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UNDERGROUND STORAGE TANK CLOSURE REPORT

For:

1380 Mound St., Alameda, CA Project Site

Prepared For:

Mr. Flavio Barrantes
City of Alameda
950 West Mall Square
Alameda, CA 94501

Prepared By:

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Benicia, CA 94510
(707) 751-3817

September 30, 2014

ENV

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UNDERGROUND STORAGE TANK CLOSURE REPORT
1380 MOUND STREET, ALAMEDA CA

1.0 INTRODUCTION

This report has been prepared for the sole purpose of documenting the procedures implemented for the in-place closure of and Underground Storage Tank (UST) located at 1380 Mound Street, Alameda, California.

1.1 Site Location and Description

The site located at 1380 Mound Street, is situated in a residential community with the City and County of Alameda. It is comprised of a flat developed lot on which a single family dwelling currently resides. It is bounded to the North by Mound Street, the South and West by adjacent residences, and the East by Central Avenue (Figures 1 and 2, Appendix A). The site was previously developed by the Alameda Unified School District and served as the former location of Lincoln Middle School which was demolished in 1977.

1.2 Background

In March of 2013, local residents observed seeps of a heavy oil or tar like substance upwelling through cracks and fractures in the sidewalk directly in front of the residence located at the subject property. The observation of "oily product" seepage was reported to the City of Alameda and Alameda Fire Department. Subsequently, the County Department of Environmental Health (ACDEH) and, State of California Water Resources Control Board (SWRCB) were adjoined to the conversation concerning the oil seeps. Review of correspondence between the interested parties indicated that the source of the seeps was not able to be ascertained at that time, but that the possibility of the existence of an UST was relevant. Review of historical documents as far back as the early 1900's by numerous entities, indicated that no permits to install an UST were issued by any regulating or governing body for the subject tank at the subject property.

In order to confirmed or exclude the presence of an UST, The city of Alameda pursued and completed a Geophysical Investigation of the sidewalk in and around the area of the seeps. The investigation was performed at the site by Advanced Geological Service (AGS) on March 27, 2014 (Appendix B). The results of the investigation as presented in the AGS Report dated April 2, 2014 indicated that an anomaly which resembled an underground structure approximately 10-feet x 20-feet dimensionally was present. Further commentary on the reported structure indicated that the unit may have been a 5,000 gallon metallic tank situated beneath the sidewalk directly adjacent to the property line. The AGS report was shared with the ACDEH, and guidance pertaining to regulatory protocol for UST closure was requested. At that time the ACDEH suggested that the tank should be removed and requested a work plan to complete the work. Thus, the City of Alameda retained ENV America, Inc. (ENV) to perform the UST removal/closure.

Evaluation of the site conditions conducted by ENV in preparation for the closure of the subject UST indicated numerous concerns pertaining to logistical and potential structural complications which may affect the integrity of the street and surrounding surface structures stemming from the removal of the tank. Evaluation of United States Geological Survey and Department of Water Resources data for the general vicinity of the subject property indicates that the lithology of the soil beneath the site is comprised primarily of silty sand and sandy silt. Shallow groundwater in the vicinity of the site has been encountered at depths ranging from 6 to 10-feet below grade surface (bgs) and resides predominantly within sand lenses.

As the typical burial depth of 5,000 gallon tanks is commonly set at approximately 12 to 15-feet below grade surface, and in consideration of the fact that soil would be required to be excavated to that depth in order to fully expose and remove the tank, as well as consideration of the soil conditions present beneath the site, removal of the subject UST would require that the tank excavation be shored, or an engineered sloping or benching be implemented. However, due to the presence of local overhead utilities and what was believed to be the proximity of the tank to a joint trench located at the property line, the use of traditional shoring methods where in question, and space limitations create a hardship for sloping and/or benching. Without the implementation of a shoring system or adequate sloping of the sidewalls of the excavation, the structural integrity of the sidewalls of the excavation would become compromised and thereby cause damage to the street and surrounding topography, and immediately adjacent structures.

Furthermore, question of the actual location and size of the tank existed as Geophysical surveys typically have a +/- footage margin of error consideration associated with them which could provide some degree of errors in depiction of dimension, location, and orientation. It was possible that the UST was actually located several feet from where the investigation indicated and/or substantially smaller dimensionally. A variance in the tank's location and size could have substantially affected the process for removal and/or closure. Therefore, in consideration of the significant geotechnical and structure implications associated with the project, and with the definitive accuracy of the location and size of the tank being in doubt, it was the advisory of ENV and its geotechnical/structural engineering associates, that additional information pertaining to the location and size of the tank, and soil conditions be disseminated prior to further commencement of UST closure activities. Accordingly, ENV proposed to expose the surface of the tank and associated piping, and assess the surrounding soil lithology and stability prior to making a determination of the viability of removing the tank.

Between July 28 and July 29, 2014, excavation activities were conducted at the site to expose and define the tank and its associated piping. Upon completion of tank exposition activities, it was confirmed that the UST was in fact, a 2,500 gallon single walled, steel structure that is situated directly beneath the sidewalk, parallel to Mound Street and directly adjacent to the residential property line. The top of UST was encountered at 5-feet bgs. The tank was measured at 64-inches diameter by 16-feet long. Fuel oil was observed to still be resident in the tank and associated fill and delivery piping, and upwelled from the pipes during on site activities. A 2-inch diameter pipe which runs along the northwest side of the tank parallel to Mound Street and buried at a depth of 1-foot bgs was also encountered during on site activities. The pipe was confirmed to terminate at the utility pole located approximately 35 -feet northeast of the tank. Tank and pipe detail are presented on Figure 3. All overburden soils removed were placed in on-site 20 cubic yard roll-off bins and sampled in preparation for profiling and transport and disposal.

The lithology of the soil surrounding the tank was observed and confirmed to be predominantly comprised of silty sand and sandy silt. Saturated soils and groundwater seepage was encountered at 6-feet bgs indicating a shallow water bearing unit somewhere between 6 and 8-feet bgs. Sloughing of the excavation sidewalls occurred fairly consistently during tank exposition activities indicating instability of the soils surrounding the tank. Numerous subsurface utility lines were also confirmed to be present directly adjacent to the UST.

In consideration of the structural integrity issues concerning the sidewalls of the excavation, associated complications with the installation of shoring, and evidence of existing adjacent utility lines, ENV found that there was qualified merit in an in-place closure of the UST. Thus, with the concurrence of the ACDEH, ENV prepared a Work Plan to close the tank in-place (Provided as Appendix B, combined with the AGS Report). The Work Plan was approved by the ACDEH on August 5, 2014.

2.0 SCOPE OF WORK

2.1 Underground Storage Tank In-Place Closure

Between August 6, and 11, 2014, ENV removed the UST fill and product delivery system main-line, and mobilized a 120 bbl vacuum truck to the project site to remove the extremely viscous and highly aromatic fuel oil resident in the tank, and cleaned the tank. Upon removal of the tank contents, two access and entry holes were cut in the top of the tank using a pneumatically driven cold chisel. The interior of the tank was then cleaned using high pressure hot water and BioSolve detergent. The rinsate generated was pumped into the vacuum truck to be disposed of with the oil. Upon completion of cleaning, the tank was inspected by the ACDEH and certified clean by Edgar Environmental, a Certified Marine Chemist. The inspection report and certification is attached as Appendix C.

Upon receipt of approval from the ACDEH to proceed with the in-place closure on August 13, the tank was permanently closed in-place by filling the entirety of the tank cavity with Controlled Density Fill (CDF). The CDF was pumped under pressure to ensure that all void spaces were filled. The accessible product delivery lines which were determined to run into the residential property and possibly beneath the residential structure, were grouted in place and capped. The accessible portion of the return line was removed in its entirety. All removed lines, pipes, and components, were cut and packaged in 55-gallon DOT approved drums, labeled, and prepared for transport to a state certified landfill for disposal.

The open excavation was backfilled with clean imported Class II ¾-inch Aggregate Base Rock to within 4-inches of surface grade. The rock was placed in 1-foot lifts and compacted to 95% relative dry compaction. Compaction testing was performed and certified by Stevens, Ferrone, & Bailey, a licensed geotechnical and materials testing firm located in Concord, California. A copy of the nuclear gage testing is provided as Appendix D. The disturbed surfaces were restored with concrete and/or asphalt to match the existing surroundings in accordance with City of Alameda specifications.

2.2 Waste Disposition

The waste generated during the UST closure program was transported under appropriate manifests and disposed of as follows:

- Oil/Water — Environmental Logistics, Bakersfield, CA
- Hydrocarbon impacted concrete and soil — Potrero Hills Landfill, Suisun City, CA
- Product piping — US Ecology Landfill, Beatty, NV

Copies of manifests and disposal documentation is provided as Appendix E.

3.0 SOIL SAMPLING

In accordance with ACDEH requirements, a post UST Closure Soil and Groundwater Sampling Program (Appendix F) was implemented. The program was initiated on August 12, 2104 and consisted of the advancement of 3 soil borings, collection of soil samples, and obtainable groundwater sample(s). A notation is hereby made that deviations from the initial Sampling Program/Plan were made in the field as there was no recovery of soil in the sampler, due to moisture saturated sandy soil encountered at 8-feet bgs (bottom of the tank). Thus, samples were collected at achievable points (between 4.5 and 6.0 feet bgs).

The soil borings were located at the north, west, and south ends of the tank. Boring locations are presented on Figure 4. Each boring was advanced using a manually operated hand auger equipped with a 2-1/2" auger bit. Discrete samples were collected at 3 and 6-feet bgs from each bore hole location (B-1 through B-3), using a slide hammer equipped with a 2-inch x 6-inch brass sleeve. Both the auger and the sampler were decontaminated between boreholes using Tri-Sodium Phosphate and double rinsed to prevent cross contamination between boring and sampling locations. The brass sleeves were capped with Teflon sheeting and Polyethylene caps, labeled with the sample ID and client's name, placed in a pre-cooled container, and transported under chain of custody to Curtis & Tompkins, a state certified laboratory located in Emeryville, California for chemical evaluation.

A single groundwater sample was collected from the north end of the tank using a new Teflon disposable bailer. The groundwater sample was packaged in 40 ML VOA, 1-liter amber, and 250ML containers, placed in a pre-cooled container, and transported with the soil to the laboratory.

