cap limit

Inspector Name & Signature: **Warren Chamberlain & Patrick Woods** **Date: March 26, 2016**

Tree removal and placement of ground cover in historic forest area.

Security fencing and mulch stockpile, ingress and egress from work area covered with mulch.

CQA Inspection Report

Project Details:

Project: Lendrum Court Improvements			Project No.: 229649
Address: Lendrum Court, San Francisco			
CQA Report No.: 02			Date: July 8, 2016

Site Conditions during Inspection:

Weather: 1 0 : 0 0 A.M - P.M. _2:30 Overcast	Temp. (°F): High _58_ Low 58	Wind 5-10 mph No Rain

Reason for Inspection: Earthworks – Soil Excavation and Establishment of Subgrades

Contractor	No. of People	Equip Description	Comments
ERRG	8	2 bobcat loaders 2 excavators 1bulldozer 1bachhoe Hand Tools	Contractor performing earth moving activities, removal of waste materials, establish subbase grades.

General Observations:				Comments
Work Performed According to Plans/Specifications	**Y**	N	N/A	
Safety Measures	**Y**	N	N/A	Orange safety and temporary wire rail fencing
BMPs Established	**Y**	N	N/A	Mulch & spread out to provide protection in historic forest Area. , Straw waddles placed to protect construction area boundaries, Posicube placed to immobilize dust from exposure soil areas. Drain inlet covered and protected.
General Housekeeping:	**Y**	N	N/A	Site is clean, equipment not in use stored in staging area.
Air Monitoring	**Y**	N	N/A	Three perimeter air monitoring stations in place, building windows taped
	Y	N	N/A	
	Y	N	N/A	
Photographic Documentation	**Y**	N	N/A	

Additional Notes or Comments:

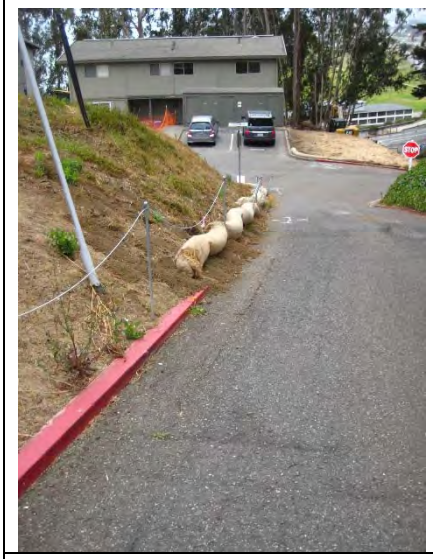
Contractor maintaining good site controls and operations.

Appears to be native seep in lawn area upgradient from bldgs1278 and 1279.

Deficiencies Noted: 1- soil on Lendrum Court roadway due to gopher activity, contractor rectified upon notification

Suggested Improvements: none

Inspector Name & Signature: **Warren Chamberlain** **Date: July 12, 2016**

	
Gopher activity resulting in soil outside of BMPs along Lendrum Court	Soil spoils removed from Lendrum Court
Work area at historic trench; BMPs in places	Native seep area Bldgs. 1278 & 1279

CQA Inspection Report
Lendrum Court Inspection Report #3

Project Details:

Project: Lendrum Court Improvements			Project No.: 229649
Address: Lendrum Court, San Francisco			
CQA Report No.: 03			Date: September 14, 2016

Site Conditions during Inspection:

Weather: 1 2 : 0 0 A.M	P.M.	Temp. (°F): High 64	Low	Rain _No Sunny Day

Reason for Inspection: Soil Compaction, Gopher wire, Key Trench Placement

Contractor	No. of People	Equip Description	Comments
ERRG	5	1-Dump Truck, 1-bulldozer, 1-backhoe, 1-bobcat, 1-sheepfoot roller	Equipment well maintained, no signs of oil leakage

General Observations:				Comments
Work Performed According to Plans/Specifications	**Y**	N	N/A	Revised plans issued for construction of key trenches; constructed according to specifications
Safety Measures	**Y**	N	N/A	In place
BMPs Established	**Y**	N	N/A	
General Housekeeping:	**Y**	N	N/A	Site maintained in good condition
	Y	N	N/A	
	Y	N	N/A	
	Y	N	N/A	
Photographic Documentation	**Y**	N	N/A	

Additional Notes or Comments:

West side historic forest key trenches install and drainage gallery; Rough grading complete, gopher wire mesh placement. BMPs in place, Posicube sprayed on exposed bedrock and soil stockpiles.

Significant amount of serpentinite bedrock boulders have been uncovered, boulders are being temporarily stockpiled and will be dispersed throughout revegetated areas.

Deficiencies Noted: Damage to north wall Bldg 1278

Suggested Improvements: Wall to be repaired at completion of final grading activities

Inspector Name & Signature: Warren Chamberlain **Date: Sept. 14, 2016**

Gopher wire placement with overlap; boulder within work area.

Placement of clean fill final cover.

Patio excavation, with security fencing and Posicube placement.

Damage to building wall

Gravel placement at outfall of drainage gallery behind key trench.

CQA Inspection Report
Lendrum Court Inspection Report #4

Project Details:

Project: Lendrum Court Improvements			Project No.: 229649
Address: Lendrum Court, San Francisco			
CQA Report No.: 04			Date: October 19, 2016

Site Conditions during Inspection:

Weather: A.M Sunny	P.M.	Temp. (°F): High 62	Low	Rain No

Reason for Inspection: Final Grades, Patios, Drainage & Utility Installations– West Side

Contractor	No. of People	Equip Description	Comments
ERRG	12	1-dump truck, 1-bulldozer, 1-backhoe, 2-bobcats, hand tools, 1-sheepfoot roller	Equipment well maintained, no signs of oil spillage

General Observations:				Comments
Work Performed According to Plans/Specifications	**Y**	N	N/A	With field modifications
Safety Measures	**Y**	N	N/A	
BMPs Established	**Y**	N	N/A	
General Housekeeping:	Y	N	N/A	
	Y	N	N/A	
	Y	N	N/A	
	Y	N	N/A	
Photographic Documentation	**Y**	N	N/A	

Additional Notes or Comments:

Minor channel erosion on steeper sections, possibly resulting from overflow from blocked SDI in adjacent parking area.

Backfill to irrigation trenches does not appear to be lightly compacted, resulting in washout in areas of riser pipes

Work has begun on soil excavation along west side of Lendrum Court.

Deficiencies Noted: Rill erosion

Suggested Improvements: Place BMPs at head water to reduce velocity of sheet flow. Clear blocked storm drain inlet and replace BMPs. Allow soil to dry out and patch rill erosion with clean soil and lightly compact, place Posicube. Lightly compact irrigation trenches once backfill is placed.

Inspector Name & Signature: Warren Chamberlain **Date:** 10-19-2016

Large storm event overwhelm BMPs

Excavation on west side of Lendrum Court.

Rill erosion resultant from overflow from adjacent parking area.

Rill erosion historic forest area.

CQA Inspection Report
Lendrum Court Inspection Report #5

Project Details:

Project: Lendrum Court Improvements			Project No.: 229649
Address: Lendrum Court, San Francisco			
CQA Report No.: 05			Date: December 7, 2016

Site Conditions during Inspection:

Weather: A.M	P.M.	Temp. (°F): High 46	Low	Rain. Overcast

Reason for Inspection: Final Grades, Patios, Drainage & Utility Installations– West Side

Contractor	No. of People	Equip Description	Comments
ERRG	12	Backhoe, truck, bulldozer large excavator, compactor	Finalizing grades and BMP placement west side
McQuire & Hester	2	Hand tools	Irrigation system historic forest area

General Observations:				Comments
Work Performed According to Plans/Specifications	**Y**	N	N/A	
Safety Measures	**Y**	N	N/A	
BMPs Established	**Y**	N	N/A	Established on west side for winterization
General Housekeeping:	**Y**	N	N/A	
	Y	N	N/A	
	Y	N	N/A	
	Y	N	N/A	
Photographic Documentation	**Y**	N	N/A	

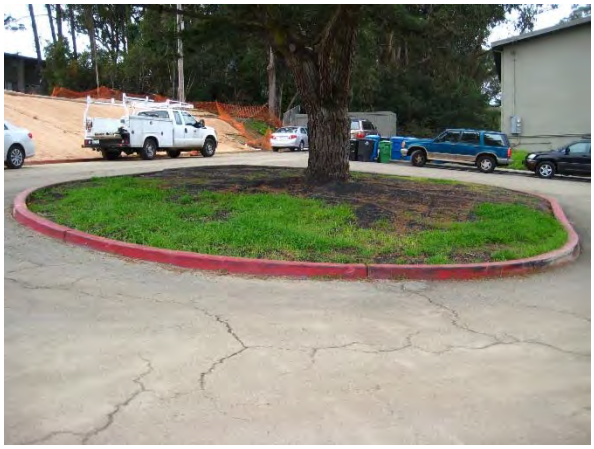
Additional Notes or Comments:

Completion of final grades on West side, minor patch work to be completed where irrigation lines placed. Gopher wire placed in tree island. Hot Spot removal and backfill completed behind building 1258. Winterization of site.

Deficiencies Noted: None

Suggested Improvements:

Inspector Name & Signature: Warren Chamberlain **Date: 12-7-2016**

 Final grading west side, BMP placement, winterization	 Completed patio, drainage features Bldg 1259
 Hot Spot area Bldg 1258	 Gopher wire placement tree island

APPENDIX L

OPERATIONS AND MAINTENANCE PLAN

Final Operations and Maintenance Plan

Lendrum Court

Presidio of San Francisco, California

THE PRESIDIO TRUST
103 Montgomery Street, P.O. Box 29052
San Francisco, California 94129-0052

This report has been prepared for:

The Department of Toxic Substances Control

November 2019
Project No. 229649

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ACRONYMS

AB	aggregate base
AC	asphalt concrete
ARAR	Applicable or Relevant and Appropriate Requirements
BMP	best management practice
CCR	Construction Completion Report
COC	constituent of concern
CUL	cleanup level
DTSC	Department of Toxic Substances Control
ECBs	erosion control blankets
ECTC	Erosion Control Technology Council
HASP	Health and Safety Plan
LUC	land use control
LUCMRR	Land Use Control Master Reference Report
NOAA	National Oceanic and Atmospheric Administration
O&M	operations and maintenance
PAH	polycyclic aromatic hydrocarbon
Presidio	Presidio of San Francisco, California
RAO	remedial action objective
RAWP	Removal Action Workplan
RDIP	Remedial Design and Implementation Plan
Site	Lendrum Court Site
TCDD TEQ	tetrachlorodibenzo-p-dioxin toxic equivalent
Trust	Presidio Trust
TRC	TRC Solutions, Inc.

1.0 INTRODUCTION

The Lendrum Court Site (Site) is located in the Presidio of San Francisco, California (Presidio) and is managed by the Presidio Trust (Trust). The Site was remediated by the Trust in conformance with the *Final Removal Action Work Plan* (RAWP; TRC, 2015b). The following Operations and Maintenance (O&M) Plan describes activities that will be implemented to ensure that the remedy remains protective of human health and the environment at the Site and the incinerator area to the south of the Site. Site remediation and O&M are conducted under the oversight of the California Department of Toxic Substances Control (DTSC) while activities conducted at the incinerator area will be performed by the California Department of Transportation (Caltrans) that area remains under DTSC oversight per the Site Specific LUCMRR Addendums.

1.1 PROJECT OVERVIEW

The Final RAWP presents the selected remedy for the Site. The remedy included consolidation and capping of waste fill, implementation of land use controls (LUCs), and post-remediation monitoring and maintenance. Construction of the engineered cover elements was performed in accordance with the *Final Remedial Design and Implementation Plan* (Final RDIP; TRC, 2016). Documentation of remedial construction is presented in the *Construction Completion Report* (CCR) (TRC, 2019). The RAWP also includes the incinerator area, identifies the selected remedy, and summarizes the implementation of the remedy which had already occurred at the time of the RAWP preparation. Additionally, Appendix A of the RAWP includes detailed documentation of implementation of the investigation and implementation of the remedy by Caltrans as part of the Presidio Parkway construction. Due to the incinerator area being separate from the Lendrum Court Site, within the Caltrans Highway Easement Deed Area (HEA), and managed by Caltrans, the Trust chose to prepare two separate LUCMRR Addendums as follows:

- Lendrum Court Land Use Control Site Specific Addendum to the Presidio Trust Land Use Controls Master Reference Report LUC Areas A and B
    - Area A includes the Lendrum Court Capped Area
    - Area B includes the North of Building 1255/1256 Forest Area
- Lendrum Court Land Use Control Site Specific Addendum to the Presidio Trust Land Use Controls Master Reference Report LUC Area C
    - Area C includes the Incinerator Area

While these areas are separated into two LUCMRR addendum documents this O&M plan has been prepared to address all three LUC areas.

1.2 DESCRIPTION OF LENDRUM COURT

Lendrum Court is located within Area B of the Presidio, where the Trust has cleanup authority and administrative jurisdiction. Lendrum Court is a small residential neighborhood in the northwest corner of the Presidio, north of Doyle Drive and in the North Fort Scott Area (***Figure 1***). Army-era debris and incinerator ash were determined to be present in subsurface soils in the areas surrounding Buildings 1255, 1256, 1257, 1258, 1259, 1278, 1279, 1280, and 1282. The area generally slopes to the northeast in a series of terraces, originally graded to facilitate construction of building pads for the residential units and parking lot area. The sloping areas between the terraces are generally landscaped with grass and shrubs. The northeastern slope, behind buildings 1259, 1278, and 1279, consists of historic forest.

Prior to 1936, an incinerator was located approximately 150 feet south of the present-day Lendrum Court site. The incinerator, ash, and debris-impacted soils were discovered and excavated in 2015 during construction of the Doyle Drive Replacement Project. Residual debris and soil containing elevated lead within the Doyle Drive Replacement Project were left in place and capped with new highway pavement or with a soil cap.

At Lendrum Court, investigation activities were conducted between 2014 and 2015. The nature and extent of contamination at the Site was summarized in the *Lendrum Court Investigation Summary Report and Screening Risk Evaluation* (EKI, 2015). Army-era debris, including glass, ceramics, and ash, was encountered from the ground surface to approximately 2.5 feet and was up to 5 feet in thickness. Chemicals detected in the soil were identified as constituent of concern (COCs) based on comparison of the calculated exposure point concentrations to conservative Remedial Investigation screening levels (EKI, 2015). The COCs for the Site are summarized in **Section 1.3.1**.

1.3 REMEDIAL ACTION SUMMARY

The Final RAWP analyzed remedial alternatives for Lendrum Court. Based on the findings of the investigation activities and site-specific criteria, Alternative #3: Consolidation and Capping with LUCs and Post-Remediation Monitoring was selected as the preferred remedy.

As previously described, in advance of the preparation of the RAWP Caltrans worked with DTSC to select a remedy (Capping with LUCs and Post-Remediation Monitoring) for the incinerator area and implement it as detailed in Appendix A of the RAWP.

1.3.1 Remedial Action Objectives

The Remedial Action Objectives (RAOs) for the site included protection of human health and the environment, cost-effective cleanup of the Site, and compliance with Applicable or Relevant and Appropriate Requirements (ARARs). Site-specific cleanup levels (CULs) were derived based on the applicable Presidio-wide CULs developed in the *Development of Presidio-Wide Cleanup Levels for Soil, Sediment, Groundwater, and Surface Water, Presidio of San Francisco, California* (EKI, 2002; with updates through 2013), *Recreational Soil Cleanup Level for Lead* (TRC, 2015a), *Human Health Soil Preliminary Remediation Goals and Toxic Equivalency Values for Dioxins and Furans* (MACTEC, 2007), and the Final RAWP. The following compounds were identified as COCs in soil at the Site:

- Debris Fill Area
    - Metals – Arsenic, barium, copper, lead and zinc
    - Polycyclic Aromatic Hydrocarbon (PAHs) – Benzo(a)pyrene, benzo(a)pyrene equivalents and dibenzo(a,h)anthracene
    - Dioxins and Furans – Expressed as tetrachlorodibenzo-p-dioxin toxic equivalent (TCDD TEQ)
- Outside Debris Fill Area
    - Metals – Lead
    - Dioxins and Furans – TCDD TEQ

The RAOs were addressed through implementation of the selected remedy.

1.3.2 Remedial Action Design and Implementation

The Final RDIP described the processes used to implement the selected remedy at the Site. The selected remedy included consolidation and capping of impacted soils, clean closure excavation, and implementation of LUCs. Construction elements essential to the long-term success of the remedy include the integrity of cap, storm water and erosion controls, tree and plant health, and irrigation system performance. A summary of the closure design elements is provided below:

- **Cap Integrity** – Soils with COC impacts were consolidated and capped with an engineered clean soil cap, as well as hardscape elements, including concrete patios, stairs, and drains, aggregate base (AB) pads, and asphalt concrete (AC) paths. Additionally, existing sidewalks, streets, and buildings are considered part of the cap. The integrity of all cap elements is imperative for ongoing protection of human health and the environment.
- **Storm Water and Erosion Control** – Site grades were developed to primarily facilitate overland flow of storm water north and east through the historic forest area and towards the San Francisco Bay. In several locations where overland flow grades could not be

met, grades were constructed to drain storm water to drain inlets that connected either to the existing storm water piping system or to constructed discharge points draining into the historic forest. Following completion of construction, final erosion control measures, including Posi-Cube® stabilization product, straw, erosion control blankets, and straw wattles, were installed to control erosion until revegetation plants and trees have been established.

- **Tree and Plant Health** – Following remedial construction, the Site was revegetated to stabilize the new soil slopes and to restore the character of the Lendrum Court and historic forest areas. Additionally, a heavily vegetated area identified as North 1255/1256 Forest Area on ***Figure 2*** has been identified as a LUC area, being safe in its current configuration. As described in Section 7.4 of the CCR, the forested areas are approximately 0.025 acres and is densely vegetated and is determined inaccessible. TRC evaluated the ecological receptors that would potentially be exposed to the detected levels of lead present within the highly vegetated forest area. The ecological receptors would primarily include terrestrial plants and invertebrates as well as various wildlife such as birds and mammals that forage on plants and/or invertebrates. Due to the small exposure area as well as the existing presence of a highly vegetated forest environment that provides valuable ecological habitat, the risk to plants is considered negligible. Risks to terrestrial invertebrates are also considered negligible as the maximum detected lead concentration within the forest area is well below the United States Environmental Protection Agency (USEPA) ecological soil screening level. Given the small size of the forest vegetation area relative to the home ranges of potential wildlife receptors, the risks to wildlife that forage within this area is likely to be very low.
- **Irrigation System Performance** – An irrigation system consisting of drip lines for trees and large shrubs and stick-up sprinklers for landscape plants was installed during remedial construction. The irrigation system is integral to establishing vegetation of the Site. Once vegetation has been established, much of the irrigation system will be abandoned, and the remaining irrigation system will be maintained to serve the enhanced planting area vegetated with exotic species plants.

Post-construction Site conditions are shown on ***Figure 2***, the detailed sections of the specific cap elements are presented in ***Figure 3,*** and the Site drainage system is shown on ***Figure 5***. Additional details regarding the elements listed above are provided in the CCR.

1.4 LAND USE CONTROLS AT LENDRUM COURT

Areas of the Site in which contamination remains above the applicable screening levels will be addressed with three specific LUC Area. These include:

- LUC Area A – Lendrum Court Capped Area including:

  - Clean soil cap;
  - Hardscape and AB caps;
  - Existing roads and buildings
- LUC Area B – North of Building 1255/1256 Forest Area including:
  - Dense vegetation acting as a barrier within the North 1255/1256 Forest Area, including signage to limit landscaping and vegetation removal activities.
  - Signage posted around the North 1255/1256 Forest Area will include the following:
    DO NOT ENTER
    RESTRICTED LAND USE CONTROL AREA
    FOR MORE INFORMATION CONTACT
    TRUST REMEDIATION: 415-561-5300
- LUC Area C – Incinerator Area including:
  - Clean soil cap

A description of the three LUC areas, including figures depicting the locations, a summary of remaining COCs, and site-specific land use restrictions, is provided in the *Lendrum Court Land Use Control Site-Specific Addendum to the Presidio Trust Land Use Controls Master Reference Report* (LUCMRR Addendum; TRC, 2018a).

2.0 INSPECTIONS, MAINTENANCE, AND REPAIR

A post-closure inspection and maintenance program is required at the Site to verify that containment and monitoring components retain their integrity. Qualified personnel will inspect LUC areas to assess conditions. Due to the inaccessible nature of the incinerator area, this area will be inspected remotely, on a monthly basis to ensure that no work has been performed to compromise the Cap, no erosion has occurred that could compromise the Cap, that the area remains inaccessible to the public, and that there are no signs of trespassing. In the event that evidence of the Cap being compromised is observed the Trust will coordinate access with Caltrans to do a more detailed boots on the ground inspection. Inspections should be performed under the supervision of a qualified professional. The Trust remediation manager will select parties responsible for monitoring the integrity of the cap. Inspectors will be experienced in reviewing and inspecting caps, which include staff level geologists, engineers, or scientists working under the direction of a California licensed Professional Geologist (PG) or Engineer (PE) with experience in reviewing and inspecting caps.

During the Site inspections of LUC Areas A and B, the inspector will walk the Site and document conditions that may compromise the integrity of the cap system or indicate that the cover is not functioning as designed. For all LUC Areas inspectors will complete the Site Inspection Log and take photographs to document Site conditions at the time of the inspection. A

report will be prepared for each inspection, maintained by the Trust, and submitted to DTSC as part of the Annual O&M Report. Reports will include recommendations for maintenance or repairs if needed. DTSC will be notified within 48 hours of the observation of significant breaches, failures, or repairs of the cap system.

A sample Site Inspection Log that cover all three LUC areas are included in ***Appendix A***. The inspection log includes sections for documentation of the condition of the soil cap and hardscape elements, erosion control measures, vegetation, drainage systems, and irrigation system. The log also includes a section to note recommended maintenance or repairs. Alternate forms may be developed by the Trust and/or contractor as the frequency and scope of the inspections change over time. The alternate forms will be submitted to DTSC for approval prior to implementing the changes.

The key remedy features of the Site are summarized in ***Table 1*** along with their respective inspection, maintenance, monitoring elements and schedule. The features are also summarized in the Site Inspection Log in ***Appendix A***. Inspections should be performed on a quarterly basis for the first year following completion of construction activities. After one year, the results of the initial inspections will be reviewed and changes to the inspection program may be proposed. Inspections will also be performed after the following events to verify integrity of the cover system, The Trust remediation manager shall ultimately determine the need for these event specific inspections but my delegate this task to a consultant with the responsible partly being a registered PE or PG in California:

- **Significant storm events.** For the Site, a significant storm event will be defined as a 25-year rainfall event, as determined by the National Oceanographic and Atmospheric Administration (NOAA) website (https://hdsc.nws.noaa.gov/hdsc/pfds/). Total precipitation amounts will vary based on the storm duration; e.g., 1.06 inches in 1 hour; 2.57 inches in 6 hours; 4.77 inches in 24-hours, etc. Rainfall will be verified by the nearest rain gauge found on the NOAA website, located near Clement Street and Funston Avenue in San Francisco: http://www.wrh.noaa.gov/mesowest/timeseries.php?sid=D8008&num=48.

  Please note that erosion control measure inspections will also be conducted after 0.5-inch rain events (see **Section 2.2**).

- **Significant seismic events.** Significant seismic events are defined as M=5.5 or greater within 100 miles of the Site, as verified at http://www.ncedc.org/ncedc/catalog-search.html.

- **Significant fire events.** Significant fire events are defined by the occurrence of fire that requires mobilization of additional resources from outside the fire event area.

- **Significant flooding events.** Significant flooding events are defined by the extensive inundation of structures and roads within the Site.

- **Utility line breach.** Utility line breaches that result in disturbance of a cap.

2.1 CAP INTEGRITY

The soil cap constructed at Lendrum Court includes a minimum of 18-inches of soil underlain by gopher wire, with slopes ranging from near flat to 3H:1V, though some limited areas are as steep as 1.5 to 1. During inspections, the soil cap will be observed for signs of degradation, including but not limited to:

- Excessive soil erosion;
- Cracking in soil cap materials;
- Significant depressions indicative of excessive settlement;
- Slope failure; and
- Excessive rodent activity/burrowing.

Hardscape elements, including existing roadways and buildings and new patios, sidewalks, AB walking paths, stairs, and drains, also act as a cap at the Site. During the cap inspections, hardscape elements will be observed for signs of settling or deterioration, including:

- Cracking in concrete or asphalt surfaces;
- Excessive AB erosion;
- Excessive ponding of water;
- Obstructions in drain inlets or outlets;
- Soil erosion around the edges of hardscape elements; and
- Eroded hardscape elements.

The North 1255/1256 Forest Area has been determined to be safe in its current configuration. As described in Section 7.4 of the CCR, the forested areas are approximately 0.025 acres and is densely vegetated and is determined inaccessible. TRC evaluated the ecological receptors that would potentially be exposed to the detected levels of lead present within the highly vegetated forest area. The ecological receptors would primarily include terrestrial plants and invertebrates as well as various wildlife such as birds and mammals that forage on plants and/or invertebrates. Due to the small exposure area as well as the existing presence of a highly vegetated forest environment that provides valuable ecological habitat, the risk to plants is considered negligible. Risks to terrestrial invertebrates are also considered negligible as the maximum detected lead concentration within the forest area is well below the United States Environmental Protection Agency (USEPA) ecological soil screening level. Given the small size of the forest vegetation area relative to the home ranges of potential wildlife receptors, the risks to wildlife that forage

within this area is likely to be very low. During inspections the health of the vegetation will be observed for signs of sickness or excessive plant dieback. (see **Section 2.3** below)

Inspection reports shall note cap conditions and recommend maintenance or repairs to ensure ongoing protectiveness of the soil and hardscape cap. Maintenance activities may include:

- Placement and compaction of additional clean soil, AB, or other materials;
- Filling of rodent burrow holes;
- Removal of unwanted vegetation from soil cap areas;
- Drainage line, inlet and outlet cleanout or repair;
- Placement of additional erosion control measures (see **Section 2.2**);
- Filling of hardscape cracks; or
- In extreme scenarios, demolition and reconstruction of hardscape surfaces.
- Supplemental planting (see **Section 2.3** below).

Repairs or maintenance activities will be made in accordance with approved specifications, the design presented in the Revised RDIP, and the as-built documentation provided in the CCR. Repairs and maintenance in LUC Area C, located within the Caltrans HEA, will be performed primarily by Caltrans. Repairs will be documented and records will be maintained with this O&M Plan.

2.2 STORM WATER AND EROSION CONTROL

Following completion of construction, final erosion control measures and best management practices (BMPs) were implemented at the Site, as depicted on ***Figure 4***. These measures included erosion control blankets (ECBs) and straw wattles in the landscaped and historic forest areas to protect exposed soil until the Site is revegetated.

Erosion controls will be inspected quarterly for the first year following construction, as well as following qualifying storm events of 0.5 inches within a 24-hour period. During inspections, existing BMPs will be observed for signs of wear and deterioration. The inspector will note additional exposed areas that may require installation of BMPs. Maintenance of specific erosion control measures are summarized below:

- **Erosion Control Blankets** – ECBs were installed across the majority of the landscaped and historic forest area following completion of earthwork. The ECBs were Erosion Control Technology Council (ECTC) Type 4, with different anchoring patterns depending on the steepness of the area being covered. Maintenance of damaged or degraded ECBs may include repair and replacement of the fabric, in accordance with manufacturer's instructions and the Site's original erosion control plan.

- **Fiber Rolls –** Fiber rolls (straw wattles) were placed throughout the landscaped area and historic forest perpendicular to the slope of the graded soil. Maintenance of damaged or degraded fiber rolls may include replacement of old rolls, in accordance with the manufacturer's instructions and the Site's original erosion control plan.

Repairs or maintenance activities will be made in accordance with approved specifications, the design presented in the Final RDIP, and the as-built documentation provided in the CCR. Repairs will be documented and records will be maintained by the Trust.

2.3 TREE AND PLANT HEALTH

The Site was replanted and reforested following completion of remedial construction. Planting consisted of the following:

- Historic Forest:
  - Native Blackberry
  - Native Toyon
  - Eucalyptus trees
  - Pine trees
- Landscaped Areas:
  - Native Plant Slopes:
    - Dwarf coyote brush
    - Blackberry
  - Enhanced Areas:
    - Ornamental plants
    - Turf
    - No-mow grass

During O&M inspections, the Site inspector will observe the general growth and health of the vegetated areas to assess tree and plant health. Inspectors will take note of deficiencies in vegetative health or environment such as:

- Excessive distressed or dead vegetation;
- Areas of slower plant growth; and
- Patches of bare earth or inadequate coverage where vegetation is the primary form of erosion control and land use control.

Deficiencies will be noted on the inspection form. Maintenance of the planted areas may include:

- Providing nutrients to enhance tree or plant establishment;
- Adding erosion control measures to newly seeded areas or areas of exposed soil (see **Section 2.2**);

- Checking performance of the irrigation system and performing necessary repairs to ensure adequate watering (see **Section 2.3**);
- If warranted, replacing distressed or dead vegetation.
- In vegetated LUC area (North 1255/1256 Forest Area), temporary fencing with signage may be needed until plants are re-established.

2.4 IRRIGATION SYSTEM PERFORMANCE

During construction of the soil cap, an irrigation system was installed to establish vegetation and maintain non-native plants in landscaped areas. The irrigation system consists of drip lines for trees and large shrubs and stick-up sprinklers for landscape plants. If, during inspections, areas of dead or low performing vegetation are observed, the irrigation system will be tested to confirm it is functioning properly and not experiencing blockages, outages, or other operating issues. Deficiencies will be noted on the inspection form. Maintenance or repairs will be completed as needed to ensure proper operation of the watering system. It is anticipated that, following the initial plant establishment period, certain sections of the irrigation system will be abandoned once they are no longer necessary.

2.5 EMERGENCY MONITORING AND MAINTENANCE

Regular visual inspections of the cap are to be performed quarterly (initial frequency only). Additional inspections will be performed after significant storms (25-year, 24-hour), significant seismic events (M=5.5 or greater within 100 miles of the Site), significant fire events (mobilization of additional resources), significant flooding events (inundation of structures and roads), and utility line breach (breach that results in cap disturbance). Occurrence of a significant event will be as documented by the following websites:

1. The Trust will monitor the nearest rain gauge found on NOAA's Mesonet Observations website, located near Clement Street and Funston Avenue in San Francisco: http://www.wrh.noaa.gov/mesowest/timeseries.php?sid=D8008&num=48.

   A 25 year rainfall event is considered to have occurred when 2 inches of precipitation occur in 6 hours or 4 inches of precipitation occur in 24 hours. These criteria are based on NOAA's Western US Precipitation Frequency Maps, which can be found at the following website: http://www.wrcc.dri.edu/pcpnfreq.html.

2. Following a significant seismic event with shaking felt at the Presidio, and at least quarterly, the Trust will check the Northern California Earthquake Catalog website to confirm whether a qualifying seismic event has occurred at: http://www.ncedc.org/ncedc/catalog-search.html.

The site inspection log in ***Appendix A*** can be used for emergency inspections to document any resulting slope movement, cover cracking, damage to surface water conveyance structures, excessive erosion, etc. Appropriate repairs will be developed based on the findings of the initial and any follow-up inspections performed.

The Trust remediation manager will select parties responsible for implementing the Emergency Monitoring and Maintenance. Inspections and maintenance will be performed by personnel that are experienced in reviewing and inspecting caps, which include which include staff level geologists, engineers, or scientists working under the direction of a California licensed Professional Geologist or Engineer with experience in reviewing and inspecting caps.

3.0 HEALTH AND SAFETY

Personnel involved in inspections, maintenance, and repair, or monitoring activities at Lendrum Court should be aware of health and safety considerations at the site and should perform their work under an appropriate Health & Safety Plan (HASP). A site specific HASP for Lendrum Court LUC Areas A and B is provided in ***Appendix B***. This HASP has been developed based on the Site conditions and the COCs, and should be considered a minimum standard for personnel performing O&M activities at the site and should be reviewed prior to any construction activities at the Site. If work is to be performed at the Site that is not discussed in this HASP or at LUC Area C, either a new HASP will be prepared, or the current Appendix B HASP will be amended to include the additional scope of work prior to the start of construction.

4.0 FUTURE DEVELOPMENT CONSIDERATIONS

The Site is anticipated to remain in its current condition for the foreseeable future. The Lendrum Court area will remain residential, forested areas will remain vegetated, and the incinerator area will continue to be covered by a two foot thick soil cap within the Caltrans right of way with restricted access. No additional development is anticipated within these areas. Given the anticipated uses of these areas, the LUC for the Site includes the following requirements:

- Personnel potentially exposed to soils below the cap within the LUC Area shall follow a site-specific HASP (all LUC areas);
- Soils excavated from the LUC Area shall be managed/disposed in accordance with applicable Presidio policies and applicable law and regulations (all LUC areas);
- Soil within capped areas shall remain covered, at a minimum, by the typical cap sections described in the CCR and depicted in ***Figure 3*** (Lendrum Court Capped Area, LUC Area A);
- Lendrum Court tenants will be informed of the LUC (Lendrum Court Capped Area, LUC Area A);
- Digging will continue to be prohibited by residents in the neighborhood;

- Incinerator area will remain restricted to the general public (Incinerator Area, LUC Area C);
- Vegetated LUC area will maintain its vegetative cover (North 1255/1256 Forest Area, LUC Area B) and informational signage.

The Lendrum Court tenants leasing from the Trust will be notified of the LUCs with updated lease agreements, which will provide information about the LUCs in place. Current and future lease agreements all prohibit digging in soil by residents, additionally, the Trust has a policy that any digging activity occurring within the Presidio requires a Dig Permit which allows the Trust permitting office to identify digging activities in LUCs in advance of the work and ensure proper protocols are followed. The only exception to this Dig Permit process is the HEA, in which the Incinerator Area falls. In this area, inspections will be done monthly, initially, and may be reduced in the future with DTSC approval. Annual LUC inspections as well as periodic informal site visits will check for evidence of unauthorized digging. If evidence is observed, Trust remediation will work with the residential property management group to notify residents and take necessary action to ensure compliance with the lease agreements.

Please refer to the LUCMRR Addendums for additional details regarding site restrictions for the Site LUC. Site-specific land use restrictions for the incinerator area are provided in the *Lendrum Court Incinerator Area Land Use Control Site-Specific Addendum to the Presidio Trust Land Use Controls Master Reference Report* (Incinerator Area LUCMRR Addendum; TRC, 2018b).

5.0 SITE ACCESS

The majority of the Site is accessible to DTSC and its authorized representatives at reasonable times.

6.0 REPORTING REQUIREMENTS

The Trust will include O&M of the Site as part of the annual O&M report submitted to DTSC, as required under the 2012 Operations and Maintenance Agreement between DTSC and the Trust (DTSC, 2012). The annual O&M report documents Trust compliance with site specific O&M plans and informs DTSC of changes to the Site.

6.1 ANNUAL INSPECTION SUMMARY REPORTS

The results of inspection and monitoring activities will be presented in the Annual O&M Report submitted to DTSC. The report will include the Site Inspection Logs, description of inspection observations, maintenance and repair activities, and a Site map showing the containment area and any features requiring repair or maintenance.

After the first year of operations, the Trust will evaluate the frequency of inspections described in **Section 2.0** and shown on ***Table 1***. If a reduction in the frequency and scope of inspections is warranted, the Trust will include justification for the proposed change in the Annual O&M report submitted to DTSC for approval of the proposed change.

6.2 FIVE-YEAR REVIEW REPORTS

The first Five-Year Review Report for the site will be completed five years from the date DTSC approves the LUCMRR Addendum for the Site. All subsequent Five-Year Review Reports will be completed five years from the date of the prior Five-Year Review Report. Five-Year Review Reports will be maintained with the other Site documents at the Presidio.

The Five-Year Review Report will identify any incidents or problems with the cap systems, and will evaluate system performance, effectiveness, and protectiveness. The Five-Year Review Report will include a technical assessment and evaluation of the on-going protectiveness of the remedy, and make recommendations for any changes needed to maintain remedy protectiveness, if necessary. Five year reviews will follow guidance documents provided by the EPA at the following location: https://www.epa.gov/superfund/writing-five-year-reviews-superfund-sites.

6.3 DATA AND DOCUMENT AVAILABILITY

All data and documentation, including field reports, inspections, regular reports, and other relevant documents will be maintained by the Presidio Trust Remediation Department for a period of 6 years from the termination of the Lendrum Court Voluntary Oversight Agreement between DTSC and the Trust.

7.0 FINANCIAL ASSURANCE

As a Federal Agency, the Trust is not required to provide financial assurance. Operation and maintenance of the containment cover will be performed indefinitely, or until no longer required by DTSC. The cost of O&M activities and associated DTSC oversight activities will be covered by the Trust.

8.0 VARIANCE FROM OR MODIFICATION OF THE O&M PLAN

The Trust may seek variance from and/or modification to the O&M Plan at any time during the life cycle of the cap remedy. The Trust will submit a written request to DTSC for such variations from the O&M Plan. DTSC will evaluate the request, and will grant a variance request only after determining that the request would be protective of human health and the environment.

9.0 REFERENCES

DTSC, 2012. Operation and Maintenance Agreement. December 6.

Erler & Kalinowski (EKI), 2002. *Development of Presidio-Wide Cleanup Levels for Soil, Sediment, Groundwater, and Surface Water, Presidio of San Francisco, California.* October.

Erler & Kalinowski (EKI), 2014. *North Fort Scott Investigation Summary Report, Presidio of San Francisco, California.* July 8.

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MACTEC, 2007. *Technical Memorandum, Human Health Soil Preliminary Remediation Goals and Toxic Equivalency Values for Dioxins and Furans, Presidio of San Francisco, California,* 28 March 2007.

TRC, 2015a. *Recreational Soil Cleanup Level for Lead, Presidio of San Francisco, California.* April 6.

TRC, 2015b. *Removal Action Work Plan, Lendrum Court, Presidio of San Francisco, California.* July.