The soil samples were subjected to evaluation of Total Petroleum Hydrocarbons as gasoline (TPH-g) by EPA method 8015M, Total Petroleum Hydrocarbons as diesel (TPH-d) by EPA method 8015M, Oil & Grease (O&G) by EPA method 9070, Volatile Organic Compounds (VOC) by EPA method 8260B, Semi-Volatile Organic Compounds (SVOC), PCB, Phenols, Creosote, and Dioxane by EPA method 8270M, and CAM 17 Metals by EPA method 6010. The groundwater sample was subjected to evaluation of TPH-g by EPA method 8015M, TPH-d by EPA method 8015M, O&G by EPA method 9070, VOC by EPA method 8260B, and SVOC by EPA method 8270M.

3.1 Sample Results

As presented in the Curtis & Tompkins Report dated August 21, 2014, (Appendix G), and Tables 1 and 2 below, detectable concentrations of TPH-d were encountered in the soil sample collected from the B1 location (North or fill pipe end of tank at 3-feet bgs), and B2 location (West side of tank at 5-feet bgs). Detectable concentrations of TPH-d were also noted in the groundwater sample collected from the B1 location. Total O&G was identified all samples collected. CAM 17 Metals were also identified, however, when compared to the University of California, Kearney Foundation Report on Background Concentrations of Trace and Major Elements in California Soils data, the uniform and consistent concentrations appear to be considered "background" and naturally occurring for that area.

Table1
Summary of Soil Sample Results
1380 Mound St., Alameda, CA

Sample ID	TPH-d	O&G
B-1-3.0	410	660*
B-1-6.0	ND	27
B-2-3.0	ND	85
B-2-5.0	65	33
B-3-3.0	ND	25
B-3-4.5	ND	19

Notations and Abbreviations:

Sample ID nomenclature = Location of sample followed by depth of sample
ND = Non Detect
Results are presented as mg/Kg or milligrams per kilogram
* Indicates exceedance of ESLs

Table2
Summary of Water Sample Results
1380 Mound St., Alameda, CA

Sample ID	TPH-d	O&G
B-1-GW	1,200*	ND

Notations and Abbreviations:

ND = Non Detect
Results are presented as ug/L or micrograms per liter
* Indicates exceedance of ESLs

4.0 CONCLUSIONS AND RECCOMENDATIONS

The concentrations of both TPH-d in groundwater and O&G in soil at the B1 location do in fact, exceed the SWRCB Environmental Screening Levels (ESL) for residential land use. However, in consideration of the fact that the concentrations are minimally over the ESLs, and the impact to soil and groundwater appears to be isolated, and from a preliminary perspective, do not appear to pose an imminent threat to human health or the environment, it is the opinion of ENV that in accordance with the guidelines and criteria of the SWRCB Low Threat Underground Storage Tank Case Closure Policy, the subject site qualifies for the low threat program. Thus a petition to move the site into the low threat program by the ACDEH should be made with the ACDEH Local Oversight Program.

5.0 REFERENCES

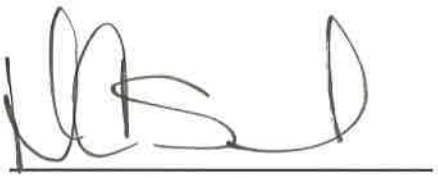
- Various e-mail correspondence, *March 2013 – May 2013*
- Advanced Geological Service, *Report of Geophysical Investigation Results, 1380 Mound St., Alameda, CA, April 2, 2014*
- ENV America, Inc., *Work Plan and Permit Application for Closure of Underground Storage Tank, 1380 Mound St., Alameda, CA July 30, 2014*
- ENV America, Inc., *Sample Collection and Testing Methodology, August 11, 2014*
- Curtis & Tompkins, Ltd, Analytical Laboratories, *Analytical Report, August 21, 2014*
- University of California, Kearney Foundation, *Report on Background Concentrations of Trace and Major Elements in California Soils, March 1996*
- State of California Regional Water Quality Control Board, Report on Environmental Screening Levels, December 2013
- State of California Regional Water Quality Control Board, *Low-Threat Underground Storage Tank Case Closure Policy, August 2012*

6.0 LIMITATIONS

This Final Underground Storage Tank Closure Report was prepared on behalf of and for the use of the City of Alameda, and their respective partners, investors, representatives, successors and assigns, and lenders, for the specific site located at 1380 Mound Street, Alameda, California. Use of this report by any other party shall be at such party's sole risk.

ENV America makes no warranty as to the accuracy of statements made by others which are contained in this Report, nor are any other warranties or guarantees, express or implied, included or intended in the Report with respect to information supplied by outside sources or conclusions or recommendations substantially based on information supplied by outside sources. This Report has been prepared in accordance with the current generally accepted practices and standards consistent with the level of care and skill exercised under similar circumstances by other professional consultants or firms performing the same or similar services.

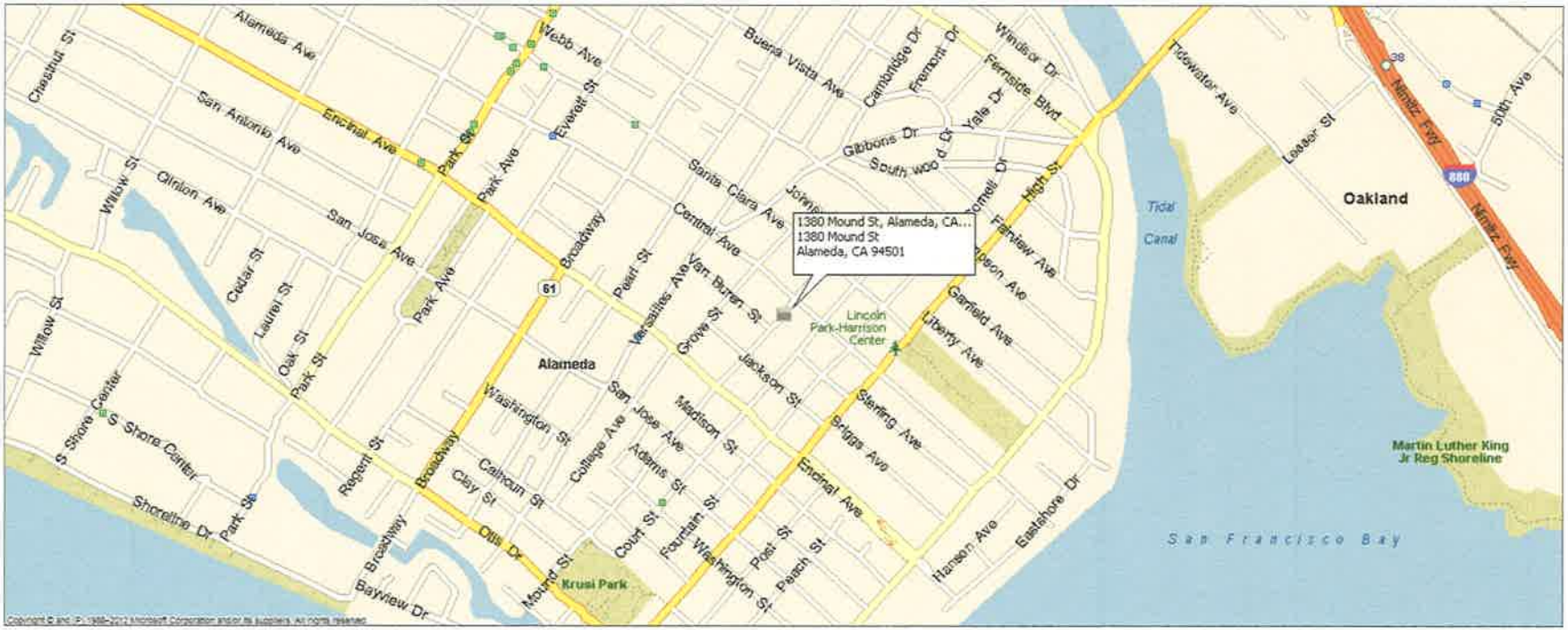
None of the work performed hereunder shall constitute or be represented as a legal opinion of any kind or nature, but shall be a representation of findings of fact from records examined.



David C. Solis, JD, PhD, PE
Principal Engineer

APPENDIX A

FIGURES



ENV America, Inc			
City of Alameda UST Closure Site Location Map			
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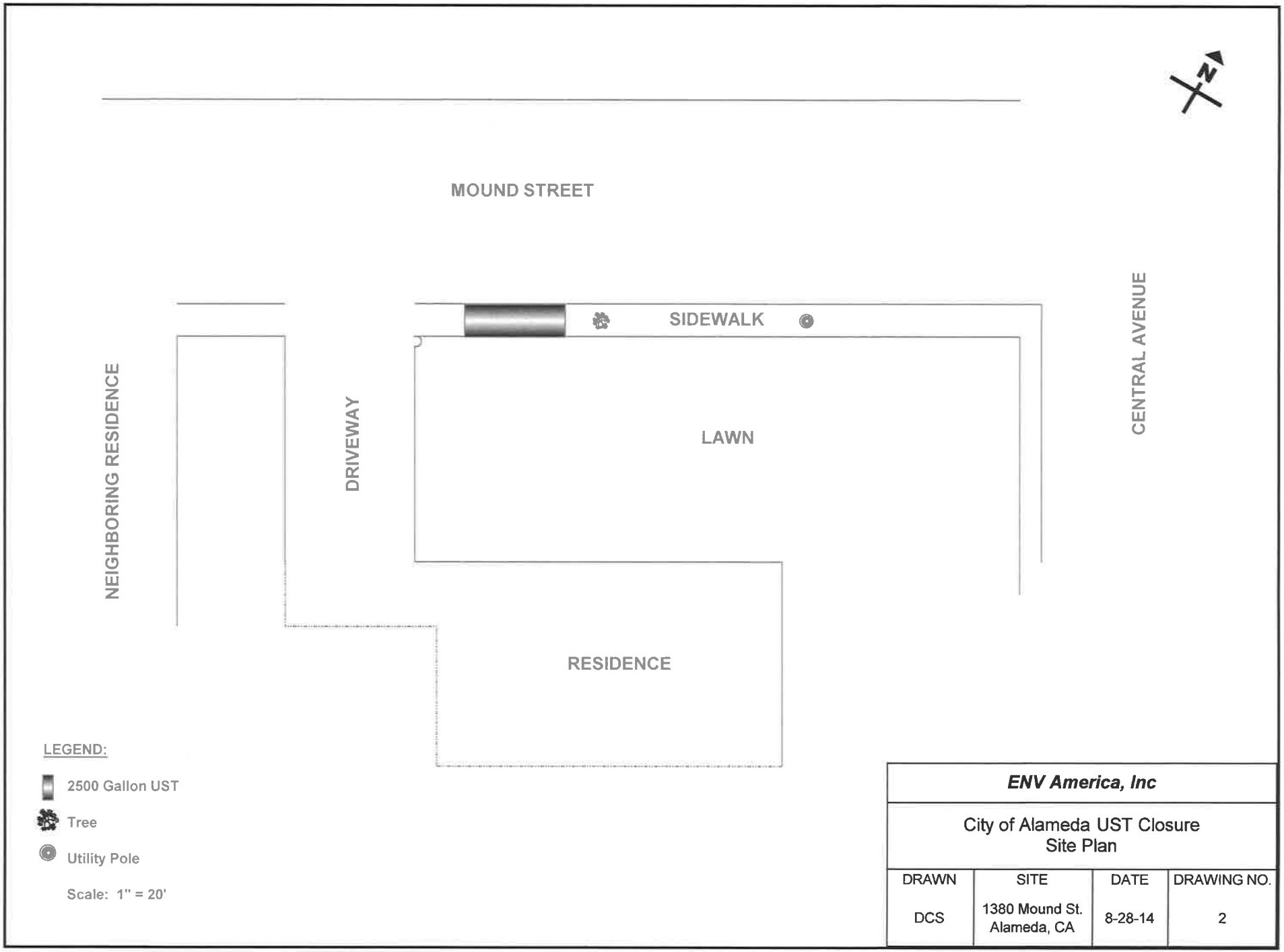

ENV America, Inc			
City of Alameda UST Closure Site Plan			
DRAWN	SITE	DATE	DRAWING NO.
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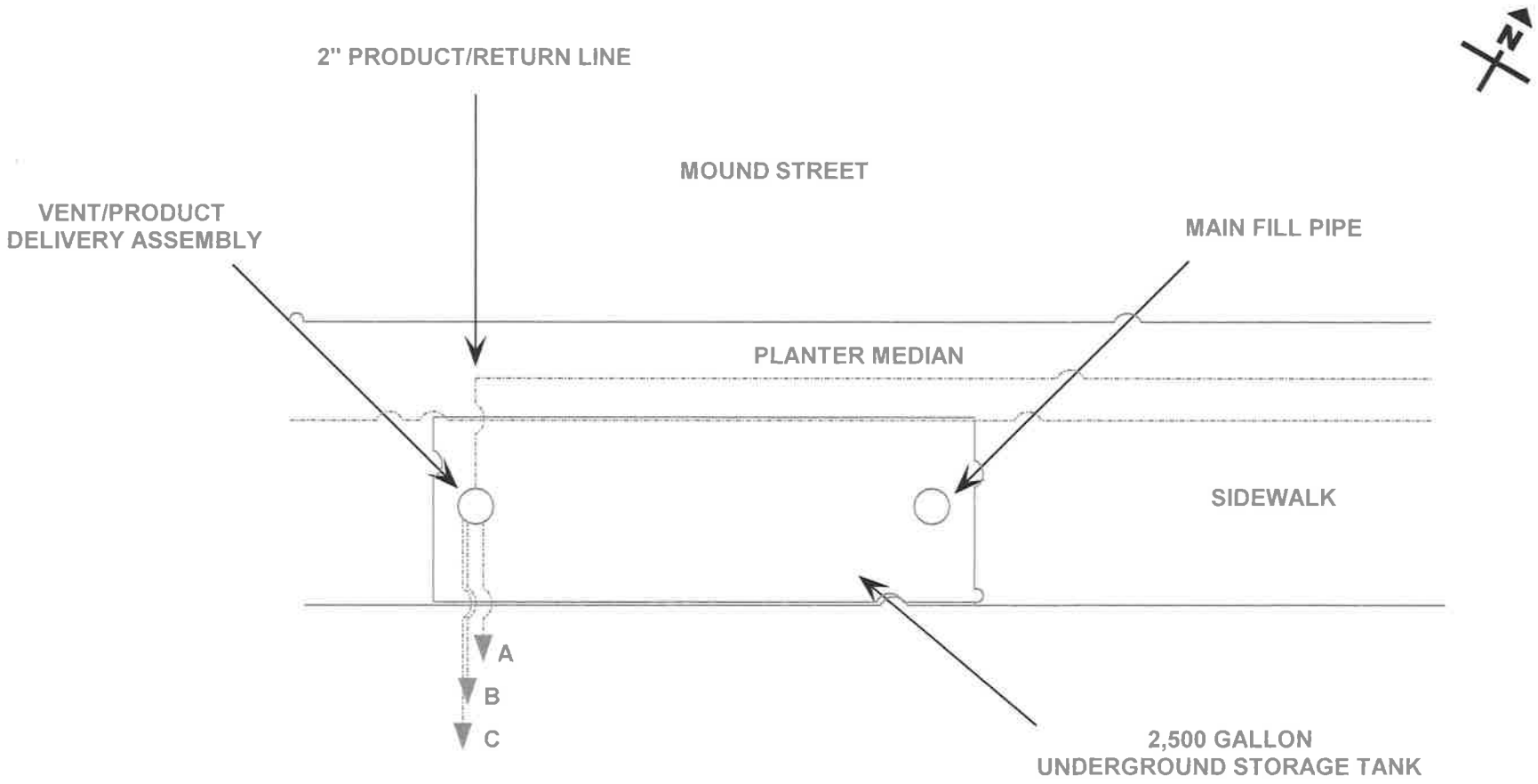

LEGEND:

+ A = Refusal at 3 ft Lineal Length
+ B = 40 ft + Lineal Length
+ C = 40 ft + Lineal Length
+ Scale: 1" = 5'

ENV America, Inc			
City of Alameda UST Closure Tank and Pipe Detail			
DRAWN	SITE	DATE	DRAWING NO.
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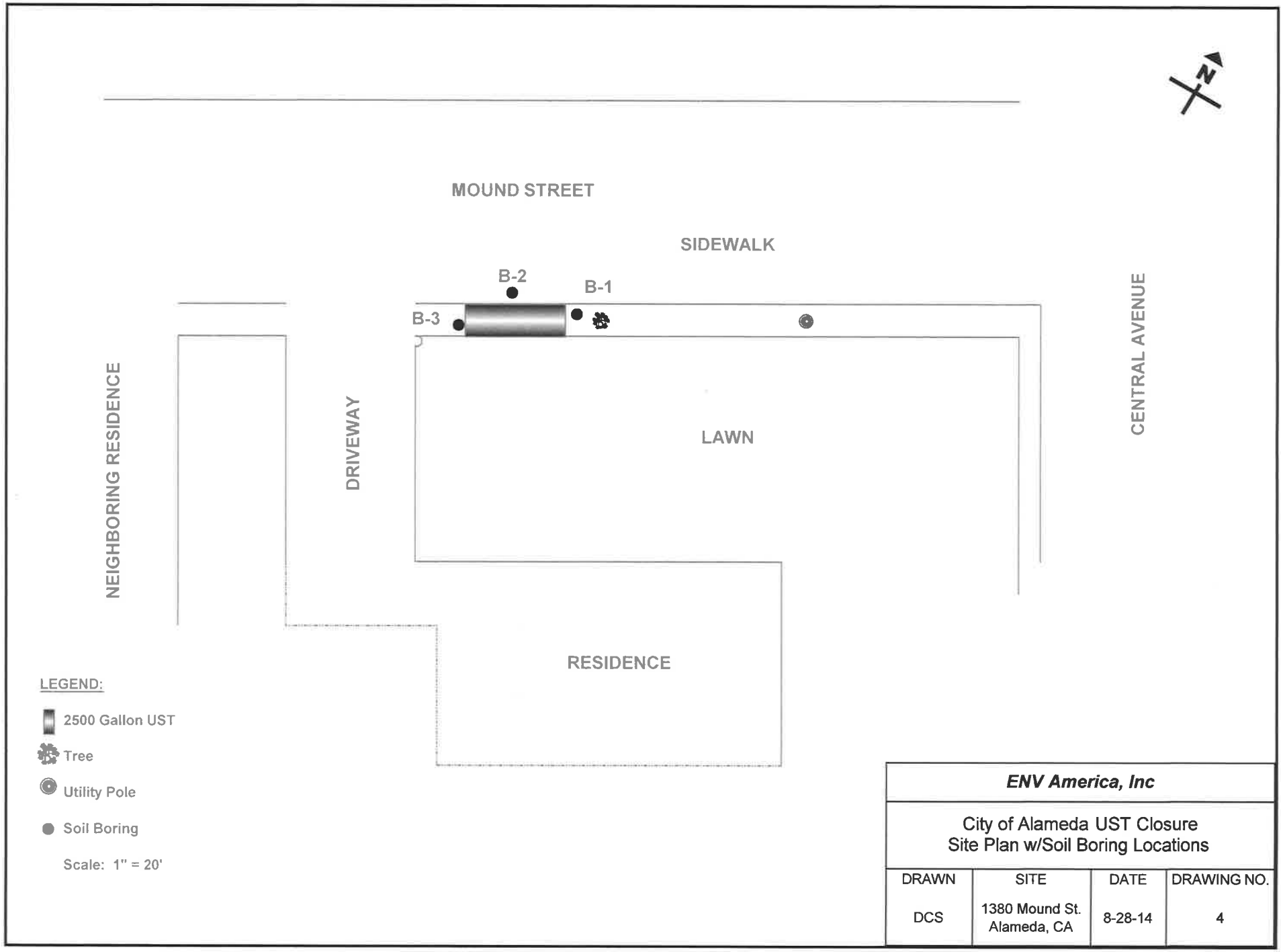


ENV America, Inc			
City of Alameda UST Closure Site Plan w/Soil Boring Locations			
DRAWN	SITE	DATE	DRAWING NO.
DCS	1380 Mound St. Alameda, CA	8-28-14	4

APPENDIX B

ENV UST CLOSURE WORK PLAN W/AGS REPORT

ENV

July 31, 2014

Mr. Robert Weston
Alameda County Health Agency
1131 Harbor Bay Parkway
Alameda, CA 94502

RE: Work Plan for Closure of the Underground Storage Tank Located at 1380 Mound Street, Alameda, CA

Dear Mr. Weston:

ENV America, Inc. (ENV) is pleased to submit this Work Plan for the in-place abandonment of the Underground Storage Tank (UST) confirmed to be resident at 1380 Mound Street, Alameda, California (Figure 1, Appendix A)

Introduction and Project Summary

A Geophysical Investigation was performed at the site by Advanced Geological Service (AGS) on March 27, 2014 (Appendix B) for the purposes of identifying and confirming the presence of a suspected UST beneath the subject property. The results of the investigation as presented in the AGS Report dated April 2, 2014 indicated that an anomaly which resembled an underground structure approximately 10-feet x 20-feet dimensionally was present. Further commentary on the reported structure indicated that the unit may be a 5,000 gallon metallic tank and situated beneath the sidewalk directly adjacent to the property line. Furthermore, seeps of a heavy oil or tar like substance has been observed upwelling through cracks and fractures in the sidewalk directly above the suspected UST location. This is believed to be sourced from the UST which may have contained bunker/fuel oil during its time of service.