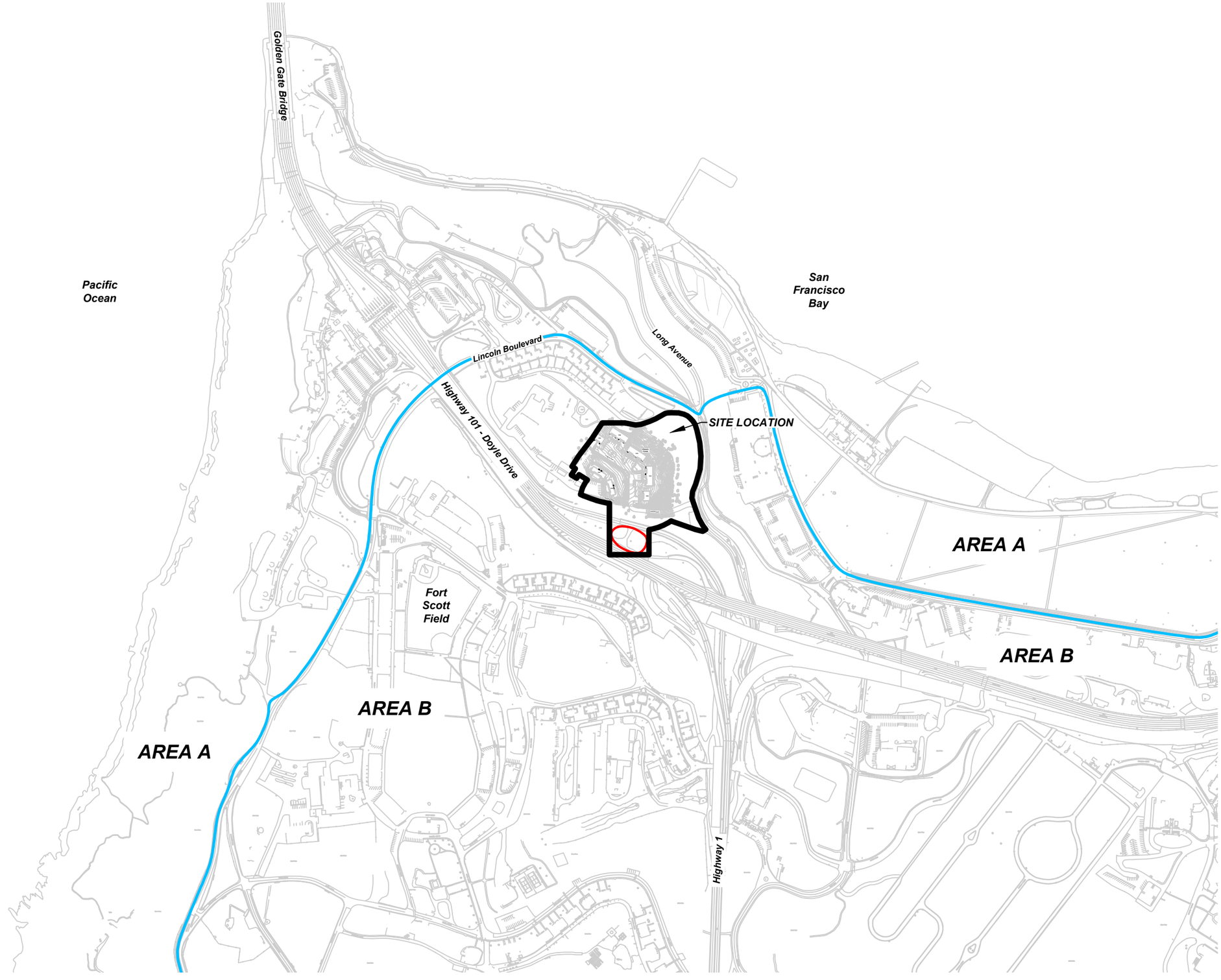
TRC, 2016. *Final Remediation Design and Implementation Plan, Lendrum Court, Presidio of San Francisco, California*. May.

TRC, 2018a. *Lendrum Court Land Use Control Site-Specific Addendum to the Presidio Trust Land Use Controls Master Reference Report.* In Progress.

TRC, 2018b. *Lendrum Court Incinerator Area Land Use Control Site-Specific Addendum to the Presidio Trust Land Use Controls Master Reference Report.* In Progress.

TRC, 2019. *Construction Completion Report.* In Progress.

FIGURES



LEGEND

- LENDRUM COURT AREA
- APPROXIMATE FORMER INCINERATOR AREA
- AREA A / B BOUNDARY

N

0 500 1000

SCALE IN FEET

PROJECT:

THE PRESIDIO TRUST
LENDRUM COURT AND INCINERATOR AREA
SAN FRANCISCO, CALIFORNIA

TITLE:

SITE LOCATION MAP

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		
APPROVED BY:	J. H-D		**FIGURE 1**
DATE:	JANUARY 2018		

TRC
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: Fig1 Site Location Map.dwg

11x17 -- USER: KLI -- ATTACHED XREFS: ConcordASpots_; Lendrum_NEW COORD_NAD83; Presidio_Planimetrics_ROADS_BLDGS ONLY_REV Lendrum Ct -- ATTACHED IMAGES: TRC_Re-sized Out Blue Logo;
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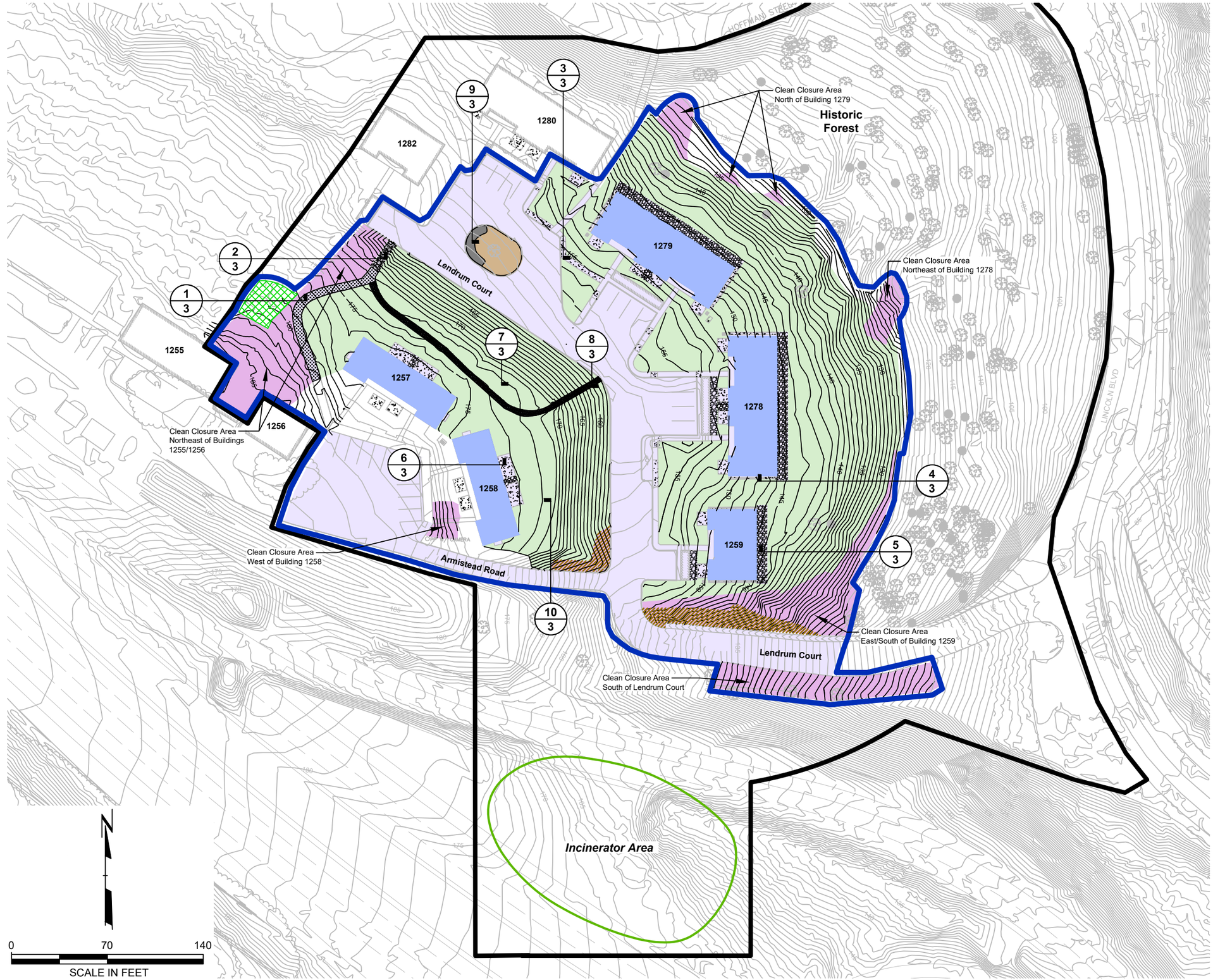
Version: 2017-10-21



LEGEND

- APPROXIMATE SITE BOUNDARY
- APPROXIMATE REMEDIAL ACTION AREA
- 140 — SURFACE CONTOURS (OUTSIDE PROJECT AREA)
- 140 — FINAL PROJECT SURFACE CONTOURS
- APPROXIMATE LIMITS OF VEGETATED SOIL CAP (LUC AREA A)
- APPROXIMATE AREAS OF BUILDING THAT SERVE AS CAP (LUC AREA A)
- AREAS OF ASPHALT, PAVEMENT, AB PADS, AND HARDSCAPE THAT SERVE AS CAP (LUC AREA A)
- APPROXIMATE AREAS EXCAVATED AND CLEAN CLOSED
- APPROXIMATE AREAS EXCAVATED TO EXPOSED BEDROCK (CLEAN CLOSURE AREA)
- TREE ISLAND CAP COMPACTED AGGREGATE BASE (LUC AREA A)
- TREE ISLAND CAP WOOD MULCH (LUC AREA A)
- NEW CONCRETE PATIOS, SIDEWALKS AND STAIRS
- RECYCLED CONCRETE AGGREGATE BASE PATH AND BOX STEPS
- NEW ASPHALT PATH
- NEW AGGREGATE BASE CAP
- VEGETATED LUC AREA B (NORTH 1255/1256 FOREST AREA)
- APPROXIMATE TREE LOCATION
- APPROXIMATE TOYON LOCATION
- 1/3 — DETAIL NUMBER
- FIGURE NUMBER WHERE DETAIL CAN BE FOUND

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
SITE PLAN

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		
APPROVED BY:	J. H-D		**FIGURE 2**
DATE:	APRIL 2019		

TRC
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: Fig2 Site Plan.dwg

11x17 -- USER: DFranco -- ATTACHED XREFS: - MASTER Presidio_Planimetrics_New Doyle Alignment_MASTER PRESIDIO BASEMAP -- ATTACHED IMAGES:
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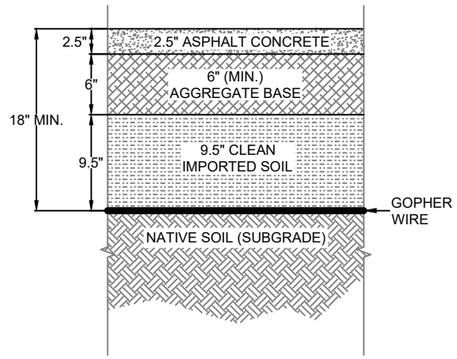
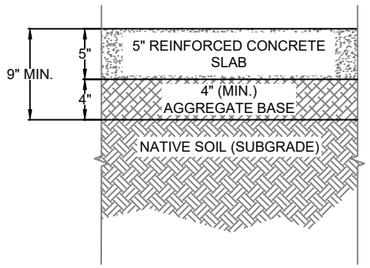
Version: 2017-10-21



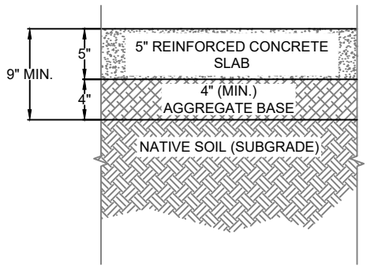
1/3 SECTION

ASPHALT CONCRETE PATH



2/3 SECTION

CONCRETE STAIRCASE



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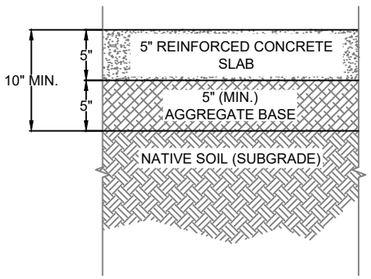

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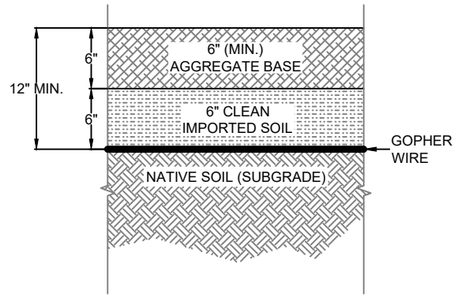
CONCRETE DRAIN



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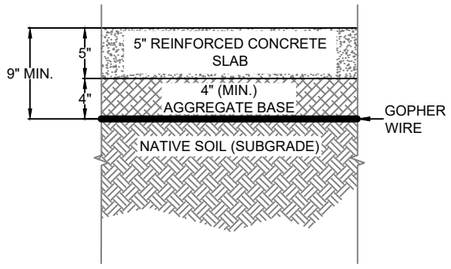
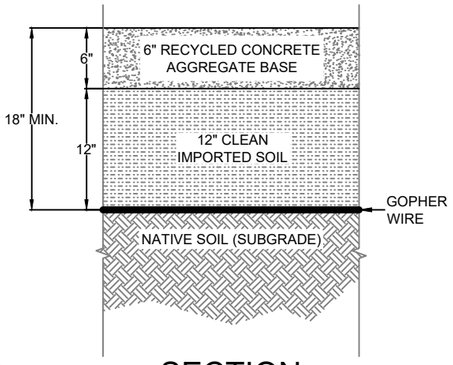


6/3 SECTION

CONCRETE PATIO



7/3 SECTION

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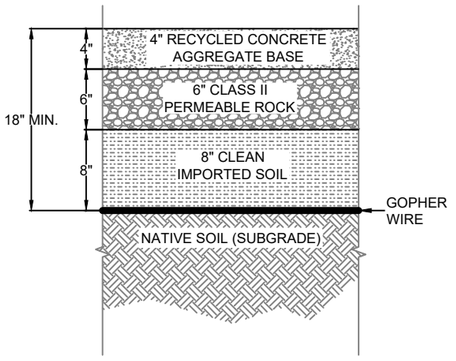
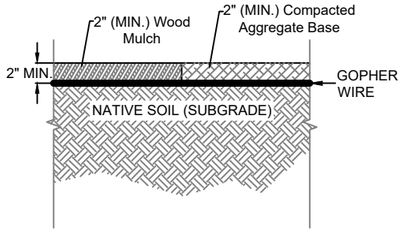


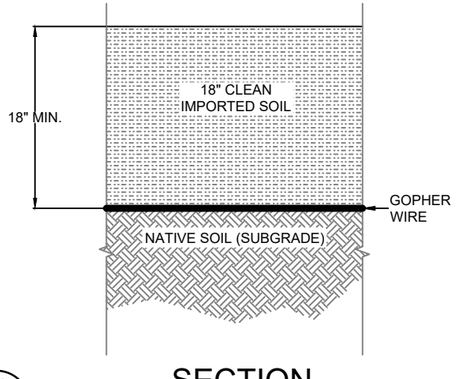
8/3 SECTION

RECYCLED CONCRETE
AGGREGATE BASE STAIRS



9/3 SECTION

TREE ISLAND CAP



10/3 SECTION

SOIL CAP

PROJECT:

THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:

CAP CROSS-SECTIONS

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		
APPROVED BY:	J. H-D		**FIGURE 3**
DATE:	JANUARY 2018		

505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: Fig3 Cap Cross-Sections.dwg

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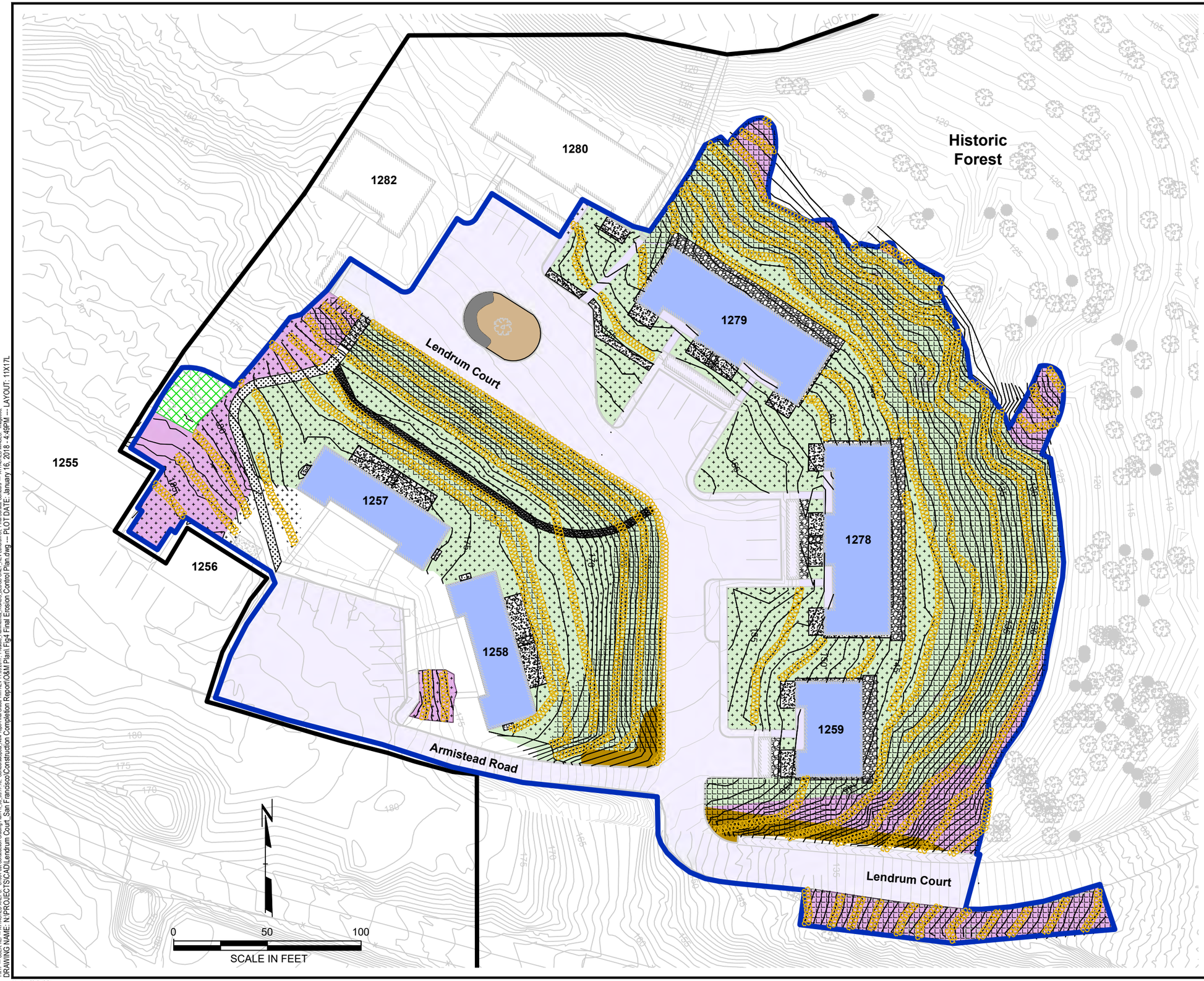
Version: 2017-10-21



LEGEND

- APPROXIMATE SITE BOUNDARY
- APPROXIMATE REMEDIAL ACTION AREA
- 140 — FINAL SURFACE CONTOURS (OUTSIDE PROJECT AREA)
- 140 — FINAL SURFACE CONTOURS
- APPROXIMATE LIMITS OF VEGETATED CAP
- APPROXIMATE AREAS OF BUILDING THAT SERVE AS CAP
- AREAS OF ASPHALT, PAVEMENT AND HARDSCAPE THAT SERVE AS CAP
- APPROXIMATE AREAS EXCAVATED AND CLEAN CLOSED
- APPROXIMATE AREA EXCAVATED TO EXPOSED BEDROCK (CLEAN CLOSURE AREA)
- TREE ISLAND CAP COMPACTED AGGREGATE BASE
- TREE ISLAND CAP WOOD MULCH
- NEW CONCRETE PATIOS, SIDEWALKS AND STAIRS
- RECYCLED CONCRETE AGGREGATE BASE PATH
- NEW ASPHALT PATH/ROADWAY
- NEW AGGREGATE BASE CAP
- VEGETATED LUC
- ECTC TYPE 4 EROSION CONTROL BLANKET ANCHORING PATTERN A, SEE DETAIL 2, C-116 (AS-BUILT)
- ECTC TYPE 4 EROSION CONTROL BLANKET ANCHORING PATTERN B, SEE DETAIL 2, C-116 (AS-BUILT)
- FIBER ROLL (STRAW WATTLE)
- SITE TREE PROTECTED DURING REMEDIAL CONSTRUCTION
- TOYON (HETEROMELES ARBUTIFOLIA) PROTECTED DURING REMEDIAL CONSTRUCTION

SOURCE: Base plan by Towill, October 29-November 4, 2015

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
FINAL EROSION CONTROL PLAN

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		
APPROVED BY:	J. H-D		**FIGURE 4**
DATE:	JANUARY 2018		

TRC
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: Fig4 Final Erosion Control Plan.dwg

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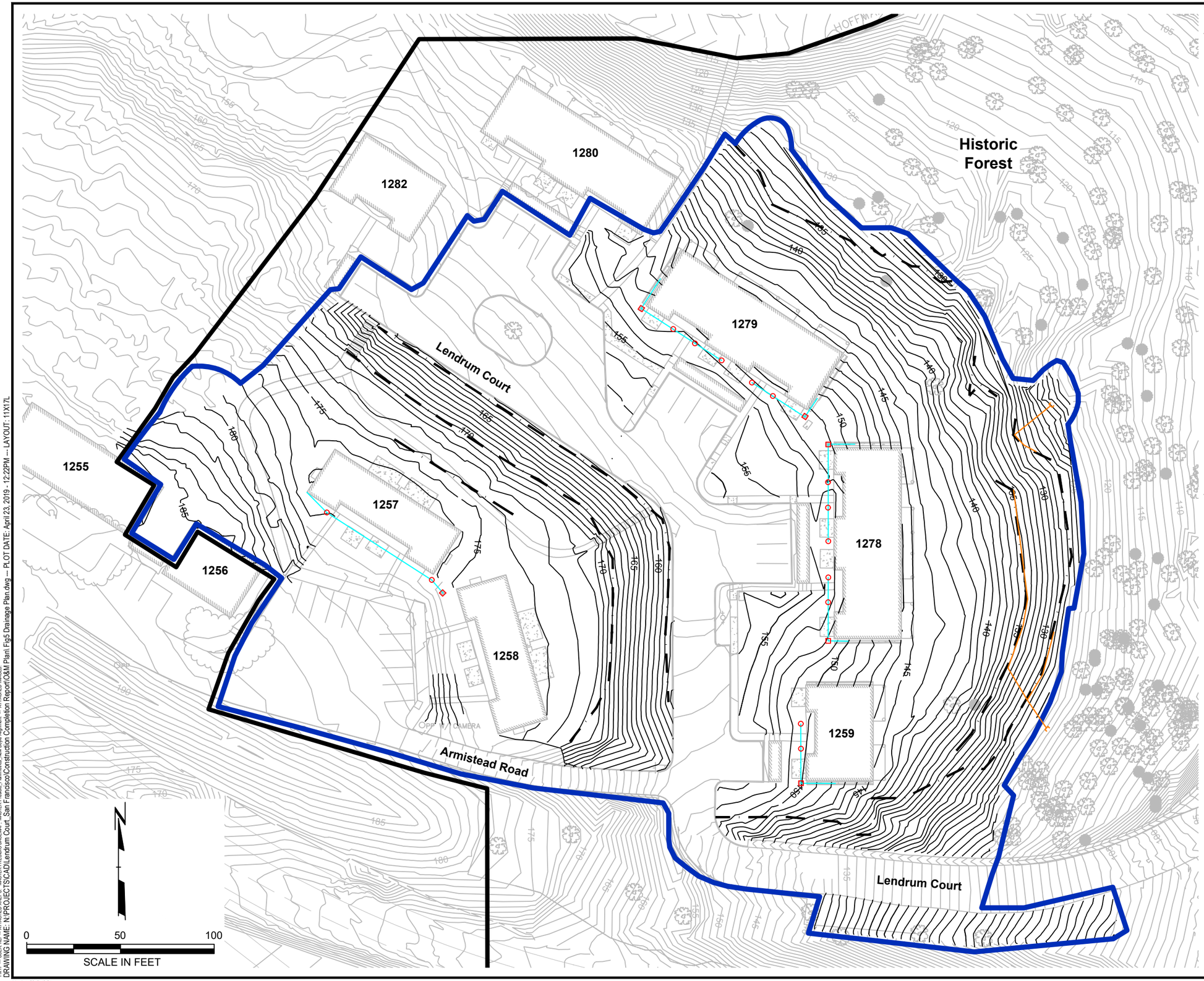

LEGEND

- APPROXIMATE SITE BOUNDARY
- APPROXIMATE REMEDIAL ACTION AREA
- 140 SURFACE CONTOURS (OUTSIDE PROJECT AREA)
- 140 FINAL PROJECT SURFACE CONTOURS
- KEY TRENCHES
- DRAINAGE LINES
- APPROXIMATE TREE LOCATION
- APPROXIMATE TOYON LOCATION
- DRAIN LINE CLEANOUT
- SURFACE DRAIN INLET
- APPROXIMATE KEY TRENCH SUBDRAIN AND DISCHARGE POINT LOCATIONS

NOTES

1. FIGURE DOES NOT SHOW IRRIGATION LINES.
2. ALL IRRIGATION LINES WERE CONSTRUCTED WITHIN CAP.

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
DRAINAGE PLAN

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		
APPROVED BY:	J. H-D		**FIGURE 5**
DATE:	APRIL 2019		

TRC
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: Fig5 Drainage Plan.dwg

11x17 -- USER: KLI -- ATTACHED XREFS: MASTER PRESIDIO BASEMAP; MASTER Presidio_Planimetrics_New Doyle Alignment -- ATTACHED IMAGES:
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Version: 2017-10-21

TABLES

Table 1. Inspection and Monitoring Schedule
Lendrum Court O Plan
Presidio of San Francisco, California

Inspection/Monitoring Requirement	Site Area			Frequency[2]	Description *Inspection and maintenance of the cover system are required to identify the following conditions.*	Maintenance/Repair *Based on findings of the inspection/monitoring tasks, maintenance or repairs may be required to ensure ongoing protectiveness of the selected remedy.*	Reporting
	Lendrum Court	Vegetated LUC Area	Incinerator Area[1]				
Cap Inspection	X	X	X	Quarterly; after qualifying storm/seismic events	**Soil Cover:** • Excessive soil erosion; • Cracking in soil cap materials; • Significant depressions indicative of excessive settlement; • Slope failure; • Rodent activity/burrowing; and • Vegetation Health. **Hardscape:** • Cracking in concrete or asphalt surfaces; • Excessive AB erosion; • Excessive ponding of water; • Operation of drainage systems • Soil erosion around the edges of hardscape elements; and • Eroded hardscape elements.	**Soil Cover:** • Placement and compaction of additional clean soil or other materials; • Filling of rodent burrow holes; • Removal of unwanted vegetation from soil cap areas; • Placement of additional erosion control measures (see Section 2.2); • Planting (see Section 2.3); **Hardscape:** • Filling of hardscape cracks; • Placement and compaction of additional clean AB or other materials; • Demolition and reconstruction of hardscape surfaces; and/or • Drainage system cleanout or repair.	Quarterly inspections and maintenance/repairs are to be documented on Site Inspection Forms (Appendix A) and submitted with the Presidio's Annual O&M Report.
Storm Water/Erosion Control Inspection	X			Quarterly; after qualifying rain events	• Erosion control blankets may show signs of wear or deterioration; • Straw wattles may show signs of wear or deterioration; and • Exposed areas that may require BMPs.	• Repair/replace erosion control blankets; • Repair/replace straw wattles that are degraded; and/or • Install additional BMPs where needed.	
Tree/Plant Health Inspection	X	X		Quarterly	• Distressed or dead vegetation; • Areas of slower plant growth; and • Patches of bare earth or inadequate coverage where vegetation is the primary form of erosion control.	• Providing nutrients to enhance tree or plant establishment; • Adding erosion control measures to newly seeded areas or areas of exposed soil (see Section 2.2); • Checking performance of the irrigation system and performing necessary repairs to ensure adequate watering (see Section 2.3); • Replace distressed or dead vegetation, if warrented; and/or • Temporary fencing with signage until plants are re-established in LUC areas.	
Irrigation System	X			Quarterly	• Observe irrigation system to ensure proper function.	• Make necessary repairs to drip lines, sprinkler heads, electric, etc.	
LUC Inspection	X	X	X	Annually	Sitewide inspection for all of the above elements of the Site that affect the Site's LUC.	Maintenance or repairs for any of the above elements shall be made as soon as feasible and documented.	Results of the annual LUC inspection will be included in the Presidio's Annual O&M Report

Notes:

[1] Due to its location beneath US Highway 101, the Incinerator area is not generally accessible and is therefore not subject to regular inspections. The area is protective in its current configuration.

[2] After the first year of quarterly inspections, the frequency of inspection may be reviewed and potentially reduced.

AB = aggregate base
BMP = best management practice
LUC = land use control
O&M = operations and maintenance

APPENDIX A

SITE INSPECTION LOG

Appendix A
Site Inspection Log
Lendrum Court Operations & Maintenance Plan
Presidio of San Francisco, California

Date: _____ Weather: _____

Inspector: _____ Signature: _____

Instructions for Completing Site Inspection Log: Features listed in the inspection log at the Lendrum Court Site will be visually inspected for any deficiencies. Integrity of site features will be detailed in the Site Inspection Log. A photographic log of site features will be included as an attachment to the Site Inspection Log. A figure markup will be included as an attachment to the Site Inspection Log if any deficiencies are identified. Features locations and details are detailed on Figures C-114 and C-115 in Appendix D of the Construction Completion Report. Due to the inaccessible nature of the incinerator area, this area will be inspected remotely once a year to ensure that the area is not accessible and that there are no signs of trespassing. Inspectors will be experienced in reviewing and inspecting caps, which include staff level geologists, engineers, or scientists working under the direction of a California licensed Professional Geologist or Engineer with experience in reviewing and inspecting caps.
Clean Soil Cap • Landscaped Cap North/Northeast of Buildings 1257/1258 • Landscaped Cap South/West of Buildings 1259/1278/1279 • Historic Forest Cap North/East of Building 1259/1278/1279
General Soil Cover Condition (cracking, erosion, slope movement, etc.):
Surface Water Ponding:
Burrowing Animals:

Recommended Actions/Maintenance:
Hardscape Elements • Concrete patios, sidewalks, and stairs • Asphalt paths • Aggregate base paths/caps • Existing paved roadways/parking areas
General Hardscape Condition (cracking, erosion, etc.):
Surface Water Ponding:
Erosion around Hardscape Edges:
Eroded Hardscape Elements:
Recommended Actions/Maintenance:
Temporary Erosion Control Measures
Erosion Control Blankets:

Fiber Rolls/Straw Wattles:
Exposed Areas Potentially Requiring BMPs:
Recommended Actions/Maintenance:
Tree and Plant Health • Landscaped areas around Lendrum Court • Vegetated LUC Area • Historic Forest behind Buildings 1279/1278/1259
Distressed Vegetation:
Areas of Slower/Struggling Growth:
Patches of Exposed Earth:
Irrigation System:
Recommended Actions/Maintenance:

Appendix A
Site Inspection Log
Lendrum Court Operations & Maintenance Plan
Presidio of San Francisco, California

Incinerator Area
General Soil Cover Condition:
Site Accessibility/Signs of Trespassing:
Tree and Plant Health:
Overall Observations/Recommendations

APPENDIX B

SITE-SPECIFIC HEALTH AND SAFETY PLAN

SITE HEALTH AND SAFETY PLAN

Lendrum Court Site
Presidio of San Francisco, California
June 2019

Prepared for:
Presidio Trust
103 Montgomery St.
P.O. Box 29052
San Francisco, CA 94129

Prepared by:
TRC Environmental Corporation
41 Spring Street
New Providence, NJ 07974

TRC Project Number: 229649

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1. Introduction

This Health and Safety Plan (HASP) was prepared by TRC Environmental Corporation (TRC) for the Presidio Trust as a guidance document for the Lendrum Court site in the Presidio of San Francisco, California (the "Project" or "Job Site"). This HASP shall only be used to address operations and maintenance (O&M) activities, including repair, at the capped and/or LUC areas of the Lendrum Court Site. Use of this HASP for any other purpose is strictly prohibited, and TRC disclaims any and all liability for any such use. By preparing this HASP, TRC does not assume responsibility or liability for job site safety, unknown or unforeseen hazards at the Job Site, or for the implementation of this HASP. This HASP in no way relieves Presidio Trust, or its contractors or subcontractor companies/employees of legal obligations to any local, state or federal regulations or requirements. Contractors and subcontractors are responsible for developing and implementing their own safety programs in accordance with Cal/OSHA regulations.

In addition, any changes or modifications to the scope of work will require the site work to cease and the hazards associated with the revised scope of work be re-examined and documented. This HASP was prepared based on hazards reasonably anticipated when performing field activities listed in the scope of work. If during the course of performing field work, additional hazards are identified which are not addressed in this HASP, the site work must cease, and the hazards re-examined.

1.1 Site Information

Lendrum Court is located within Area B of the Presidio, where the Trust has cleanup authority and administrative jurisdiction. Lendrum Court is a small residential neighborhood in the northwest corner of the Presidio, north of Doyle Drive and in the North Fort Scott Area (***Figure 1***). Army-era debris and incinerator ash were determined to be present in subsurface soils in the areas surrounding Buildings 1255, 1256, 1257, 1258, 1259, 1278, 1279, 1280, and 1282. The area generally slopes to the northeast in a series of terraces, originally graded to facilitate construction of building pads for the residential units and parking lot area. The sloping areas between the terraces are generally landscaped with grass and shrubs. The northeastern slope, behind buildings 1259, 1278, and 1279, consists of historic forest.

Prior to 1936, an incinerator was located approximately 150 feet south of the present-day Lendrum Court site. The incinerator pad, ash, and debris-impacted soils were discovered and excavated in 2015 during construction of the Doyle Drive Replacement Project. Residual debris and soil containing elevated lead within the Doyle Drive Replacement Project were left in place and capped with new highway pavement or with a soil cap.

At the Lendrum Court site, investigation activities were conducted between 2014 and 2015. The nature and extent of contamination at the site was summarized in the *Lendrum Court Remedial Investigation Summary Report and Screening Risk Evaluation* (EKI, 2015). Army-era debris, including glass, ceramics, and ash, was encountered from the ground surface to approximately 2.5 feet below ground surface and was up to 5 feet in thickness. During remediation, debris fill soils were either excavated, consolidated and capped with 18-inches of clean soil underlain with steel wire mesh or hardscape, or disposed off-site.

Chemicals detected in the soil were identified as constituents of concern (COCs) based on comparison of the calculated exposure point concentrations to conservative Remedial Investigation screening levels (EKI, 2015).

The following compounds were identified as COCs in soil at the Site:

- Debris Fill Area (LUC Area A)
  - Metals – Arsenic, barium, copper, lead and zinc
  - Polycyclic Aromatic Hydrocarbon (PAHs) – Benzo(a)pyrene, benzo(a)pyrene equivalents and dibenzo(a,h)anthracene
  - Dioxins and Furans – Expressed as tetrachlorodibenzo-p-dioxin toxic equivalent (TCDD TEQ)
- Outside Debris Fill Area (LUC Area B)
  - Metals – Lead

1.2 Emergency Contact Information

Table 1 - Emergency Telephone Numbers

Service	Emergency	Direct Telephone Numbers
Presidio Park Police	**Emergency:911**	Emergency: (415) 561-5656 Non-emergency: (415) 561-5505
Police		(415) 561-5656
Fire:		(415) 561-5656
Ambulance:		(415) 561-5656
Poison Control: (use applicable local number)		800 222-1222
CHEMTREC:		800-424-9300 (Customer No. CCN 671126)

1.3 Medical Facility Identification and Directions

Hospitals or clinics identified for emergency medical care should be contacted in advance of fieldwork, to verify that emergency care is provided at that location. Verify the exact location of the medical facility during this call.

Drive the emergency route as defined below before the fieldwork begins to verify that the planned route is feasible.