The presence of the UST and observation of "oily product" seepage was reported to the Alameda County Department of Environmental Health (ACDEH), and upon receipt of the report, the ACDEH directed the UST to be appropriately closed and the subject area to be assessed for any and all potential environmental impacts. Regulatory protocol for UST closure provides for two scenarios; in-place closure, and complete removal. In order to gain approval for an in-place closure the responsible party must prove that removal of the tank will cause an imminent threat to the structural integrity of a surface structure or other such features, otherwise removal of the UST is the regulatory preferred method of closure.

Evaluation of the site conditions conducted in preparation for the closure of the subject UST indicated numerous concerns pertaining logistical and potential structural complications which may affect the integrity of the street and surrounding surface structures stemming from the removal of the tank, making an in-place closure a potentially viable option.

Evaluation of United States Geological Survey and Department of Water Resources data for the general vicinity of the subject property indicates that the lithology of the soil beneath the site is comprised primarily of silty sand and sandy silt. Shallow groundwater in the vicinity of the site has been encountered at depths ranging from 6 to 10-feet below grade surface (bgs) and resides predominantly within sand lenses. This lithological and hydrogeological condition creates a relatively unstable structural soil condition without the aid of a shoring system.

As the typical burial depth of 5,000 gallon tanks is commonly set at approximately 12 to 15-feet below grade surface, and in consideration of the fact that soil will be required to be excavated to that depth in order to fully expose and remove the tank, as well as consideration of the soil conditions present beneath the site, removal of the subject UST will require that the tank excavation be shored, or an engineered sloping or benching be implemented. However, due to the presence of local overhead utilities and what is believed to be the proximity of the tank to the property line, the use of traditional shoring methods are in question, and space limitations create a hardship for sloping and/or benching. Without the implementation of a shoring system or adequate sloping of the sidewalls of the excavation, the structural integrity of the sidewalls of the excavation may become compromised and thereby cause damage to the street and surrounding topography, and immediately adjacent structures.

A question of the actual location and size of the tank existed as Geophysical surveys typically have a +/- footage margin of error consideration associated with them which could provide some degree of errors in depiction of dimension, location, and orientation. It is possible that the UST is actually located several feet from where the investigation indicates and substantially smaller dimensionally. A variance in the tank's location and size could substantially affect the process for removal and/or closure. Therefore, in consideration of the significant geotechnical and structure implications associated with the project, and with the definitive accuracy of the location and size of the tank being in doubt, it was the advisory of ENV and its geotechnical/structural engineering associates, that additional information pertaining to the location and size of the tank, and soil conditions be disseminated prior to further commencement of UST closure activities. Accordingly, ENV proposed to exposure the surface of the tank and associated piping, and assess the surrounding soil lithology and stability.

Between July 28 and July 29, 2014, excavation activities were conducted at the site to expose and define the tank and its associated piping. Upon completion of tank exposition activities, it was confirmed that the UST is in fact, a 2,500 gallon single walled, steel structure that is situated directly beneath the sidewalk, parallel to Mound Street and directly adjacent to the residential property line. The top of UST was encountered at 5-feet bgs. The tank was measured at 64-inches diameter by 16-feet long. Fuel oil was observed to still be resident in the tank and associated fill and delivery piping, and upwelled from the pipes during on site activities. A 2-inch diameter pipe which runs along the northwest side of the tank parallel to Mound Street and buried at a depth of 1-foot bgs was also encountered during on site activities. The pipe was confirmed to terminate at the utility pole located approximately 40-feet northeast of the tank. Tank and pipe detail is presented on Figures 2 and 3.

The lithology of the soil surrounding the tank was observed and confirmed to be predominantly comprised of silty sand and sandy silt. Saturated soils and groundwater seepage was encountered at 6-feet bgs indicating a shallow water bearing unit somewhere between 6 and 8-feet bgs. Sloughing of the excavation sidewalls occurred fairly consistently during tank exposition activities indicating instability of the soils surrounding the tank. Numerous subsurface utility lines were also confirmed to be present directly adjacent to the UST.

In consideration of the structural integrity issues concerning the sidewalls of the excavation, associated complications with the installation of shoring, and evidence of existing adjacent utility lines, ENV finds that there is qualified merit in an in-place closure of the UST. Thus, ENV does propose to close the tank in accordance with the following scope of work.

Scope of Work

In order to facilitate the closure of the UST, ENV will perform the following tasks:

Pre-Field/Mobilization Activities

- Secure any and all required permits and/or access agreements
- Coordinate field activities with the City of Alameda, and relevant interested stakeholders to discuss schedule, proposed phasing of field activities
- Mobilize staff and equipment to project site
- Set up on site operational and safety zones, and equipment staging areas. This will include closure of the sidewalk from the corner of Mound and Central to the West side of the subject property driveway, as well as closure of the parking apron in the same vicinity

Expose, Rinse, and Abandon Underground Storage Tank and Lines

- Mobilize vacuum truck to remove the fuel oil resident in the tank. Transport fuel oil to an appropriate certified oil disposal/recycling facility
- Cut and remove accessible fill and delivery piping and place in 55-gallon DOT approved drums for transport to an appropriate disposal facility
- Mobilize vacuum truck and cleaning crew to pressure wash and triple rinse tank with detergent to clean as required by Alameda County specifications; flush any accessible fuel oil conveyance lines to facilitate proper cleaning prior to removal/closure
- If necessary, place dry-ice within tank and facilitate required inspections by regulatory officials
- Coordinate with Alameda County agencies to inspect the closure of the UST and piping, and review certification process
- Mobilize equipment to fill the tank with controlled density fill (CDF).
- Permanently cap and abandon in-place, all accessible in-ground piping

Backfill and Compaction of Excavation Cavity

- Verify laboratory moisture density test results of all proposed aggregate fill materials to be imported to the site prior to commencement of backfill activities
- Upon receipt of approval to backfill the excavations, place imported aggregate in tank excavations. If required, place a layer of Geotextile Woven Filter Fabric over native soil layer and fill voids with clean imported quarry fines and compact in appropriate lifts to 90% relative maximum dry density compaction
- If required, place a layer of Geotextile Woven Filter Fabric over the compacted quarry fines and place and compact 12-inches of clean imported ¾-inch AB on top of the quarry fines and compact to 95% relative maximum dry density compaction
- Compaction testing and verification will be performed in a timely manner by a licensed geotechnical and materials testing firm

Concrete and Asphalt Restoration

- Restore concrete sidewalk and curb with 6-inch, 3,000 PSI concrete in accordance with City of Alameda specifications
- Finish concrete surface to match existing surroundings
- Finish asphalt surfaces with approximately 4-inches of material to match existing surroundings, and in accordance with City of Alameda specifications

Debris and Waste Disposition

- Manage traffic flow and patterns
- Transport under a Uniform Non Hazardous Waste Manifest, rinse water generated from tank rinsing to the Seaport Environmental TSDF located in Redwood City, CA
- Transport under a Uniform Non Hazardous Waste Manifest, Non Hazardous Waste debris and soil to the Potrero Hills landfill located in Suisun City, CA
- Transport under a Uniform Hazardous Waste Manifest, all Oily Debris as Non-RCRA Hazardous Waste at the US Ecology landfill located in Beatty, NV
- Collect copies of fully executed manifests and disposal/recycling documentation for submittal to client

Demobilization

- Broom clean ENV work areas
- Demobilize equipment and support facilities from the site
- Provide Post Submittal documents including manifests, weight tags, etc. as required

Please contact us at your earliest convenience if you have any questions concerning the information provided.

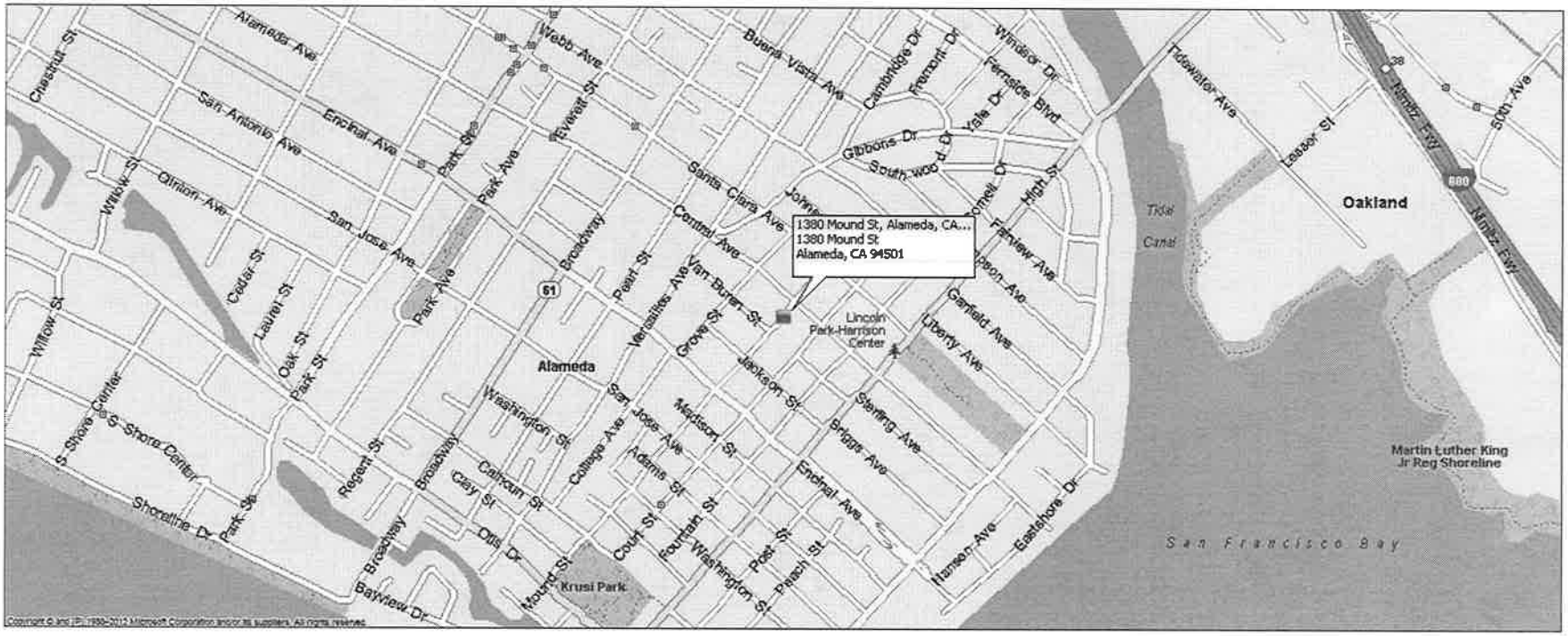
Sincerely,
ENV America, Inc.

David C. Solis, JD, PhD, PE
Principal Engineer

Appendix A	Figures
Appendix B	Advanced Geological Service, Geophysical Survey Report
Appendix C	Alameda County UST Closure Permit Documentation

APPENDIX A

FIGURES



ENV America, Inc			
City of Alameda UST Closure 1380 Mound Street Alameda, CA			
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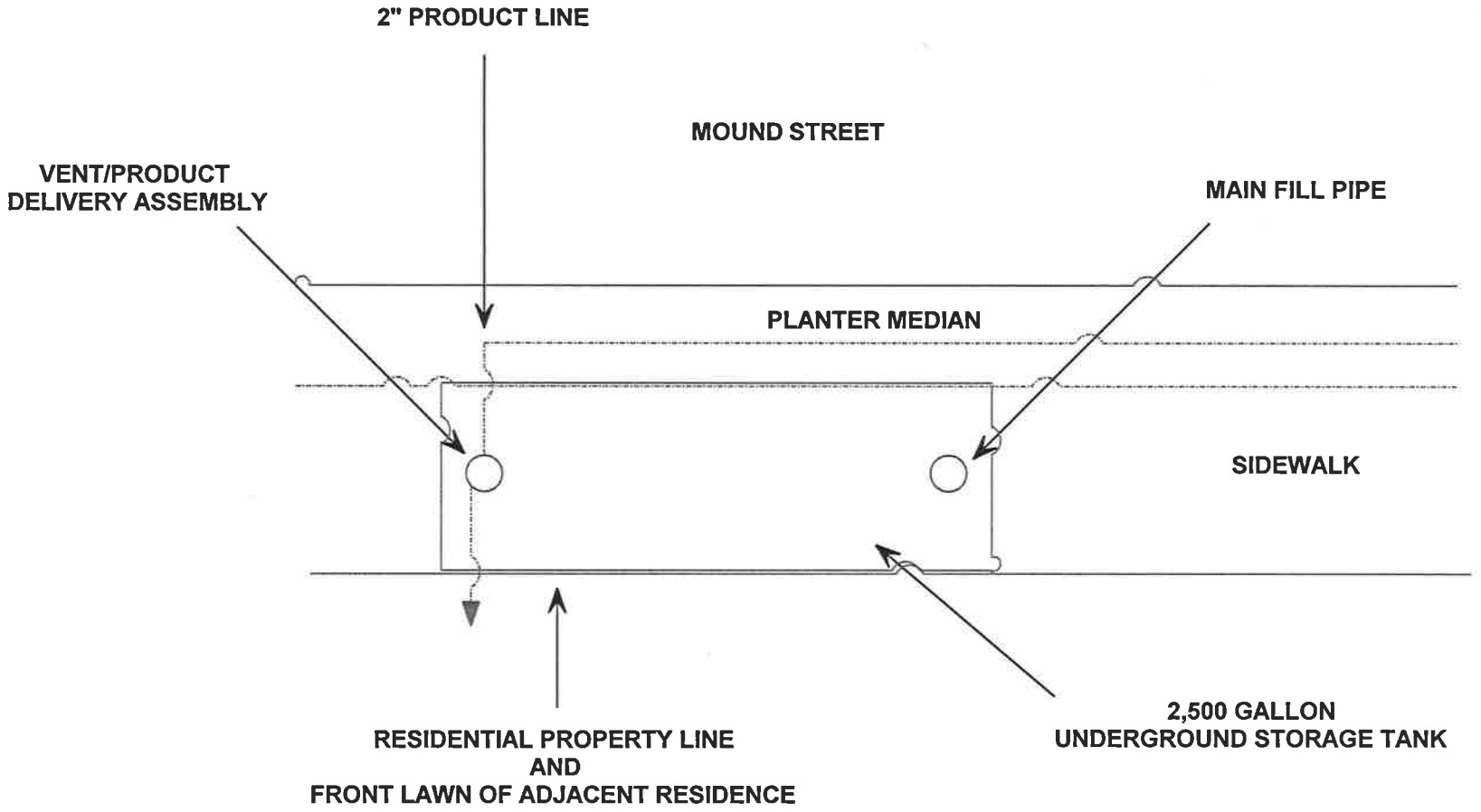


NOTES:

+ Top of tank is set at 5 ft BGS
+ Total burial depth is estimated at 10 ft BGS
+ Curvature of tank sidewall breaches property line
+ Line located in Planter Median in buried at 1 ft BGS

ENV America, Inc			
City of Alameda UST Closure 1380 Mound Street Alameda, CA			
DRAWN	CHECKED	DATE	DRAWING NO.
DCS		7-31-14	3

APPENDIX B

ADVANCED GEOLOGICAL SURVICES

SURVEY REPORT

ADVANCED GEOLOGICAL SERVICES

1605 School Street, #4
Moraga CA 94556
925 (808-8965)

April 2, 2014

Peter D. Sims, LEED AP
Ninyo & Moore
Geotechnical & Environmental Sciences Consultants
1956 Webster Street, Suite 400
Oakland, California 94612

Subject: **Report - Geophysical Investigation Results**
Underground Storage Tank (UST) Search
1380 Mound Street, Alameda California

Mr. Sims-

1.0 INTRODUCTION

This letter presents the findings of Advanced Geological Services, Inc. (AGS) geophysical investigation to search for a suspected underground storage tank (UTS) associated with a small tar or oil "seep" observed on the sidewalk at 1380 Mound Street in Alameda, California (Figure 1).

Figure 1 – Site Location in Alameda, California

The field work was performed on March 27, 2014 by AGS geophysicist Roark Smith, who used a Geonics EM61 electromagnetic (EM) metal-detector, a Fisher M-Scope TW-6 metal detector, and a GSSI SIR-3000 ground penetrating radar (GPR) system connected to a 400-MHz antenna. In addition, AGS used a RadioDetection RD-8000 pipe and cable locating system. Briefly, the EM61 and M-Scope instruments were used to look for buried metal areas indicative of a UST, and GPR was used to obtain graphical profiles of the subsurface to better identify buried metal objects detected by the EM61 survey and, if possible, to verify the presence of a UST, which produces a distinctive, readily-identifiable image on a GPR record. In general, EM61 surveying is an important part of a UST investigation because it provides a deeper investigation depth than GPR, which can be as shallow as two feet at some sites. Depending on their size, the EM61can detect objects as deep as 10 feet; however, the EM61 can detect only metallic objects and is subject to interference from vehicles, buildings, and other metallic above-ground objects. The RD-8000 pipe and cable locating system was used to identify any buried utilities in the search area so they could be avoided during subsequent intrusive sampling activities and also so the associated responses would not be mistaken for UST indications.

2.0 RESULTS SUMMARY

AGS identified an approximately 10- by 20-foot area buried metal area that corresponds to the location of the observed tar/oil "seep" on the sidewalk. The buried metal response area also corresponds to the reported location of a "gas or oil valve" as shown on a drawing that was provided to AGS by Ninyo and Moore (*Improvement Plan, Tract 4270, Alameda, California* by A.J. Bettles, Civil Engineer, 1980). Accordingly, it is likely that the buried metal area represents a UST location. It is worth noting that a number of buried utilities (electrical and telephone cables) pass through the southern edge of the buried metal area. Investigation results are shown on Figure 2.

3.0 SITE DESCRIPTION

The investigation was performed on south side of Mound Street along a section of the sidewalk immediately west of Central Avenue. The investigation area was approximately 120 feet long and 15 feet wide and included the 5-foot wide concrete-paved sidewalk, the adjacent 3-foot wide gravel landscape strip, and extended seven feet into Mound Street (Figure 2). Landscape hedges lined the south edge of the investigation area so that no geophysical surveying could be performed south of the sidewalk. In addition to the tar/oil "seep," observed site features within the investigation area included several pull boxes for underground utilities, a utility pole, a landscape tree, and a traffic control ("Stop") sign held in place by a metal pole. Several underground utilities were detected within a 4-foot wide corridor running along the southern edge of the investigation area. Finally, a 16-foot wide section of the concrete sidewalk pavement that appeared to be "newer" than the rest of the sidewalk pavement was observed; the "newer" pavement was stamped with the number "2011" and corresponded to the tar/oil "seep" location and also to the reported "gas or oil valve" location; however, no gas or oil valve was observed.

4.0 GEOPHYSICAL METHODS AND EQUIPMENT

The geophysical investigation was performed using the following geophysical methods:

- Time-domain Electromagnetics (EM), using a Geonics EM61
- Electromagnetic metal detection (MD), using a Fisher TW-6 M-Scope
- Ground Penetrating Radar (GPR) using a GSSI SIR-3000 system connected to a 400-MHz antenna
- Underground Utility Locating using a RadioDetection RD-8000.

Time-Domain Electromagnetics (EM) using a Geonics EM61
The EM61 is a high-sensitivity, high-resolution recording metal detector commonly used to search for buried metal objects, particularly at developed sites cluttered with surface obstructions such as buildings, parked cars, chain-link fences, and buried utilities. Typical targets for EM61 surveys include underground storage tanks (USTs), buried drums, reinforced concrete foundation remnants, buried refuse (which nearly always includes metallic debris), and individual metallic debris items. The EM61 operates by transmitting a pulsed magnetic field, which causes (induces) small electrical currents (eddy currents) to flow through metallic objects near (below) the instrument. The strength of these eddy currents is measured by the EM61 receiver coil at a relatively long time after the magnetic field pulse subsides.

This delayed measurement technique produces a reading (in millivolts) that responds strongly to metal but very weakly to the electrical properties of the surrounding soil, thus making the EM61 a high-sensitivity metal detector. The EM61 employs a one-meter-wide square coil, and its sensitivity can be enhanced by the deployment of a second receiver coil above the first; the second coil response can be used to estimate the burial depth of detected source objects and also to reduce interference caused by nearby power lines and cultural objects such as vehicles and metal fences.