Nearest Hospital: California Pacific Medical Center

Hospital Address: Castro Street &, Duboce Ave, San Francisco, CA 94114

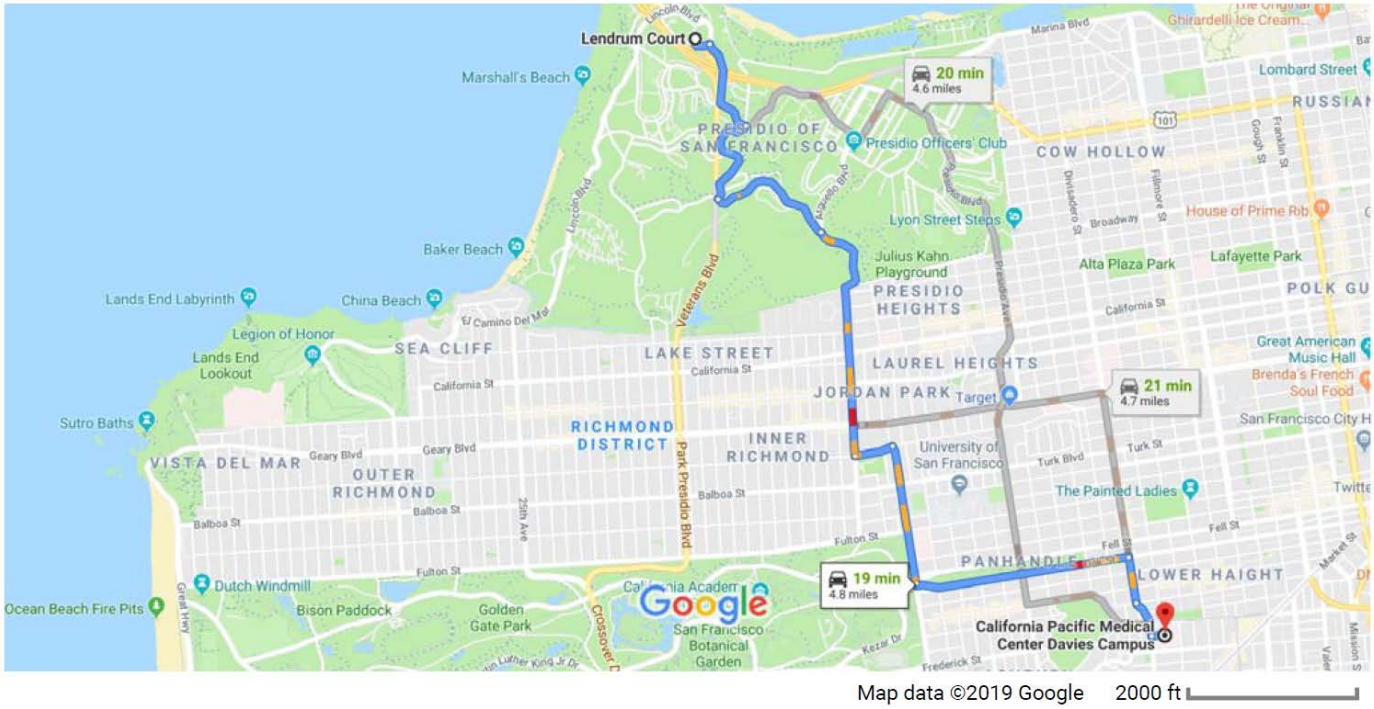
Hospital Telephone Number: General Line: (415) 600-6000

Directions to Hospital (see attached Map):

1. Head south on Lendrum Court towards Armistead Road
2. Turn right onto Lincoln Boulevard
3. Turn right onto Park Boulevard
4. Turn left on Washington Boulevard
5. Turn right onto Arguello Boulevard
6. Turn left onto Anza Street
7. Turn right onto Stanyan Street
8. Turn left onto Oak Street
9. Turn right after Chase Bank
10. Use right lane to turn slightly left onto Castro Street

Map to Hospital:

Google Maps Lendrum Ct, San Francisco, CA 94129 to California Pacific Medical Center Davies Campus Drive 4.8 miles, 19 min



1.4 Work Scope Summary

This HASP documents site-specific guidelines for Presidio Trust workers and any contractor/subcontractor who performs maintenance and/or repairs at the Lendrum Court site as part of ongoing operations and maintenance of the site including:

- Cap maintenance to assure continued performance of engineered cap areas;
- Maintenance and repair of stormwater systems;
- Maintenance of hardscape covers, including patios, sidewalk and asphalt roadway;
- Maintenance of vegetative cover including shrubs and trees; and
- Maintenance of the irrigation system

This HASP addresses general hazards that could be encountered during routine repair work that may be needed in both uncontaminated areas (i.e, in the clean cap) and in potentially impacted areas of the site. Larger repair work such as excavating to re-build the cap may require modification of the HASP depending on contaminant levels encountered and extent of construction activites.

1.5 Project Site Policy

This HASP is tailored as guidance for the various types of O&M tasks that will be conducted at the Lendrum Court site. It is available to, and is to be followed by, all workers conducting any O&M task at the Lendrum Court site. All contractor and subcontractors shall prepare their own HASP that satisfies the requirements set forth in this HASP and employees shall be trained by their companies on the contents of their company's HASP.

All site personnel, including contractors and subcontractors, will familiarize themselves with the contents of this HASP and apply it during work activities. Furthermore, all project personnel are required to participate in required safety orientation training and provide appropriate documentation of the training prior to performing any work on the project. Safety is the responsibility of everyone on site, requiring every person to work together to achieve a safe workplace.

1.6 General Liability Policy

All contractors and subcontractors shall take all necessary precautions to protect the public, the facilities, the personnel and the neighbors of the Lendrum Court site from hazards involving safety and health arising from any ongoing maintenance and repair work. All operations shall be isolated from the public to the greatest extent possible.

2. Program Administration

Program administration is one of the key elements in communicating and coordinating construction activities and safety and health obligations. For this reason, activities and procedures have been established to ensure all persons on site shall work in a safe and healthful environment where activity is coordinated and organized.

2.1 Use of This HASP by Subcontractors

Copies of this HASP must be included in contractor/subcontractor bid packages for work at this site. Each contractor/subcontractor shall keep a copy of this HASP on-site. The contractor shall thoroughly train and

familiarize their employees and their subcontractor's employees with the minimum requirements set forth in this manual and any changes which are made to it.

2.2 Health and Safety Coordination Meetings

A regular Project Health and Safety coordination meeting will be coordinated by the Presidio Trust Project Manager that all contractors and subcontractors will attend. This meeting shall serve as an allotted time specifically to address safety, health and coordination concerns with the subcontractors. This time shall also serve as a forum for subcontractors to discuss safety and health concerns as related to each other's work activities and the project. The contractor will facilitate any concerns between subcontractors and will assist in finding adequate solutions.

2.3 Cal/OSHA Policy

Cal/OSHA inspections will occur because of one of three situations which are outlined as follows:

- Scheduled Visit
- Employee Complaint
- As a result of notification of an occupational death or hospitalization of one or more employees.

In the event of a death or hospitalization of employees, contractors or subcontractors will immediately notify the Presidio Trust Project Manager.

The following procedures shall be taken upon the arrival of a Cal/OSHA inspector on site by all subcontractors:

2.3.1 Cal/OSHA Inspection Procedure List

Contact the Presidio Trust Project Manager, Trust Health and Safety Officer or representative. If these persons are not available, request a postponement of the inspection. If this is not possible, continue through the Cal/OSHA inspection procedure list as follows:

- Respectfully ask for the inspector's credentials and identification.
- Inform subcontractors of the inspector's presence and request that a craft employee from each trade is made available if necessary to assist the inspector during the inspection process. At this time, a team of persons who are capable of immediately remedying any deficiencies regarding safety and health shall be assembled for each of the trade's work areas. These persons shall be ready to correct any deficiencies documented by the inspector.
- Attend the opening conference at which time the inspector will inform the Presidio Trust Project Manager of the nature of the visit and the scope of the inspection.
- The Presidio Trust Project Manager shall accompany the inspector at all times and duplicate all actions taken by the inspector (This could include notes, photographs, coordinating potential sampling and monitoring if needed, etc.).
- Provide any documentation or written programs that the inspector requests.
- A request shall be made at the end of the on site inspection for the closing conference to be postponed until the Presidio Trust Project Manager canbe in attendance.
- Immediately document all information and findings concerning the inspection.
- Note if the inspector indicates a return to the site at a later date.

3. Safety and Health Monitoring and Enforcement

3.1 Policy

Presidio Trust workers are responsible for working under this HASP. However, each contractor/subcontractor is responsible for managing its own HASP and related programs. Presidio Trust, and all contractors/subcontractors are also responsible for monitoring and enforcing the project disciplinary procedures, or disciplinary procedures which are more stringent, for employees performing non-conformance work in relation to safety and health. Presidio Trust and all contractors/subcontractors shall monitor the work of their employees to assure the employee's actions do not create an unsafe condition which may result in harm to themselves, other persons on site or result in property damage.

Failure of contractor/subcontractor management to enforce the disciplinary policies established in this HASP may result in disciplinary action taken against contractor/subcontractor management.

3.2 Monitoring

The enforcement of this HASP and all related local, state, federal or otherwise stated safety and health rules, regulations and policies is a vital aspect to achieving a safe and healthful work environment. For this reason, Presidio Trust will monitor the activities of the contractors/subcontractors on site and enforce all aspects of the Project HASP.

Project Health and Safety audits will be performed by Presidio Trust. Findings shall be immediately corrected with written verification of the corrections submitted to the Presidio Trust Onsite Health and Safety Officer (OHSO).

3.3 Enforcement

Subcontractors are responsible for enforcing all Health and Safety policies adopted on this project. Presidio Trust will take disciplinary action against subcontractor management for failing to enforce such policies. The following actions may be taken against subcontractor management and personnel for non-compliance issues:

Verbal instruction may be used at the discretion of the designated safety supervisor for conditions or practices which are less than serious and are not likely to cause an accident or incident. Violations may fit into four classes defined as follows:

- Non-serious – Any condition or practice which is not likely to cause death or serious physical harm to any person.

- Serious – Any condition or practice which is causing or likely to cause death or serious physical harm to any person.

- Stop Work/Imminent Danger – The existence of any condition or practice which would reasonably be expected to cause death or serious physical harm before such condition or practice can be corrected. This is a "stop work" situation. All persons shall be withdrawn from the affected area, and no one is allowed in the area except those people deemed necessary to correct the condition or practice and whom are using the necessary controls to guard themselves from the hazard.

- Repeat – Violations which have been verbally stated or written to an employee or subcontractor more than once.

Abatement of Health and Safety violation notices shall take place within the allotted time given to abate the unsafe condition. If the subcontractor fails to comply with the abatement policy within the allotted time period, without submittal of an alternate solution, then disciplinary action may be taken by Presidio Trust up to and including removal of personnel or contractor/subcontractor firms.

All subcontractors on site shall have a violation policy and procedures that shall meet, at a minimum, the following standards:

3.4 Violation Policy

Violations issued are subject to the Cal/OSHA regulations which regulate construction and general industry sites and this HASP. The possible consequences subjective to the violation are as follows:

Non-Serious Violations
- First Offense is verbal warning. With log book documentation for future reference.
- Second Offense is written warning.
- Third Offense is time off project or dismissal.

Serious Violations and Repeat Violations
- First Offense is subject to time off project or dismissal at the discretion of the Presidio Trust Project Manager.
- Presidio Trust reserves the right to request the dismissal of project personnel who commit serious or repeat safety or health violations.

4. Subcontractor Project Safety and Health Coordination

Presidio Trust will coordinate measures and submittal requirements in order to assure the protection of all persons on site and to communicate construction activities which are being performed on the project. For this reason, those requirements are outlined in the following section so that all subcontractors are keenly aware of this HASP's Minimum Requirements. These requirements are to be adhered to by all project employees. The following policies shall be developed and implemented into the subcontractor HASP for this project.

Presidio Trust shall be responsible for coordination of its work and that of its subcontractors so that safe work practice is achieved. The subcontractor shall coordinate all work provided under this agreement with all contiguous contracts and work activities whether provided by facility staff or subcontractors. Subcontractor shall arrange and schedule the operation of its own work and the work of all subcontractors so that delays will be avoided when safe work measures are implemented. No extra payment shall be made for any delays incurred from improper coordination of this work with other trade work and compensation for any such delays and all extra work related thereto is considered as having been included in the contract price.

4.1 General Site Safety Rules/Minimum Requirements

This section presents general safety rules for all persons working at the project site. Failure to follow safety protocols and/or continued negligence of health and safety policies will result in expulsion of a worker or firm from the site and may result in termination of employment.

1. Horseplay, fighting, gambling, or the possession of firearms is not permitted.
2. Work shall be well-planned and supervised to prevent injuries. Supervisors shall assure that employees observe and obey safety rules and regulations.
3. An employee reporting for work who, in the opinion of his supervisor, is unable to perform his assigned duties in a safe and reasonable manner shall not be allowed on the job.
4. No employee shall be assigned a task without first having been instructed on proper methods, including safety training, of carrying out the task. Any employee who feels they have not received proper instruction shall notify their supervisor prior to carrying out the task.
5. Injuries and accidents and near misses, regardless of their severity, shall be reported immediately to the immediate supervisor, who will then report it to the OHSO.
6. There shall be no consumption of food or drink in operational areas of the site. Hands should be thoroughly cleansed prior to eating.
7. Smoking is not permitted on the site.
8. When personnel are conducting hazardous operations, there shall be at least one other person (buddy system) on duty in the immediate area as a backup in case of emergency.
9. Wear required PPE in the workplace when appropriate and/or when specified in the site specific health & safety plan. Loose clothing and jewelry should not be worn when operating machinery.
10. Do not operate any machinery if you are not authorized or qualified to do so. If unsure how to operate a machine or perform any assigned task, ask the Project Manager/Supervisor before proceeding.
11. Do not operate motorized equipment until proper training and certification has been provided (e.g. forklifts, etc.)
12. No one shall knowingly be permitted or required to work while the employee's ability or alertness is so impaired by fatigue, illness or other causes that it might unnecessarily expose the employee or others to injury.
13. Alcohol and drugs are strictly prohibited on premises, customer property, and/or in Company vehicles. Employees shall not report to work under the influence of drugs or alcohol. Employees are prohibited from possessing, using, manufacturing, distributing, dispensing, selling or purchasing illegal drugs or other controlled substances (as defined under federal and state law).

4.2 Pre-Construction Submittals – Prior to Site Mobilization

The following requirements shall be submitted to the Presidio Trust Project Manager prior to the start of activities at Lendrum Court. Program submittals are necessary to coordinate the requirements established in the subcontractor's Safety Program along with this. It is also necessary for Presidio Trust to know who will carry out the functions required by this HASP and the designated competent persons for each of the areas of construction. Appendix A includes an example of project safety rules and selected forms.

4.2.1 Subcontractor HASP

Submittal of subcontractor's written HASP to Presidio Trust shall be done prior to the start of work. The HASP shall include the requirements outlined in this document as minimum standards. In addition to the written HASP, the following programs shall also be established, submitted, and implemented on the project by

the subcontractor, when applicable, if not already included in the subcontractor HASP:

- HAZWOPER (if applicable)
- Lockout/Tagout Procedures
- Excavation design and related safe work procedures
- Confined Space Entry Procedures
- Hazard Communication Program
- Fall Protection Plan
- Heat Stress Management Plan

Subcontractors that do not have a written HASP may adopt the verbiage in this HASP as subcontractor's HASP for the exclusive use of this project. Presidio Trust is in no way responsible for use and/or interpretation of this HASP when utilized by its contractors or subcontractors. Contractors and subcontractors must submit in writing to the Presidio Trust Project Manager of the intent for subcontractor to utilize this HASP as their own for the project. Presidio Trust is not responsible for administering the contractor/subcontractor HASP(s) or safety training any contractor/subcontractor personnel after adoption for the project.

4.3 Pre/Post Activity Coordination and Submittal Requirements

Certain construction activities pose hazards that require safe work considerations prior to the activity being conducted. For this reason, Presidio Trust has established pre/post-activity requirements to assure that subcontractors consider these key hazards prior to the start of such activity. These requirements are outlined below.

4.3.1 Permit Required Confined Space

Confined Space entry procedures shall be established by the Subcontractor for entry of their personnel. All confined spaces shall be presumed to initially be permit required unless they can be re-classified to non-permit required spaces in accordance with Cal/OSHA standards. A confined space entry notice shall be completed and may be required to be submitted or audited to/by Presidio Trust. It is pertinent for Presidio Trust to know this information at least one week in advance of entry activities so that coordination efforts may be properly conducted for any other Subcontractor personnel to enter the confined space.

4.3.2 Crane Inspections and Lift Plan Submittals

Crane inspections shall be conducted and required to be submitted or audited to/by the Presidio Trust prior to the use of any crane on site. This inspection shall be performed by a qualified crane inspector or by a certified inspection service.

This policy shall in no way eliminate any requirements set forth for crane inspections in the OSHA Standard 29 CFR 1926 Subpart CC and CalOSHA Title 8 CCR1616.

Lift plans shall be written for all lifts that are over 20 tons, lifts that occur over spaces where workers are, involve more than one crane or the load to be lifted exceeds 85% of the manufacturer's load rating chart for configuration of the crane. At a minimum, the plan, which is constructed by the competent person, shall include:

- Make and model of cranes or hoist.
- Applicable lift radius, boom angle, and boom length.

- Lifting capacity of crane or hoist for configuration
- Size and capacity of all rigging.
- Weight of object to be lifted including all rigging.
- Diagram of lift layout.
- Weather conditions.
- Ground stability
- Competent person and crane or hoist operator signature verifying all information.

4.3.3 Excavations and Trenching

Trenching notices shall be completed by the subcontractor and may be required to be submitted or audited to/by Presidio Trust prior to the start of the operation. For trenches and excavations over 20 feet in depth, the subcontractor shall have a Professional Engineer, who is registered in California, design the sloping, shoring or shielding method used.

Soil shall be treated as Class C with regards to the dimensions for sloping, shielding, shoring and benching unless the procedures outlined in 29 CFR 1926 Subpart P(c)/Title 8 CCR 1541(k) are explicitly used by a competent person to determine the classification of the soil.

4.3.4 Hot Work

Hot work permits shall be issued by Presidio Trust before commencing any welding or other hot work and must be posted in the immediate area where the work is being done. The subcontractor must provide a fire watch stand-by person during all welding and other hot work. Hot work consists of any flame or spark producing equipment. Examples include but are not limited to: welding, torching, brazing, grinding, sand blasting. The fire watch shall be a dedicated individual who shall stand watch for one hour after the hot work has ended, shall have no other duties except for fire watch and shall be trained to recognize fire hazards, respond to small excipient stage fires and implement emergency procedures as needed.

4.3.5 Lockout/Tagout Procedures

Subcontractors are responsible for administering own lockout/tagout (LOTO) procedures and program while equipment is under control of the subcontractor. Subcontractors shall coordinate any work that involves equipment systems that potentially contain hazardous energy. Equipment or system specific LOTO procedures will be developed to safely de-energize such equipment or system. This procedure shall include verification of zero energy. Equipment that has not been completely de-energized will not be worked live unless a specific procedure has been developed for this and approved by the Presidio Trust Project Manager.

4.4 Housekeeping

Subcontractors are responsible for housekeeping of their work areas and cleaning of the debris and/or surplus materials accumulated as a result of the work process. Subcontractors shall monitor craft activities to assure housekeeping clean-up is performed throughout the work process.

Accumulation of debris and waste materials slow the construction process, create disorganization and it contributes to unsafe work conditions. For this reason, all contracts have been structured to require subcontractors to remedy such problems as assigned on the notification within the allotted abatement period. Failure to meet such conditions may result in charges to the Subcontractor for removal of trash or waste material by others from the work area or for clearing or moving tools, materials or equipment from

aisles, walkways or work areas.

4.5 Fire Prevention

Each subcontractor shall be responsible for fire protection throughout all phases of construction as required by the National Fire Protection Code and the 29 CFR 1926 Subpart F.

Only work procedures which minimize fire hazards to the extent practical shall be used. A fire extinguisher shall be present in the immediate vicinity of any hot work. Verification shall be made to assure no fire hazards exist at the conclusion of the hot work activity. In addition, the following outline summarizes when fire extinguishers are required in the 29 CFR 1926:

Standard	Location	Type	Distance
150(c)(1)(i)	Building Area	2A	100 Foot Radius
150(c)(1)(vi)	5 Gallons of Flammable/Combustible Liquids or 5 Gallons of Flammable Gas	2A or Suitable for Hazard	Within 50 Feet
150(c)(6)	Open Yard Storage	2A or Suitable for Hazard	100 Foot Radius
152(d)(1)	Flammable Liquid Storage Room	20B	10 Feet Outside
152(d)(2)	Outside Flammable Liquid Storage Area	20B	25-75 Feet
152(d)(4)	Vehicles Used for Dispensing or Transporting Flammable or Combustible Liquids	20B:C	On Vehicle
152(g)(11)	Service or Fuel Area	20B:C	Within 75 Feet
153(l)	Liquefied Petroleum Gas Storage Area	20B:C	In Location
352(d)	Welding, Cutting or Heating Areas	Suitable	In Area
550(a)(14)(i)	Crane Cabs	5B:C	On Crane

4.6 Hazard Communication

All contractors and subcontractors will assure that all products or chemicals purchased that require an SDS shall have one obtained at the time of the order and prior to that chemical being brought on site. A job specific log shall be constructed. This log should include all products or chemicals bought onsite that require an SDS as well as a title sheet listing these chemicals. All employees shall be made aware of the location of the SDS compilation for the project. All subcontractors shall be made aware by Presidio Trust of the location to the SDS log and shall be granted free access to review the information if desired.

At the time of the pre-job safety briefing, subcontractors shall be informed that all chemicals and products brought onto the project by the subcontractor shall have a copy of the SDS submitted to Presidio Trust prior to that chemical being brought onsite for the first time.

All containers for products or chemicals that require an SDS shall be labeled with the product or chemical identity. This is necessary so the chemical information may be accessed by locating the SDS. Containers that contain material transferred from the original container shall be labeled with the product or chemical identity

unless it will be under the immediate control of the person who transferred the product or chemical from the original container.

4.6.1 Lawn and Vegetative Cover Chemicals

Lawn and vegetative care products sometimes require special handling, certain PPE and need to be stored when not in use, in accordance with the label requirements. All handling, storage and use shall conform to the SDS and product label requirements. Do not store or use around food or food storage areas.

5. Client/Personnel Contact, Emergency Contacts and Utility Clearance Information

5.1 Client/Personnel Contact Information

Table 2 - Site Name/Location, Project Number, Client and Contractor Contact Information			
Site Name:	**Lendrum Court at Presidio**	**TRC Project Number:**	**229649**
Site Address:	**103 Montgomery St. P.O. Box 29052 San Francisco, CA 94129**		
Client Contact/Title		**Office Phone Number**	**Cellular Phone Number**
Nina Larsen/Trust Project Manager		(415) 561-5421	
June Palladino/ Trust Health and Safety Officer		(415) 561-4141	
Presidio Trust Main Line		(4150 561-5300	
Contractor Contact/Title		**Office Phone Number**	**Cellular Phone Number**

Table 3 - Personnel and Project Role		
Name / Project Role	**Office Phone Number**	**Cellular Phone Number**
TBD / Field Lead	Specify	Specify
TBD / OHSO*	Specify	Specify
TBD / Field Staff	Specify	Specify
TBD / Field Staff	Specify	Specify
TBD / Project Manager	Specify	Specify

Notes:
*OHSO – On-Site Health & Safety Officer. The OHSO is 40-hour OSHA certified, is current on refresher training, and has OSHA 8-hour supervisor training. The OHSO can be Field Lead or a member of the Field Staff as suits the work at hand and/or the availability of qualified personnel.

5.2 Utility Clearance Information

Table 4 – Utility Clearance Information		
Clearance Organization, Number and Utilities Covered	**Clearance Numbers (or Other Documentation) and Date Obtained**	**Expiration Dates/Other Notes**
USA North (https://usanorth811.org/) /Underground Service Alert ▪ Water ▪ Sewer ▪ Natural gas ▪ Electric	Dial 811 or (800) 227-2600 48 hours prior to digging	Specify Date, Other
Local/Municipal/Other – Specify #s	Specify # or other documentation, Specify Date	Specify Date, Other
Local/Municipal/Other – Specify #s	Specify # or other documentation, Specify Date	Specify Date, Other
Notes:		

6. Roles/Responsibilities

6.1 Stop Work Authority

All client, contractor and subcontractor employees have the authority and obligation to stop any project if they observe a condition that could put people or equipment at risk. The Stop Work Authority policy is summarized below.

What is Stop Work Authority: Stop Work Authority is the ability to stop work if there is a potential safety issue. Employees will not be reprimanded for issuing a stop work and all project employees will adhere to the stop work condition and no work will continue until the issues have been resolved. The Stop Work Process includes appropriate training, stopping the work, notifying Project Manager of the stop work condition, correcting the condition and resuming operation once the condition has been corrected.

Policy Understanding and Management Responsibility: Employees are required to read and understand the Stop Work Authority policy in order to recognize conditions that could warrant a stop work injunction. Project Managers will encourage employees to initiate stop work authority when necessary and notify other employees and the client of the stop work condition. The Project manager will conduct an investigation into the conditions that led to the stop work order and verify that the unsafe condition has been corrected before work can recommence. Work can only continue when it is safe to do so.

Stop Work Related Reporting: A written report will be prepared by the Project Manager that documents the reason for the stop work, the corrective measures taken and the lessons learned from the incident. These reports will be reviewed by the Safety Department and Senior Management and also shared with the client. Once work has resumed after the stop work condition has been closed the Project Manager or

designee will conduct a follow-up inspection to verify that the safety concerns have been addressed and corrective measures implemented.

6.2 Project Manager

The Presidio Trust Project Manager is responsible for controlling the technical work in an environmentally safe manner, assuring that operational hazards are minimized and that appropriate precautionary actions are implemented this during project work. Specific responsibilities include but are not limited to:

- Implementing and confirming that all subcontractors are prequalified to conduct the work included in their Contract, including health and safety pre-qualifications.
- Verifying that all personnel involved with this project have the required training and medical clearance for the work and environment they will be assigned.
- Verifying that all personnel involved with this project have read and understand this HASP and have signed the HASP.
- Assuring that all personnel involved with this project have attended a briefing or a tailgate safety meeting regarding the contents of the HASP and site-specific hazards prior to performing work.
- Determining that sufficient personal protective equipment (PPE), air monitoring equipment and other equipment, as required by this HASP, are available and that the personnel are training in the proper use of PPE as well as other administrative and/or engineered controls.
- Assuring that all subcontractor personnel submit documentation of employee participation in a medical, training and drug & alcohol programs (when applicable).
- Promoting and maintaining a high level of health and safety consciousness among the field personnel.

6.3 On-Site Health & Safety Officer

The On-Site Health & Site Safety Officer (OHSO) is responsible for ensuring the Health & Safety guidelines are followed, in addition to monitoring for airborne contaminants when necessary and evaluating new hazards and operational changes. The OHSO has the authority to correct all noncompliance situations immediately and to stop work in cases of immediate danger. Specific responsibilities include but are not limited to:

- Performing daily safety meetings prior to commencement of work, commencement of a new task and whenever new personnel arrive.
- Obtaining the air monitoring instrumentation required and conducting or directing the necessary air monitoring.
- Verifying that all PPE and other health and safety equipment are in proper working condition.
- Advising the Project Manager and field personnel on matters relating to health and safety.
- Recommending appropriate PPE and air monitoring instrumentation to protect personnel from site hazards and coordinating the upgrading and downgrading of PPE as specified in the HASP.

- Establishing and maintaining the work zones per the HASP.
- Conducting field observations to monitor the effectiveness of the HASP and to assure compliance with the HASP and regulatory requirements.
- Performing personal exposure monitoring where required and to determine the adequacy of protective measures and PPE specified by this HASP. Working with the Project Manager to ensure that sufficient PPE is available onsite.
- Conducting briefing meetings and apprising personnel of the contents of the HASP and site hazards.
- Supervising and monitoring the safety performance of all field personnel to ensure required safety and health procedures are followed and correct any deficiencies.
- Planning for and initiating emergency response procedures
- Notifying the Project Manager and Office Safety Coordinator of all noncompliance and dangerous situations.
- Investigating and reporting all accidents/incidents/near misses to the Office Safety Coordinators and/or Project Manager.
- Responding to inquiries from government safety and health agencies.

6.4 General Contractor Superintendent

The General Contractor Superintendent is responsible for the following:

- Providing managerial and executive level support for all matters regarding project health and safety.
- Assisting the Project Manager in developing the HASP and identifying task-specific Job Safety Analyses (JSAs) to incorporate in the plan.
- Safety Observations.
- Accident/incident/near miss investigations.

6.5 General Contractor Foreman

The General Contractor Foreman is responsible for the field operations needed to complete the project. Specific responsibilities include but are not limited to:

- Leading by example.
- Ensuring that all activities are performed in compliance with applicable occupational safety regulations.
- Ensuring all equipment needed for the project is available and properly maintained.

- Ensuring field personnel have received the necessary training and health & safety briefings before work begins.
- Correcting any deficiencies regarding health, safety or operating procedures.
- Communicating newly identified hazards or noncompliance issues with the OHSO, General Contractor Superintendent and Management
- Reporting any injuries and illnesses.

6.6 Field Personnel/Staff

All field personnel are responsible for following the health and safety procedures specified in this HASP and work practices specified in applicable operating procedures. Some specific responsibilities include but are not limited to:

- Maintaining an awareness of their training status and demonstrating that they have the required training and medical clearance for the work and environment they will be assigned.
- Reporting all accidents, incidents, injuries, illnesses, or near misses to the Foreman.
- Complying with the requests of the OHSO and Foreman.
- Immediately communicating newly identified hazards or noncompliance issues to the OHSO and Foreman.

7. Hazard Assessment

This HASP assumes that an ongoing hazard assessment process with Project Management and the General Contractor Safety Department will take place as needed when repair work has been identified (via meetings/teleconferences), supplemented by ad hoc communication on project safety needs, to ensure the project work is conducted at a high level of technical excellence both safely and efficiently. Where the on-going hazard assessment indicates the presence of hazards, tasks, or other activities that are not adequately covered by the HASP and supporting documentation and/or staff training levels, supplemental planning will be conducted and documented in a revised or higher level HASP document and appropriately trained personnel assigned.

7.1 Chemical Hazards

The following compounds were identified as COCs in soil at the Site:

- Debris Fill Area (LUC Area A)
  - Metals – Arsenic, barium, copper, lead and zinc
  - Polycyclic Aromatic Hydrocarbon (PAHs) – Benzo(a)pyrene, benzo(a)pyrene equivalents and dibenzo(a,h)anthracene
  - Dioxins and Furans – Expressed as tetrachlorodibenzo-p-dioxin toxic equivalent (TCDD TEQ)

- Outside Debris Fill Area (LUC Area B)
- Metals – Lead

See Figure 1 for the locations of LUC Areas A and B, areas where impacted soil remains in place and covered by a clean soil cap, hardscape or dense vegetation. See Figure 2 for details on the constructed cap section overlaying contaminated soils, note that LUC Area B has no soil cap.

7.1.1 Munitions and Explosives (MEC)

Historic training trenches dating to World War I have been identified and delineated at the Site (**Figure 1**). Additionally, a softball sized cannon ball was discovered during remedial construction activities. As such, there may be an increased likelihood of munitions and explosives (MEC), or unexploded ordnance (UXO) being present at the Site. Per the Presidio's Unexploded Ordnance Procedure, the following steps shall be taken if MEC/UXO or potential MEC/UXO is discovered during the construction activities:

1) Upon discovery of the MEC/UXO, the individual should back away at least 300 feet. **Under no circumstances should the MEC/UXO be touched or moved.**

2) Contractors should **cease work** in the affected area and **remove all personnel** from the affected area.

Contact information for the Presidio Trust listed in **Table 2**.
TRC's Program or Project Manager should contact the Presidio Trust Project Manager. The Presidio Trust Project Manager will contact the following authorities in the order shown:

- The United States Park Police (USPP) Communications Section (CommSec)
- Trust Safety and Occupational Health Manager;
- US Army; and
- Park Dispatch.

The Trust Project Manager will coordinate with the US Army, in accordance with the May 1999 Memorandum of Agreement (MOA) between the Army, Trust, and the Department of Interior (NPS). Work will be resumed only upon authorization from the Presidio Trust.

Do not proceed with work or leave the item unattended until directed by the Trust.

7.2 Key Physical Hazards

Key physical hazards are outlined below. If a Job Safety Analysis (JSA; see Section 12 and supporting appendix) has been included, this is signified below in first column.

Table 5 - Key Physical Hazards Matrix			
JSA	**APPL.**	**KEY PHYSICAL HAZARDS**	**GENERAL CONTROL MEASURE**
☐	☒	Sharp, jagged, or abrasive edges/material handling	Cut resistant gloves are required to be worn at all times while performing all tasks. A glove selection guideline is presented in Appendix B.
☐	☒	Weather	Heat and cold stress are a potential concern for on-site workers. Please refer to Appendix C for the signs, symptoms and precautions for cold and heat stress, and required breaks. Work will also occur during a time of year when thunderstorms are possible/likely. If thunder or lightning is noted by onsite personnel, work will cease until the storm passes (thunder and/or lightning ceases and is not observed over at least a 15-minute period). Personnel will seek shelter in buildings or vehicles
☐	☒	Energized Sources (electrical equipment or hookups, lines, etc.)	Personnel engaged in electrical activities, and any facility equipment with moving parts must follow proper lock-out/tag-out procedures, and only properly trained employees will perform the work. Heed any caution signs or labels.
☐	☒	Excavations	Stay clear of excavation walls. Jobsite personnel will not enter an excavation, in accordance with 29 CFR 1926 Sub Part P unless they are involved with the actual excavation work. Subcontractor must provide a competent person on site, if one is required by the planned activities. Side cuts should conform to 1926 Subpart P requirements, or shoring should be used. Excavation must be inspected daily by the competent person and not entered where water has accumulated. Excavations over 6 feet deep will require a written rescue plan detailing how a trapped or downed worker in the excavation will be safely rescued. Note: reliance on volunteer rescue team does not assure that team will be available to provide a timely rescue. All open excavations should be secured using traffic cones, barrier tape, or barricade signs stating “Do Not Enter Excavations”, especially if left open overnight. Excavated soils must be placed at least 2 feet from the excavation to avoid wall collapse. See Appendix E for an Excavation Hazard Recognition Guide for Trenching and Shoring and Site Assessment Questions to facilitate your understanding of potential hazards and other guidance.
☐	☒	Slips, Trips, Falls	Be aware of uneven ground, and buried debris (metal, plastic, etc.), to avoid potential slip/trip/fall hazards, and use caution near open excavations. Maintain good housekeeping practices to eliminate physical hazards. Use proper lifting techniques to avoid injury and obtain help when lifting greater than 50 lbs. Be aware of uneven ground to avoid potential slip/trip/fall hazards and also of buried debris (metal, plastic, etc.). Sites with unprotected edges >6’ require barricades and/or fall protection equipment. A fall protection plan will be required if there is leading edge work including excavations >6’ deep.
☐	☒	Heavy Equipment	Use caution around construction equipment and emergency response vehicles. Ensure the operator of the construction/emergency equipment is aware of the location of onsite personnel at all times to avoid potential injury to onsite workers (e.g., maintain eye contact with the equipment operator). If full visibility is not possible during movement of equipment a spotter should be used to direct the movement of heavy equipment. A swing zone should be established with cones behind any excavators to prevent injury during movement of equipment. Exercise caution and wear protective equipment as noted herein (e.g., safety toe boots, hard hat, Class 3 reflective safety vest, ear plugs, etc.) around the heavy equipment to prevent crushing and pinching hazards.
☐	☒	Underground or Overhead Utilities	Existing underground utilities are present at the project site. Prior to conducting active excavation, the Site will be visually observed for potential overhead hazards (e.g., tree branches and wires), and drilling/excavation locations will be selected that are located at safe distances from the hazard. Call USA North or Underground Service Alert – dial 811 or (800) 227-2600. Use caution when heavy equipment may come in contact with utilities. Maintain a minimum distance of 10 feet from overhead utilities at all times. Proceed cautiously and with due diligence to minimize the possibility of contacting underground or overhead utilities.

Table 5 - Key Physical Hazards Matrix			
JSA	**APPL.**	**KEY PHYSICAL HAZARDS**	**GENERAL CONTROL MEASURE**
☐	☒	Driving/Traffic Hazards	Driving to and from the Site each day is considered a physical hazard. Directions and travel time to the Site should be determined in advance (a.k.a. Journey Management Planning) and adequate time should be allocated to drive safely. The use of cellular phones while driving is prohibited, and distracted driving should be avoided. Seatbelts must be worn at all times while the vehicle is moving. Use caution around traffic flow. Ensure proper traffic control (e.g., signs, traffic cones, jersey barriers, etc., or where jurisdictionally required, police details) are in place prior to and throughout the work day where work takes place in or near traffic. Work personnel must wear ANSI-rated class 3 reflective traffic vests at all times. A site-specific traffic management plan describing procedures to be employed, including barriers, signage, and police detail, will be used for tasks taking place in areas of vehicular traffic.
Notes: APPL. – Abbreviation for "Applicable." JSA – Job Safety Analysis			

7.3 Other Common Physical Hazards Potentially Present

Other common physical hazards that might be encountered during the course of the work are outlined below. If a JSA (see Section 10 and supporting appendix) has been included, this is signified below in the first column.

	Table 6 – Other Common Physical Hazards Matrix		
JSA	**APPL.**	**PHYSICAL HAZARD**	**GENERAL CONTROL MEASURE**
☐	☒	Arcing, welding, open flame work	Personnel will clear the area when work of this kind is undertaken by the client/subcontractor unless properly trained and equipped with PPE. Welding shields or other similar barriers will be erected around the area where welding is occurring. Depending on the type of welding (e.g., galvanized metal or stainless steel), welding fumes may require mechanical ventilation and/or an upgrade in respiratory protection to control inhalation hazards.
☐	☒	Business Traffic	Be aware of traffic patterns associated with local businesses near the work site. Allow traffic to enter and exit the businesses in such a manner to avoid creating traffic hazards, back-ups, delays, or potential accident situations. Review directions before all business travel.
☐	☒	Cement (i.e., silica) Dust	Stay clear of mixing operations and avoid contact with, or breathing of the dust. Air sampling may be needed to assess whether an upgrade to respiratory protection. If workers are required to wear respiratory protection, they will need to be medically cleared and fit tested for an appropriate respirator (i.e., NIOSH N95 or P100).
☐	☒	Chain Saws/Power Saws	Stay clear of any chain saw/power saw operations. Subcontractor is responsible for the safe use of chain saws/power saws on site.
☐	☒	Cleaning Agents	Use caution of applying cleaning agent to equipment. Use chemical-resistant gloves, safety glasses, splash shields, and protective clothing as needed.
☐	☒	Client Activities	Be aware of client activities at or adjacent to the site. Work activities should be coordinated with other site activities to avoid conflicts.
☐	☒	Compressed Air or Gas Cylinders	Compressed air or gas cylinders should be clearly marked, and they should be stored, transported, and secured in accordance with Compressed Gas Association (CGA) requirements (i.e., Publication P-1 - Safe Handling of Compressed Gases in Containers).
☐	☒	Compressed Air/Gas, Pressurized Liquids Hoses, Lines & Fittings	Compressed air or gas, or pressurized liquid lines or hoses should be inspected at least daily, or in the event a leak develops, or if a line or hose is run over or crimped. Safety cables will be used to prevent pressurized hose ends from becoming a struck by hazard should they separate.

	Table 6 – Other Common Physical Hazards Matrix		
JSA	**APPL.**	**PHYSICAL HAZARD**	**GENERAL CONTROL MEASURE**
☐	☒	Concrete/Masonry/ Foundations	No construction loads shall be placed on a concrete structure or portion of a concrete structure unless a person who is qualified in structural design has determined that the structure or portion of the structure is capable of supporting the loads. All protruding reinforcing steel, onto and into which employees could fall, shall be guarded to eliminate the hazard of impalement. No employee shall be permitted to work under concrete buckets while buckets are being elevated or lowered into position. To the extent practical, elevated concrete buckets shall be routed so that no employee, or the fewest number of employees, are exposed to the hazards associated with falling concrete buckets. A limited access zone shall be established whenever a masonry wall is being constructed. All masonry walls over eight feet in height shall be adequately braced to prevent overturning and to prevent collapse unless the wall is adequately supported so that it will not overturn or collapse. The bracing shall remain in place until permanent supporting elements of the structure are in place.
☐	☒	Confined Spaces (tanks, vaults, vessels, trenches, manholes, some excavations, etc.)	The scope of this project does not entail entry into confined spaces. Confined spaces will not be entered unless a confined space entry permit or other planning has been completed, signed, and approved, and all participating personnel are trained in confined space entry procedures, including safety, and rescue procedures. Real and potential hazards of confined space are not addressed by this hazard assessment, and Health and Safety Plan.
☐	☒	Cutting Tools	Stay clear of contractors' cutting tools, especially saws and torches. Be aware that cutting operations could create other hazards, such as falling objects, or shifting materials, etc. All cutting tools must be inspected and saw blade type reviewed prior to starting work. Appropriate hand protection and safety glasses should be worn while using cutting tools. Spark-proof tools should be used when working in areas of potential explosive or flammable conditions.
☐	☒	Dim Lighting	If electrical power has been disrupted causing dim/low lighting conditions and or work is required to be performed through the evening hours. Use a suitable flashlight and/or portable lighting in low lighting areas. Do not operate heavy equipment without adequate illumination.
☐	☐	Drilling Operations	Drilling operations involve boring, augering or directionally pushing into soil or other surfaces. Various types of mechanical equipment may be used to provide the force of drilling. Drilling may be on a small scale, such as during the installation of monitoring wells, or a large scale project such as oil or gas well drilling. Drilling operations present physical and mechanical hazards as well. The equipment used in drilling can cause injury if not operated properly. Combustion engines are often used as a power source, and these also present hazards in terms of flammability, and as sources of vapors. Typical injuries that could result include eye injuries, burns, scrapes, and cuts from mechanical equipment. Chemical hazards could also be present in the water or soil resulting from drill cuttings.
☐	☒	Downed electrical wires	Downed wires can energize other objects, including fences, water pipes, bushes and trees, buildings, telephone/CATV/fiber optic cables and other electric utilities. Even manhole castings and reinforcement bars (re/bar) in pavement can become energized by downed wires. During storms, wind-blown objects such as canopies, aluminum roofs, siding, sheds, etc., can also be energized by downed wires. See Appendix D for an OSHA Fact Sheet on working safely around downed electrical wires.

	Table 6 – Other Common Physical Hazards Matrix		
JSA	**APPL.**	**PHYSICAL HAZARD**	**GENERAL CONTROL MEASURE**
☐	☒	Drums	If drums are used on-site, they should be clearly labeled with the name of the contents. Drums should only be handled with the appropriate equipment. Drums discovered during excavations, etc., shall not be opened or moved until appropriate identification can be performed. ***At a minimum, Level B protection is required for sampling any unlabeled drums discovered during remediation procedures. This HASP does not contemplate an upgrade to Level B.***
☐	☒	Dust/Particulates	For general dust, work should be performed up-wind if possible. If conditions warrant it, monitoring should be done with PM-10 monitor as described herein. For hazardous dusts, a detailed air monitoring plan and a respiratory protection plan should be developed in consultation with a Certified Industrial Hygienist (CIH) for the site activities before proceeding.
☐	☒	Ground Fault Circuit Interrupters (GFCI) and Electrical Cords	GFCIs will be used on all 120 volt, single phase, 15 and 20-ampere receptacle outlets when electrical equipment is used on-site. Electrical cords will be protected from damage, inspected for cracks, tears, or general wear to the outer protective casing. If the wiring of the cord is exposed, the cord will be repaired, if possible, or discarded. All extension cords will contain a grounding prong. If the grounding prong is missing, or if the cord was designed to contain only two prongs, the cord will not be allowed for use. These cords are dangerous and cannot be grounded through the use of a GFCI.
☐	☐	Elevated Work	For any construction work activities elevated 6 feet or more, or other non-construction activities elevated 4 feet or more, fall protection must be provided. Caution should be taken on catwalks and ladders because of potential slippery conditions, or the potential for footwear to catch on the surfaces.
☐	☒	Equipment Exhaust	Equipment exhaust should be ventilated away from the work area while using internal combustion engines inside structures. Industrial fans can be used to move exhaust out of the area.
☐	☒	Ergonomic Issues	Ergonomic hazards will be addressed on a site-specific basis once mobilization to the field has occurred.
☐	☒	Evening Work	If work is performed during the evening hours, work shall be limited by the availability and the quality of artificial lighting. Care should also be taken to avoid slip, trip, and fall hazards that are not as easy to identify during low light conditions.
☐	☐	Explosives	Be aware of potential explosive materials and how to identify them. No smoking is allowed on-site or near where potential explosive materials may be present.
☐	☒	Fall Hazard	Proper tie-off, harnesses, railings, etc. should be used when performing work on ladders, scaffolding, man-lifts, or on the roof of buildings, etc. Stay clear of the edges of pits, trenches, quarries, etc.
☐	☒	Falling Objects	Be aware of any potential falling objects or materials on site. Stay clear of any areas identified as potential falling object areas.
☐	☒	Fences	Be aware of fences in disrepair that may be trip hazards, or may have materials that could cause punctures or cuts. Use caution when crossing over or under fences.
☐	☒	Field Equipment	If field equipment is heavy or awkward to carry, get assistance or use carts to help move around the site.

	Table 6 – Other Common Physical Hazards Matrix		
JSA	**APPL.**	**PHYSICAL HAZARD**	**GENERAL CONTROL MEASURE**
☐	☒	Field Vehicle	All personnel shall follow all applicable state and federal traffic laws while traveling to and from the site, and while working on the site. In particular the following laws should be followed: speed limits, parking restrictions, use of wipers and lights during precipitation events, etc. The use of cellular phones while driving is prohibited, and distracted driving should be avoided. It is the responsibility of the driver to verify that all safety equipment on the vehicle is working properly before they drive the vehicle. In particular the following items should be checked prior to use: tire pressure, tire tread, windshield wipers, windshield washer, headlights, tail lights, brake lights, spare tire, fire extinguisher, first aid kit, etc. Be aware of tracking mud and dirt from the site onto the roads.
☐	☒	Fire Extinguisher Chemicals	To the extent practicable, minimize exposure to potentially toxic fire extinguishing chemicals. See Appendix F (Common Fire Extinguishing Agent Guide) for more information.
☐	☒	Fire Hazards	Eliminate sources of ignition in work areas that have ignitable materials. Provide an ABC fire extinguisher in close proximity to the support zone.
☐	☒	Flooded Areas	Do not drive through flooded areas or standing water. Do not wade into moving water, or water deeper than 2 feet without adequate assistance.
☐	☒	Flying Debris/ Eye Injuries	Be aware of any flying debris on site and wear protective eyewear when necessary.
☐	☒	Gas Cylinders	See above.
☐	☒	Hand Tools	Use only the appropriate tool for the task at hand. Use the tool(s) as designed, described, and intended by the manufacturer. Hand tools will meet the manufacturer's safety standards. Hand tools will not be altered in any way. Makeshift tools will not be used. At a minimum, hand and eye protection will be used when working with hand tools (see glove selection guide provided herein). Wrenches, including adjustable, pipe, end and socket wrenches, will not be used when jaws are sprung to the point that slippage occurs. Impact tools such as drift pins, wedges and chisels, will be kept free of mushroom heads. Wooden handles will be free of splinters or cracks and secured tightly to the tool. At all times use appropriate hand protection when utilizing hand tools.
☐	☒	Heavy Lifting	Use proper lifting procedures and equipment when handling heavy objects such as drums, manhole covers, tank covers, etc. If a load is greater than 50 lbs, at least two people must be used.
☐	☒	High Pressure Gas Lines, etc.	Be aware of high pressure gas lines, and follow approved safety precautions when working with or around the lines.
☐	☒	Highway Traffic	Traffic control within the right-of-way will be in accordance with local highway department protocols. Work may be restricted within specific lanes during peak traffic times. Verify peak traffic times, and review planned activities with local highway department, so that appropriate lane closures can be coordinated.
☐	☒	Housekeeping	All field vehicles, job trailers, and field offices will be properly cleaned and organized to prevent cluttered work and storage areas.
☐	☒	Ladders	Ladders should only be used if they are in good condition, conform to OSHA requirements, and if they will be used in an appropriate manner. Be especially cautious of slipping on ladders when the ladder or footwear is wet or dirty.
☐	☒	Lead	Wear gloves when in contact with lead contaminated soil, etc. Thoroughly wash hands and arms before eating and when daily work is completed.

	Table 6 – Other Common Physical Hazards Matrix		
JSA	**APPL.**	**PHYSICAL HAZARD**	**GENERAL CONTROL MEASURE**
☐	☒	Lighting	Lighting will be provided so that a sufficient amount of light will illuminate the work area. All electrical lighting will be protected with a Ground Fault Circuit Interrupter (GFCI). In areas were flammable or combustible vapors or dust are encountered, all lighting will be approved for use in Class 1, Division 1 hazardous locations.
☐	☒	Long Hours/Fatigue	Long work hours can lead to fatigue, and fatigue can lead to the physical inability to perform the work in a safe manner, or travel to, or from, a work site in a safe manner. If long work hours or off-shift work is scheduled, or if the scheduled work takes longer than planned, field staff should determine if fatigue is, or will be, an issue. Field staff should evaluate whether they are able to complete the work in a safe manner, or whether they are able to travel in a safe manner. If fatigue is an issue, appropriate breaks should be planned or taken, including overnight stays when necessary.
☐	☒	Material Handling	Move containers and heavy material only with the proper equipment, and secure them to prevent dropping, falling, or loss of control during transport. Stay clear of material handling operations, especially near slopes. Do not stand down the slope from equipment, supplies or materials being moved above on the slope, or being deployed onto the slope.
☐	☐	Material Storage	Stored material may be a falling hazard, or a crush hazard. Do not stand adjacent to materials stacked up, such as pipes, geosynthetic rolls, etc., or in the area of deployment.
☐	☐	Natural Gas	Natural gas is flammable and explosive. Keep ignition sources away from gas sources. Use spark proof tools when working with gas lines, etc.
☐	☒	Noise	Hearing protection must be worn when noise levels exceed 85 dBA in the work area. If you need to raise your voice to be heard at the work site, then hearing protection should be worn.
☐	☒	Overhead Hazards	Pay attention to overhead equipment, piping, and structures. A hard hat must be worn at all times when overhead hazards are present on site.
☐	☒	Overhead Wires	If contact is possible (i.e., equipment, drill rig, excavator, etc.) one or more of the following will be done: ✧ Power sources will be disconnected by the utility. ✧ Power sources will be shielded by the utility. ✧ For overhead power lines of <50,000 volts, object will get no closer than 10 feet to prevent arcing, unless site specific conditions or weather conditions warrant greater separation per best professional judgment, or as directed by utility representatives. ✧ Evaluate the need for shielding and coordinate with local utility representatives.
☐	☒	Pedestrian Traffic (public, client, workers)	Be aware of pedestrian traffic patterns and, route traffic around the exclusion zone(s), as necessary, to avoid distractions and the potential for exposures or accidents. Use appropriate barricades and caution tape to mark work areas.

	Table 6 – Other Common Physical Hazards Matrix		
JSA	**APPL.**	**PHYSICAL HAZARD**	**GENERAL CONTROL MEASURE**
☐	☒	Power Tools	All power tools will be inspected regularly (at least on a daily basis) and used in accordance with the manufacturer's instructions and its capabilities. Electrical tools will not be used in flammable areas, unless they are approved for that purpose. Portable electric tools will be used only with a GFCI. Proper hand, eye and hearing protection will be used when working with power tools and all appropriate safety guards must be in place. Personnel will be trained in the proper use of the specific tool. Any defective power tools will be immediately tagged and removed from service. Tools will be stored properly after use.
☐	☒	Power Washing Equipment	Stay clear of the power washing nozzles and equipment.
☐	☐	Propane Tanks	Be aware of propane tank locations, and any gas lines leading to or from the tanks.
☐	☐	Rock Blasting	Contractor is responsible for following safe blasting protocol. Heed all contractor warnings at time of blasting and stay well clear until safe to return to area, as indicated by the contractor.
☐	☒	Sample Preservative Chemicals	Wear safety glasses, cut resistant, and nitrile gloves or equivalent when adding preservative chemicals to sample bottles or vials. Have clean wash water nearby.
☐	☒	Slippery Ground/Surfaces	Exercise caution, especially on slopes, field trailer floors and stairs, after a precipitation event. Use slip resistant boots, or implement surface preparations to eliminate the slippery nature of the surface prior to accessing the area. Spill control measures and general housekeeping should be utilized to help prevent slipping on wet floors, wet pavement, and general work areas.
☐	☒	Steam Cleaning Equipment	Stay clear of the steam cleaning nozzles and equipment. All personnel performing this task must wear a face shield.
☐	☐	Steel Erection	All materials, equipment, and tools, which are not in use while aloft, shall be secured against accidental displacement. The controlling contractor shall bar other construction processes below steel erection unless overhead protection for the employees below is provided. Employees engaged in steel erection activities on a walking/working surfaces with an unprotected side or edge more than 15 feet above a lower level shall be protected from fall hazards by guardrail systems, safety net systems, personal fall arrest systems, positioning device systems or fall restraint systems.
☐	☒	Steep Slopes or Banks	Pay attention to footing and walking. Stay a safe distance from unstable or extremely steep slopes. Wear appropriate footwear. Be aware of potential slope or bank failures. Heavy equipment should not be operated on or near unstable slopes or banks.
☐	☒	Strong Nuisance Odors	Strong odors should be ventilated before entering a work area, or a respirator shall be worn as needed. Identify the source of the odors and determine offsite impact.
☐	☒	Sunburn	For extended periods of time outdoors on sunny days, sunglasses, long-sleeved shirts and long pants should be worn to help prevent sunburn and eye problems. Wear sunscreen as appropriate for the project. See Heat Stress below.
☐	☒	Surface Water	Working next to or on, bodies of water shall be done using the buddy system. Staff shall wear USCG-approved personal floatation devices when on or adjacent to bodies of water.

	Table 6 – Other Common Physical Hazards Matrix		
JSA	**APPL.**	**PHYSICAL HAZARD**	**GENERAL CONTROL MEASURE**
☐	☒	Terrain	Uneven or steep terrain can cause hazardous conditions for walking and transporting equipment around the site. Site personnel should use caution when working on uneven surfaces, and they should avoid working down-slope from heavy equipment, or materials being moved or stored.
☐	☒	Traffic (client, contractors, public, semi-trucks, forklifts, etc.)	Obey all posted speed limits. Park in designated areas only. Be aware of traffic patterns on site, and during access to the site. Use orange traffic cones and barrier warning tape, as needed, or if within 25 feet of the right-of-way. All personnel working construction on the site must wear safety vests when working in or near traffic areas. For work in public roadways/highways, coordination with local officials and prepare a traffic safety plan.
☐	☐	Transporting Hazardous Materials	Personnel who transport hazardous materials shall have the required DOT and/or IATA training prior to transporting materials, and will comply with all applicable DOT regulations and requirements and IATA guidance for labeling, packaging, etc. See also the Required Personnel Training section of this HASP to review/specify if DOT/IATA training is required for this project.
☒	☒	Trenching	Personnel will not enter trenches not in accordance with 1926 Sub Part P. Be aware that some trenching conditions may result in a confined space condition. See Appendix E (Excavation Hazard Recognition Guide [Trenching/Shoring], Site Assessment Questions, and Related Guidance) for additional guidance.
☐	☒	Trip Hazards (wires, cords, hoses, debris, corn stubble, uneven surfaces, etc.)	Temporary wires, cords, hoses, etc., should be properly located, marked, and protected to help prevent tripping and disruption to work activities. Trip hazards are particularly a problem early in the morning, late in the day, or under other poor lighting conditions.
☒	☐	Under Ground Storage Tanks (USTs) (Septic Tanks)	If any unknown UST's are encountered, drilling or excavations will be terminated in that location until a new scope of work, Risk Assessment and Health & Safety Plan can be developed.
☐	☒	Uneven Surfaces	Be aware of uneven walking or driving surfaces and exercise caution when moving around the site.
☐	☒	Welding Tools	Stay clear of welding operations, and do not look directly at the welding process without appropriate eyewear and shield.
Notes: APPL. – Abbreviation for "Applicable." N/A – Not applicable JSA – Job Safety Analysis			

7.4 Biological Hazards

	Table 7- Common Biological Hazards Matrix		
JSA	**APPL.**	**BIOLOGICAL HAZARD**	**GENERAL CONTROL MEASURE**
☐	☐	Animals (dogs, etc.)	Be aware of any animals on site or adjacent to the site. Appropriate care should be taken if any feral (wild) animals are encountered. Dogs often are not leashed and may be unfriendly. Bites from dogs and wild animals can cause infections or transmit disease. In general, it is best to not approach dogs even if they appear to be friendly, and wild animals should never be approached. If bitten, the area should be washed with soap and water. If the bite resulted in puncturing or tearing of the skin, the wound should be covered with a sterile dressing and medical attention should be sought immediately. A description of the dog should be noted and if possible, the dog's owner.
☐	☒	Blood-Borne Pathogens	Injuries received in the field may require assistance from a field team member to perform first aid. Contact with blood and certain body fluids can contain pathogens that may be transmitted by contact with an open wound by the caregiver. The following precautions should be used when giving first aid: ✧ Use nitrile gloves to avoid contact with blood/fluids. Spent bandages and gloves used to perform first aid should be placed in a plastic bag and properly disposed. ✧ Blood/fluid should be cleaned from surfaces that may be contacted by other individuals. ✧ Use an appropriate barrier if required to perform rescue breathing.
☐	☐	Briars or Thistles	Be aware of any briars or thistles on site. Wear appropriate clothing and gloves. Avoid contact with briars or thistles whenever possible.
☐	☒	Heat Stress	The work schedule may be modified if the ambient temperature is more than 85° F. Take breaks as necessary, and drink plenty of fluids. If necessary, wear sunscreen and sunglasses on bright days. Monitor site personnel for signs of heat stress symptoms (heat rash, heat cramps, heat exhaustion, or heat stroke). See Appendix D for more information.
☐	☒	Insects (ticks, bees, spiders, etc.)	Site workers with known allergies to insect bites should carry their own medication. In case of emergencies, inform fellow workers of any severe allergies. Use insect repellant as necessary, and as specifically allowed on site. If possible, wear long-sleeved shirts and pants. If appropriate, check for ticks at the end of each day. Have other appropriate first aid supplies handy for bites. **Ticks -** Avoid wooded and bushy areas with high grass and lots of leaf litter. If you do go into areas like this, try to stay in the center of a cleared trail to avoid contact with overgrown grass, brush, and leaf litter. Use effective tick repellants and apply according to the label instructions. For more information on repellants see the EPA Insect Repellants: Use and Effectiveness site. Wear long sleeves, long pants, and long socks to keep ticks on the outside of clothing. Light clothing will help spot ticks. Tuck shirts into pants and pants into shoes or socks to keep ticks on the outside of clothing. If outside for an extended period of time then tape pant legs where pants and socks meet so that ticks cannot crawl under clothes. Perform daily tick checks after being outdoors in areas where ticks are present, even in one's own yard. Remove ticks from clothing, gear, and pets before going inside. Inspect all parts of the body carefully, especially the armpits, scalp, and groin. Shower or bathe as soon as possible to wash off any ticks that still remain on you. Tumble clothes in a dryer on high heat for an hour to kill remaining ticks. Attached ticks should be immediately removed with fine-tipped tweezers. To remove an attached tick, grasp it with narrow-bladed tweezers or forceps as close as possible to attachment (skin) site, and pull upward and out with a firm and

	Table 7- Common Biological Hazards Matrix		
JSA	**APPL.**	**BIOLOGICAL HAZARD**	**GENERAL CONTROL MEASURE**
			steady tension. If tweezers are not available, use fingers shielded with tissue paper or rubber gloves. Do not handle with bare hands. Be careful not to squeeze, crush or puncture the body of the tick which may contain infectious fluids. After tick removal, thoroughly disinfect the bite site and wash hands. Seek medical attention if there is a concern about incomplete tick removal. It is important that a tick be properly removed as soon as it is discovered. Seek medical attention if you develop a rash or fever within several weeks of removing a tick. **Mosquitos -** Reduce the risk of being bitten by mosquitoes. Minimize time spent outdoors around dusk and dawn when mosquitoes are most active. Wear shoes, socks, long pants, and a long-sleeved shirt when outdoors for long periods of time, or when mosquitoes are most active. Clothing should be light colored and made of tightly woven materials that keep mosquitoes away from the skin. Consider the use of an EPA-registered insect repellent. Follow the directions on the package. Be sure to use insect repellent and wear long sleeves and pants at these times or consider staying indoors during these hours. **Spiders -** Spiders typically seek cover in dark protected areas. Common areas where spiders may be encountered are heavy vegetation and trees or infrequently used buildings and structures. Spiders also are found in basements and enclosed spaces where sampling may be performed. Spider bites may cause swelling, pain and respiratory problems. Avoid dense vegetation, and use caution when sampling in dark or poorly illuminated locations. If bitten, wash the area and use ice on the bite area to reduce swelling. If respiratory stress, significant pain or swelling is noted, or discoloration around the bite area occurs, seek immediate medical attention. **Stinging Insects -** Like spiders, wasps and yellow jackets often nest in dense vegetation and in the ground, in long-standing protective casings on monitoring wells and shielded gate locks, or in infrequently used buildings and structures. An insect sting can cause pain, swelling, and respiratory problems that may be life-threatening to certain individuals. If stung, remove stinger if present using tweezers or similar, and wash the area and use ice on the sting area to reduce swelling. If respiratory stress, significant pain or swelling is noted, or discoloration around the sting area occurs, seek immediate medical attention.
☐	☐	Poisonous Plants	Be able to identify any local poisonous plants and avoid them if possible, or wear protective clothing as necessary. When removing potentially exposed clothing or PPE, the clothing or PPE should be carefully and thoroughly washed or decontaminated.
☐	☐	Snakes	Be aware of the potential for snakes in the area and wear snake boots, snake chaps, gaiters, or leggings as needed.
Notes: APPL. – Abbreviation for "Applicable." JSA – Job Safety Analysis			

7.5 Radiological Hazards

No radiological hazards are expected onsite. If any new condition is encountered during this activity, the HASP will be adjusted accordingly.

Table 8 - Radiological Hazards Matrix

JSA	APPL.	PHYSICAL HAZARD	GENERAL CONTROL MEASURE
☐	☐	Radiation (ionizing)	Exposure to ionizing radiation can be controlled by one of three methods. Time, distance, or shielding. Limit your time near the radioactive source. Keep your distance from the radioactive source. Shield yourself from the radioactive source with appropriate shielding material. Update contact information for TRC subject matter expertise and regulatory authorities.
☐	☐	X-Ray Fluorescence Instruments (a.k.a., XRF Guns)	XRF units for field metals analysis are only to be used by trained employees with radiation safety training. Licensing requirements can vary by state. Coordinate with a CIH before utilizing in the field to set up dosimetry protocols and instrument specific safety procedures.

Notes:
APPL. – Abbreviation for "Applicable."
XRF – X-ray fluorescence
JSA – Job Safety Analysis

8. Air Monitoring

8.1 Air Monitoring Equipment and Use Recommendations

The following table outlines potential project air monitoring equipment requirements and rationale. Note that an upgrade to a higher level of respiratory protection (Level C or higher) will warrant revision or addendum to this HASP and consultation with a Certified Industrial Hygienist (CIH) before work recommences.

Table 9 - Air Monitoring Equipment Use Recommendations

Instrument	Use Code	Action Levels	Notes/Rationale
PID	O	5 ppmv*	Recommended for VOC screening to monitor airborne VOC concentrations in breathing zone levels. If PID readings are sustained above 5 ppmv in the breathing zone for at least 5 minutes, move to an upwind location for 15 minutes. After 15 minutes, measure again. If PID readings are still above 5 ppmv in the breathing zone, contact the OSHO to evaluate suitable response actions. Withdraw from area if PID readings exceed 50 ppmv. Any upgrade in respiratory protection will be coordinated with the health and safety department and/or the OSHO and reviewed by a CIH.
TSI DustTrak™ (or equivalent)	O	> 150 µg/m^3; 15 minute average**	Use where contaminants could adhere to fugitive dust, and where fugitive dust migration could potentially serve as a significant exposure pathway. Perform air monitoring initially and every hour when working with impacted soils. Half-faced APR for particulates to be used intermittently/temporarily where dust control measures cannot maintain dust levels below action level. Use is optional for dust levels below the action level. Use of a half-face APR for dust does not require CIH approval where dust action level excursions are limited in duration and where dust control measures will be implemented until below the action level. However, personnel must be trained, medically certified and fit tested for half-face APR use.
O_2 ***	C	> 19.5% or < 23.5%	Recommended safe level for excavation/confined space work.
H_2S ***	C	1 ppm	Recommended for excavation and confined space entry, sewer gases, anaerobic degradation sites.
CO ***	C	25 ppm	½ of the PEL (PEL = 50 ppm)
LEL ***	C	10% LEL	Recommended safe level to prevent explosive conditions.
DustTrak, MINIRAM (or equivalent)	O		Supplement operation of DustTrak™ stations for work near sensitive receptors.
Radiation meters	N/A		Not known or anticipated to be a Contaminant of

Table 9 - Air Monitoring Equipment Use Recommendations			
Instrument	**Use Code**	**Action Levels**	**Notes/Rationale**
			Concern.
Other _____			Coordinate all additional instrumentation with the OHSO.

Notes:
* Site/project specific action levels for VOCs may be established in consultation with the Presidio Trust Project Manager or OHSO..
** Above background upwind levels
*** These will be measured using an intrinsically safe four-gas meter.
PID – Photoionization detector LEL – Lower Explosive Limit O_2 – Oxygen
H_2S – Hydrogen Sulfide CO – Carbon Monoxide ppm – Parts per Million
CGI – Combustible Gas Indicator VOC – Volatile organic compound

Use codes: R – Required, C – Condition specific, O – Optional, N/A – Not applicable

8.2 Air Monitoring Procedures

If conditions warrant, the OHSO and/or the Presidio Trust Project Manager can implement dust or organic vapor monitoring using either (or both) a TSI Dustrak™ (or equivalent) and a PID during excavations. When required, air monitoring will be performed using a combination of real-time dust monitoring upwind and downwind of the work area, worker breathing zone and at a point near the closest downwind towards occupied space.

8.3 Exposure Limits for Potential Airborne Contaminants

The following table summarizes anticipated concentrations and accepted exposure limits of chemicals potentially present within the project site.

Table 10 - Summary of Exposure Limits – Known/Suspected Potential Airborne Contaminants								
Contaminant	ACGIH TLV-TWA	NIOSH REL	OSHA PEL	STEL	IDLH	Routes of Exposure	Known/ Suspected Carcinogen	Symptoms
Benzo(a) pyrene (Coal tar pitch volatiles)	0.2 mg/m^3	1.0 mg/m^3	0.2 mg/m^3	n/a	80 mg/m^3	Inhalation, skin and/or eye contact	Yes	Dermatitis, bronchitis, potential carcinogen
Arsenic (inorganic compounds)	0.01 mg/m^3	0.002 mg/m^3 [15-minute]	0.01 mg/m^3	n/a	5 mg/m^3	Inhalation, skin absorption, skin and/or eye contact, ingestion	Yes	Ulceration of nasal septum, dermatitis, gastrointestinal disturbances, peripheral neuropathy, respiratory irritation, hyperpigmentation of skin, potential carcinogen

Table 10 - Summary of Exposure Limits – Known/Suspected Potential Airborne Contaminants

Contaminant	ACGIH TLV-TWA	NIOSH REL	OSHA PEL	STEL	IDLH	Routes of Exposure	Known/ Suspected Carcinogen	Symptoms
Barium	0.5 mg/m^3	0.5 mg/m^3	0.5 mg/m^3	n/a	50 mg/m^3	Inhalation, ingestion, skin and/or eye contact	No	Irritation eyes, skin, upper respiratory system; skin burns; gastroenteritis; muscle spasm; slow pulse, extrasystoles; hypokalemia
Copper	1 mg/m^3	1 mg/m^3	1 mg/m^3	n/a	100 mg/m^3	Inhalation, ingestion, skin and/or eye contact	No	Irritation eyes, nose, pharynx; nasal septum perforation; metallic taste; dermatitis
Lead	0.05 mg/m3	0.050 mg/m^3 (8-hour)	0.05 mg/m^3	n/a	100 mg/m^3	Inhalation, ingestion, skin and/or eye contact	No	Lassitude (weakness, exhaustion), insomnia; facial pallor; anorexia, weight loss, malnutrition; constipation, abdominal pain, colic; anemia; gingival lead line; tremor; paralysis wrist, ankles; encephalopathy; kidney disease; irritation eyes; hypertension
Dioxin (2,3,7,8-Tetrachloro-dibenzo-p-dioxin)	n/a	n/a	none	n/a	100 mg/m^3	Inhalation, skin absorption, ingestion, skin and/or eye contact	Yes	Irritation eyes; allergic dermatitis, chloracne; porphyria; gastrointestinal disturbance; possible reproductive, teratogenic effects; in animals: liver, kidney damage; hemorrhage; potential carcinogen
Naturally Occurring Asbestos (NOA) (serpentinite bedrock)	0.1 $fiber/cm^3$	0.1 $fiber/cm^3$	0.1 fiber/ cm3 TWA 1.0 fiber/ cm3	1 $fiber/cm^3$	n/a	Inhalation, ingestion, skin and/or eye contact	Yes	NOA (chronic exposure): dyspnea (breathing difficulty), interstitial fibrosis, restricted pulmonary function, finger

Table 10 - Summary of Exposure Limits – Known/Suspected Potential Airborne Contaminants

Contaminant	ACGIH TLV-TWA	NIOSH REL	OSHA PEL	STEL	IDLH	Routes of Exposure	Known/ Suspected Carcinogen	Symptoms
			Excursion Limit (30 mins)					clubbing; irritation eyes; potential carcinogen

Source: NIOSH Pocket Guide to Chemical Hazards

Table 11 - Preservatives and Decontamination Products

Chemical of Concern	On-Site Usage and Potential Exposures	Control Method/Other Notes
Hydrochloric Acid (HCl)	Less than 20 ml quantities used for sample preservation. Air phase exposure is expected to be minimal and incidental to sample containerization.	5 ppm (OSHA PEL)
Nitric Acid (HNO_3)	Less than 20 ml quantities used for sample preservation. Air phase exposure is expected to be minimal and incidental to sample containerization.	5 mg/m^3 (OSHA PEL)
Isobutylene	100 ppm gas for use during calibration of PID instruments	No specific exposure limits for isobutylene (simple asphyxiant). Maintain oxygen levels above 19.5%. Before attaching regulator to cylinder, verify that the regulator is off. Before opening regulator, make sure that tubing connecting regulator to monitoring device/tedlar bag is secure. To use a tedlar bag, put bag control valve in an open position and close after filling. Before disconnecting gas from the instrument and/or tedlar bag, verify the regulator is closed. Empty bag of contents after calibration in a downwind position and/or to avoid inadvertent inhalation.

Notes:

ppm – parts per million
ml – milliliters
ug/m3 – micrograms per cubic meter

Table 11 - Preservatives and Decontamination Products		
Chemical of Concern	**On-Site Usage and Potential Exposures**	**Control Method/Other Notes**
OSHA – Occupational Safety and Health Administration PEL – Permissible Exposure Limit		

9. Personal Protective Equipment (Non-Respiratory)

Personnel working on the site will use Level D PPE as noted/modified below. Disposable Tyvek® coveralls and double gloves (nitrile inner gloves with cut resistant outer gloves) may be needed where the OHSO determines it is necessary.

Table 12 - Level D Personal Protective Equipment	
Item	**Rationale/Notes**
Hardhat	Appropriately rated hard hats will be worn by personnel for protection against overhead hazards, including electrical.
Hearing protection	Hearing protection will be worn by all personnel exposed to at least 85 dB of sound during the workday.
Safety boots (steel toe/steel shank)	Steel-toe safety boots will be worn by all personnel during project work described in this HASP and at all times on site.
Eye protection (safety glasses)	Eye protection will be worn when personnel are exposed to flying debris, chemical vapors or particulates. Chemical splash goggles will be worn for protection against chemical gases, vapors, liquids or particulates. Safety glasses will be worn for protection against flying objects.
Safety vest	Utilize in areas in or near vehicular traffic of any kind on or off property.
Chemical Protective Clothing (CPC) and Gloves	CPC and gloves will be inspected regularly. CPC will be chosen with assistance from the OHSO according to the chemical hazards present. When working in contaminated soil including LUC Area A below the protective Cap and LUC Area B, Nitrile gloves shall be worn for the duration of the work. Nitrile gloves to be changed between samples or work activities to avoid cross-contamination. Disposable Tyvek® or similar coveralls and booties will be used if necessary, as determined by the OHSO. Typically, in excavation work where suspected skin contact with contaminated soils is expected.
Cut resistant work gloves	As indicated herein, use cut and abrasion resistant gloves when necessary for hand protection during field tasks. See Appendix C for a Glove Selection Guide. ***Leather work gloves are expressly prohibited as a means of cut protection.***

Fire extinguisher must be available on the excavation equipment. All personnel working on or around the equipment rig should know the location of and how to operate the fire extinguisher.

10. Personal Protective Equipment (Respiratory)

10.1 Evaluating the Need for a Respiratory Protection Upgrade

The project's overall health and safety goal is to avoid using respiratory protection unless it is absolutely necessary or required. Administrative controls or engineering controls should always be considered as a means to reduce potential exposures before PPE is required or considered consistent with the hierarchy of control philosophy (elimination/substitution > engineering controls > administrative controls > personal protective equipment).

For operations that require the use of a respirator, the Project Manager (and Contractor equivalent) must verify that Field Personnel are medically approved to use respiratory equipment, fit tested, and trained in the proper use of respirators. Only respirators that are NIOSH/MSHA[1] approved are to be used.

Air monitoring for airborne dusts or chemicals may be required to verify the presence or absence of a hazardous atmosphere (see Section 8.). Conduct air monitoring whenever a situation or condition arises that could reasonably result in a hazardous atmosphere.

Any worker wearing a respiratory protective device in a potentially or known hazardous atmosphere must demonstrate a proper fit test with that device. Fit test records for all personnel using respirators should be maintained by the General Contractor. The proper fitting of respiratory protective devices requires the use of a fit test. The fit test is needed to determine a proper match between the face piece of the respirator and the face of the user. Fit testing will be conducted after medical approval has been obtained. Qualitative fit-tests involve the use of a test atmosphere that employees can sense. If they are not responsive to the test material then other test methods must be deployed. Quantitative fit-tests provide a respirator specific protection factor.

10.2 Air-Purifying Particulate Respirators

Field work involving construction and earthmoving operations that result in nuisance dust and particulates may use air-purifying respirators. Particulate respirators can be used in situations where nuisance dust and particulates are the only contaminants posing an inhalation hazard. Particulate respirators are not to be used in oxygen deficient atmosphere or if hazardous levels of gas/vapor contaminants are also present.

High efficiency particulate air (HEPA) N95 or P100 respirators should be used in place of commercially available "dust masks", which should not be used. Magenta is the color code for HEPA cartridges for dust control/exposure. Select other cartridges based on the type of other airborne contaminants. A CIH should be consulted prior to performing work in a potentially hazardous atmosphere to make sure contaminant levels will be within the fit factor range of the respirator to avoid over exposure.

10.3 Air-Purifying Gas/Vapor Respirators

Employees and Contractors are required to wear half-face, air-purifying respirators with the appropriate chemical cartridge under the following circumstances:

- When concentration of a known contaminant continuously exceeds permissible exposure limit (PEL) time-weighted average or the threshold limit value (TLV) time-weighted average.

1 NIOSH – National Institute for Occupational Safety and Health; MSHA – Mine Safety and Health Administration

- When volatile organic compound (VOC) vapors in the work area continuously exceed the threshold limit value-time-weighted average (TLV-TWA).
- When, at any time, VOC vapors in the work area exceed the threshold limit value - short-term exposure limit (TLV-STEL).

See Table 10 for site-specific or additional information on regulatory exposure limits for chemicals/exposures of concern at this site.

Air purifying respirators (APRs) with chemical cartridges can be used under the following conditions:

- If the oxygen concentration is between 19.5-percent and 23.5-percent.
- If chemical contaminants have been identified, the toxic concentrations are known and the respirator cartridges are effective in removing the contaminants.
- The respirator and cartridges are NIOSH/MSHA approved.
- The contaminants have noticeable warning qualities such as odor and visibility characteristics including color.

In the event workers are required to wear APRs with chemical cartridges, the following requirements must be met:

- The Project Manager or Contractor's SSO must verify that workers are:
  - ✧ Medically approved (within one year) to use respiratory protection,
  - ✧ Fit-tested for the specific respirator to be used, and
  - ✧ Trained in the proper care, use and limitations of the respirator to be used.
- Contractors must provide proof of the above to the Project Manager, upon request.
- If an employee or contractor has not cleared by the Project Manager to use a respirator, they will not be assigned tasks that may potentially expose them to contaminants.
- Personnel with interfering facial hair are not permitted to wear respirators and shall not be permitted in areas where respiratory protection is required.
- Respirators must be sized to the employee
- Qualitative fit tests conducted by trained employees

Note that the protection factor (PF) on a ½ face APR is 10. If air concentrations/ levels are more than 10-times the PEL/TLV, the upgrade would require a full face APR (which has a PF of 50). All APR selections for a project are subject to CIH review.

10.4 Supplied Air Respirators

Supplied-air respirators, such as a Self-Contained Breathing Apparatus (SCBA) or airline-equipped full-face respiratory protection, are not anticipated to be required at the site. This level of respiratory protection is utilized in oxygen deficient atmospheres or atmospheres considered to be at or above immediately dangerous to life and health (IDLH) levels. These conditions will only occur in rare, if any, circumstances such as confined space entry or emergency situations. The use of air-supplied respiratory protection is not permitted without approval and guidance from the OSHO and CIH.