Electromagnetic Metal Detecting using the Fisher M-Scope

Although it is sold as a "pipe and cable locator," AGS uses the M-Scope to rapidly scan for localized, shallowly-buried metal masses (e.g., a buried vault lid, manhole cover, metallic trash). Briefly, the M-Scope comprises a pair of wire coils (transmitter and receiver coils) connected by a short metal staff; the receiver coil is first "tuned" to a null position with respect to the magnetic field emanating from the transmitter coil. When the M-Scope is held near a metal object, the magnetic field becomes disrupted or distorted and the system is thrown "out of tune." The M-Scope is designed to emit an audible tone when it is out of tune, thus signaling the presence of a nearby metal object. However, the M-Scope has a limited investigation depth (about 3 feet bgs) and is not effective near surface metal objects; in addition, because the M-Scope responds to changes in soil conductivity, its sensitivity setting must be reduced in electrically conductive (e.g., moist, fine-grained) soil, which results in a corresponding reduction in the instrument's effectiveness.

Ground Penetrating Radar (GPR)

GPR uses radar technology to produce a graphical profile of the subsurface that shows soil layering and images of buried objects. GPR systems typically use a single transceiving antenna (one that both transmits and receives the radar signal) that is dragged along the ground surface. The antenna emits a radar pulse into the ground; some of the radar energy reflects off of interfaces between materials with different electrical properties (e.g., soil and a UST) and returns to the surface where it is detected by the antenna and sent via the cable to a separate control unit where it is amplified and displayed on a computer screen as a vertical "wiggle trace," which is a plot of the strength (amplitude) of the received GPR signal (i.e., the reflection) over time. Although the vertical scale of a GPR profile is usually considered as depth, it actually measures the travel time of the radar pulse from the surface to a reflecting interface and back to the surface.

A subsurface profile is built as the antenna is pulled along the survey line and successive wiggle traces are recorded. GPR data are usually displayed as an array of closely-spaced traces; this procedure produces an image of the subsurface as the reflections (wiggles) on adjacent traces merge into coherent patterns. Soil layer boundaries appear as laterally continuous horizontal bands across a GPR profile. Buried objects appear as localized, high-amplitude (dark) reflection patterns. Buried pipes and USTs exhibit a characteristic "upside down U" hyperbolic pattern, which allows them to be readily identified on a GPR record. Burial depths are determined by using calibrating GPR profiles with images objects buried at known depths. Culverts and storm drain pipelines observed in drop inlets are often used for this purpose.

Underground Utility Locating using the RD-8000

The RD-8000 system comprises separate transmitter and receiver units. Used alone in "passive mode", the receiver can locate energized electrical power cables by detecting the magnetic field associated with flowing electrical current. Used in conjunction with the transmitter, the RD-8000 receiver can be used to locate metal pipes and unenergized cables by detecting the magnetic field associated with a tracing signal (a weak electrical current) that is applied with the transmitter to the target pipe or cable. The tracing signals can be applied in a variety of ways. By far, the most effective way to apply a tracing signal (hence, to locate buried utilities) is to directly connect the transmitter (via a jumper wire) to an exposed portion of a metallic utility (a metal ground stake is used to complete the circuit). For insulated cables and cables inside conduit, a tracing signal can be applied using an inductive clamp, which wraps around the target utility. The inductive clamp is the primary means used by AGS to locate buried electrical conduit. In addition, the RD-8000 transmitter can simply be placed on the ground surface and set to broadcast a tracing signal over a wide area; this approach enables a tracing signal to indirectly couple to nearby utilities via electromagnetic induction, although the applied signal is much weaker than with the direct-connect method. Finally, the RD-8000 receiver can be used alone in "passive mode" to locate metallic utilities by detecting radio signals traveling within them; the radio signals are ambient signals from distant sources (e.g., a radio station transmitter) that are captured naturally by the utility, which acts as a buried radio antenna.

5.0 FIELD PROCEDURES

AGS first used the RD-8000 to locate buried electrical cables associated with the various pull boxes observed in the survey area. The cables were located by opening the pull boxes and using the RD-8000 transmitter and the inductive clamp to apply tracing signals to the cables exposed inside the pull boxes. AGS traced the cables' underground pathway with the RD-8000 receiver and marked their locations along the ground surface with pink chalk and spray paint. AGS also conducted a "passive mode" search, using the RD8000 alone, to search for utilities not associated with the pull boxes.

Next, AGS prepared a detailed map of the site so the investigation findings, locations of detected underground utilities, and the locations of the geophysical survey lines could be documented. The maps also showed site features that could produce geophysical noise (e.g., parked vehicles, metal poles) so their presence and location would be known when the geophysical data were examined for UST indications. The maps were prepared by laying down fiberglass tape measures in a grid pattern across the site and plotting the locations of significant site features, such as curb lines, building faces, metal poles, on grid paper (at scale of 1-inch equals 10 feet). AGS then performed a GPR survey by hand-pushing the cart-mounted GPR system back-and-forth along the sidewalk along lines spaced approximately two feet apart. AGS also scanned across the sidewalk where possible, and took special care to scan across the observed tar/oil "seep" area and, later, across the associated buried metal area that was detected with the EM61 and M-Scope instruments. AGS plotted the starting and ending points of each GPR line on the site map as the GPR survey progressed.

AGS then performed the EM61 survey by wheeling the EM61 instrument back-and-forth across the site along east-west survey lines spaced approximately two feet apart. The EM61 readings were obtained by pressing the instrument's "demand-read" button every 2.5 feet along each survey line, and the readings

were recorded by the EM61 data logger. As with the GPR survey, AGS plotted the starting and ending points of each line on the site map as the EM61 progressed. After the recording the EM61 data, AGS then scanned the site in "reconnaissance mode" to look for real-time UST indications. In reconnaissance mode, the EM61 instrument emits an audible tone in when the coils pass near metal objects, but no data are recorded. AGS also scanned each site with the Fisher M-Scope to look for buried metal indications. Detected areas of buried metal not associated with known underground utilities, and therefore representing a possible UST location, were marked on the ground with pink chalk so they could be targeted for GPR scanning and plotted on the site map.

6.0 DATA PROCESSING AND ANALYSIS

The EM61, M-Scope and GPR data were analyzed in the field as the investigation progressed. The EM61 and M-Scope are designed to produce an audible tone when held near a metallic object; a detected object's location is then pinpointed by adjusting the instruments' sensitivity and monitoring the instrument readout to determine the "peak signal" location. For the GPR survey, AGS monitored the GPR data in the field and to look for definitive "upside-down U" reflection patterns, which would indicate a UST with near certainty. AGS took special care to obtain GPR data across the suspected UST locations as indicated by oil/tar "seep," the reported "gas or oil valve," and by the EM61 and M-Scope results. AGS then re-examined the GPR data upon returning to the office to look for weaker images that may have gone unnoticed in the field.

Upon returning to the office AGS processed the EM61 data using the GEOSOFT Oasis montaj earth science software system. A GEOSOFT kriging algorithm was used to prepare color-filled contour maps showing EM61 response variations (in millivolts) across the site (Figure 3). As part of the analysis, AGS looked for high-amplitude responses not readily attributable to known metallic site features, such as vehicles and metal signs, and buried utilities. Such responses are considered "anomalies" and are attributed to subsurface source bodies, which may include USTs, buried utilities, reinforced concrete foundations, and miscellaneous metallic debris. On the color contour maps, anomalies appear as "hot" (orange, red, and pink) colors representing areas with elevated EM61 measurements indicative of metallic objects.

Because the EM61 was designed to produce a positive signal peak at the center of the metallic source body, it tends to produce anomalies with a shape and extent that approximates the footprint of the metal source object. Accordingly, AGS looked for rectangular anomalies with a footprint corresponding to common UST dimensions, although it is worth noting that anomaly footprints are usually larger than that of the anomaly source body, and the footprint may also be distorted by nearby surface metal objects, underground utilities, and UST appurtenances. Anomaly amplitudes associated with USTs and similarly-sized metallic substructures depend on burial depth, but they are typically 200 millivolts (mV) or greater.

AGS scanned the hand-drawn site map and inserted the resulting bitmap image (.tif) file into an AutoCAD drawing where it was traced it with AutoCAD linework to produce a site map upon which the investigation findings are presented (Figure 2). AGS also incorporated the site map into the EM61 contour map so that responses associated with surface metal objects and underground utilities could be identified and disregarded from consideration as a possible UST indication (Figure 3). As a further aid to

the analysis, data profiles for each survey transect were prepared and inspected. The profiles are especially useful for assessing anomaly amplitudes and for identifying bad data caused by, say, a loose connection within the EM system or other type of equipment malfunction.

7.0 RESULTS

Investigation results are shown on Figures 2 and 3. Figure 2 is a map of the survey area that shows the location of the buried metal area believed to represent a UST; Figure 2 also shows the locations of the detected buried utilities. Figure 3 is a color-filled contour map that shows the results of the EM61 survey. For completeness, Figure 4 shows the locations of the EM61 and GPR survey lines.

AGS identified an approximately 10- by 20-foot buried metal area that corresponds to the location of the observed tar/oil "seep" on the sidewalk. The buried metal response area also corresponds to the reported location of a "gas or oil valve" as shown on a drawing that was provided to AGS by Ninyo and Moore (*Improvement Plan, Tract 4270, Alameda, California* by A.J. Bettles, Civil Engineer, 1980). The buried metal response observed was a 300 to 600 millivolt EM61 anomaly, which is a typical UST signature; accordingly, it is likely that the anomaly represents a UST. Although the anomaly footprint measures approximately 10 feet by 20 feet, it is likely that the buried metal source object (i.e., the presumed UST) is smaller. For reference, a 10- by 20-foot UST corresponds to an 11,000-gallon capacity, and an 8- by 15-gallon UST, which is the more likely size of the anomaly source object, corresponds to a 5,500-gallon capacity.

More precise source object dimensions can sometimes be obtained with GPR; however, no buried objects were imaged at the anomaly location, which indicates that the source object is buried deeper than three feet, the estimated GPR signal penetration depth at the Mound Street site. Depth estimates generated from the EM61 data ("apparent depths") indicate that the anomaly source object is buried approximately 5 feet deep. Other metal response areas are evident on Figure 3; however, they can be readily attributed to a parked vehicle, a utility pole, and metal stop sign. It is worth noting that a number of buried utilities (electrical and telephone cables) pass through the southern edge of the buried metal area, and also that the EM61 data suggest that a metallic utility, in addition to a PVC irrigation line, may run beneath the gravel landscape strip.