11. Site Control/Work Zones (Optional)

In the unlikely event that Work Zones (i.e., clean area, decontamination area, work area) are established, these areas will be demarcated, as appropriate. Access to the work area, , will be limited to authorized personnel only.

Table 13 - Site Control/Work Zones Matrix		
APPL.	**CONTROL ELEMENT**	**SPECIFY/DESCRIBE [1]**
☒	**Site Specific Controls**	N/A
☐	Facility Alarms or Signals	N/A
☐	Work Permitting	N/A
☐	Work Area Traffic	N/A
☐	Parking Issues/Restrictions	N/A
☐	Railway Traffic/Activity	N/A
☐	Other	N/A
☒	**Support Facilities/Zones**	Noted below.
☒	Field vehicle	Fleet Vehicle Number _____, Registration Number_____
☐	On-site office trailer	
☐	Other	
☒	**Contaminant Reduction Zone**	Noted below.
☐	Field vehicle	
☐	Facility restroom/utility room	
☒	Other	Secure, fenced substation property
☒	**Exclusion Zone(s)**	Noted below.
☒	Immediate vicinity of work area	Delineate per OHSO.
☐	Other	
☒	**Site Entry Procedures**	Noted below.
☒	Notify Site OSHO	Contact information in Section 1.
☒	Read/sign HASP	Note tailgate briefing below.
☒	Check in with facility contact	Contact information in Section 1.
☐	Check in with security guard	
☒	Wear PPE called for in HASP	See Sections 7, 8 and 9.

Table 13 - Site Control/Work Zones Matrix		
APPL.	**CONTROL ELEMENT**	**SPECIFY/DESCRIBE [1]**
☒	**On-Site Orientation**	Noted below.
☐	Attend facility orientation / tail gate safety meeting	No formal facility orientation anticipated. Follow HASP defined tailgate briefing checklist and documentation procedure noted below.
☒	Daily tailgate safety briefing	Document briefing per HASP/checklist (see Section 14).
☐	**Other** (specify)	
☐	**Other** (specify)	

Notes:
1- Where applicable, summarize or reference relevant plan, procedure, etc.
APPL. – Abbreviation for "Applicable."
HASP – health and safety plan
N/A – Not applicable
OSHO – On-Site Safety and Health Officer
PPE – Personal Protective Equipment

11.1 Decontamination

The objective of decontamination is to prevent tracking soil offsite. All reusable equipment, tools and equipment must be cleaned if contaminated before leaving the site. As stated in Table 6, be aware of tracking uncontaminated mud and dirt offsite onto adjoining roadways as this may be considered a nuisance by local residents.

11.1.1 Personal PPE

In the event that work zones are established to minimize track out of soil during excavation activities, personnel working in the exclusion zone will enter and exit this area through designated routes. They will don disposable Tyvek® booties and coveralls, including protective gloves prior to entering such and an area. Workers exiting an exclusion zone will doff their disposable PPE in designated drums for disposal.

11.1.2 Equipment and Vehicles

A designated cleaning area should be established to assure any hand or power tools and heavy equipment that will be used in an area that is known to be contaminated. Such equipment will be visibly cleaned to remove all residual soil that has come from work in the exclusion zone. Once cleaned, it will be visually inspected and allowed to drip dry prior to being released offsite. Any residues or water collected from cleaning operations will be characterized per the site's waste management procedures.

12. Job Safety Analyses

A Job Safety Analysis (JSA) is a safety management tool in which the risks or hazards of a specific job in the workplace are identified, and then measures to eliminate or control those hazards are determined and implemented. More specifically, a job safety analysis is a process of systematically evaluating certain jobs, tasks, processes or procedures and eliminating or reducing the risks or hazards to as low as reasonably practical (ALARP) in order to protect workers from injury or illness. The JSA process is documented and the JSA

document is used in the workplace or at the job site to guide workers in safe job performance. The JSA document is also a living document that is adjusted as conditions warrant.

The JSA process begins with identification of the potential hazards or risks associated with a particular job. Once the hazards are understood, the consequences of those hazards are then identified, followed by control measures to eliminate or mitigate the hazards.

Please refer to Appendix G for a Job Safety Analysis template.

13. Required Personnel Training

Field personnel will have the training outlined below before on-site work activities:

Table 14 - Project Training Requirements

Check "A" if training required for everyone, and check "T" if training required for specific task or per notations.

A	T	SUBJECT	REFERENCE	
			29 CFR 1910	29 CFR 1926 or Other
☐	☒	HAZWOPER 40 hour [1]	1910.120	1926.65
☐	☒	3-Day HAZWOPER [2]	1910.120	1926.65
☐	☒	8-Hour HAZWOPER Refresher [1]	1910.120	1926.65
☐	☒	8-Hour Supervisor HAZWOPER [1]	1910.120	1926.65
☐	☒	First Aid, CPR[,3]	1910.151	1926.23,.50
☒	☐	Hazard Communication (HAZCOM)	1910.1200	1926.59
☐	☐	DOT / IATA Shipping Training	1910.1201	49 CFR 172.704
☐	☒	Respiratory Protection Training	1910.134	ANSI/CGA G-7.1-1989
☐	☒	Excavation Safety		1926.651
☒	☐	Hand Protection Policy	1910.138	--
☒	☐	Lead awareness training		
Client-specific training: ☐ Not Applicable ☐ Specify				
Client-specific training: ☐ Not Applicable ☐ Specify				
Client-specific training: ☐ Not Applicable ☐ Specify				

Notes:

[1] This level of training will only be required for all workers involved in activities that are within LUC Area A, penetrate the cap, and disturb more than 50CY of soil. This level of training will also be required for supervisors overseeing workers performing activities in LUC Area B.

[2] This level of training will only be required for activities that are within LUC Area A, penetrate the cap, and disturb less than 50CY of soil.

[3] Contractor will have at least one certified CPR/first aid trained person on site at all times. All Project Managers and anyone acting as the on-OSHO must be current in First Aid/CPR.

14. Medical Monitoring

Medical monitoring will apply routinely to all employees who are or may be exposed to hazardous substances or health hazards at or above the established permissible exposure limit, above the published exposure levels for these substances, without regard to the use of respirators, for 30 days or more a year (29 CFR 1910.120[f][2][i]). Field personnel will have the medical surveillance outlined in the table below prior to commencing on-site work activities.

Table 15 - Medical Surveillance Required

*Baseline is minimum recommended.

	29 CFR 1910	29 CFR 1926 or Other	Notes
☒ HAZWOPER Physical - Baseline*	1910.120	1926.65	
☒ HAZWOPER Physical – Annual	1910.120	1926.65	
☒ HAZWOPER Physical - Biennial*	1910.120	1926.65	
☒ Medical clearance for respirator use	1910.134	N/A	
Client-specific drug testing[1]	☐ Not Applicable ☐ Specify		
Client-specific medical monitoring[1]	☐ Not Applicable ☐ Specify		
Site-specific medical monitoring:	☐ Not Applicable ☐ Specify		

Note:
N/A – Not applicable.
[1] Client required drug testing or medical monitoring should be coordinated through the Project Manager and OSHO.

15. Tailgate Safety Meetings

A tailgate safety meeting will be conducted daily prior to commencement of the work day (see checklist provided in Appendix H) or if site conditions change.

Topics covered by the tailgate safety meeting will include, but not be limited to:

- Scope of work and who will conduct each task
- Potential hazards for the scope of work
- Weather forecast
- PPE
- Emergency procedures and the route to the medical facility
- Site conditions and features
- Communication guidelines related to stakeholder engagement and visitors

Safety meetings will be held to address modifications to this HASP and any addenda prepared to supplement the HASP. Subcontractors and personnel present at the tailgate safety meeting shall be required to sign an acknowledgement form after each meeting.

16. Emergency/Contingency Plan

Before commencing any on-site operations, the OSHO will advise all personnel of potential emergencies. Personnel will be advised on their roles in the event of an emergency, and the steps to take for a timely and controlled response.

Communication networks/chain of command - All on-site personnel will communicate any accident, injury or near miss to the OHSO who will provide instruction on how to proceed further.

First Aid / Safety Equipment - First aid equipment should be periodically inspected and readily available in the event of an emergency. First aid equipment should include a well-stocked first aid kit, fire extinguisher and emergency eye wash.

Evacuation Plans and Refuge Area - All personnel should safely remove themselves from danger in the event of an emergency and safely access the refuge area. The refuge area should be in an upwind location a safe distance from the work zone. The refuge area will be determined during the daily safety briefing.

Notifications of Fire, Police and Emergency Facilities - In the event of an emergency that cannot be controlled by on-site personnel, the appropriate emergency contact shall be notified. All personnel shall remove themselves from the area of danger and wait for the arrival of help in the predetermined refuge area. The following is a list of local emergency contacts:

16.1 Non-Emergency Medical Assistance

If an injury does occur and it is not life threatening, then the employee or employee's supervisor/project manager should contact the client's/contractor's designated occupational medical service as soon as possible, but within the first hour after an injury. This information will help assist the injured employee by connecting them with instant access to a medically qualified professional in order to provide guidance on appropriate first aid measures and medications.

Table 16 - Non-Emergency Telephone Number

Service	Telephone Numbers	Notes

17. Observations

Performance of periodic safety observations of work activities helps to identify at risk or unsafe behaviors. Safety observations, as listed in Section 6.4, are the responsibility of the General Contractor Superintendent. The results of the observations should be shared with all affected site workers during the tailgate safety meetings and documented.

18. Incident/Near Miss Reporting

In case of an accident, field personnel must report the incident or near miss immediately to their project manager/supervisor, and client's representative.

19. Acknowledgement

All personnel working under this HASP must read the HASP and sign the acknowledgment in Appendix I.

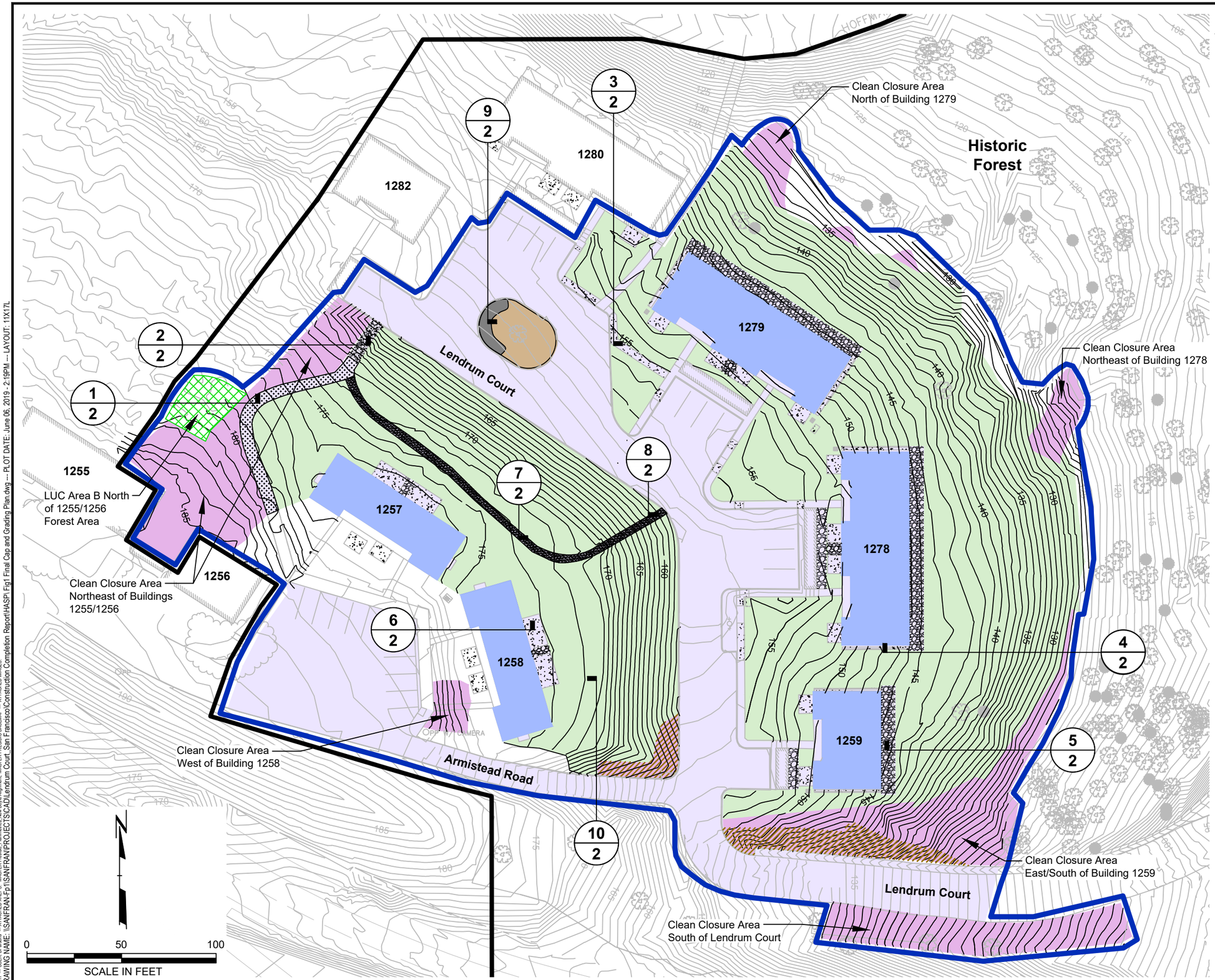
20. Subcontractors and Health and Safety Planning

The client or general contractor must provide the complete HASP to all subcontractors for their reference in advance of the work. Subcontractors must prepare their own HASP and provide evidence of HASP preparation before the start of site work to ensure that the subcontractor has an understanding of the safety hazards associated with the work that they are performing. Subcontractor HASPs are not required to be included unless contractually/client required, of is so desired by the Project Manager.

21. Other Supporting Documentation

Supporting documentation and plans may be appended per the discretion of the Project Manager.

Figure 1
Lendrum Court Site Map



LEGEND

- APPROXIMATE SITE BOUNDARY
- APPROXIMATE REMEDIAL ACTION AREA
- 140 — SURFACE CONTOURS (OUTSIDE PROJECT AREA)
- 140 — FINAL PROJECT SURFACE CONTOURS
- APPROXIMATE LIMITS OF VEGETATED SOIL CAP (LUC AREA A)
- APPROXIMATE AREAS OF BUILDING THAT SERVE AS CAP (LUC AREA A)
- AREAS OF ASPHALT, PAVEMENT, AB PADS, AND HARDSCAPE THAT SERVE AS CAP (LUC AREA A)
- APPROXIMATE AREAS EXCAVATED AND CLEAN CLOSED
- APPROXIMATE AREAS EXCAVATED TO EXPOSED BEDROCK (CLEAN CLOSURE AREA)
- TREE ISLAND CAP COMPACTED AGGREGATE BASE (LUC AREA A)
- TREE ISLAND CAP WOOD MULCH (LUC AREA A)
- NEW CONCRETE PATIOS, SIDEWALKS AND STAIRS
- RECYCLED CONCRETE AGGREGATE BASE PATH AND BOX STEPS
- NEW ASPHALT PATH
- NEW AGGREGATE BASE CAP
- VEGETATED LUC AREA B (NORTH 1255/1256 FOREST AREA)
- APPROXIMATE TREE LOCATION
- APPROXIMATE TOYON LOCATION
- 1 / 2 — DETAIL NUMBER
- FIGURE NUMBER WHERE DETAIL CAN BE FOUND

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
FINAL CAP AND GRADING PLAN

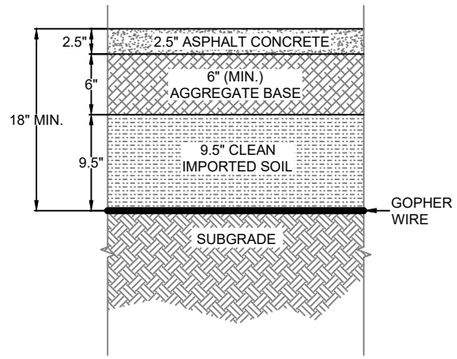
DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		**FIGURE 1**
APPROVED BY:	J. H-D		
DATE:	APRIL 2019		

TRC
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: Fig1 Final Cap and Grading Plan.dwg

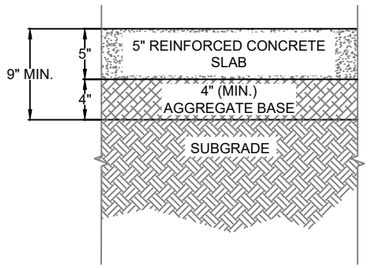
11x17 -- USER: DPancera -- ATTACHED XREFS: MASTER Presidio_Planimetrics_New Doyle Alignment; MASTER PRESIDIO BASEMAP -- ATTACHED IMAGES:
DRAWING NAME: I:\SANFRAN\Proj\SANFRAN\PROJECTS\CAD\Lendrum Court_San Francisco\Construction Completion Report\HASP\ Fig1 Final Cap and Grading Plan.dwg -- PLOT DATE: June 06, 2019 - 2:19PM -- LAYOUT: 11X17L
Version: 2017-10-21

Figure 2
LUC Area A Constructed Cap Details



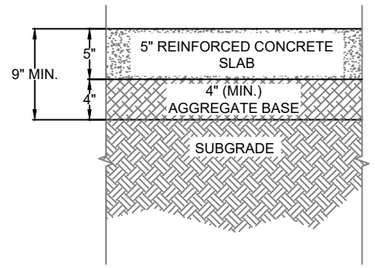
1/2 SECTION

ASPHALT CONCRETE PATH



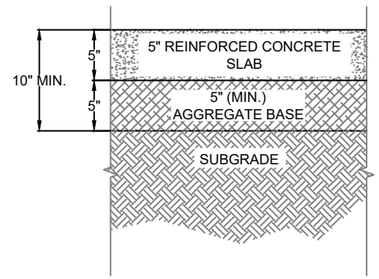
2/2 SECTION

CONCRETE STAIRS



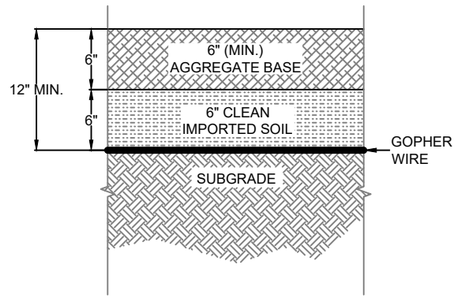
3/2 SECTION

CONCRETE SIDEWALK



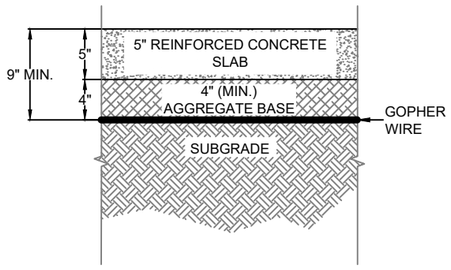
4/2 SECTION

CONCRETE DRAIN



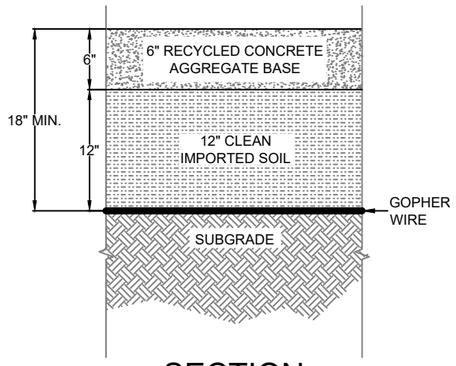
5/2 SECTION

AGGREGATE BASE PAD



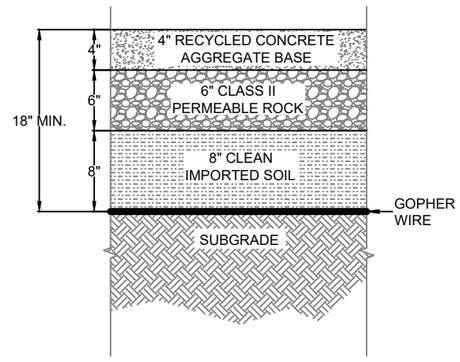
6/2 SECTION

CONCRETE PATIO



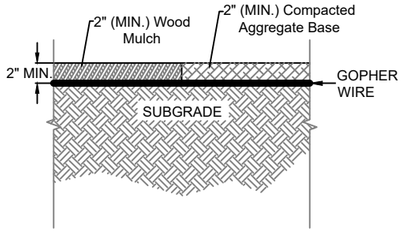
7/2 SECTION

RECYCLED CONCRETE
AGGREGATE BASE PATH



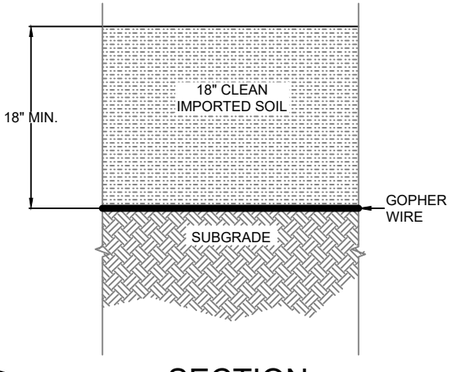
8/2 SECTION

RECYCLED CONCRETE
AGGREGATE BASE STAIRS



9/2 SECTION

TREE ISLAND CAP



10/2 SECTION

VEGETATED SOIL CAP

LEGEND

1/2 DETAIL NUMBER

FIGURE NUMBER WHERE DETAIL CAN BE FOUND

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
CAP CROSS-SECTIONS

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		
APPROVED BY:	J. H-D		**FIGURE 2**
DATE:	APRIL 2018		

TRC
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: Fig2 Cap Cross-Sections.dwg

11x17 -- USER: DPeters -- ATTACHED XREFS: Fig12 Cap Cross Sections -- ATTACHED IMAGES: TRC_Re-inked Out Blue Logo
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Version: 2017-10-21

Appendix A
Example Project Safety Rules

EXAMPLE PROJECT SAFETY AND HEALTH RULES

General

If a situation arises where the HASP requires revision, the following option are available:

Rules have been adopted for the project in order to address some of the more common construction activities. These rules in no way alleviate any subcontractor or their employees or Presidio Trust personnel from the applicable Occupational Safety and Health Administration standards and regulations or rulings made by government authorities. These rules apply to all persons on site including the subcontractors, Presidio Trust and all visitors or vendors. The most restrictive rule, regulation or policy shall apply in the event of a conflict between project, subcontractor, local, state and federal regulations.

1. Compressed Gases 29 CFR 1926.350/Title8 CCR1743

- Care shall be exercised in handling all compressed gas cylinders. They shall not be dropped, jarred, or exposed to temperature extremes.
- Cylinders shall have the valve cap or valve protection device in place at all times, except when in actual use or connected to a welding set.
- Cylinders shall not be rolled and shall not be lifted by the valve or valve cap; a suitable cradle or other device shall be used.
- Cylinders shall have their contents properly identified.
- Compressed gas cylinders, whether full or empty, shall be stored and transported in an upright position and chained or otherwise secured so they cannot fall or be upset.
- Oxygen cylinders in storage shall be separated from fuel-gas cylinders or combustible materials a minimum distance of 20 feet or by a 5 foot high non-combustible barrier.
- Cylinders shall not be placed where they might become part of an electric circuit or within 5 feet of an electrical outlet.
- Before the regulator is removed from a cylinder, the valve shall be closed and all pressure shall be released from the regulator.
- A leaking cylinder shall not be used. Such cylinders shall be taken outdoors away from sources of ignition. The supervisor shall be notified.
- A flame shall never be used to detect gas leaks.
- The recessed top of cylinders shall not be used as a place for tools.
- Oil, grease, or similar materials shall not be allowed to come in contact with any valve, fitting, regulator, or gauge of oxygen cylinders:
- Oxygen shall never be used as a substitute for compressed air.
- When an oxygen cylinder is in use, the valve should be opened fully in order to prevent leakage around the valve stem.
- Acetylene – Acetylene cylinders shall be properly secured and always used, transported or stored in a vertical position. Cylinders shall be protected from sparks, flames and contact with energized electrical equipment.
- An acetylene cylinder valve shall not be opened more than 1-1/2 turns of the spindle and preferably no more than ¾ of a turn.
- Employees shall not use acetylene in a free state at pressures higher than 15 psi.

2. Confined Spaces 29 CFR 1926.146/Title8 CCR 5158

Definitions:

Confined Space: Any space that:

1) Is large enough and so configured that an employee can bodily enter and perform assigned work: and
2) Has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults and pits are spaces that may have limited means of entry.); and
3) Is not designed for continuous employee occupancy.

Non – Permit Required Confined Space – A confined space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm.

Permit Required Confined Space - A confined space that has one or more of the following characteristics:
1) Contains or has a potential to contain a hazardous atmosphere;
2) Contains a material that has the potential for engulfing an entrant;
3) Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or
4) Contains any other recognized serious safety or health hazard.

Entry Requirements:

1) Air Quality Testing - Before any person enters a confined space, the Subcontractor planning to enter the space shall do air quality testing for oxygen deficiency or abundance, flammable gases or chemical contamination.
2) Entry Without Notice – No notice is required if air testing reveals oxygen levels between 19.5% and 23.5% and Lower Explosive Limit (LEL) is below 10%, and if no other hazards are identified. Air testing results must be recorded by the person performing the air test.
3) Permit-Required Entry – If hazards are identified in the space or air testing results are outside the acceptable ranges given above, then prior to entry, hazards must be eliminated such as through the use of a ventilating fan, trench box, etc. The Subcontractor planning to enter the confined space must complete the Confined Space Entry Notice and submit the notice to the Presidio Trust Project Manager. The notice is valid for one working day only or the period of the activity (whichever is shorter) and will be posted at all access ways to the space.

All permit required confined spaces shall be continually monitored during entry for oxygen concentration, combustible or explosive vapors and toxic chemicals when necessary. If conditions in the space become different than those specified on the notice, the entrant shall be immediately notified to exit the space.

All means necessary to isolate a space from stored energy (electrical or otherwise) shall be performed to eliminate the threat of potential hazards and documented on the notice.

A trained attendant will be present outside the confined space during all entrance activities. The attendant shall not enter the confined space for any reason. Only specially trained rescuers shall be utilized for permit-required confined space rescue.

4) Training – All entrants, attendants, entry supervisors, and rescue teams must have received confined space safety training prior to entry. Persons testing the air quality must be trained to properly use air-testing meters.

- Only employees who have been properly trained on the hazards associated with confined space work shall be allowed to enter a confined space.
- Before entering a permit required confined space, a Confined Space Entry Notice shall be completed by the subcontractor and submitted to the Presidio Trust Project Manager.
- Before any entrance cover to a confined space is removed, it shall be determined that there are no temperature or pressure differences, or other hazardous conditions that may injure the employees removing the cover.
- When covers are removed from the confined spaces, the opening shall be guarded by a railing, temporary cover, or other temporary barrier.
- Prior to entering a confined space, all levels of the confined space shall be tested for the presence of flammable or toxic gases and vapors or an oxygen deficient atmosphere.
- If flammable or toxic gases or vapors are detected or if an oxygen deficiency is found, forced ventilation shall be used to maintain oxygen at a safe level and to prevent a hazardous concentration of flammable or toxic gases and vapors.

- Entry into a confined space with an unsafe atmosphere shall be avoided if at all possible. If entry into a permit required confined space cannot be avoided, the procedures outlined in the 29 CFR 1910.146(c) (5) (ii) shall be utilized.

3. Cranes, Derricks, Hoisting Equipment29 CFR 1926.1400/Title 8CCR 1610-1619

- The subcontractor shall designate a competent person who shall inspect all machinery and equipment prior to each use and, and during use, to make sure it is in safe operating condition. Any deficiencies shall be repaired, or defective parts replaced, before continued use.
- Hoisting of employees on a suspended work platform with a crane or derrick is prohibited, except when conventional means of reaching the work site would be more hazardous or is not possible because of workplace conditions.
- In the event a crane suspended work platform must be utilized, compliance with 29 CFR 1926.1431 shall be met and verification of regulation conformance must be submitted by subcontractor to the Presidio Trust Project Manager prior to the use of the man-basket.
- No person shall be permitted to ride the hook, sling, or load of any hoisting equipment.
- Load limits, as specified by the manufacturer, shall not be exceeded under any circumstances.
- Operating and maintenance procedures as specified by the manufacturer shall be followed.
- Signals to the equipment operator shall be given by one person designated to perform this task. The operator shall, however, obey a “Stop” signal given by anyone.
- Accessible areas within the swing radius of the rear of the rotating superstructure of the crane, either permanently or temporarily mounted, shall be barricaded in such a manner as to prevent an employee from being struck or crushed by the crane.
- No employee shall be under a suspended load or inside the angle of a hoist line. No employee shall stand or work near a cable, chain or rope under tension.
- Operators shall not leave their position at the controls of cranes, hoists, derricks or other lifting devices while the load is suspended.
- Operators of cranes, derricks, hoists and hoisting equipment shall exercise extreme caution when in close proximity to energized lines or equipment. The operator shall keep the equipment at least 10 feet away from all lines energized up to 50 kV and 50 feet away from all lines energized over 50 kV.
- Tag lines shall be used on all loads.
- All spreader bars shall be tagged with the rated capacity.
- Use of man-baskets and personnel hoists is strictly prohibited, unless it can otherwise be proven that all other means of access create a greater hazard.
- In the event a man-basket is used, it shall meet the standards outlined in 29 CFR 1926.1431(d).
- Anti-two-blocking devices must be used anytime personnel hoists are used.

4. Electrical 29 CFR 1926.400 and 1926.950

Subpart K

All electrical work shall be in compliance with the latest edition of the National Electrical Code, unless otherwise provided by OSHA regulations.

Work Near Electricity

- A trained electrician who is experienced with the National Electrical Code shall only make electrical repairs and/or installations.
- No work shall be performed on or near unguarded electrical circuits unless a qualified person has tested the circuit to assure there are no live parts.
- Lockout/Tagout procedures are to be followed when the potential for employee exposure to stored energy exists.
- Buried electrical lines shall be determined prior to excavation processes. Where the exact location of underground electric power lines is unknown, workers using jack hammers or hand tools that may contact electrical lines shall be provided with insulated gloves and other protective equipment such as

rubber boots.

Electrical Boxes/Panels

- Electrical receptacles shall be grounded.
- Circuit protectors, such as fuses or circuit breakers, shall be installed within the circuit to prevent excessive current flow.
- Security covers shall be installed on live electrical receptacle/panel boxes and the boxes shall be mounted and secured.

General

- Subcontractors shall use either ground fault circuit interrupters as specified in 29 CFR 1926.404 (b)(1)(ii) or an assured equipment grounding conductor program as specified in 29 CFR 1926.404 (b)(1)(iii).
- Fuses and circuit breakers shall be so located or shielded that employees will not be burned or otherwise injured by their operation.
- Circuit breakers shall clearly indicate whether they are in the open (off) or closed (on) position.
- Temporary wiring shall be removed immediately upon completion of construction or the purpose for which the wiring was installed.
- Flexible cords shall be used only in continuous lengths without splice or tap.
- Portable headlamps shall contain a metal shell. Pipelined lamp holders shall not be used.
- The operating voltage of exposed live parts of transformer installations shall be indicated by warning signs or visible markings on the equipment or structure.
- In work areas where the exact location of underground electric powerlines is unknown, employees using jack-hammers, bars, or other hand tools which may contact a line shall be provided with insulated protective gloves.
- Worn or frayed electric cords or cables shall not be used.
- Extension cords shall not be fastened with staples, hung from nails, or suspended by wire.
- Controls that are to be deactivated during the course of work on energized or de-energized equipment or circuits shall be tagged.
- Equipment or circuits that are de-energized shall be rendered inoperative and shall have tags attached at all points where such equipment or circuits can be energized.
- Tags shall be placed to identify plainly the equipment or circuits being worked on.

Subpart V

All Electric Power Transmission and Distribution work shall be performed in compliance with OSHA CFR 1926.950-1926.968.

General

- Each employee shall be trained in, and familiar with, the safety-related work practices, safety procedures, and other safety requirements in this subpart that pertain to his or her job assignments.
- Each qualified employee shall also be trained and competent in: the skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment, the nominal voltage of exposed live parts, the minimum approach distances corresponding to the voltages to which the qualified employee will be exposed and the skills and techniques necessary to maintain those distances, the proper use of the special precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools for working on or near exposed energized parts of electric equipment, and the recognition of electrical hazards to which the employee may be exposed and the skills and techniques necessary to control or avoid these hazards.

Grounding

- *Order of connection*. The employer shall ensure that, when an employee attaches a ground to a line or to equipment, the employee attaches the ground-end connection first and then attaches the other end by means of a live-line tool. For lines or equipment operating at 600 volts or less, the employer may permit the employee to use insulating equipment other than a live-line tool if the employer ensures that the line or equipment is not energized at the time the ground is connected or if the employer can demonstrate that each employee is protected from hazards that may develop if the line or equipment is energized.
- *Order of removal*. The employer shall ensure that, when an employee removes a ground, the employee removes the grounding device from the line or equipment using a live-line tool before he or she removes the ground end connection. For lines or equipment operating at 600 volts or less, the employer may permit the employee to use insulating equipment other than a live-line tool if the employer ensures that the line or equipment is not energized at the time the ground is disconnected or if the employer can demonstrate that each employee is protected from hazards that may develop if the line or equipment is energized.
- *Additional precautions.* The employer shall ensure that, when an employee performs work on a cable at a location remote from the cable terminal, the cable is not grounded at the cable terminal if there is a possibility of hazardous transfer of potential should a fault occur.
- *Removal of grounds for test.* The employer may permit employees to remove grounds temporarily during tests. During the test procedure, the employer shall ensure that each employee uses insulating equipment, shall isolate each employee from any hazards involved, and shall implement any additional measures necessary to protect each exposed employee in case the previously grounded lines and equipment become energized.

Guarding of energized parts

- *Type of guarding.* The employer shall provide guards around all live parts operating at more than 150 volts to ground without an insulating covering unless the location of the live parts gives sufficient clearance (horizontal, vertical, or both) to minimize the possibility of accidental employee contact.
- *Maintaining guards during operation.* Except for fuse replacement and other necessary access by qualified persons, the employer shall maintain guarding of energized parts within a compartment during operation and maintenance functions to prevent accidental contact with energized parts and to prevent dropped tools or other equipment from contacting energized parts.
- *Temporary removal of guards.* Before guards are removed from energized equipment, the employer shall install barriers around the work area to prevent employees who are not working on the equipment, but who are in the area, from contacting the exposed live parts.

5. Excavations 29 CFR 1926.650/Title 8 CCR1541

- Before excavation work begins, an excavation plan will be prepared and disseminated, and a Pre-Excavation Checklist will be completed. A separate notice must be obtained for each excavation.
- A competent person shall conduct daily inspections of excavations deeper than 5 feet in depth if persons are expected to enter or if water has accumulated or other hazard creating event has occurred.
- Prior to any excavation, trench work or drilling operations, all underground utilities shall be located and marked. If underground lines cannot be located, proper precautions shall be taken to protect employees while physically locating them.
- Excavated soils must be placed at least 2 feet from the edge of the excavation to help prevent collapse of the wall.
- All excavations deeper than 4 feet deep and containing a potential for a hazardous atmosphere or oxygen deficiency (less than 19.5% oxygen) must be tested to ensure safe working conditions. Testing shall be done before employees enter the excavation.
- No person(s) shall perform any work in a trench or excavation that contains accumulated water.

- Walkways or bridges with standard guardrails shall be provided where employees or equipment are required to cross over excavations.
- All excavations 5 feet or deeper, or less in unstable soil, shall be sloped, shored, or shielded to prevent cave-ins.
- All excavations 4 feet or deeper shall have a ladder for access into excavation with no more than 25 feet of travel in any direction.
- All excavated and available material shall be retained two feet or more from the edge of the excavation.
- All excavations shall be barricaded with the appropriate barrier tape and other protective devices as required.
- When entering an excavation that may be considered a hazardous environment by site safety representatives, proper personal protective equipment must be worn.

6. Fall Protection 29 CFR 1926.500/Title 8 CCR 1541, 1620, 1669, 1670

Unprotected Sides and Edges

- Each employee on a walking/working surface (horizontal and vertical surface) with an unprotected side or edge which is six feet or more above a lower level shall be protected from falling by the use of guardrail systems, safety net systems or personal fall arrest systems.
- Each employee who is constructing a leading edge six feet or more above lower levels shall be protected from falling by the use of guardrail systems, safety net systems or personal fall arrest systems.
- Each employee in a hoist area shall be protected from falling six feet or more to lower levels by guardrail systems or personal fall arrest systems.

Protection from Falling Objects

- When an employee is exposed to falling objects, the subcontractor shall provide one of the following:
  (1) Toeboards, screens or guardrail systems to prevent objects from falling from higher levels; or
  (2) Erect a canopy structure and keep potential fall objects far enough from the edge of the higher level so that those objects would not go over the edge if they were accidentally displaced; or
  (3) Barricade the area to which objects could fall, prohibit employees from entering the barricaded area and keep objects that may fall far enough away from the edge of a higher level so that those objects would not go over the edge if they were accidentally displaced.
- Toeboards shall be a minimum of 3 ½ inches (9 cm) in vertical height from their top edge to the level of the walking/working surface. They shall have not more than ¼ inch clearance above the walking/working surface. They shall be solid or have openings not over 1 inch (2.5 cm) in greatest dimension.

Fall Protection System Criteria and Practices

- The top edge height of top rails or equivalent guardrail system members, shall be 42 inches (plus or minus 3 inches) above the walking/working level.
- Midrails, screens, mesh, intermediate vertical members or equivalent intermediate structural members shall be installed between the top edge of the guardrail system and the walking/working level.
- Midrails shall be installed at a height midway between the top edge of the guardrail system and the walking/working level when used.
- Guardrail systems shall be capable of withstanding, without failure, a force at least 200 pounds (890 N) applied within 2 inches (5.1 cm) of the top edge, in any outward or downward direction, at any point along the top edge.
- Top rails and midrails shall be at least one-quarter inch (0.6 cm) nominal diameter or thickness to prevent cuts and lacerations.
- If wire rope is used for top rails, it shall be flagged at not more than 6-foot intervals with high-visibility material.

Personal Fall Arrest Systems

- Full body harness with lanyards shall be used for personal fall arrest systems. Body belts are not acceptable for personal fall arrest systems.
- All components of a personal fall arrest system must be inspected by a competent person prior to use. All manufacturer recommendations for inspection, use and maintenance must be followed.
- Lanyards and vertical lifelines shall have a minimum breaking strength of 5,000 pounds (22.2 kN).
- Lifelines shall be protected against being cut or abraded.
- Anchorages used for attachment of personal fall arrest equipment shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 pounds (22.2 kN) per employee attached.
- Personal fall arrest systems and components subjected to impact loading shall be immediately removed from service and shall not be used again for employee protection until inspected and determined by a competent person to be undamaged and suitable for reuse.
- The subcontractor shall provide for prompt rescue of employees in the event of a fall or shall assure that employees are able to rescue themselves.
- Positioning devices shall be rigged such that an employee cannot free fall more than 2 feet (0.9 m).

Fall Protection Training Program

- The subcontractor shall provide a training program for each employee who might be exposed to fall hazards. The program shall enable each employee to recognize the hazards of falling and shall train each employee in the procedures to be followed in order to minimize these hazards.
- The subcontractor shall verify compliance with of fall protection training by preparing a written certification record. The written certification record shall contain the name or other identity of the employee trained, the date(s) of the training and the signature of the person who conducted the training or the signature of the subcontractor.

7. Flammable and Combustible Liquids 29 CFR 1926.150/Title8 CCR 1930-1938

- Only approved containers and portable tanks shall be used for storage and handling of flammable and combustible liquids.
- Flammable or combustible liquids shall not be stored in areas used for exits, stairways, or normally used for the safe passage of people.
- For portable containers, quantities of flammable and combustible liquid in excess of 25 gallons shall be stored in an acceptable or approved cabinet.
- Leakage or spillage of flammable or combustible liquids shall be disposed of promptly and safely.
- Flammable or combustible liquids shall be stored in approved closed containers, in tanks located underground or in above ground portable tanks.
- The dispensing hose shall be an approved type.
- The dispensing nozzle shall be an approved automatic-closing type without a latch-open device.
- Underground tanks shall not be abandoned.
- There shall be no smoking or open flames in the areas used for fueling, servicing fuel systems for internal combustion engines and receiving or dispensing of flammable or combustible liquids.
- Conspicuous and legible signs prohibiting smoking shall be posted.
- The motors of all equipment being fueled shall be shut off during the fueling operation.
- Each service or fueling area shall be provided with at least one fire extinguisher having a rating of not less than 20-B:C located so that an extinguisher will be within 50 feet of each pump, dispenser, underground fill pipe opening and lubrication or service area.

8. Hazardous Materials 49CFR, 29 CFR 1926.1101-1152

If hazardous or unknown potentially hazardous material are unexpectedly discovered during project work activities, evacuate, secure the area, and call for assistance being careful not get exposed to the material. Presidio Trust or designee shall be contacted for assistance. When required, a Hazardous Materials Response Team, such as located in certain fire departments, may need to be contacted to limit exposures to site personnel and/or the community.

Hazardous Materials Transportation
Hazardous materials (even as small as one ounce) must not be commercially shipped or transported without being properly packaged, labeled, marked, placarded, and accompanied by appropriate shipping papers. Persons who engage in packaging, labeling, marking, placarding, or transporting hazardous materials must be trained and aware of the Department of Transportation (DOT) requirements for hazardous material transportation. Hazardous materials include those materials, substances, and wastes listed in the Code of Federal Regulations Title 49.

Substance-Specific Regulations
Several substance-specific regulations exist which are enforced by the Occupational Safety and Health Administration. These regulations generally require specific training (which may be required quarterly), medical surveillance, development of written programs, exposure monitoring, enforcement of specific work practices, defining various job hazards, and implementation of engineering controls. Persons who have the potential to be exposed to the substance-specific regulations may require additional training.

9. Housekeeping 29 CFR 1926.25/Title 8 CCR1513

- During the course of construction, alteration, or repairs, form and scrap lumber with protruding nails and all other debris, shall be kept cleared from work areas, passageways and stairs, in and around buildings or other structures.
- Combustible scrap and debris shall be removed at regular intervals during the course of construction. Safe means shall be provided to facilitate such removal.
- Containers shall be provided for the collection and separation of waste, trash, oily and used rags and other refuse. Containers used for garbage and other oily, flammable or hazardous wastes, such as caustics, acids, harmful dusts, etc. shall be equipped with covers. Garbage and other waste shall be disposed of at frequent and regular intervals.

10. Ladders and Stairways 29 CFR 1926.1050/Title 8 CCR1629

General Requirements

- A stairway or ladder shall be provided at all personnel points of access where there is a break in elevation of 19 inches (48 cm) or more, and no ramp, runway, sloped embankment or personnel hoist is provided.
- A double-cleated ladder or two or more separate ladders shall be provided when ladders are the only means of access or exit from a working area for 25 or more employees or when a ladder is to serve simultaneous two-way traffic.

Stairways

- Stairways that will not be a permanent part of the structure on which construction work is being performed shall have landings of not less than 30 inches in the direction of travel and extend at least 22 inches in width at every 12 feet or less of vertical rise.
- Where doors or gates open directly on a stairway, a platform shall be provided, and the swing of the door shall not reduce the effective width of the platform to less than 20 inches.
- Stairways having four or more risers or rising more than 30 inches, whichever is less, shall be equipped with:

  (1) At least one handrail; and
  (2) One stair rail system along each unprotected side or edge.

- The height of handrails shall be not more than 37 inches not less than 30 inches from the upper surface of the handrail to the surface of the tread, in line with the face of the riser at the forward edge of the tread.

Ladders

- Ladders shall not be tied or fastened together to provide longer sections unless they are specifically designed for such use.
- Wood ladders shall not be coated with any opaque covering, except for identification or warning labels which may be placed on one face only of a side rail.
- Fixed ladders shall be provided with cages, wells, ladder safety devices or self-retracting lifelines where the length of climb is less than 24 feet, but the top of the ladder is at a distance greater than 24 feet above lower levels.
- Where the total length of a climb equals or exceeds 24 feet, fixed ladders shall be equipped with one of the following;

  (1) Ladder safety devices; or
  (2) Self-retracting lifelines, and rest platforms at intervals not to exceed 150 feet; or
  (3) Cage or well, and multiple ladder sections, each ladder section not to exceed 50 feet in length. Ladder sections shall be offset from adjacent sections, and landing platforms shall be provided at maximum intervals of 50 feet.

- Ladders shall not be loaded beyond the maximum intended load for which they were built, not beyond their manufacturer's rated capacity.
- Ladders shall be used only for the purpose for which they were designed.
- Ladders shall be used only on stable and level surfaces unless secured to prevent accidental displacement.
- Ladders placed in any location where they can be displaced by workplace activities or traffic shall be secured to prevent accidental displacement or a barricade shall be used to keep the activities or traffic away from the ladder.
- Ladders shall not be moved, shifted or extended while occupied.
- Ladders shall have nonconductive side rails if they are used where they employee or the ladder could contact exposed energized electrical equipment.
- The top or top step of a stepladder shall not be used as a step.
- Ladders shall be inspected by a competent person for visible defects on a periodic basis and after any occurrence that could affect their safe use.
- Portable ladders with structural defects, such as, but not limited to, broken or missing rungs, cleats or steps, broken or split rails, corroded components or other faulty or defective components, shall either be immediately marked in a manner that readily identifies them as defective or be tagged with "Do Not Use" or similar language and shall be withdrawn from service until repaired.

Training Requirements

- The subcontractor shall provide a training program for each employee using ladders and stairways, as necessary. The program shall enable each employee to recognize hazards related to ladders and stairways, and shall train each employee in the procedures to be followed to minimize these hazards.
- The subcontractor shall ensure that each employee has been trained by a competent person in the following areas, as applicable:

  (1) The nature of fall hazards in the work area;
  (2) The correct procedures for erecting, maintaining and disassembling the fall protection systems to be used;
  (3) The proper construction, use, placement and care in handling of fall stairways and ladders;
  (4) The maximum intended load-carrying capacities of ladders used; and
  (5) The standards contained in 29 CFR 1926 Subpart X.

- Retraining shall be provided for each employee as necessary so that the employee maintains the understanding and knowledge acquired through compliance with Subpart X of the 29 CFR 1926.

11. Lockout/Tagout Requirements and Procedures 29 CFR 1926.417

Definitions:

1) Lockout – Involves using a device such as a padlock, blank pipe flange, chain key block, etc. to isolate energy from employee exposure.
2) Tagout – Involves applying a tag to the energy isolating device with written information concerning the date and name of person who applied the lock and tag.

Lockout/Tagout Policy

A lockout of equipment to isolate energy sources from employee exposure shall be the primary means of protection. A tagout alone does not provide the protection necessary to prevent unintentional operation of equipment and shall be used only in instances where placement of a lockout device is not achievable.

Lockout/Tagout procedures shall be used to prevent personal injury and/or property damage that could result from the unexpected start-up or shutdown of electrical, mechanical, hydraulic, pneumatic, thermal or chemical process energy. Lockout/tagout procedures shall be used prior to performing tie-in operations, maintenance, repair or adjustment of any device where exposure to hazardous energy sources may occur.

General

- Employees who are affected by lockout/tagout shall receive documented training provided by their employer on general lockout/tagout procedures and the documentation may be required to be submitted or audited to/by the Presidio Trust Project Manager prior to the start of the activity.
- Each person working under a lockout shall apply his/her personal lock and tag.
- Locks designated for use in lockout shall be used for no other purpose. The Subcontractor shall provide all locks for employee lockout.
- Locks used for lockout shall have one key only. Each lock shall be individually keyed. The key shall remain under the exclusive control of the authorized employee installing the lock.
- Prior to locking out any equipment, contact the Presidio Trust Project Manager for a copy of the energy isolation procedure for that piece of equipment.
- Tags shall be completely filled out prior to installation. Only tags approved by the Presidio Trust Project Manager or his/her designee shall be used.
- ***Multi-lock hasps*** shall be used to insure additional locks can be applied by others.
- Never fill the last available slot in an isolation point with your lock and tag. Use additional multi-lock hasps if necessary so others involved can lock and tag in.

Lockout Procedure

1) All affected employees in the area shall be notified that a lockout is being performed.
2) The equipment being locked out shall be shut down using normal shutdown procedures. (i.e. operator's control station, stop button, etc.)
3) Any residual energy shall be identified and dissipated at this time.
4) All equipment energy sources shall be neutralized. (i.e. electrical disconnects shall be opened, valves closed, blanks inserted in piping, springs returned to neutral position, other energy sources as required)
5) The employee performing the lockout shall place his/her personal lock and tag on EACH energy isolation point isolated in Step 4. If more than two isolation points are required to lockout the device, a group lockbox may be used. A tag indicating all persons who applied a lock, date, time, equipment type and number and duration of lockout shall also be applied at this time. A Subcontractor representative and a Presidio Trust shall also apply a lock at this time.
6) Test the lockout by clearing area and attempting to operate the machine.
7) Testing or Repositioning Machine or Equipment (Bump Test)
   7.1 Check the area to insure completeness of work.
   7.2 All nonessential items shall be removed from the area.

7.3 Safety guards shall be replaced.
7.4 Notify all affected employees that the machine is being tested/repositioned and clear the area.
7.5 Remove the necessary lockout devices to test/reposition the machine.
7.6 Follow steps 2-6 to reestablish the lockout of the machine.

8) Upon completion of the lockout an authorized employee must check the area for completeness of work. If the employee who initiated the lockout is available, he/she should conduct this inspection.
9) Remove all tools and nonessential items from the area.
10) Replace all guards.
11) Insure all employees are clear of the machine.
12) Notify all affected employees in the area that the lockout device(s) are being removed.
13) Remove lockout device(s).
14) Restart the machine to insure proper operation.

Group Lockout

1) When multiple isolation points, three or more, must be controlled during a lockout, or when multiple persons (craft) are involved, a group lockout shall be used.
2) Follow the steps for a normal lockout as documented in steps 1-6 above.
3) Each key for the locks used shall be placed in a group lockout box. The group lockbox shall be kept in view of the work being performed when practical.
4) A Job Control Lock shall be installed on the group lockbox by the Presidio Trust Project Manager. This lock shall remain in place until the lockout has been completed. The key for the Job Control Lock shall be kept in the Presidio Trust office.
5) Each employee covered by the lockout shall apply his/her lock and tag on the group lockout box.
6) Each employee shall remove their own lock when their portion of the work is completed or at the end of each shift.
7) Upon completion of the work, the Presidio Trust Project Manager shall inspect the work area for completeness.
8) When all of the conditions of the lockout termination procedures have been satisfied, the Job Control Lock shall be removed from the group lockbox.

Emergency Removal Lockout/Tagout Device

1) If an employee leaves the facility without removing his/her lock and tag, an effort shall be made to notify the employee that the supervisor in charge will authorize the removal of their lock. It must be deemed necessary that removal of the lock is required by at least two supervisory personnel, but only after confirming beyond any doubt it is safe to do so.
2) Verify the employee has left the site.
   a) Check with co-workers.
   b) Check the employee's time card.
   c) Attempt to reach him/her at home.
   d) Verify the employee is not in the equipment.
3) Visually confirm the completeness of work.
4) An authorized employee, under the direct supervision of the Presidio Trust Project Manager shall remove the lock.
5) Upon return to the site by the employee involved, he/she shall be informed of the removal. A review of the incident may be conducted by Presidio Trust to determine any disciplinary actions necessary.

12. Material Handling 29 CFR 1926.250/Title 8 CCR1613.3

General Requirements

- Aisles and passageways shall be kept clear to provide for the free and safe movement of material handling equipment or employees. Such areas shall be kept in safe condition.

Rigging Equipment for Material Handling

- Rigging equipment for material handling shall be inspected prior to use on each shift and as necessary during its use to ensure that it is safe. Defective rigging equipment shall be removed from service.
- Rigging equipment, when not in use, shall be removed from the immediate work area so as not to present a hazard to employees.
- Each day before being used, the sling and all fastenings and attachments shall be inspected for damage or defects by a competent person designated by the Subcontractor. Additional inspections shall be performed during sling use, where service conditions warrant. Damaged or defective slings shall be immediately removed from service.
- When used for eye splices, the U-bolt shall be applied so that the "U" section is in contact with the dead end of the rope.
- Slings shall be padded or protected from the sharp edges of their loads.
- The manufacturer's recommendations shall be followed in determining the safe working loads of the various sizes and types of specific and identifiable hooks.

13. Mobile Equipment 29 CFR 1926.602/TITLE 8 CCR3646

General Requirements

- All equipment left unattended at night, adjacent to a highway in normal use, or adjacent to construction areas where work is in progress, shall be locked, have appropriate lights or reflectors, or barricades equipped with appropriate lights or reflectors, to identify the location of the equipment.
- Heavy equipment suspended or held aloft by use of slings, hoists, or jacks shall be substantially blocked or cribbed to prevent falling or shifting before employees are permitted to work under or between them.
- Bulldozer and scraper blades, end-loader buckets, dump bodies, and similar equipment shall be either fully lowered or blocked when being repaired or when not in use.
- Whenever equipment is parked, the parking brake shall be set. Equipment parked on inclines shall have the wheels chocked and the parking brake set.

Motor Vehicles

- Cabbed vehicles designed for public roadway usage must be equipped with operable brakes and emergency brakes, brake lights, two headlights and two taillights, an audible horn, and windshield wipers.
- If the vehicle has obstructed view to the rear, then the vehicle is backed up only when an observer signals that it is safe or the vehicle has a reverse signal alarm audible above the surrounding noise level.
- Tools and material shall be secured to prevent movement when transported in the same compartment with employees.
- All vehicles in use shall be checked at the beginning of each shift to assure the equipment is in safe operating condition. Vehicles, which are not in safe operating condition, shall not be used.

Earthmoving Equipment

- Use seat belts when provided, except in equipment that does not have roll over protection.
- All equipment brakes shall be capable of stopping and holding the equipment while fully loaded.
- All equipment shall be equipped with an audible horn, distinguishable from the surrounding noise level. Equipment with an obstructed view to the rear shall have a reverse signal alarm or the equipment may be backed if an employee signals that it is safe to do so.

Lifting and Hauling Equipment

- Clearly post the rated capacity on the vehicle.
- Do not lift or carry more than the rated capacity of the vehicle.
- Unauthorized personnel shall not be permitted to ride on powered industrial trucks.

14. Noise Exposure 29 CFR 1926.52/TITLE 8 CCR5095-5100

- Protection against the effects of noise exposure shall be provided when the sound levels exceed those shown in Table D-2 of 29 CFR 1926 Subpart D or Table N-1 in T8 CCR5096.
- When employees are subjected to sound levels exceeding those listed in Tabled D-2/N-1, feasible administrative or engineering controls shall be utilized. If such controls fail to reduce sound levels within the levels of the table, personal protective equipment shall be provided and used to reduce sound levels within the levels of the table according to Subpart E of the 29 CFR 1926/.

15. Personal Protective Equipment 29 CFR 1926.95/ Title8 CCR3380

- Eye Protection – Safety glasses shall be worn at all times except while in vehicles with enclosed cabs or when additional eye protection is required.
- Full face shields shall be worn while grinding, chipping concrete or when possible eye and face hazards are present.
- Wherever it is not feasible to reduce the noise levels or duration of exposures to those specified in Table D-2, Permissible Noise Exposures, in 29 CFR 1926.52, ear protective devices shall be provided and used.
- Hard hats shall be worn at all times in the construction area.
- Work Shoes – Safety –toe footwear for employees shall meet the requirements and specifications in the ANSI Z41.1-1966.
- A respiratory protection program shall be utilized and must be administered by a suitably trained program administrator when hazardous substances in the atmosphere are present.
- When effective engineering controls are not feasible, or while they are being instituted, appropriate respirators shall be used pursuant to 29 CFR 1926 Subpart E.
- Respiratory protective devices shall be approved by the U.S. Bureau of Mines/National Institute for Occupational Safety and Health or acceptable U.S. Department of Labor for the specific contaminant to which the employee is exposed.
- Employees shall complete a medical questionnaire and be fit test prior to use.
- Employees shall not use respirators until he/she has been thoroughly trained in their use.
- Safety nets shall be provided when workplaces are more than 25 feet above the ground or water surface, or other surfaces where the use of ladders, scaffolds, catch platforms, temporary floors, safety lines or safety belts is impractical.
- Employees working over or near water, where the danger of drowning exists, shall be provided with U.S. Coast Guard approved life jacket or buoyant work vests.

16. Tools 29 CFR 1926.300/Title 8 CCR 4189-4216

General Requirements

- When power operated tools are designed to accommodate guards, they shall be equipped with such guards when in use.
- Employees using hand and power tools and exposed to the hazard of falling, flying, abrasive and splashing objects or exposed to harmful dusts, fumes, mists, vapors or gases shall be provided with the particular personal protective equipment necessary to protect them from the hazard.

Hand Tools

- The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight in the tool.

Power-Operated Hand Tools

- The use of electric cords or air hoses for hoisting or lowering tools shall not be permitted.
- Pneumatic power tools shall be secured to the hose or whip by some positive means to prevent the tool from becoming accidentally disconnected.

- All pneumatically driven nailers, staplers and other similar equipment provided with automatic fastener feed, which operate at more than 100 p.s.i. pressures at the tool, shall have a safety device on the muzzle to prevent the tool from ejecting fasteners, unless the muzzle is in contact with the work surface.
- The manufacturer's safe operating pressure for hoses, pipes, valves, filters and other fittings shall not be exceeded.
- The fluid used in hydraulic powered tools shall be fire-resistant fluids approved under Schedule 30 of the U.S. Bureau of Mines, Department of Interior, and shall retain its operating characteristics at the most extreme temperatures to which it will be exposed.
- Only employees who have been trained in the operation of the particular powder-actuated tool in use shall be allowed to operate it.
- No fastener shall be driven into a spalled area caused by an unsatisfactory fastening.
- All tools shall be used with the correct shield, guard or attachment recommended by the manufacturer.
- Powder-actuated tools used by employees shall meet all other applicable requirements of ANSI A10.3-1970, Safety Requirements for Explosive-Actuated Fastening Tools.

Abrasive Wheels and Tools

- Grinding machines shall be equipped with safety guards in conformance with the requirements of ANSI B7.1-1970, Safety Code for the Use, Care and Protection of Abrasive Wheels.
- Floor stand and bench mounted abrasive wheels, used for external grinding, shall be provided with safety guards (protection hoods).
- The work rest shall be adjusted as necessary to maintain the 1/8" clearance to the abrasive wheel.

Gears, Sprockets, and Chains

- Gears shall be guarded in accordance with 29 CFR 1926.307(f).
- All sprocket wheels and chains shall be enclosed unless they are more than 7 feet (2.128 m) above the floor or platform.

17. Welding and Cutting 29 CFR 1926.350/TITLE 8 CCR1739-1743

Gas Welding and Cutting

- Cylinders of compressed gases must be properly labeled.
- Valve protection caps shall be in place and secured.
- When cylinders are hoisted, they shall be secured on a cradle, sling board or pallet. They shall not be hoisted or transported by means of magnets or choker slings.
- When cylinders are transported by powered vehicles, they shall be secured in a vertical position.
- Unless cylinders are firmly secured on a special carrier intended for this purpose, regulators shall be removed and valve protection caps put in place before cylinders are moved.
- Compressed gas cylinders shall be secured in an upright position at all times except, if necessary, for short periods of time while cylinders are actually being hoisted or carried.
- Oxygen cylinders in storage shall be separated from fuel-gas cylinders or combustible materials a minimum distance of 20 feet or by a noncombustible barrier at least 5 feet high having a fire-resistance rating of at least one-half hour.
- Cylinders, whether full or empty, shall not be used as rollers or supports.
- Fuel gas shall not be used from cylinders through torches or other devices which are equipped with shutoff valves without reducing the pressure through a suitable regulator attached to the cylinder valve or manifold.
- Fuel gas and oxygen manifolds shall bear the name of the substance they contain in letters at least 1-inch high which shall be either painted on the manifold or on a sign permanently attached to it.
- Fuel gas hose and oxygen hose shall be easily distinguishable from each other.
- Torches in use shall be inspected at the beginning of each working shift for leaking shutoff valves, hose couplings and tip connections. Defective torches shall not be used.
- Oxygen and fuel gas pressure regulators, including their related gauges, shall be in proper working order while in use.

- Whenever practicable, all arc welding and cutting operations shall be shielded by noncombustible or flameproof screens which will protect employees and other persons working in the vicinity from the direct rays of the arc.

Operating Instructions

- Subcontractors shall instruct employees in the safe means of arc welding and cutting as follows:

  (1) When electrode holders are to be left unattended, the electrodes shall be removed and the holders shall be so placed or protected that they cannot make electrical contact with employees or conducting objects.
  (2) Hot electrode holders shall not be dipped in water.
  (3) When the arc welder or cutter has occasion to leave his/her work or to stop work for any appreciable length of time, or when the arc welding or cutting machine is to be moved, the power supply switch to the equipment shall be opened.
  (4) Any faulty or defective equipment shall be reported to the supervisor.
  (5) Additional requirements outlined in 29 CFR 1926.406(c).

Fire Prevention

- If the object to be welded, cut or heated cannot be moved and if all the fire hazards cannot be removed, positive means shall be taken to confine the heat, sparks and slag and to protect the immovable fire hazards from them. A fire watch may be required to monitor the work area for up to 30 minutes following the conclusion of the hot work.
- Suitable fire extinguishing equipment shall be immediately available in the work area and shall be maintained in a state of readiness for instant use.

Welding, Cutting and Heating in Way of Preservative Coatings

Before welding, cutting or heating is commenced on any surface covered by a preservative coating whose flammability is not known, a test shall be made by a competent person to determine its flammability and health impact (such as lead paint, etc.). Preservative coatings shall be considered to be highly flammable when scrapings burn with extreme rapidity.

A-14 Pre-Excavation Checklist

Project Name:	**Project #:**
Location:	**Date:**
Company:	**One Call #**
Submitted By:	

The following procedures are mandatory. Failure to complete this check list could result in disciplinary action or termination:

Complete a pre-excavation walk-out of the entire job site. Your objective is to visually inspect the dig area to ensure all utilities are marked. Look for obvious signs of utilities in the immediate work area that may not be marked such as, above-ground pedestals, gas meters, man-hole covers, drains, or utility poles with cable risers. If you find these indicators and suspect that there is an unmarked utility DO NOT PROCEED**. Call your General Foreman or Locate Ticket Coordinator immediately.**

When you have completed your walk-out, complete the following check list:

1. Verify that the One-Call ticket covers the 'Scope of work' and 'Work to begin' date:
   I have verified the One-Call ticket covers the 'Scope of work' &'Work to begin' date ☐
2. What marked utilities did you observe?
   ☐Gas (Yellow) ☐Electric (Red) ☐Telephone (Orange) ☐Cable TV (Orange) ☐Water (Blue) ☐Sewer (Green)
3. Based on visual observation, did you see any obvious signs of unmarked utilities in the immediate work area?
   ☐Yes ☐No If Yes, please identify?
   ☐Gas (Yellow) ☐Electric (Red) ☐Telephone (Orange) ☐Cable TV (Orange) ☐Water (Blue) ☐Sewer (Green)
4. I have notified my Supervisor and Locate Ticket Coordinator ☐
5. Photograph the entire proposed work area including all locate marks.
   I have photographed the entire site including existing locate/markings prior to excavation ☐
6. Advise your crew members of the following: If they have to cross a marked Utility they must HAND DIG ONLY within 18" of the locate marks. For gas lines add half the diameter of the buried facility to the 18''. If necessary, dig a test-hole (pothole) using hand tools to determine the location of the facility.
   I have advised my crew of this rule ☐
7. When possible, all directional boring / drilling routes must be potholed every 50-80 feet prior to drilling.
   I have advised my crew accordingly and test-holes (potholes) have been dug ☐

~~~~~~~~~~~~~~~~~~~~~~~~~~ RESPECT THE MARKS! ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

IN THE EVENT OF DAMAGE

- Notify your Supervisor and Locate Ticket Coordinator
- Complete the TRC Incident Notification Form
- Photograph entire area and damage location

PHOTOGRAPHY TIPS

- Make sure the correct date & time stamp is active on your camera
- Photograph the excavation itself (damage location) and cable depth (include tape measure in hole)
- Take photos from multiple vantage points and of surrounding area (360 degrees)
- If the utility was miss-marked, photograph the locate marks/flags (include tape measure in photo)
- If the utility was not marked, photograph the entire area and approaches to the cut site
- Show a quantifiable location/address (street sign, house number, mail box number etc.)
~~~~~~~~~~~~~~~~~~~~~~~~~~

A-18 Excavation Daily Inspection

Project Name: **Project #:**

Location: **Date:**

Company:

Submitted By:

Depth: _____ **Width:** _____ **Date Opened:** _____

Soil classification: ☐ A ☐ B ☐ C

Indicate how the classification was made:

Manual test(s)

a) plasticity	_____	_____	_____
b) dry strength	_____	_____	_____
c) thumb penetration	_____	_____	_____
d) pocket penetrometer	_____	_____	_____
e) other	_____	_____	_____

Visual test(s) **Do as many as possible**	**Cohesive Soil**	**Granular Soil**
a) Spoil pile	☐ **Remains in clumps**	☐ **Breaks up easily**
b) Trench Side	☐ **Stands vertical >2 hours**	☐ **Sloughs into trench**

The excavation is properly (circle one):

Shored/Shielded	**(indicate type of shoring)**	☐ **closed**	☐ **open**	☐ **wood**	☐ **metal**	☐ **shield**
Sloped/benched	**(indicate the slope)**	☐ **vertical sides**	☐ **3/4:1**	☐ **1:1**	☐ **1 1/2: 1**	☐ **2:1**

Excavation Checklist:	Morning	Mid-Day	Afternoon
Time:	_____	_____	_____
Weather:	_____	_____	_____
Was atmospheric testing required?	☐**yes** ☐**no**	☐**yes** ☐**no**	☐**yes** ☐**no**
Was atmospheric testing done?	☐**yes** ☐**no**	☐**yes** ☐**no**	☐**yes** ☐**no**
Is the spoil pile back 2' from the edge?	☐**yes** ☐**no**	☐**yes** ☐**no**	☐**yes** ☐**no**
Have surface encumbrances been removed?	☐**yes** ☐**no**	☐**yes** ☐**no**	☐**yes** ☐**no**
Are there any signs of sloughing or cave-in?	☐**yes** ☐**no**	☐**yes** ☐**no**	☐**yes** ☐**no**
Is there water accumulation in the bottom?	☐**yes** ☐**no**	☐**yes** ☐**no**	☐**yes** ☐**no**
Are there vibration sources near the excavation?	☐**yes** ☐**no**	☐**yes** ☐**no**	☐**yes** ☐**no**
Is there adequate access/egress (ladder, ramp, etc.)	☐**yes** ☐**no**	☐**yes** ☐**no**	☐**yes** ☐**no**
Has the soil been disturbed previously?	☐**yes** ☐**no**	☐**yes** ☐**no**	☐**yes** ☐**no**
Sides	☐**yes** ☐**no**	☐**yes** ☐**no**	☐**yes** ☐**no**
Top	☐**yes** ☐**no**	☐**yes** ☐**no**	☐**yes** ☐**no**
If the excavation is > 20 feet deep, have engineering designs been documented and complied with?	☐**yes** ☐**no**	☐**yes** ☐**no**	☐**yes** ☐**no**

SIGNATURES

Supervisor

General Supervisor

Project/Construction Manager

Safety Representative

A-27 Site Specific Excavation Plan

Project Name: **Project #:**

Location: **Date:**

Company:

Submitted By:

Surface Encumbrances

Have Surface encumbrances that may create a hazard been removed or supported?

☐ Yes

☐ N/A

Underground Installations

Have Utility companies or owners been contacted? ☐ Yes ☐ N/A

By whom: Work Order #: Date:

When excavation operations approach the estimated location of underground installations, how will the exact location of the installations shall be determined?

☐ Probing ☐ Hand digging ☐ Detecting equipment ☐ Other

How will underground installations be protected?

☐ Support ☐ Removal ☐ Other

Access and Egress

Will structural ramps be used? ☐ Yes ☐ N/A

Designed by a competent person? ☐ Yes ☐ N/A

Will excavations be 4 feet in depth or more? ☐ Yes ☐ N/A

Means of egress (requiring no more than 25 feet of lateral travel) ☐ Yes ☐ N/A

☐ Stairway(s) ☐ Ramp(s) ☐ Ladder(s) ☐ Other

Exposure to vehicular Traffic? ☐ Yes ☐ N/A (If yes workers shall wear warning vests or other suitable garments.)

Exposure to falling loads? ☐ Yes ☐ N/A

☐ No workers permitted underneath loads

☐ Workers shall be required to stand away from any vehicle being loaded or unloaded. (Operators may remain in cabs)

Warning System for Mobile Equipment

Will mobile equipment operated adjacent to, or approaching the edge of, excavations have a clear and direct view of the edge of the excavation?

☐ Yes ☐ N/A If yes what warning system will be utilized?

☐ Barricade(s) ☐ Hand Signals ☐ Stop logs ☐ Other

Hazardous Atmospheres

Can oxygen deficiency or a hazardous atmosphere reasonably be expected to exist? ☐ Yes ☐ N/A

If yes, how will atmospheres in excavations greater than 4 feet in depth be tested?

If atmospheres contain less than 19.5% oxygen or other hazardous substance how will it be remediated?

When controls are intended to reduce the level of contaminants to acceptable levels, testing shall be conducted:

☐ Continuously ☐ Periodically

Will emergency rescue equipment be utilized? ☐ Yes ☐ N/A If yes what type?

☐ SCBA ☐ Harness and line ☐ Basket stretcher ☐ Other

A-27 Site Specific Excavation Plan

Water Accumulation

Will workers work in excavations in which there is accumulated water? ☐ Yes ☐ N/A

If yes is water controlled or prevented from accumulating by water removal equipment? ☐ Yes ☐ N/A

Equipment type: Competent Person:

Does excavation work interrupt the natural drainage of surface water (such as streams)? ☐ Yes ☐ N/A

Method used to divert water:

Stability of Adjacent Structures

Will the stability of adjacent structures be endangered by excavation operations? ☐ Yes ☐ N/A

If yes, what type of support structure will be used?

☐ Shoring ☐ Bracing ☐ Underpinning ☐ Other

If yes, but support structures will not be used, one of the following must apply:

☐ The excavation is in stable rock

☐ A registered professional engineer has determined that such work will not pose a hazard.

Name of registered professional engineer:

Protection from Loose Rock or Soil

How will workers be protected from materials or equipment that could fall or roll into excavations?

☐ Material placed > 2 feet from edge Retaining devices

Inspections

☐ Inspections of all excavations, adjacent areas and protective systems shall be made by a competent person.

☐ Inspections shall be conducted by the competent person daily, prior to the start of work and as needed throughout the shift. Inspections shall be documented on a Daily Excavation Inspection Form.

☐ Inspections shall be made after every rainfall or other hazard increasing occurrence.

☐ Where the competent person finds evidence of hazardous conditions, workers shall be removed from the hazardous area until the necessary precautions have been taken to ensure their safety.

Fall Protection

Will excavations be 6 feet or greater in depth? ☐ Yes ☐ N/A

If yes, fall protection will consist of:

☐ Barricades ☐ Fall restraint ☐ Harness ☐ Other

Will workers be required or permitted to cross over excavations? ☐ Yes ☐ N/A

If yes, guardrails shall be provided.

SIGNATURES

Supervisor	General Supervisor
Project/Construction Manager	Safety Representative

Appendix B
Glove Selection Guideline

GLOVE SELECTION GUIDELINE			
HAZARD	**EXAMPLE TASKS**	**ANSI CUT/ABRASION RATING***	**REPRESENTATIVE GLOVE**
Impact Hazards, Med/Heavy Duty Puncture Cut	Drilling/direct push activities. Construction. Heavy materials handling. Power tools. Air knifing. Excavation.	ANSI Cut and Abrasion Resistance **Level 5** **EN 388 4521**	Hexarmor®Chrome Hexarmor® GGT5 Hexarmor® L5 Hexarmor® SteelLeather III Ironclad® Kong Glove
Med/Heavy Duty Puncture Cut Oil/Solvent Resistant	Tasks where materials are treated with oil or solvents.	ANSI Cut and Abrasion Resistance **Level 3 - 4** **EN 388 4522**	Ansell Alpha-Tec ® Memphis® Ultra Tech Nitrile Cut & Splash Best® Neoprene 6780 Hexarmor™ TenX Threesixty
Medium Duty Cut/Puncture Gloves with Oily Surface Grip	Light materials handling, wet service	ANSI Cut and Abrasion Resistance **Level 3** **EN 388 44xx**	Best®Zorb-It Ultimate HV 4567 Ansell® Cut Protective Glove 97-505 Ansell HyFlex® 11-511 Ansell HyFlex® 11-624
Med/Heavy Duty Cut/Puncture	Light Materials Handling. System O&M. Use of Hand Tools. Hand Augering. Heavy Equipment Operator.	ANSI Cut and Abrasion Resistance **Level 2** **EN 388 33xx**	Perfect Fit® PF570 Hexarmor® Level Six 9010/9012 Ironclad® Cut Resistant Glove Ansell HyFlex® 11-511 Ansell HyFlex® 11-624 Ansell® Cut Protective Glove 97-505
Light Duty Cut/Puncture Abrasion Only	Handling soil and Groundwater Samples. Opening spoons. Well construction.	ANSI Cut and Abrasion Resistance **Level 2 - 4** **EN 388 21xx**	Memphis® Ninja Max N9676GL Memphis® UltraTech Dyneema 9676 Memphis® Ninja Ice (Cold Weather) Ansell HyFlex® 11-511 Ansell® Cut Protective Glove 97-505 Ansell® Powerflex 80-813 Ironclad™ Workforce
Light Duty Glove Cut/Abrasion (used under nitrile gloves)	Groundwater Sampling.	ANSI Cut and Abrasion Resistance **Level 2** **EN 388 21xx**	Ansell HyFlex® 11-500 Ansell HyFlex® 11-624 Ansell GoldKnit
* Reference to ANSI and EN 388 glove testing standards. Listed gloves meet the standards in the table but are not the only gloves that meet the standard.			
This selection chart is not intended to address all chemical hazards. Gloves used for chemical protection shall provide cut/puncture resistance or be used in tandem with cut/puncture protection. Nitrile gloves used for environmental sampling must be used in tandem with a cut/puncture resistant glove.			
Gloves available in high visibility colors have shown to be effective and are preferred.			

Appendix C
Heat & Cold Stress

COLD STRESS

Ambient air temperatures during site activities may create cold stress for on-site workers. Procedures for recognizing and avoiding cold stress must be followed. Cold stress can range from frostbite to hypothermia. The signs and symptoms of cold stress are listed below.

Frostbite is defined as the actual freezing of one or more layers of skin. In severe cases, organs and structures below the skin can become frozen. Usually, body areas exposed to the most cold, and least body warmth, are affected first. These areas include fingers, toes, ears, and the tip of your nose. Frostbite is characterized by pain and loss of dexterity in the affected limb. The tissue initially appears reddened, but may progress to white, blue, or black.

> **FIRST AID:** Bring the affected employee indoors and call the local emergency clinic. Rewarming of frostbitten parts is best left to a medical doctor in a controlled setting.

Hypothermia is the condition that occurs when the body's natural warming mechanisms (muscle activity and shivering) cannot counteract the loss of body heat to the environment. The onset of hypothermia is greatly hastened by being wet. Hypothermia is marked by severe, uncontrollable shivering. The patient will show signs of excessive fatigue, drowsiness, irritability, or euphoria. As hypothermia progresses, the patient will begin to lose consciousness, blood pressure will drop, shivering will cease, and the patient may slip into a coma and possibly die.

> **FIRST AID:** If these symptoms occur, remove the patient to a warm, dry place. If clothing is wet, remove and replace with dry clothing. Keep the patient warm, but not overheated. The patient should be gradually rewarmed to prevent shock. If the patient is conscious and alert, warm liquids should be provided. Coffee and other caffeinated liquids should be avoided because of diuretic and circulatory effects. Notify the emergency clinic if conditions worsen, the patient loses consciousness, or the patient has an altered mental status. Have the patient transported to an emergency facility.

General Precautions. The reduction of adverse health effects from cold exposure can be achieved by adopting the following work practices.