8.0 LIMITATIONS OF GEOPHYSICAL LOCATING METHODS

In general, a geophysical method's limitations for detecting a particular target are related to the target's size, burial depth, the amount of contrast in material properties between the target and surrounding material, and finally, the amount of interference from surrounding site features. For a target to be detected it must have sufficient size to reflect or otherwise disturb some the incoming energy used for detection. It also must have enough contrast with the surrounding material to reflect or otherwise disturb enough of the incoming energy so as to be detected. And, finally, it can't be buried so deeply that the reflected/disturbed energy is so dissipated that it is too weak to be detected when it returns to the surface. Weak energy returns during geophysical investigations are further exacerbated by ambient noise like that produced by natural and cultural features, such as utilities, fences, parked vehicles, vegetative cover, and debris.

In general, metal USTs make good targets for geophysical investigations because the electrical properties of metal contrast greatly with those of the surrounding soil or fill material; however, UST investigations are often complicated by interference from surface or near-surface metallic objects such a vehicles, reinforced concrete pavement, and buried utilities, sometime to the degree that no useful subsurface information can be obtained. As stated above and shown on Figures 2 and 3, the Mound Street site contained a few surface metal objects and a number of buried utilities that produced interfering noise in the EM61 geophysical data. In addition, the soil conditions limited the GPR signal penetration to approximately 3 feet and no UST images were observed. Regardless, the anomaly area was free of noise sources to the degree that a buried metal anomaly, one that likely represents the target UST, was delineated with the EM61.

8.0 CLOSING

All geophysical data and field notes collected for this investigation will be archived at the AGS office. The data collection and interpretation methods used in this investigation are consistent with standard practices applied to similar geophysical investigations. The correlation of geophysical responses with probable subsurface features is based on the past results of similar surveys although it is possible that some variation could exist at this site. Due to the nature of geophysical data, no guarantees can be made or implied regarding the targets identified or the presence or absence of additional objects or targets.

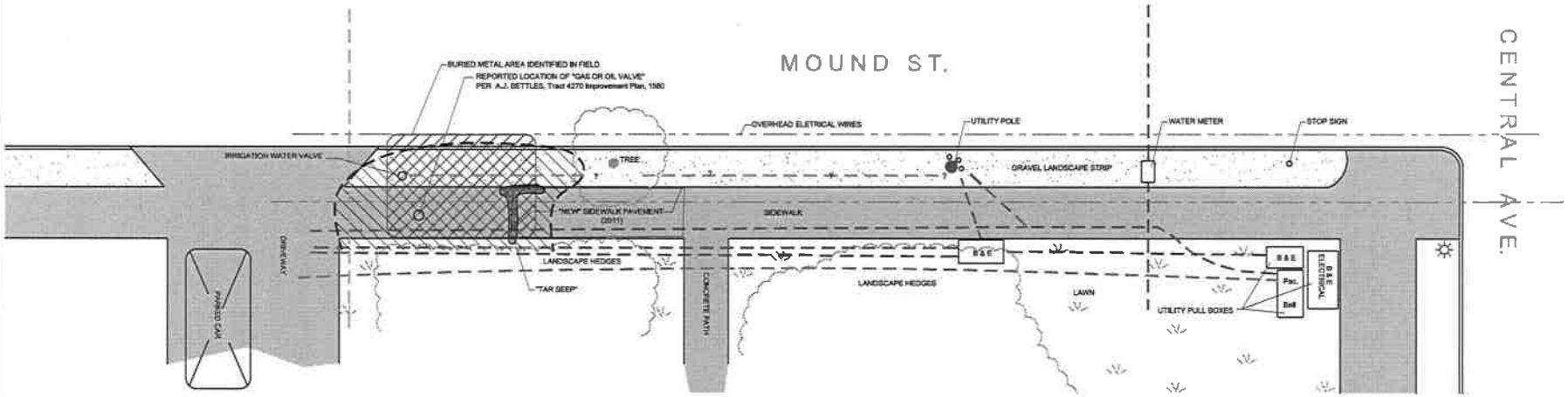
We appreciated working for you on this project and hope to work with you again. If you have any questions, I can be reached at (925) 808-8965 or Rsmith@Advancedgeo.com.

Respectfully,

Roark W. Smith, GP 987
Senior Geophysicist
Advanced Geological Services

Figures:

Figure 1 Site Location Map (imbedded in Report text)
Figure 2 Geophysical Investigation Results
Figure 3 EM61 Contour Map
Figure 4 Geophysical Survey Line Locations



EXPLANATION

BURIED METAL AREA AS MARKED IN FIELD (BASED ON RECONNAISSANCE SCANNING)

EM61 ANOMALY INDICATIVE OF UST

BURIED UTILITIES DETECTED:

- ELECTRICAL
- NATURAL GAS
- COMMUNICATIONS
- WATER
- IRRIGATION WATER

N

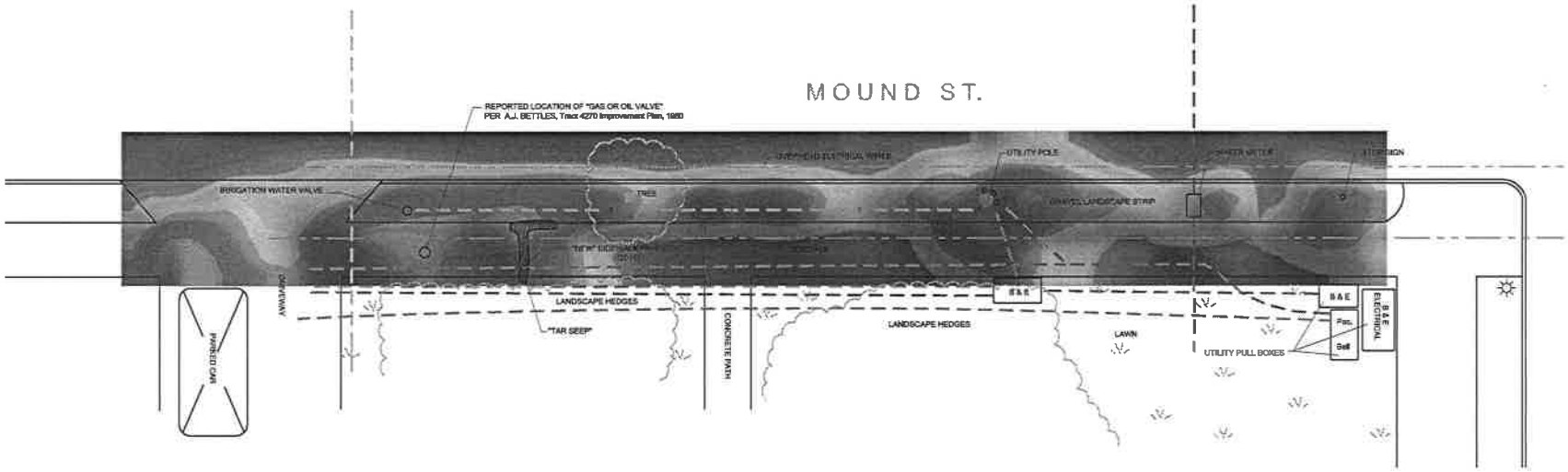
0 5 10 20 FT

ADVANCED GEOLOGICAL SERVICES
1605 School Street
Suite 4
Moraga, CA 94556
(925) 808-8965

Geophysical Investigation Results
UST Search
1380 Mound Street

LOCATION: Alameda, California
CLIENT: Ninyo & Moore
PROJECT #: 13-095-1CA
DATE: Apr 2, 2014
DRAWN BY: R. SMITH

FIGURE 2



Top Coil Response (mS/m)

1 4 7 10 14 18 20 24 26 27 30 35 38 44 48 52 55 60 64 68 75 81 90 100 117 143 169 211 262 343 411

Metal Area

EXPLANATION

BURIED UTILITIES DETECTED:

- ELECTRICAL
- NATURAL GAS
- COMMUNICATIONS
- WATER
- IRRIGATION WATER

N

0 5 10 20 FT

ADVANCED GEOLOGICAL SERVICES

1605 School Street
Suite 4
Moraga, CA 94556
(925) 808-8965

EM61 Survey Results
UST Search
1380 Mound Street

LOCATION: Alameda, California
CLIENT: Ninyo & Moore
PROJECT #: 13-095-1CA
DATE: Apr 2, 2014
DRAWN BY: R. SMITH

FIGURE 3

APPENDIX C

EDGAR ENVIRONMENTAL CLEAN TANK CERTIFICATION

Edgar Environmental, Inc.

Analytical, Consulting, and N.F.P.A. Certified Marine Chemists
Mailing Address: PO Box 730, Morgan Hill, Ca 95038 T.I.N. 272815151
***Phone** (337) 230-6695*
e-mail: vpempeit@hotmail.com

Tank Cleanliness Certificate

Date: 12 AUG. 2014 **Time:** 0845

Site Information

Requested by: ENV AMERICA, INC. **Tank Owner:** CITY OF ALAMEDA

Site Address: 1384 MOUND STREET
ALAMEDA, CA. 94501

Tank Interior Atmosphere Readings

Test Results						
	Concentration of Flammable Vapor			Concentration of Oxygen		
Tank ID #	Upper	Middle	Lower	Upper	Middle	Lower
S-1	0%	0%	0%	20.8%	20.8%	20.8%

These tanks have been cleaned and are free of any visible product residue as per title 22.

719

Vincent Pempeit III

UNIFIED PROGRAM CONSOLIDATED FORM
HAZARDOUS WASTE

HAZARDOUS WASTE TANK CLOSURE CERTIFICATION

Page ___ of ___

I. FACILITY IDENTIFICATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As) 3.	FACILITY ID# 1.

TANK OWNER NAME: CITY OF ALAMEDA 740.

TANK OWNER ADDRESS: 1 (SITE) STREET ALAMEDA | 950 WEST MALL SQUARE ALAMEDA, CA 94501 741.

TANK OWNER CITY 742.	STATE 743.	ZIP CODE 744.
ALAMEDA	CA	94501

II. TANK CLOSURE INFORMATION

TANK INTERIOR ATMOSPHERE READINGS	Tank ID # (Attach additional copies of this page for more than three tanks)	Concentration of Flammable Vapor			Concentration of Oxygen		
		Top	Center	Bottom	Top	Center	Bottom
1	747.	0% 746a.	0% 746b.	0% 746c.	20.8% 747a.	20.8% 747b.	20.8% 747c.
2	748.	749a.	749b.	749c.	750a.	750b.	750c.
3	751.	752a.	752b.	752c.	753a.	753b.	753c.