- Provide adequate insulating clothing to maintain core temperature at 98.6° F if work is to be performed in air temperatures below 40° F. Wind chill cooling rates and the cooling power of air are critical factors. The higher the wind speed and the lower the air temperature in the work area, the greater the insulation value of the protective clothing should be.
- If the air temperature is 32° F or less, hands should be protected by mittens/gloves.
- If only light work is involved and if the clothing on the worker may become wet on the job site, the outer layer of clothing should be impermeable to water. With more severe work under such conditions, the outer layer should be water repellent, and the outer layer should be changed as it becomes wet. The outer garments should include provisions for easy ventilation in order to prevent wetting of the inner layer by sweat.
- If available clothing does not give adequate protection to prevent cold injury, work should be modified or suspended until adequate clothing is available, or until weather conditions improve.
- For prolonged work, heated shelters should be available. Workers should be encouraged to use these at regular intervals, with the frequency depending on the severity of the environmental exposure. When entering the shelter, the outer layer of clothing should be removed and the remainder of the clothing

loosened to permit heat evaporation, or a change of work clothing should be provided.

- Warm, sweet drinks, such as hot cocoa or soup, should be available at the work site to provide caloric intake and fluid volume. The intake of coffee should be limited because of diuretic and circulatory effects.
- The weight and bulk of cold-weather gear should be included in estimating the required work performance and weights to be lifted in the field.

Workers should be instructed in safety and health procedures regarding cold work environments as part of the pre-work safety meeting. The training program should include instruction in preventing, recognizing, and treating cold stress conditions.

Wind Chill Chart

Wind (mph) \ Temperature (°F)	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63
10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72
15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77
20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81
25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84
30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89
40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
45	26	29	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95
55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97
60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98

Frostbite Times: 30 minutes | 10 minutes | 5 minutes

Wind Chill (°F) = $35.74 + 0.6215T - 35.75(V^{0.16}) + 0.4275T(V^{0.16})$

Where, T= Air Temperature (°F) V= Wind Speed (mph) *Effective 11/01/01*

HEAT STRESS

There is a potential for heat stress from the use of protective clothing and climate conditions. One or more of the following procedures may be employed to alleviate potential heat stress problems in the event that site conditions warrant the use of personal protective equipment (PPE), or ambient temperatures exceed 85° F. Heat stress training must be emphasized during the daily safety meetings, and adequate supplies of potable water must be provided to workers each day.

General Precautions. Provide plenty of liquids. To replace body fluids (water and electrolytes) lost because of sweating, use a 0.1 percent saltwater solution, more heavily salted foods, or commercial drink mixes. The commercial mixes may be preferable for those employees on a low sodium diet. Employees on low sodium diets, or other special diets, are advised to contact their personal physician for recommendations regarding appropriate electrolyte replacement fluids/beverages.

In extremely hot weather, conduct operations in early morning or evening and rotate shifts of workers wearing impervious clothing. Install mobile showers and/or hose-down facilities to reduce body temperature and cool protective clothing.

Ensure that adequate shelter is available for breaks to protect personnel against heat, which can decrease physical efficiency and increase the probability of accidents.

Acclimatization for workers not accustomed to working in elevated temperature environments will be considered and implemented as appropriate in accordance with American Conference of Governmental and Industrial Hygienists (ACGIH) Guidelines.

Heat Stress Monitoring.

For monitoring the body's recuperative ability toward excess heat, one or more of the following techniques should be used as a screening mechanism. Monitoring of personnel wearing impervious clothing should commence when the ambient temperature is 70° F or above. Frequency of monitoring should increase as the ambient temperature increases or as slow recovery rates are indicated. When temperatures exceed 80° F, regardless of the use of Personal Protective Equipment (PPE), workers will be monitored as work progresses during the day. .

Good hygienic standards must be maintained by the employee to aid in the prevention of heat stress illnesses. At a minimum, frequent changes of clothing and daily showering should occur with clothing being allowed to dry during rest periods. Persons who notice skin problems should immediately inform their supervisor.

Heart rate (HR) should be measured by the radial pulse for 30 seconds as early as possible in the resting period. The HR at the beginning of the rest period should not exceed 110 beats/minute. If the HR is higher, the next work period should be shortened by 25 percent. The HR is then measured again, once each minute for 2 minutes (a total of three measurements), after the initial rest period measurement. The HR should decrease by ten beats per minute between each measurement (a total reduction of 20 beats). If the HR does not decrease, the work period should be reduced by an additional 25 percent.

Body temperature can be measured orally with a clinical thermometer as early as possible in the resting period. Oral temperature (OT) at the beginning of the rest period should not exceed 99°F. If it is greater than 99°F, the next work period should be shortened by 25 percent. The OT should be measured again at the end of the rest period to make sure that it has dropped below 99° F.

Effects of Heat Street

If the body's physiological processes fail to maintain a normal body temperature because of excessive heat loading, a number of physical reactions can occur. The severity of these reactions ranges from mild (such as fatigue, irritability, anxiety, and decreased concentration, dexterity, or movement) to severe (fatal).

Heat-related illnesses include:

Heat rash (also known as prickly heat rash) is caused by continuous exposure to heat and humid air and aggravated by chafing clothes. Heat rash decreases the ability to tolerate heat as well as being a nuisance. Signs are not limited to, but may include, a red prickly rash.

FIRST AID: Employees exhibiting signs of heat rash will be directed to shower and change into clean, dry clothing.

Heat cramps are caused by profuse perspiration with inadequate fluid intake and electrolyte replacement (especially salts). Signs are muscle spasms and pain in the extremities and abdomen, and may occur several hours after work has stopped.

FIRST AID: Employees showing signs of heat cramps will be directed to lie in a cool, shady area, and drink cool fluids. If symptoms persist or worsen, the employee will be transported to an emergency facility.

Heat exhaustion is caused by increased stress on various organs to meet increased demands to cool the body. Signs are shallow breathing; pale, cool, moist skin; profuse sweating; dizziness and lassitude.

FIRST AID: Employees with signs of heat exhaustion will be brought to a cool, shady location and given fluids. After recovering, the employee will be dismissed for the day. If employee is unconscious, or conditions persist, the employee will be transported to a hospital.

Heat stroke is the most severe form of heat stress. The body must be cooled immediately to prevent severe injury and/or death. Signs and symptoms are red, hot, dry skin; no perspiration; nausea; dizziness and confusion; strong, rapid pulse; and/or coma.

FIRST AID: HEAT STROKE IS A MEDICAL EMERGENCY. Employees will be brought to a cool area, aggressively treated by removing constricting clothes and applying wet towels or ice packs, and transported without delay to an emergency facility.

Appendix D
OSHA Fact Sheet
Working Safely Around Downed Electrical Wires

OSHA FactSheet

Working Safely Around Downed Electrical Wires

Electrical hazards exist in some form in nearly all occupations. However, those hazards multiply for workers involved in cleanup and recovery efforts following major disasters and weather emergencies. One particular life-threatening danger exists around downed and low-hanging electrical wires.

Safety First

Above all else, always consider all equipment, lines and conductors to be energized. Be cautious and if you notice downed wires or damaged electrical equipment, contact appropriate utility personnel. Remember that circuits do not always turn off when a power line falls into a tree or onto the ground. Even if they are not sparking or humming, fallen power lines can kill you if you touch them or even the ground nearby.

Energy

Downed wires can energize other objects, including fences, water pipes, bushes and trees, buildings, telephone/CATV/fiber optic cables and other electric utilities. Even manhole castings and reinforcement bars (re/bar) in pavement can become energized by downed wires. During storms, wind-blown objects such as canopies, aluminum roofs, siding, sheds, etc., can also be energized by downed wires.

Backfeed

When electrical conductors are inadvertently energized by other energy sources, backfeed occurs. Some of those sources include:

- Circuit ties/switch points
- Lightning
- Generators
- Downstream events

Simply testing for energy sources is not sufficient since hazardous electrical events can happen without warning. Ensure that proper lockout/tagout procedures are always followed.

Rules to live by

- Do NOT assume that a downed conductor is safe simply because it is on the ground or it is not sparking.
- Do NOT assume that all coated, weather-proof or insulated wire is just telephone, television or fiber-optic cable.
- Low-hanging wires still have voltage potential even if they are not touching the ground. So, “don’t touch them.” Everything is energized until tested to be de-energized.
- Never go near a downed or fallen electric power line. Always assume that it is energized. Touching it could be fatal.
- Electricity can spread outward through the ground in a circular shape from the point of contact. As you move away from the center, large differences in voltages can be created.
- Never drive over downed power lines. Assume that they are energized. And, even if they are not, downed lines can become entangled in your equipment or vehicle.
- If contact is made with an energized power line while you are in a vehicle, remain calm and do not get out unless the vehicle is on fire. If possible, call for help.
- If you must exit any equipment because of fire or other safety reasons, try to jump completely clear, making sure that you do not touch the equipment and the ground at the same time. Land with both feet together and shuffle away in small steps to minimize the path of electric current and avoid electrical shock. Be careful to maintain your balance.

This is one in a series of informational fact sheets highlighting OSHA programs, policies or standards. It does not impose any new compliance requirements. For a comprehensive list of compliance requirements of OSHA standards or regulations, refer to Title 29 of the Code of Federal Regulations. This information will be made available to sensory impaired individuals upon request. The voice phone is (202) 693-1999; teletypewriter (TTY) number: (877) 889-5627.

For more complete information:

OSHA Occupational Safety and Health Administration

U.S. Department of Labor

www.osha.gov

(800) 321-OSHA

DOC 7/2005

Appendix E
Excavation Hazard Recognition Guide (Trenching/Shoring), Site Assessment Questions, and Related Guidance

OSHA®
Occupational Safety and Health Administration
www.osha.gov

Trenching and Excavation Safety

OSHA 2226-10R 2015

www.osha.gov

Occupational Safety and Health Act of 1970

"To assure safe and healthful working conditions for working men and women; by authorizing enforcement of the standards developed under the Act; by assisting and encouraging the States in their efforts to assure safe and healthful working conditions; by providing for research, information, education, and training in the field of occupational safety and health."

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This information will be made available to sensory-impaired individuals upon request. Voice phone: (202) 693-1999; teletypewriter (TTY) number: 1-877-889-5627.

This publication is intended to provide information about OSHA's Excavations standards at 29 CFR Part 1926, Subpart P. The *Occupational Safety and Health Act* requires employers to comply with safety and health standards promulgated by OSHA or by a state with an OSHA-approved state plan. However, this publication is not itself a standard or regulation, and it creates no new legal obligations.

Cover photo courtesy of Speed Shore Corp.

Trenching and Excavation Safety

U.S. Department of Labor
Occupational Safety and Health Administration

OSHA 2226-10R 2015

U.S. Department of Labor

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Introduction

Excavation and trenching are among the most hazardous construction operations. The Occupational Safety and Health Administration's (OSHA) Excavation standards, *29 Code of Federal Regulations (CFR) Part 1926, Subpart P*, contain requirements for excavation and trenching operations. This booklet highlights key elements of the standards and describes safe work practices that can protect workers from cave-ins and other hazards.

What is the difference between an excavation and a trench?

OSHA defines an excavation as any man-made cut, cavity, trench, or depression in the Earth's surface formed by earth removal. A trench is defined as a narrow excavation (in relation to its length) made below the surface of the ground. In general, the depth of a trench is greater than its width, but the width of a trench (measured at the bottom) is not greater than 15 feet (4.6 m).

What are the dangers of trenching and excavation operations?

Trenching and excavation work presents serious hazards to all workers involved. Cave-ins pose the greatest risk and are more likely than some other excavation-related incidents to result in worker fatalities. One cubic yard of soil can weigh as much as a car. An unprotected trench can be an early grave. Employers must ensure that workers enter trenches only after adequate protections are in place to address cave-in hazards. Other potential hazards associated with trenching work include falling loads, hazardous atmospheres, and hazards from mobile equipment.

What do the OSHA Excavation standards cover, and how do they protect workers?

The standards apply to all open excavations made in the Earth's surface, including trenches. Following the requirements of the standards will prevent or greatly reduce the risk of cave-ins and other excavation-related incidents.

What are the soil classification categories?

Some of the compliance methods permitted under the Excavation standards require a competent person to classify soil and rock deposits as:

- *Stable rock;*
- *Type A soil;*
- *Type B soil; or*
- *Type C soil.*

See *Appendix A to Subpart P of Part 1926 – Soil Classification.*

Stable Rock – Natural solid mineral matter that can be excavated with vertical sides and remain intact while exposed.

Type A – Cohesive soils with an unconfined compressive strength of 1.5 tons per square foot (tsf) (144 kPa) or greater. Examples include: clay, silty clay, sandy clay, and clay loam. Certain conditions preclude soil from being classified as Type A. For example, no soil is Type A if it is fissured or has been previously disturbed. See *Appendix A to Subpart P of Part 1926, paragraph (b) – Definitions* (*Type A),* for a detailed definition of Type A soil.

Type B – Includes cohesive soil with an unconfined compressive strength greater than 0.5 tsf (48 kPa) but less than 1.5 tsf (144 kPa) and granular cohesionless soils (such as angular gravel, similar to crushed rock, silt, silt loam, sandy loam, and, in some cases, silty clay loam and sandy clay loam). See *Appendix A to Subpart P of Part 1926, paragraph (b) — Definitions (Type B)*, for a detailed definition of Type B soil.

Type C – Cohesive soil with an unconfined compressive strength of 0.5 tsf (48 kPa) or less, granular soils (including gravel, sand, and loamy sand), submerged soil or soil from which water is freely seeping, submerged rock that is not stable, or material in a sloped, layered system where the layers dip into the excavation or with a slope of four horizontal to one vertical (4H:1V) or steeper. See *Appendix A to Subpart P of Part 1926, paragraph (b) — Definitions (Type C)*, for a detailed definition of Type C soil.

Note: Unconfined compressive strength means the load per unit area at which a soil will fail in compression. It can be determined by laboratory testing or estimated in the field using a pocket penetrometer, thumb penetration tests, or other methods.

See the video link below for additional guidance on classifying soil: www.osha.gov/dts/vtools/construction/soil_testing_fnl_eng_web.html.

What is a competent person?

A competent person is an individual, designated by the employer, who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous or dangerous to workers, and who is authorized to take prompt corrective measures to eliminate them.

Under the Excavation standards, tasks performed by the competent person include:

- Classifying soil;
- Inspecting protective systems;
- Designing structural ramps;
- Monitoring water removal equipment; and
- Conducting site inspections.

Preplanning

Why is preplanning important to excavation work?

No matter how many trenching, shoring, and backfilling jobs an employer has done in the past, it is important to approach each new job with care and preparation. Many on-the-job incidents result from inadequate initial planning. Waiting until after the

work starts to correct mistakes in shoring or sloping slows down the operation, adds to the cost of the project, and makes a cave-in or other excavation failure more likely.

What safety factors should be considered when bidding on a job?

Before preparing a bid, employers should know as much as possible about the jobsite and the materials they will need to have on hand to perform the work safely and in compliance with OSHA standards. A safety checklist may prove helpful when employers are considering new projects. Factors to consider may include:

- Traffic
- Proximity and physical condition of nearby structures
- Soil classification
- Surface and ground water
- Location of the water table
- Overhead and underground utilities
- Weather
- Quantity of shoring or protective systems that may be required
- Fall protection needs
- Number of ladders that may be needed
- Other equipment needs.

Employers can gather the information they need through jobsite studies, observations, test borings for soil type or conditions, and consultations with local officials and utility companies. This information will help employers determine the amount, kind, and cost of safety equipment they will need to perform the work safely.

How can employers avoid hitting underground utility lines and pipes during excavation work?

Before starting work, the Excavation standards require employers to do the following:

- Determine the approximate location(s) of utility installations — including sewer, telephone, fuel, electric, and water lines. One common industry practice is to call 811, the "Call Before You Dig" number, to establish the location of any underground utility installations in the work area.

- Contact and notify the utility companies or owners involved to inform them of the proposed work within established or customary local response times.
- Ask the utility companies or owners to establish the location of underground installations prior to the start of excavation work. If they cannot respond within 24 hours (unless the period required by state or local law is longer) or cannot establish the exact location of the utility installations, employers may proceed with caution, which includes using detection equipment or other acceptable means to locate utility installations.
- Determine the exact location of underground installations by safe and acceptable means when excavation operations approach the approximate location of the installations.
- Ensure that while the excavation is open, underground installations are protected, supported or removed as necessary to safeguard workers.

Protective Systems

How can employers prevent cave-ins?

OSHA generally requires that employers protect workers from cave-ins by:

- Sloping and benching the sides of the excavation;
- Supporting the sides of the excavation; or
- Placing a shield between the side of the excavation and the work area.

What types of protective systems can employers use to protect workers from cave-ins?

In many cases the type of protective system needed is well known and simple to use. At other times employers will undertake the more complex process of designing a protective system. Designing a protective system requires consideration of many factors, including: soil classification, depth of cut, water content of soil, weather and climate, and other operations

in the vicinity. Employers are free to choose the most practical design that will provide the necessary protections. Any system used must meet the required performance criteria.

The Excavation standards describe various methods and approaches that can be used to design protective systems. Examples of protective systems that can be used to comply with the Excavation standards include:

- Sloping the sides of the excavation to an angle not steeper than 1½:1 (for every foot of depth, the trench must be excavated back 1½ feet). A slope of this gradation is safe for any type of soil.

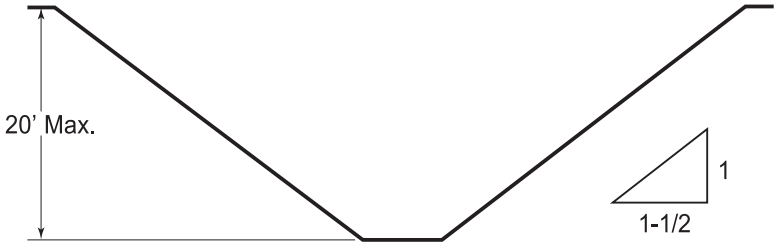

Figure 1. **Slope of 1½:1**

- Designing a sloping and benching system in accord with tabulated data, such as tables and charts, approved by a registered professional engineer. This data must be in writing and must include enough explanatory information (including the criteria for selecting a system and the limits on the use of the data) for the user to be able to select an appropriate protective system. At least one copy of the data, which identifies the registered professional engineer who approved it, must be kept at the worksite during construction of the protective system. After the system is completed, the data may be stored away from the jobsite, but a copy must be provided upon request to an OSHA compliance officer.
- Using a trench box or shield approved by a registered professional engineer or designed in accord with tabulated data approved by a registered professional engineer.

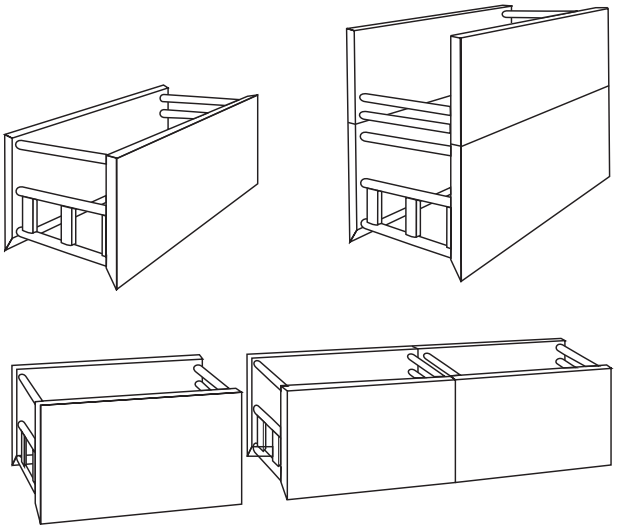

Figure 2. *Trench Shields*

The Excavation standards do not require a protective system when an excavation is made entirely in stable rock or when an excavation is less than 5 feet (1.52 meters) deep and a competent person has examined the ground and found no indication of a potential cave-in.

What other precautions do employers need to take to protect workers from cave-ins?

The Excavation standards require employers to provide support systems, such as shoring, bracing, or underpinning, when necessary to ensure that adjacent structures (including adjoining buildings, walls, sidewalks and pavements) remain stable for the protection of workers. The standards also prohibit excavation below the base or footing of any foundation or retaining wall that could be reasonably expected to pose a hazard to workers unless:

- The employer provides a support system, such as underpinning;
- The excavation is in stable rock; or

- A registered professional engineer determines that the structure is far enough away from the excavation that it would not be affected by the excavation activity or that the excavation work will not pose a hazard to workers.

Excavations that would undermine sidewalks, pavement, and appurtenant structures are prohibited unless the employer provides an appropriately designed support system or another effective method of protecting workers from the possible collapse of those structures.

What are the requirements for safely installing and removing protective systems?

The Excavation standards require employers to take certain steps to protect workers when installing and removing support systems. For example:

- Members of support systems must be securely connected to prevent sliding, falling, kickouts or predictable failure.
- Support systems must be installed and removed in a manner that protects workers from cave-ins and structural collapses and from being struck by members of the support system.
- Members of support systems must not be overloaded.
- Before temporary removal of individual members, additional precautions are required, such as installing other structural members to carry loads imposed on the support system.
- Removal must begin at, and progress from, the bottom of the excavation.
- Backfilling must progress together with the removal of support systems from excavations.

In addition, the standards permit excavation of 2 feet (0.61 meters) or less below the bottom of the members of a support system, but only if the system is designed to resist the forces calculated for the full depth of the trench and there are no indications, while the trench is open, of a possible loss of soil from behind or below the bottom of the support system. Employers must coordinate the installation of support systems with the excavation work.

What do employers need to do to maintain materials and equipment used for protective systems?

Employers are responsible for maintaining materials and equipment used for protective systems. Defective and damaged materials and equipment can cause protective systems to fail and lead to other excavation hazards. Employers must ensure that:

- Materials and equipment are free from damage or defects that might impair their proper function;
- Manufactured materials and equipment are used and maintained consistent with the manufacturer's recommendations and are used so as to prevent worker exposure to hazards;
- A competent person examines any damaged materials or equipment to evaluate its suitability for continued use; and
- If a competent person cannot assure that damaged material or equipment can support the intended loads or is otherwise suitable for use, the materials and equipment are removed from service until evaluated and approved by a registered professional engineer.

Additional Hazards and Protections

What other excavation hazards do employers need to address?

In addition to cave-ins and related hazards, workers involved in excavation work are exposed to hazards involving falling loads and mobile equipment. To protect workers from these hazards, OSHA requires employers to take certain precautions. For example, employers must:

- Protect workers from excavated or other materials or equipment that could pose a hazard by falling or rolling

inside the excavation by placing and keeping such materials or equipment at least 2 feet (0.61 meters) from the edge and/or by using a retaining device to keep the materials or equipment from falling or rolling into the excavation.

- Provide a warning system (such as barricades, hand or mechanical signals, or stop logs) when mobile equipment is operated adjacent to an excavation, or when such equipment must approach the edge of an excavation, and the operator does not have a clear and direct view of the edge.
- Protect workers from loose rock or soil that could fall or roll from an excavation face by scaling to remove loose material, installing protective barricades at appropriate intervals, or using other equivalent forms of protection.
- Institute and enforce work rules prohibiting workers from working on faces of sloped or benched excavations at levels above other workers unless the workers at the lower levels are adequately protected from the hazards of falling, rolling, or sliding material or equipment.
- Institute and enforce work rules prohibiting workers from standing or working under loads being handled by lifting or digging equipment.
- Require workers to stand away from vehicles being loaded or unloaded to protect them from being struck by any spillage or falling materials. (Operators may remain inside the cab of a vehicle being loaded or unloaded if the vehicle is equipped, in accord with 29 CFR 1926.601(b)(6), to provide adequate protection for the operator.)

What is the effect of water accumulation on excavation safety and what do employers need to do to protect workers from water-related excavation hazards?

Water in an excavation can undermine the sides of the excavation and make it more difficult for workers to get out of the excavation. The OSHA standards prohibit employers from allowing workers to enter an excavation where water has accumulated or is accumulating unless adequate precautions are taken to protect workers. Such precautions can include special

support or shield systems to prevent cave-ins, water removal to control the water level, or the use of a safety harness and lifeline. If an employer uses water removal equipment to control or prevent water accumulation, the equipment and operations must be monitored by a competent person to ensure proper use. If excavation work interrupts the natural drainage of surface water, the OSHA standards also require the use of diversion ditches, dikes, or other suitable means to prevent surface water from entering the excavation and to provide adequate drainage of the adjacent area. In addition, a competent person must inspect excavations subject to runoffs from heavy rains, and excavations subject to such runoffs are subject to the requirements described previously in this paragraph.

How can employers protect workers from hazardous atmospheres inside excavations?

Atmospheric testing is required before workers enter an excavation greater than 4 feet (1.22 meters) in depth where an oxygen deficiency or a hazardous atmosphere is present or could reasonably be expected, such as in excavations in landfill areas or excavations in areas where hazardous substances are stored nearby. If there are any hazardous conditions present, the employer must ensure that adequate precautions are taken to prevent employee exposure to those conditions. Such precautions include providing workers with proper respiratory protection or ventilation. In addition, when controls are used to reduce the level of atmospheric contaminants to acceptable levels, testing must be conducted as often as necessary to ensure that the atmosphere remains safe.

If hazardous atmospheric conditions exist or may reasonably be expected to develop in an excavation, the employer must ensure the ready availability of emergency rescue equipment, such as breathing apparatus, a safety harness and line, or a basket stretcher. This equipment must be attended when in use.

Note: In addition to the Excavation standards' provisions on hazardous atmospheres in excavations, OSHA's Confined Spaces in Construction standard (29 CFR Part 1926, Subpart AA) applies to non-excavation work within a confined space located in an

excavation. These standards are intended to complement each other and address two distinct hazards: hazardous atmospheres in excavations and the additional hazards associated with confined spaces located within excavations. For example, the Confined Spaces in Construction standard covers entry into a prefabricated storm drain, other pipe, or manhole even if located at the bottom of an open excavation.

What means of access and egress must employers provide?

OSHA requires employers to provide ladders, steps, ramps, or other safe means of egress for workers working in trench excavations 4 feet (1.22 meters) or deeper. The means of egress must be located so as not to require workers to travel more than 25 feet (7.62 meters) laterally within the trench.

Any structural ramps used solely for worker access or egress must be designed by a competent person. Structural ramps used for access or egress of equipment must be designed by a competent person qualified in structural design. Also, structural members used for ramps or runways must be uniform in thickness and joined in a manner to prevent tripping or displacement.

What protective equipment are employers required to provide to workers in pier holes and confined footing excavations?

Employers must ensure that any worker who enters a bell-bottom pier hole or similar deep and confined footing excavation wears a harness with a lifeline. The lifeline must be attached securely to the harness and must be separate from any line used to handle materials. Also, the lifeline must be individually attended by an observer at all times when the worker wearing the lifeline is in the excavation.

When must employers conduct site inspections?

Employers must ensure that a competent person inspects all excavations, adjacent areas, and protective systems daily for possible cave-ins, indications of failures in protective systems and equipment, hazardous atmospheres, and other hazardous

conditions. Inspections must be done prior to the start of work and as needed throughout the shift. Inspections are also required after natural events, such as rainstorms, or other hazard-increasing occurrences, such as blasting work. If an inspector finds any unsafe conditions during an inspection, the employer must clear workers from the hazardous area until the necessary safety precautions have been taken.

Conclusion

When employers share the details of their safety and health programs with workers, they should emphasize the critical role workers play in keeping the jobsite safe. Employers also need to emphasize specific practices that will help reduce the risk of on-the-job injuries at excavation sites. Such practices can include the following:

- Know where underground utilities are located before digging.
- Keep excavated soil (spoils) and other materials at least 2 feet (0.61 meters) from trench edges.
- Keep heavy equipment away from trench edges.
- Identify any equipment or activities that could affect trench stability.
- Test for atmospheric hazards such as low oxygen, hazardous fumes, and toxic gases when workers are more than 4 feet deep.
- Inspect trenches at the start of each shift.
- Inspect trenches following a rainstorm or other water intrusion.
- Inspect trenches after any occurrence that could have changed conditions in the trench.
- Do not work under suspended or raised loads and materials.
- Ensure that personnel wear high-visibility or other suitable clothing when exposed to vehicular traffic.

Employers should consider establishing and maintaining safety and health management systems that provide systematic

policies, procedures, and practices for protecting workers from job-related safety and health hazards. See www.osha.gov/Publications/safety-health-management-systems.pdf.

Workers' Rights

Workers have the right to:

- Working conditions that do not pose a risk of serious harm.
- Receive information and training (in a language and vocabulary the worker understands) about workplace hazards, methods to prevent them, and the OSHA standards that apply to their workplace.
- Review records of work-related injuries and illnesses.
- File a complaint asking OSHA to inspect their workplace if they believe there is a serious hazard or that their employer is not following OSHA's rules. OSHA will keep all identities confidential.
- Exercise their rights under the law without retaliation, including reporting an injury or raising health and safety concerns with their employer or OSHA. If a worker has been retaliated against for using their rights, they must file a complaint with OSHA as soon as possible, but no later than 30 days.

For more information, see OSHA's Workers page.

OSHA Assistance, Services and Programs

OSHA has a great deal of information to assist employers in complying with their responsibilities under OSHA law. Several OSHA programs and services can help employers identify and correct job hazards, as well as improve their injury and illness prevention program.

Establishing an Injury and Illness Prevention Program

The key to a safe and healthful work environment is a comprehensive injury and illness prevention program.

Injury and illness prevention programs are systems that can substantially reduce the number and severity of workplace injuries and illnesses, while reducing costs to employers. Thousands of employers across the United States already manage safety using injury and illness prevention programs, and OSHA believes that all employers can and should do the same. Thirty-four states have requirements or voluntary guidelines for workplace injury and illness prevention programs. Most successful injury and illness prevention programs are based on a common set of key elements. These include management leadership, worker participation, hazard identification, hazard prevention and control, education and training, and program evaluation and improvement. Visit OSHA's Injury and Illness Prevention Programs web page at www.osha.gov/dsg/topics/safetyhealth for more information.

Compliance Assistance Specialists

OSHA has compliance assistance specialists throughout the nation located in most OSHA offices. Compliance assistance specialists can provide information to employers and workers about OSHA standards, short educational programs on specific hazards or OSHA rights and responsibilities, and information on additional compliance assistance resources. For more details, visit www.osha.gov/dcsp/compliance_assistance/cas.html or call 1-800-321-OSHA (6742) to contact your local OSHA office.

Free On-site Safety and Health Consultation Services for Small Business

OSHA's On-site Consultation Program offers free and confidential advice to small and medium-sized businesses in all states across the country, with priority given to high-hazard worksites. Each year, responding to requests from small employers looking to create or improve their safety and health

management programs, OSHA's On-site Consultation Program conducts over 29,000 visits to small business worksites covering over 1.5 million workers across the nation.

On-site consultation services are separate from enforcement and do not result in penalties or citations. Consultants from state agencies or universities work with employers to identify workplace hazards, provide advice on compliance with OSHA standards, and assist in establishing safety and health management programs.

For more information, to find the local On-site Consultation office in your state, or to request a brochure on Consultation Services, visit www.osha.gov/consultation, or call 1-800-321-OSHA (6742).

Under the consultation program, certain exemplary employers may request participation in OSHA's **Safety and Health Achievement Recognition Program (SHARP)**. Eligibility for participation includes, but is not limited to, receiving a full-service, comprehensive consultation visit, correcting all identified hazards and developing an effective safety and health management program. Worksites that receive SHARP recognition are exempt from programmed inspections during the period that the SHARP certification is valid.

Cooperative Programs

OSHA offers cooperative programs under which businesses, labor groups and other organizations can work cooperatively with OSHA. To find out more about any of the following programs, visit www.osha.gov/cooperativeprograms.

Strategic Partnerships and Alliances

The OSHA Strategic Partnerships (OSP) provide the opportunity for OSHA to partner with employers, workers, professional or trade associations, labor organizations, and/or other interested stakeholders. OSHA Partnerships are formalized through unique agreements designed to encourage, assist, and recognize partner efforts to eliminate serious hazards and achieve model workplace safety and health practices. Through the Alliance Program, OSHA works with groups committed to worker safety

and health to prevent workplace fatalities, injuries and illnesses by developing compliance assistance tools and resources to share with workers and employers, and educate workers and employers about their rights and responsibilities.

Voluntary Protection Programs (VPP)

The VPP recognize employers and workers in private industry and federal agencies who have implemented effective safety and health management programs and maintain injury and illness rates below the national average for their respective industries. In VPP, management, labor, and OSHA work cooperatively and proactively to prevent fatalities, injuries, and illnesses through a system focused on: hazard prevention and control, worksite analysis, training, and management commitment and worker involvement.

Occupational Safety and Health Training

The OSHA Training Institute partners with 27 OSHA Training Institute Education Centers at 42 locations throughout the United States to deliver courses on OSHA standards and occupational safety and health topics to thousands of students a year. For more information on training courses, visit www.osha.gov/otiec.

OSHA Educational Materials

OSHA has many types of educational materials in English, Spanish, Vietnamese and other languages available in print or online. These include:

- Brochures/booklets;
- Fact Sheets;
- Guidance documents that provide detailed examinations of specific safety and health issues;
- Online Safety and Health Topics pages;
- Posters;
- Small, laminated QuickCards™ that provide brief safety and health information; and

- *QuickTakes*, OSHA's free, twice-monthly online newsletter with the latest news about OSHA initiatives and products to assist employers and workers in finding and preventing workplace hazards. To sign up for *QuickTakes* visit www.osha.gov/quicktakes.

To view materials available online or for a listing of free publications, visit www.osha.gov/publications. You can also call 1-800-321-OSHA (6742) to order publications.

Select OSHA publications are available in e-Book format. OSHA e-Books are designed to increase readability on smartphones, tablets and other mobile devices. For access, go to www.osha.gov/ebooks.

OSHA's web site also has information on job hazards and injury and illness prevention for employers and workers. To learn more about OSHA's safety and health resources online, visit www.osha.gov or www.osha.gov/html/a-z-index.html.

NIOSH Health Hazard Evaluation Program

Getting Help with Health Hazards

The National Institute for Occupational Safety and Health (NIOSH) is a federal agency that conducts scientific and medical research on workers' safety and health. At no cost to employers or workers, NIOSH can help identify health hazards and recommend ways to reduce or eliminate those hazards in the workplace through its Health Hazard Evaluation (HHE) Program.

Workers, union representatives and employers can request a NIOSH HHE. An HHE is often requested when there is a higher than expected rate of a disease or injury in a group of workers. These situations may be the result of an unknown cause, a new hazard, or a mixture of sources. To request a NIOSH Health Hazard Evaluation go to www.cdc.gov/niosh/hhe/request.html. To find out more, in English or Spanish, about the Health Hazard Evaluation Program:

E-mail HHERequestHelp@cdc.gov or call 800-CDC-INFO (800-232-4636).

OSHA Regional Offices

Region I
Boston Regional Office
(CT*, ME*, MA, NH, RI, VT*)
JFK Federal Building, Room E340
Boston, MA 02203
(617) 565-9860 (617) 565-9827 Fax

Region II
New York Regional Office
(NJ*, NY*, PR*, VI*)
201 Varick Street, Room 670
New York, NY 10014
(212) 337-2378 (212) 337-2371 Fax

Region III
Philadelphia Regional Office
(DE, DC, MD*, PA, VA*, WV)
The Curtis Center
170 S. Independence Mall West
Suite 740 West
Philadelphia, PA 19106-3309
(215) 861-4900 (215) 861-4904 Fax

Region IV
Atlanta Regional Office
(AL, FL, GA, KY*, MS, NC*, SC*, TN*)
61 Forsyth Street, SW, Room 6T50
Atlanta, GA 30303
(678) 237-0400 (678) 237-0447 Fax

Region V
Chicago Regional Office
(IL*, IN*, MI*, MN*, OH, WI)
230 South Dearborn Street
Room 3244
Chicago, IL 60604
(312) 353-2220 (312) 353-7774 Fax

Region VI
Dallas Regional Office
(AR, LA, NM*, OK, TX)
525 Griffin Street, Room 602
Dallas, TX 75202
(972) 850-4145 (972) 850-4149 Fax
(972) 850-4150 FSO Fax

Region VII
Kansas City Regional Office
(IA*, KS, MO, NE)
Two Pershing Square Building
2300 Main Street, Suite 1010
Kansas City, MO 64108-2416
(816) 283-8745 (816) 283-0547 Fax

Region VIII
Denver Regional Office
(CO, MT, ND, SD, UT*, WY*)
Cesar Chavez Memorial Building
1244 Speer Boulevard, Suite 551
Denver, CO 80204
(720) 264-6550 (720) 264-6585 Fax

Region IX
San Francisco Regional Office
(AZ*, CA*, HI*, NV*, and American Samoa,
Guam and the Northern Mariana Islands)
90 7th Street, Suite 18100
San Francisco, CA 94103
(415) 625-2547 (415) 625-2534 Fax

Region X
Seattle Regional Office
(AK*, ID, OR*, WA*)
300 Fifth Avenue, Suite 1280
Seattle, WA 98104
(206) 757-6700 (206) 757-6705 Fax

* These states and territories operate their own OSHA-approved job safety and health plans and cover state and local government employees as well as private sector employees. The Connecticut, Illinois, Maine, New Jersey, New York and Virgin Islands programs cover public employees only. (Private sector workers in these states are covered by Federal OSHA). States with approved programs must have standards that are identical to, or at least as effective as, the Federal OSHA standards.

Note: To get contact information for OSHA area offices, OSHA-approved state plans and OSHA consultation projects, please visit us online at www.osha.gov or call us at 1-800-321-OSHA (6742).

How to Contact OSHA

For questions or to get information or advice, to report an emergency, fatality, inpatient hospitalization, amputation, or loss of an eye, or to file a confidential complaint, contact your nearest OSHA office, visit www.osha.gov or call OSHA at 1-800-321-OSHA (6742), TTY 1-877-889-5627.

For assistance, contact us.
We are OSHA. We can help.

OSHA®
www.osha.gov

U.S. Department of Labor

For more information:

OSHA® Occupational Safety and Health Administration

www.osha.gov (800) 321-OSHA (6742)

Appendix F
Common Fire Extinguishing Agent Guide

UNITED STATES DEPARTMENT OF LABOR

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Extinguisher Basics

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Hydrostatic Testing | OSHA Requirements | Test Your Knowledge

This section provides basic information on fire and fire extinguishers:

- Fire and extinguisher operation
- Types of fire extinguishers

Fire and extinguisher operation

Fire triangle

To understand how fire extinguishers work, you need to understand a little about fire. Fire is a very rapid chemical reaction between oxygen and a combustible material, which results in the release of heat, light, flames, and smoke.

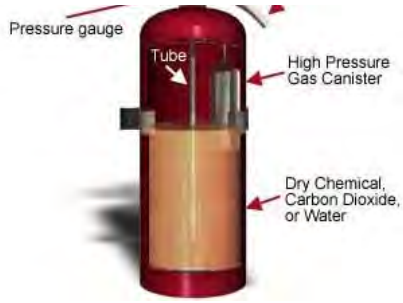
For fire to exist, the following four elements must be present at the same time:

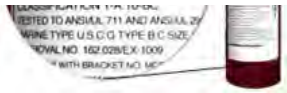
- Enough oxygen to sustain combustion,
- Enough heat to raise the material to its ignition temperature,
- Some sort of fuel or combustible material, and
- The chemical reaction that is fire.

How a fire extinguisher works

Portable fire extinguishers apply an extinguishing agent that will either cool burning fuel, displace or remove oxygen, or stop the chemical reaction so a fire cannot continue to burn. When the handle of an extinguisher is compressed, agent is expelled out the nozzle.

All portable fire extinguishers must be approved by a nationally recognized testing laboratory to verify compliance with applicable standards [29 CFR 1910.157(c)(2)]. Equipment that





passes the laboratory's tests are labeled and given an alpha-numeric classification based on the type and size of fire it will extinguish.

Let's take a look at the label pictured. The classification is:

1-A:10-BC

The letters (A, B, and C) represent the type(s) of fire for which the extinguisher has been approved.

The number in front of the A rating indicates how much water the extinguisher is equal to and represents 1.25 gallons of water for every unit of one. For example, a 4-A rated extinguisher would be equal to five (4 x 1.25) gallons of water.

The number in front of the B rating represents the area in square feet of a class B fire that a non-expert user should be able to extinguish. Using the above example, a non-expert user should be able to put out a flammable liquid fire that is as large as 10 square feet.

Types of fire extinguishers

Different types of fire extinguishers are designed to fight different types of fire. The three most common types of fire extinguishers are: air pressurized water, CO2 (carbon dioxide), and dry chemical. The following table provides information regarding the type of fire and which fire extinguisher should be used.

Extinguisher Type	Type of Fire
Water	**Ordinary Combustibles** Fires in paper, cloth, wood, rubber, and many plastics require a water type extinguisher labeled A.
CO2	**Flammable Liquids** Fires in oils, gasoline, some paints, lacquers, grease, solvents, and other flammable liquids require an extinguisher labeled B.
OR	
Dry Chemical	**Electrical Equipment** Fires in wiring, fuse boxes, energized electrical equipment, computers, and other electrical sources require an extinguisher labeled C.
	Ordinary Combustibles, Flammable Liquids, or Electrical Equipment

Multi-Purpose	Multi-purpose dry chemical is suitable for use on class A, B, and C.
Class D	**Metals** Fires involving powders, flakes or shavings of combustible metals such as magnesium, titanium, potassium, and sodium require special extinguishers labeled D.
Class K	**Kitchen Fires** Fires involving combustible cooking fluids such as oils and fats. **Note:** Your present fire extinguishing equipment may not put out a fire involving vegetable oil in your deep fat fryer.

Water - Air-pressurized water extinguishers (APW)

Water is one of the most commonly used extinguishing agents for type A fires. You can recognize an APW by its large silver container. They are filled about two-thirds of the way with ordinary water, then pressurized with air. In some cases, detergents are added to the water to produce a foam. They stand about two to three feet tall and weigh approximately 25 pounds when full.

APWs extinguish fire by cooling the surface of the fuel to remove the "heat" element of the fire triangle.

APWs are designed for Class A (wood, paper, cloth, rubber, and certain plastics) fires only.

Important:

- **Never use water to extinguish flammable liquid fires.** Water is extremely ineffective at extinguishing this type of fire and may make matters worse by the spreading the fire.
- **Never use water to extinguish an electrical fire.** Water is a good conductor and may lead to electrocution if used to extinguish an electrical fire. Electrical equipment must be unplugged and/or de-energized before using a water extinguisher on an electrical fire.

CO2 or Dry Chemical - Carbon dioxide extinguishers

This type of extinguisher is filled with Carbon Dioxide (CO2), a non-flammable gas under extreme pressure. These extinguishers put out fires by displacing oxygen, or taking away the oxygen element of the fire triangle. Because of its

high pressure, when you use this extinguisher pieces of dry ice shoot from the horn, which also has a cooling effect on the fire.

You can recognize this type of extinguisher by its hard horn and absent pressure gauge.

CO2 cylinders are red and range in size from five to 100 pounds or larger.

CO2 extinguishers are designed for Class B and C (flammable liquid and electrical) fires only.

Important:

- CO2 is not recommended for Class A fires because they may continue to smolder and re-ignite after the CO2 dissipates.
- Never use CO2 extinguishers in a confined space while people are present without proper respiratory protection.

Locations:

Carbon dioxide extinguishers will frequently be found in industrial vehicles, mechanical rooms, offices, computer labs, and flammable liquid storage areas.

Multi-purpose - Dry chemical extinguishers

Dry chemical extinguishers put out fires by coating the fuel with a thin layer of fire retardant powder, separating the fuel from the oxygen. The powder also works to interrupt the chemical reaction, which makes these extinguishers extremely effective.

Dry chemical extinguishers are usually rated for class B and C fires and may be marked multiple purpose for use in A, B, and C fires. They contain an extinguishing agent and use a compressed, non-flammable gas as a propellant.

ABC fire extinguishers are red in color, and range in size from five pounds to 20 pounds.

Dry Chemical extinguishers will have a label indicating they may be used on class A, B, and/or C fires.

Locations:

These extinguishers will be found in a variety of locations including: public hallways, laboratories, mechanical rooms, break rooms, chemical storage areas, offices, commercial vehicles, and other areas with flammable liquids.

Class K - Dry and wet chemical extinguishers for kitchen fires

Due to the higher heating rates of vegetable oils in commercial cooking appliances NFPA 10, Portable Fire Extinguishers, now includes a Class K rating for kitchen fires extinguishers which are now required to be installed in all applicable restaurant kitchens. Once a fire starts in a deep fryer, it cannot always be extinguished by traditional range hoods or Class B extinguishers.

- Do not attempt to use a Class A extinguisher containing water or CO2 on a deep fat fryer fire. An explosive type reaction may result.
- Place a placard near the Class K fire extinguisher which states: "In case of appliance fire, use this extinguisher only after the fixed fire suppression system has been actuated". Class K fire extinguishers are only intended to be used after the activation of a built-in hood suppression system. If no commercial cooking system hood and fire suppression system exists, Class K extinguishers are not required.
- Extinguishing agents in many Class K extinguishers are electrically conductive and should only be used after electrical power to the kitchen appliance has been shut off. Class K extinguishers use a variety of agents. Potassium bicarbonate is used in some Class K dry chemical extinguishers, and there are also Class K wet chemical extinguishers which spray a fine mist.
- Travel distance to a Class K extinguisher shall not exceed 30 feet.
- Install a 2-A water-type extinguisher or 6L wet chemical fire extinguisher for solid fuel cooking appliances with fire boxes.
- Inspect, test and maintain Class K fire extinguishers yearly.

Locations:

These extinguishers will be found in commercial cooking operations such as restaurants, cafeterias, and other locations where food would be served.

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Telephone: 800-321-OSHA (6742) | TTY

www.OSHA.gov

Appendix G
Job Safety Analysis (JSA)

JOB SAFETY ANALYSIS WORKSHEET

Department:	**Job Analyzed:**	**Date Completed:**
	Task Completed By:	**Supervisor:**
Location:	**Analysis By:**	**Reviewed By:**
	Approved By:	
Required Personal Protective and Emergency Equipment		

SEQUENCE OF JOB STEPS	POTENTIAL HAZARDS	CONTROLS/ PREVENTION MEASURES

Appendix H
Tailgate Meeting/Checklist

TAILGATE SAFETY MEETING FORM

Instructions

To be competed by supervisor prior to beginning of new job, when changes in work procedures occur, or when additional hazards are present. Reference related Job Hazard Analysis, Health & Safety Code Handbook direction, and ensure this form is maintained for the record.

NAME ,TYPE, LOCATION OF PROJECT OR WORK ACTIVITY:	**RMW(s) REFERENCED:**

TOPICS/HAZARDS DISCUSSED:

INFORMAL TRAINING CONDUCTED (Name, topics):

NAMES OF EMPLOYEES:

Supervisors Signature/Date: _____

Appendix I
Acknowledgement

PERSONAL ACKNOWLEDGEMENT

A component of the Health and Safety Plan (HASP), designed to provide personnel safety during this subsurface investigation requires that you receive training as described in the HASP prior to working at this site. Additionally, you are required to read and understand the HASP. When you have fulfilled these requirements, please sign and date this personal acknowledgement:

Name (Printed)	Signature	Date
Name (Printed)	Signature	Date
Name (Printed)	Signature	Date
Name (Printed)	Signature	Date
Name (Printed)	Signature	Date
Name (Printed)	Signature	Date
Name (Printed)	Signature	Date
Name (Printed)	Signature	Date
Name (Printed)	Signature	Date
Name (Printed)	Signature	Date

APPENDIX M

RESPONSE TO CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL DRAFT CCR COMMENTS

Department of Toxic Substances Control

Jared Blumenfeld
Secretary for
Environmental Protection

Meredith Williams, Ph.D.
Acting Director
700 Heinz Avenue
Berkeley, California 94710-2721

Gavin Newsom
Governor

February 22, 2019

Ms. Nina Larssen
Remediation Project Manager
Presidio Trust
P.O. Box 29052
San Francisco, California 94129-0052
nlarssen@presidiotrust.gov

SUBJECT: RESPONSES TO COMMENTS ON DRAFT CONSTRUCTION COMPLETION REPORT, LENDRUM COURT, PRESIDIO OF SAN FRANCISCO

Dear Ms. Larssen:

The Department of Toxic Substances Control (DTSC) has reviewed the Response to Comments received by electronic mail on January 4, 2019. The Response to Comments were in response to DTSC's comment letter dated October 26, 2018, for the *Draft Construction Completion Report (CCR), Lendrum Court, Presidio of San Francisco* dated July 26, 2018 prepared by TRC. Appendix L of the Draft CCR contained the draft Operations and Maintenance (O&M) Plan for Lendrum Court. Each Proposed Action was either accepted or accepted with changes. DTSC has provided comments on the Proposed Actions that need changes or clarification. The attached table documents DTSC's responses for each Proposed Action.

When submitting the revised report, please resubmit the Response to Comments table (attached) with an additional column that shows where the comment was addressed in the final document to expedite DTSC review.

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If you have any questions, please feel free to contact me at 510-540-3773 or Kimberly.Walsh@dtsc.ca.gov

Sincerely,

Kim Walsh, MPH
Project Manager
Site Mitigation and Restoration Program – Berkeley Office

ATTACHMENT - Table

cc via email:

Julie Pettijohn
DTSC
Julie.Pettijohn@dtsc.ca.gov

Isabella Roman
DTSC
Isabella.Roman@dtsc.ca.gov

Mr. Justin Hanzel-Durbin
Senior Engineer/Project Manager
TRC
Jhanzel-durbin@trcsolutions.com

	DTSC Comments 10/26/2018	Trust Response	Proposed Action	Status of DTSC Concurrence (3/20/19)	Edit Location
General Comments					
1	The subject document presents information about the remediation of the Lendrum Court Site excluding the Incinerator Area. However, the Remedial Action Workplan (RAW) applies to both Lendrum Court and the Incinerator Area. The document should be clarified to explain:	The RAW includes the Incinerator Area, identifies the selected remedy, and summarized the implementation of the remedey which had already occurred at the time of the RAW preparation. Additionally, Appendix A of the RAW includes detailed documentation of implementation of the investigation and implementation of the remedy by Caltrans as part of the Presidio Parkway construction. It was the Trust's understanding that by approving the RAW, DTSC was approving this implemented remedy and the documentation provided. Specifically, the Terraphase technical memorandum dated May 6, 2015 provides detailed documentation of the capping activities, including summary of the work, figures, photo log, field notes, and capping cross sections. Land Use Control implmention and administration is intended to be described in the LUCMRR Addendums.	The CCR will be amended to include text referencing back to the RAW for remedy completion information specific to the Incinerator Area. Additional text will be added to describe that the LUCs for the Incinerator Area and Lendrum Court will be handled separtely as two different LUCMRR Addendums, due to the different access and reporting mechanisms associted with the Incinerator fallilng within the Caltrans Highway easement deed.	**Accepted** When re-submitting RTCs with the revised document, please include references to each part of this comment.	Text added to Section 1.1
	the distinction between implementation of the Remedial Action Workplan (RAW) inside and outside the incinerator area,				
	how the remediation and installation of the two-foot thick soil cap in the incinerator area will be documented,				
	how land use controls will be implemented in Lendrum Court versus the Incinerator Area (i.e., is the O&M Plan in Appendix L intended to cover both areas?), and				
	how the Land Use Controls Master Reference Report (LUCMRR) will be amended for each area (i.e., will there be two separate documents?)				
2	The subject document states that chemicals of concern (COCs) varied depending on the findings of the remedial investigation (RI) with respect to the residential/landscaped area versus the historic forest area. The RI Report (EKI, 2015) establishes COCs based on the presence or absence of debris, not based on land use. The Final RAW and Revised Remedial Design and Implementation Plan (RDIP) also characterize the COCs based on the presence or absence of debris. Given the RI, RAW, and RDIP identify COCs based on debris, the analyte list for confirmation sampling within the debris footprint (or where debris was observed during remediation) should include dioxins and furans. Please identify the extent of Army-era debris encountered during remediation and provide a table of analytical results demonstrating that all debris-area COCs were below remediation goals in clean closure areas.	The Trust concurs that the COCs for specific areas of the site were selected based on the presence or absences of debris. Very little debris was observed in the clean clousre areas as most of them were at the edges of the Site, observations were made and photos were taken throughout the course of the project that can inform he extent of debris observed during constructon and can be used to generate a figure clarifying these extents.	Text will be revised to clearly state that COCs for specific areas of the site were selected based on the presence or absence of debris, A new figure will be generated showing the extent of debris observed during investigation and construction and will also include boundaries for which screening levels apply to which areas. Existing confirmation sampling tables will be reviewed to ensure remediation goals were met within clean closure areas.	**Accepted**	Text updated to Section 7.0, paragraph 3. Figure 14 added to provide debris extents and screening level boundaries.
3	Cleanup goals varied depending on the land use (RDIP, Appendix G). The subject document does not clearly identify the boundary between areas of residential use and recreational/ecological land use. Please include text and a figure that explains the location of the confirmation samples, extent of debris, and the land use (hence, the cleanup goals that were applied). Please provide an explanation for how the boundary between residential and recreational/ecological land use was determined.	The boundary between areas of residential use and recreational/ecological land use were described in TRC's July 2015 Remedial Action Workplan (RAW) and Appendix G of TRC's May 2016 Remedial Design and Implementation Plan (RDIP). A table was included in Appendix G of TRC's May 2016 RDIP (Table G-2) that identified confirmation samples and cleanup goals that were recommended for used to identify clean closure.	Text that was included in TRC's July 2015 RAW and Appendix G of May 2016 RDIP that explained the location of the confirmation samples, extent of debris, and the land use will be added to the revised Construction Completion Report. A figure will be included to in the revised Construction Completion Report that will identify the boundaries and cleanup goals. The Table G-2 from Appendix G of May 2016 RDIP will be updated with to reflect DTSC's General Comment 3 and Specific Comment 1.	**Accepted** with the following changes: Accepted, provided an explanation is included for how the boundary between residential and recreational/ecological land use was determined.	Table G3 Sample Tracking Table added in Appendix G identifies sampling discrepencies Text added referencing tables 2a-8b, and Appendix G in Section 7.0, paragraph 3. Figure 14 added to show screening level boundaries.
4	The text and figures do not completely and clearly describe residual concentrations in clean closure areas. Please expand the text to describe the sampling results that document residual chemical concentrations. Provide the rationale for clean closure if analytical results exceed cleanup goals. If an exposure point concentration (i.e., 95% upper confidence limit on the mean) approach is used, please note that on the figures as well as in the text.	Comment acknowledged.	Additional text will be added to the the revised Construction Completion Report that will describe the sampling results that document residual chemical concentrations, and provide rational for clean closure where cleanup goals were exceeded.	**Accepted**	Footnote added to Figure 11 (95% UCL rationale), new sections 7.4 and 7.5 were added and additional text was added to 7.6 to adress this.
5	The RAW (see RAW Figure 7) and RDIP (see RDIP Figure 3) do not include the paved area at the west end of Armistead Road in the asphalt cap area. The subject document does include this area. Please explain the rationale for, and significance of, this change to the remedy.	Sidewall sample 1258PS205[0.75] was collected beneath the sidewalk to help delineate the excavation west of Building 1258. The lead concentration in this sample exceeded the cleanup goal. Therefore, the hardscape CAP was extended to include this area.	Additional text will be added to the the revised Construction Completion Report that will describe the chage of remedy in this area.	**Accepted**	New section 7.4
6	DTSC observed several editorial errors during technical review of the subject document. For example, Section 3.4.3 states "The personal air samples were analyzed for airborne (list constituents)." Also, Table 1 includes a footnote referencing Appendix A for Table 6A, but Table 6A was not included in Appendix A. Please perform an editorial review of the entire document (including appendices, figure, and tables) and correct the document accordingly.	Comment acknowledged.	An full editorial review of the revised Construction Completion Report will be completed prior to submittal to DTSC.	**Accepted**	Global
Specific Comments					
1	Section 7.0 Soil Confirmation Sampling - This section states that "horizontal and vertical extents of each clean closed area was determined through confirmation sampling of COCs relevant to the area." However, Tables 2a through 8 do not provide dioxin results for the area northeast of Building 1278 as was planned in the RDIP. RDIP Appendix G Table G-2 notes that sample 1278EX102 was planned for dioxin analysis. Sample 1278EX102 was not collected (sample 1278EX104 appears to be in the same location as the planned sample). Please address this specific discrepancy in the report. Specifically, provide a table comparing the planned confirmation sampling to the implemented confirmation sampling and explain discrepancies.	Sample 1278EX102 was collected on June 6, 2016 at a depth of 0.5 feet below ground surface. However, the sample was not included in the tables in the Construction Completion Report. The sample was analyzed for PAHs and dioxin and furans. The sample had detections of PAHs at concentrations below cleanup goals, and OCDD was the only dioxin and furan compound that was detected. OCDD was detected at a concentration of 1.5E-5 milligrams per kilogram (mg/kg). The 2,3,7,8- tetrachlorodibenzo-para-dioxin toxicity equivalence (TCDD TEQ) of the OCDD concentration is 4.5E-9, which is below the cleanup goal of 8.2E-6. DTSC provided approval of clean closure for this area by email dated March 28, 2017.	The figures and analytical tables will also be throughly reviewed to include any missing data. Also, a table will be created to be included in the revised Construction Completion Report that will compare the planned confirmation sampling to the implemented confirmation sampling and will explain discrepancies.	**Accepted**	Confirmed that tables are QC'd Table 2 includes D-F results for 1278EX102 and Tables 2-8 include D-F results Table G-2 Sample Tracking Table in Appendix G identifies discrepencies (needs completed) Text added referencing tables 2a-8b, G-1, and G-2 in Section 7.0, paragraph 3.
2	Section 7.4 Building 1255/1256 Expanded Area, last paragraph - This paragraph characterizes potential lead exposure and proposes a land use control for the highly vegetated forest area north of Buildings 1255 and 1256 entirely based on human exposure. As noted in the text, eco special status screening levels are applicable in this natural resource area which was deemed valuable enough to preclude excavation. The extent of lead in this area is not well defined. Please expand this discussion to address potential ecological exposure and risk associated with residual concentrations of lead. Please specifically address uncertainties regarding the extent of contamination.	Comment acknowledged.	Additional text will be added to Section 7.6 inorder to discuss potential exposure to both human and ecological receptors to residual concentrations of lead, and to also address the uncertainties regarding the extent of contamination.	**Accepted**	Section 7.6
3	Section 8.0 Waste Management and Disposal - This section does not provide details of the sampling conducted for waste profiling or the supporting chemical data. Section 7.2 Pre-excavation Soil Confirmation Sampling also does not provide this information. Please provide details of the in-situ sampling that supported the pre-characterization of soil for disposal. Please provide the analytical data that supports waste profiling.	ERRG soil profiling results for this area. Took in-situ sample will be added as an attachment.	The in-situ sampling that supported the pre-characterization of soil for disposal will be included in the revised Construction Completion Report.	**Accepted**	A map with soil sampling locations, laboratory results, and waste prfiles are now included in Appendix E
4	Figures 3 and 4 - These figures are labeled as plans, not as-builts. Corresponding as-builts are not provided in Appendix D. Please provide complete as-built drawings. Specifically, please provide as-built cap details for the vegetated soil cap between Buildings 1259, 1278, 1279 and the historic forest. For the legend on Figure 3, please define the labels used to indicate cross-section details.	Comment acknowledged.	Figures will be edited as requested. Appendix D will include a complete set of as builts in the revised Construction Completion Report.	**Accepted**	As-built drawings provided in Appendix D including detail for the vegetated soil cap. Figure 3 legend updated to include labels identifying cross sections.

	DTSC Comments 10/26/2018	Trust Response	Proposed Action	Status of DTSC Concurrence (3/20/19)	Edit Location
5	Figure 9 - Sample 1258PS205[0.75] contained lead at 200 mg/kg. The cleanup goal is 80 mg/kg. Please explain the rationale for clean closure with an exceedance of the cleanup goal.	Sample 1258PS205[0.75] was a sidewall sample that was collected beneath the existing sidewalk. The sidewalk where sample 1258PS205[0.75] was collected beneath was included in the hardscape CAP that will be managed by the Trust. The remainder of the excavation area is planned for clean closure.	A footnote will be added to Figure 9 to indicate that the sample location is located beneath the hardscape CAP that will be managed by the Trust as part of the LUC.	**Accepted**	New Section 7.4 was added and a footnote was added to Figure 9
6	Figure 10 - The dioxin and furan results should include the total 2,3,7,8- tetrachlorodibenzo-para-dioxin toxicity equivalence (TCDD TEQ) for each sample for comparison with the cleanup goal. It appears that SLCEX102(0.5] contained total TCDD TEQ exceeding the cleanup goal. The clean closure area also appears to be bounded by concentrations that exceed the 160 mg/kg lead cleanup goal. Please explain the rationale for clean closure with concentrations exceeding cleanup goals.	Comment acknowledged for TCDD TEQ. The three confirmation samples along the southwest border of the clean closure boundary have lead concenrtations that exceed cleanup goals. The location of the three samples along the southern boundary are along the steep vegetated slope that is retained as "Interim Control Measure Area" as part of the incinerator/aerially deposited lead area remedial activity. The remainder of the area was clean closed.	A TCDD TEQ will be calculated for all dioxin and furans collected, and the figures will be updated with the TCDD TEQ value. The TCDD TEQ values will be compared to the current cleanup goal and values published in DTSC's April 2017 Human Health Risk Assessment Note 2 *Soil Remedial Goals for Dioxin and Dioxin-like Compounds for Consideration at California Hazardous Waste Sites* . The text in the revised Construction Completion Report will be updated to with discussion of the TCDD TEQ caluclations and the lead exceedances remaining in place.	**Accepted**	Figure10 and updated to include TCDD TEQ detection values. Areas which contained confirmation samples which exceeded the applicable screening levels that remain in place area discussed in sections 7.4-7.6
7	Figure 11 - Please see General Comment 4 and Specific Comment 2 above.	Please see response to General Comment 4 and Specific Comment 2.	Please see proposed actions for General Comment 4 and Specific Comment 2.	**Accepted**	Figure 11 Updated.
8	Figure 12 - For the legend on Figure 12, please define the labels used to refer to Figure 3.	Comment acknowledged.	Figure 12 legend will be edited as requested.	**Accepted**	Figure 12 legend updated.
9	Appendix A Contractor Construction Management Plan - This appendix does not appear to be a final document. There are several call-outs requesting additional information or providing corrections. This includes Appendix B (Storm Water Pollution Prevention Plan [SWPP]) in Appendix A. For example, Figure B-3 is a markup with requested corrections. Please complete Appendix A including the attached Appendix B SWPP.	Comment acknowledged.	The Final Contractor Construction Management Plan will be included in the revised Construction Completion Report.	**Accepted**	Appendix A
10	Appendix D As-Built Drawings - This appendix is incomplete. Please address the following comments:				
a	Irrigation plans are partially reproduced, and it is unclear to what extent these plans represent as-built conditions. Please revise Appendix D to completely present as-built drawings and to clearly indicate as-built conditions for irrigation systems.	Comment acknowledged. All irrigation lines are within the clean cap	A full set of as built drawings will be provided	**Accepted** with the following changes: Accepted, provided as-built conditions for irrigation systems	Irrigation drawings included in Appendix D
b	Appendix D does not contain as-built drawings for the caps. Please revise Appendix D to include as-built cap details.	Please see response to Specific Comment 10a.	Please see proposed actions for Specific Comment 10a.	**Accepted** with the following changes:	Included in Appendix D, C-110
c	The As-Built drawings should include details and cross sections for the anchor trenches installed as part of the cap, especially those sections with drains and drain outlets.	Please see response to Specific Comment 10a.	Please see proposed actions for Specific Comment 10a.	**Accepted**	Included in Appendix D, C-110, C-116 and C-117
d	See Specific Comment 4.	Please see response to Specific Comment 4.	Please see proposed actions for Specific Comment 4.	**Accepted**	Included in Appendix D, C-110
11	Appendix G Confirmation Sampling Lab Report and Chains of Custody - This appendix notes certain data quality issues but does not provide an evaluation of the usability of the data for its intended purpose. Please add a data quality review to Appendix G, consistent with the Addendum to the Presidio-Wide Quality Assurance Project Plan (Addendum to the QAPP; Presidio Trust, 2011), that addresses observed quality compared with project objectives. Please apply this comment to all data packages included in the report (e.g., Appendix H).	Comment acknowledged.	An evaluation of the data quality consistent with the Addendum to the Presidio-Wide Quality Assurance Project Plan (Addendum to the QAPP; Presidio Trust, 2011) will be performed on all data packages included in the report. The results of the evaluation will be included in the revised Construction Completion Report.	**Accepted**	Data validation included in Appendix G
12	Appendix L Operations and Maintenance Plan-				
a	Section 1.0 - Please include reference to the 2012 Operations and Maintenance Agreement between DTSC and the Trust. Please clarify if the plan applies only to the Lendrum Court residential area and does not apply to the former incinerator area. Please include a figure to make this distinction explicit. If the O&M Plan is intended to cover both Lendrum Court and the Incinerator Area, a completion report is needed for the incinerator area before the O&M Plan can be approved.	Completion reporting information for the Incinerator Area was presented and approved as Appendix A of the RAW. The O&M plan is intended to cover both Lendrum Court and the Incinerator Area, with the understanding that by approving the RAW, DTSC was approving the implemented remedy and documentaion provided of the Incinerator Area.	The text will be expanded to clarify that the O&M plan will include both Lendrum Court and the Incinerator Area.	**Accepted**	Texted updated in Appendix L, Section 1.0 and 1.1
b	Section 1.3.2 Remedial Action Design and Implementation - the third bullet in this section states "...a heavily vegetated area identified as North 1255/1256 Forest Area on Figure 2 has been identified as a LUC area, being safe in its current configuration." Please expand the text to explain how this was determined keeping in mind Specific Comment 2 above.	Comment acknowledged.	The text will be expanded in the revised Construction Completion Report to include discussion about the how the current configuration of the LUC for North 1255/1256 Forest Area was determined as safe. The text will include discussion associated with the protection of human and ecological receptors.	**Accepted**	Text updated in Appendix L, Section 1.3.2, Tree and Plant Health, and in Appendix L, Seciton 2.1, Paragraph 3
c	Section 1.4 Land Use Controls at Lendrum Court - Please see provide an example of the proposed signage and revise this section as necessary to address Specific Comment 2 above. Please add the approval date for the LUCMRR Addendum once available.	Comment acknowledged.	The Trust will provide DTSC with example sign language.	**Accepted** with the following changes: Accepted, provided the text is revised consistent with Specific Comment 2 and the approval date of the LUCMRR	Language added in Appendix L, Section 1.4
d	Section 2.0 Inspections, Maintenance, and Repair - Please address the following comments:				
	Explain the specific methods that will be used to remotely inspect the integrity of the cap in the incinerator area.	Comment acknowledged.	Trust is working with CalTrans on access agreements.	**Accepted**	Text updated in Appendix L, Section 2.0, Paragraph 2
	Explain the professional qualifications of the inspection supervisor.	The inspection supervisor needs to be a California licensed Professional Geologist or Engineer with experience in reviewing and inspecting CAPs.	The text of the revised Construction Completion Report will be updated.	**Accepted**	Text updated in Appendix L, Section 2.0, Paragraph 1
	Note in the text that the inspection reports will be submitted to DTSC (per Section 6.0).	Comment acknowledged.	The revised Construction Completion Report will included recommended edits.	**Accepted**	Text updated in Appendix L, Section 2.0, Paragraph 2
	Note in the text that DTSC approval of revisions to the O&M Plan (e.g., revision of site inspection log form) is required.	Comment acknowledged.	The revised Construction Completion Report will included recommended edits.	**Accepted**	Text updated in Appendix L, Section 2.0, Paragraph 3
	Explain who will be responsible for checking the significance of rain and seismic events and initiating post-event inspections of erosion control systems and cap integrity. Include the professional qualifications of the inspector. Please include fire, flood, and utility line breach as examples of events that would trigger inspection.	The Trust remediation manager will select parties responsible for monitoring the integrity of the CAP. Inspectors should be experienced in reviewing and inspecting CAPs, which include staff level geologists, engineers, or scientists working under the direction of a California licensed Professional Geologist or Engineer with experience in reviewing and inspecting CAPs.	The text of the revised Construction Completion Report will be updated to clearly state who is responsible and what their minimum professional qualifications are.	**Accepted** with the following changes: Accepted, provided triggering inspection events (fire, flood and utility line breach) are included in the revised text.	Text updated in Appendix L, Section 2.0, Paragraph 5
e	Section 2.1 Cap Integrity - Please address the following comments:				
	Clearly state who is responsible for monitoring cap integrity for each type of cap (hardscape, soil, vegetation) and what their minimum professional qualifications are.	The Trust remediation manager will select parties responsible for monitoring the integrity of the CAP. Inspectors should be experienced in reviewing and inspecting CAPs, which include staff level geologists, engineers, or scientists working under the direction of a California licensed Professional Geologist or Engineer with experience in reviewing and inspecting CAPs.	The text of the revised Construction Completion Report will be updated to clearly state who is responsible and what their minimum professional qualifications are.	**Accepted**	Text updated in Appendix L, Section 2.0, Paragraph 5
	See comment on Section 1.3.2 above regarding safety of North 1255/1256 Forest Area and revise text accordingly.	Comment acknowledged. Please see response to Specific Comments 2 and 12b.	Please see proposed actions for Specific Comments 2 and 12b.	**Accepted**	Text updated in Appendix L, Section 2.0, Paragraph 5
f	Section 2.5 Emergency Monitoring and Maintenance - Please see comments above regarding triggering events and identifying who will be responsible for implementing this part of the plan; revise text accordingly.	The Trust remediation manager will select parties responsible for implementing the Emergency Monitoring and Maintenance. Inspectors and maintenance personnel should be experienced in reviewing and inspecting CAPs, which include staff level geologists, engineers, or scientists working under the direction of a California licensed Professional Geologist or Engineer with experience in reviewing and inspecting CAPs.	The text of the revised Construction Completion Report will be updated to clearly state who is responsible and what their minimum professional qualifications are.	**Accepted** with the following changes: Accepted, provided triggering events are included in the revised text.	Text updated in Appendix L, Section 2.5, Paragraph 3

	DTSC Comments 10/26/2018	Trust Response	Proposed Action	Status of DTSC Concurrence (3/20/19)	Edit Location
g	Section 3.0 Health and Safety, Appendix B Site-Specific Health and Safety Plan (HASP) Template - While DTSC does not approve or reject Health and Safety Plans submitted by the Trust, we do offer the following comments for your consideration:				
	The HASP template in Appendix B is somewhat site-specific and somewhat generic. Site-specific information is readily available (e.g., O&M field tasks, nature and extent of residual contamination, occupational exposure limits, etc.) to complete a site-specific HASP.	Comment acknowledged.	A site-specific HASP will be prepared for the Site and will be included in the revised Construction Completion Report.	**Accepted**	A Site-specific HASP is available as Appendix B
	Respiratory protection is discussed, but air monitoring is not. It is unclear how field staff will determine if action levels are exceeded.	Comment acknowledged.	A site-specific HASP will be prepared for the Site and will be included in the revised Construction Completion Report.	**Accepted**	Discussed in Appendix B
	Appendix B is missing sections on illumination, sanitation, and spill containment procedures.	Comment acknowledged.	A site-specific HASP will be prepared for the Site and will be included in the revised Construction Completion Report.	**Accepted**	Acknowledged in Appendix B in Tables 5 and 6
	A radiation safety plan is attached to Appendix B but there is no discussion of radiation hazards in the site history of the Construction Completion Report.	Comment acknowledged.	A site-specific HASP will be prepared for the Site and will be included in the revised Construction Completion Report.	**Accepted**	Acknowledged as N/A in Appendix B in Tables 8 and 9
h	Section 4.0 Future Development Considerations - Please address the following comments:				
	This section notes that the Incinerator Area will continue to be covered by the highway suggesting that the area is paved, but the approved RAW describes a two-foot thick soil cap in the incinerator area and during a site visit we observed thick vegetation in the area. Please revise the text to more accurately describe the land use in the Incinerator Area.	Comment acknowledged.	Additional text will be added to provide a better description that will more accurately describe the land use in the Incinerator Area in the revised Construction Completion Report.	**Accepted**	Text updated in Appendix L, Section 4.0
	The text notes that Lendrum Court tenants will be informed of the LUC. Please explain the mechanism(s) that will be used to inform the residents.	The Lendrum Court tenants leasing from the Trust will be notified of the LUCs with updated lease agreements, which will provide information about the LUCs in place.	Trust will provided DTSC with the text from the lease.	**Accepted**	Text updated in Appendix L, Section 4.0 indicating notification through updated lease agreements. Exact language to be incoporated into lease agreements not in Appendix L. Exact languange needs to be obtained and incorporated from Trust or provided to DTSC in a separate submittal.
	Correct the text to state that digging at the site will be prohibited by the Trust. Please explain how that prohibition will be monitored and enforced.	Comment acknowledged. All soil digging activities will require a dig permit that will be provided by the Trust.	The revised Construction Completion Report will included recommended text. Also, the Lendrum Court tenants leases will be updated to include restrictions associated with digging activities.	**Accepted**	Stated in Appendix L, Section 4.0, bullet points. Monitoring described in Section 4.0.
	Explain how the incinerator area is currently restricted and how the area will be restricted in the future.	The incinerator area restriction include permanent Caltran fencing, details regarding this area will be included in site specific documents.	Text will be added to claify incinerator area restrictions. Since there will only be one O&M plan for all three LUC area, add section on the incinerator area.	**Accepted**	Text updated in Appendix L, Section 4.0, paragraph 3 that references the Incinerator LUCMRR that includes incinerator area restrictions.
i	Section 6.1 Annual Inspection Summary Reports - Please insert the following text to the end of the last sentence of this section: "for approval of the proposed change."	Comment acknowledged.	The revised Construction Completion Report will included recommended text.	**Accepted**	Text updated in Appendix L, Section 6.1, paragraph 2
j	Section 6.2 Five-Year Review Reports - Please revise the timing of the initial five-year review report to begin five years from the date that DTSC approves the LUCMRR Addendum for Lendrum Court . Please reference USEPA guidance for five-year reviews currently available at https://www.epa.gov/superfund/writing-five-year-reviews-superfund-sites#general_anchor	Comment acknowledged.	The revised Construction Completion Report will included recommended edits.	**Accepted**	Text updated in Appendix L, Section 6.2, paragraph 1
k	Section 6.3 Data and Document Availability - Please revise the text to state that data and documentation will be retained for six years from the termination of the Lendrum Court Voluntary Oversight Agreement between DTSC and the Trust.	Comment acknowledged.	The revised Construction Completion Report will included recommended edits.	**Accepted**	Text updated in Appendix L, Section 6.3, paragraph 1
l	Section 7.0 Financial Assurance - Please revise the last sentence of this section to state "The cost of O&M and associated DTSC oversight activities will be covered by the Trust."	Comment acknowledged.	The revised Construction Completion Report will included recommended text.	**Accepted**	Text updated in Appendix L, Section 7.0
m	Section 8.0 Variance or Modification of the O&M Plan - Please revise the second sentence to state, "The Trust will submit a written request to DTSC for such variations from the O&M Plan."	Comment acknowledged.	The revised Construction Completion Report will included recommended text.	**Accepted**	Text updated in Appendix L, Section 8.0
n	Figure 2 Site Plan - The color shown for "recycled concrete aggregate base path and box steps" is nearly identical to the color shown for "areas of asphalt, pavement, AB pads, and hardscape that serve as cap." Please revise the color for recycled concrete aggregate base path and box steps to match that shown for that feature on Figure 3 of the Completion Report.	Comment acknowledged.	The colors and hatching on Figure 2 will be compared to Figure 3 of the Completion Report and updated accordingly in the revised Construction Completion Report.	**Accepted**	Figures 2 updated and consistent with Figure 3.
o	Table 1 Inspection and Monitoring Schedule - Please include all the hardscape inspection items from Section 2.1 in Table 1.	Comment acknowledged.	Table 1 will be updated in the revised Construction Completion Report to include items from Section 2.1.	**Accepted**	Table 1 has been updated to include items from Section 2.1.
p	Appendix A Site Inspection Log - The inspection log is missing some the of the inspection items for hardscape elements (see above comment on Table 1). Section 2.0 states that the incinerator area will be remotely inspected but the site inspection log does not include this area. Please resolve this discrepancy (see also General Comment 1). Please add instructions to the log for implementing the inspection. For example, include references to figures showing the location of the features listed for inspection, and reference minimum qualification for inspectors for each cap element. Also, please include instructions on completing figure markups and photographic log as attachments to the inspection log.	Comment acknowledged.	The Site Inspection Log will be updated in the revised Construction Completion Report to included recommended edits.	**Accepted**	O&M Plan Appendix A has been updated to include implementation instuctions, all cap elements, and incinerator area.