III. CERTIFICATION

On examination of the tank, I certify the tank is visually free from product, sludge, scale (thin, flaky residual of tank contents), rinseate and debris. I further certify that the information provided herein is true and accurate to the best of my knowledge.

SIGNATURE OF CERTIFIER

NAME OF CERTIFIER (Print) 754.: VINCENT M. PEMPEIT III

TITLE OF CERTIFIER 755.: CERTIFIED MARINE CHEMIST

ADDRESS 756.: P.O. BOX 730

CITY 757.: MORGAN HILL, CA. 95038

PHONE 758.: 337-230-6695

DATE 759.: 12 AUG. 14

CERTIFICATION TIME: 0845

STATUS OR AFFILIATION OF CERTIFYING PERSON

Certifier is a representative of the CUPA, authorized agency, or LIA: 760.

☐ Yes ☒ No

Name of CUPA, authorized agency, or LIA: 761.

N/A

If certifier is other than CUPA / LIA check appropriate box below: 762.

- ☐ a. Certified Industrial Hygienist (CIH)
- ☐ b. Certified Safety Professional (CSP)
- ☐ c. Certified Marine Chemist (CMC)
- ☐ d. Registered Environmental Health Specialist (REHS)
- ☐ e. Professional Engineer (PE)
- ☐ f. Class II Registered Environmental Assessor
- ☐ g. Contractors' State License Board licensed contractor (with hazardous substance removal certification)

TANK PREVIOUSLY HELD FLAMMABLE OR COMBUSTIBLE MATERIALS 763.

(If yes, the tank interior atmosphere shall be re-checked with a combustible gas indicator prior to work being conducted on the tank.) ☐ Yes ☐ No

CERTIFIER'S TANK MANAGEMENT INSTRUCTIONS FOR SCRAP DEALER, DISPOSAL FACILITY, ETC: 764.

MAINTAIN INERT DURING TRANSIT < 4.0% O_2 AT ALL TIMES.

A copy of this certificate shall accompany the tank to the recycling/disposal facility and be provided to the agency overseeing tank closure (i.e. CUPA or other authorized local agency); the owner and/or operator of the tank system; and the tank removal contractor.

APPENDIX D

COMPACTION TESTING CERTIFICATION

Stevens Ferrone & Bailey Engineering Company, Inc

COMPACTION CURVE

PROJECT NO. _____ PROJECT NAME ENV AMERICA, INC.

SAMPLE NO. 1 SOURCE OF MATERIAL IMPORT - SYAR LAKE HERMAN DATE 8-12-14

DESCRIPTION Gray sandy GRAVEL (GW) TESTED BY R

Trial Number	2%	4%	6%	8%
Wt. of Wet Soil & Mold (grams)	11354	11685	11703	11652
Wt. of Mold (grams)	6530	6530	6530	6530
Wt. of Wet Soil (pounds)	10.63	11.36	11.40	11.29
Volume of Mold	0.07521	0.07521	0.07521	0.07521
Wet Density (pcf)	141.4	151.1	151.6	150.1
Pan Number	S	34	43	23
Wt. of Wet Soil & Pan (grams)	1087.7	1071.9	929.4	1045.9
Wt. of Dry Soil & Pan (grams)	1025.6	997.5	852.3	947.2
Wt. of Pan (grams)	103.0	103.3	103.9	103.7
Wt. of Water (grams)	62.1	74.4	77.1	98.7
Wt. of Dry Soil (grams)	922.6	894.2	748.4	843.5
Moisture Content (%)	6.7	8.3	10.3	11.7
Dry Density (pcf)	132.5	139.5	137.5	134.4

ASTM D 1557-91 METHOD (Check One)		
Method A	4-Inch Mold/No. 4 Sieve < 25% retained	
Method B	4-Inch Mold/3/8-Inch Sieve < 25% retained	
Method C	6-Inch Mold/3/8-Inch Sieve > 20% retained	✓
Rock Correction 3/4-Inch sieve > 5% and < 30% retained		

MAXIMUM DRY DENSITY (pcf)	140
OPTIMUM MOISTURE CONTENT (%)	8

APPENDIX E

DISPOSAL DOCUMENTATION

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	N/A	1	707-751-3817	NH-CITY1401-82614-01

GENERATOR

5. Generator's Name and Mailing Address
City of Alameda
950 West Mall Square, Alameda, CA 94501
Generator's Phone: (510) 747-7900

Generator's Site Address (if different than mailing address)
1380 Mound St.
Alameda, CA 94501

6. Transporter 1 Company Name: ENV Environmental International, Inc.
U.S. EPA ID Number: CAR000247189

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill
3675 Potrero Hills Lane
Suisun, CA 94585
Facility's Phone: (707) 432-4622
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 Waste Solid (Concrete/Asphalt)	01	CM	15	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
9 b1. Profile Number: PHLF-14-408

Always wear proper PPE when handling this material.

Send invoice to: ENV America // Project No. CITY1401

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 SOUS / AGENT FOR GENERATOR
Signature:
Month Day Year: 08 25 14

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: TOM RIRIE
Signature:
Month Day Year: 8 29 14

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: 8 29 14

DESIGNATED FACILITY TO GENERATOR

TRUCK # 524095

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	N/A	1	707-751-3817	NH-CITY1401-81514-02

GENERATOR

5. Generator's Name and Mailing Address
City of Alameda
950 West Mall Square
Alameda, CA 94501

Generator's Site Address (if different than mailing address)
1380 Mound Street
Alameda, CA 94501

Generator's Phone: (510) 747-7900

6. Transporter 1 Company Name: ENV Environmental International, Inc. — U.S. EPA ID Number: CAR000247189

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill
3675 Potrero Hills Lane
Suisun, CA 94585

Facility's Phone: (707) 432-4622 — 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 Waste Solids (Soil)	01	CM	15	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Always wear proper PPE when handling this material. // Profile Number: PHLF-14-408

Send invoice to: ENV America // Project No. CITY1401 /

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 SOLIS / AGENT FOR GENERATOR — Signature — Month: 08 Day: 15 Year: 14

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: TOM RIRIE — Signature — Month: 8 Day: 15 Year: 14

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: 8 Day: 20 Year: 14

DESIGNATED FACILITY TO GENERATOR

Truck # 524095

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	N/A	1	707-751-3817	NH-CITY1401-81514-01

5. Generator's Name and Mailing Address
City of Alameda
950 West Mall Square
Alameda, CA 94501
Generator's Phone: (510) 747-7900

Generator's Site Address (if different than mailing address)
1380 Mound Street
Alameda, CA 94501

6. Transporter 1 Company Name: ENV Environmental International, Inc.
U.S. EPA ID Number: CAR000247189

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Potrero Hills Landfill
3675 Potrero Hills Lane
Suisun, CA 94585
Facility's Phone: (707) 432-4622
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 Waste Solids (Soil)	01	CM	15	Y	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Always wear proper PPE when handling this material. // Profile Number: PHLF-14-408

Send invoice to: ENV America // Project No. CITY1401 /

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 SOLIS / AGENT FOR GENERATOR
Signature:
Month: 08 Day: 15 Year: 14

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: TOM RIRIE
Signature:
Month: 8 Day: 15 Year: 14

Transporter 2 Printed/Typed Name
Signature
Month Day Year

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: Sharmaine Jones
Signature:
Month: 8 Day: 20 Year: 14

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

DESIGNATED FACILITY TO GENERATOR

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
CAC000278891	1	707-751-3917	00602051 9 FLE

GENERATOR

5. Generator's Name and Mailing Address
City of Alameda
950 West Mall Square
Alameda, CA 94501
707-751-3917

Generator's Site Address (if different than mailing address)
1360 Mound Street
Alameda, CA 94501

Generator's Phone:

6. Transporter 1 Company Name: ENV Environmental International, Inc — U.S. EPA ID Number: CAR000247189

7. Transporter 2 Company Name: VT Transportation — U.S. EPA ID Number: CAL000249042

8. Designated Facility Name and Site Address
HWY 95, 12 MILES SOUTH OF BEATTY
BEATTY, NV 89003
800-288-3948

U.S. EPA ID Number: NVT330010000

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 (OILY DEBRIS)	45	DM	1200	P	223 352
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
ENV Environmental International, Inc. ATTN: DAVID SOLIS
9b1 Profile # 07012800-9981

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: DAVID SOLIS (AGENT FOR GENERATOR) — Signature — Month 09 Day 05 Year 14

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: JOE ANDERSON — Signature — Month 09 Day 05 Year 14

Transporter 2 Printed/Typed Name: JUAN M. PEREZ JR. — Signature — Month 09 Day 09 Year 14

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.
H141			

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 9 Day 5 Year 14

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY'S COPY

Bill of Lading

ENV Environmental
1090 Adams St., Ste D
Alameda, CA 94510
Ph: 707.751.3817 Fx: 707.751.3897

Date 9-10-14
Bill of Lading # 001
Carrier Name VPI

Shipper

City of Alameda

950 West Mall Square

Alameda, CA 94501

Consignee Destination

Environmental Logistics

7405 E Brundage Lane

Bakersfield, CA 93307

Pieces	Description	Weight (lbs)	Class	Rate	Amount
1	Oil & Water Mix	58400	III		
Total					

Environmental Logistics Inc
9/11/14

Shipper's Last Name	Time	Date	Shipper's Signature
Perez			
Received in Good Condition Except As Noted		Driver's Signature	$C.O.D
X		X	

Trailer Loaded By:	Freight Counted By:	Special Instructions:
☐ Shipper	☐ Shipper	
☐ Driver	☐ Driver/Pallets said to contain	
	☐ Driver/Pieces	

APPENDIX F

SOIL SAMPLING PLAN

HAND AUGER
SAMPLE COLLECTION AND TESTING METHODOLGY
1380 MOUND STREET
ALAMEDA, CA

SAMPLE PROTOCOL:

- Boreholes will be drilled using a manually operated auger equipped with a 2-inch auger bit
- Discrete samples will be collected between 3-5 and 8-10 foot bgs intervals
- Samples will be collected in 2-inch x 6-inch brass sleeves using a manually driven slide hammer
- Augers and samplers will be decontaminated using a tri-sodium phosphate solution and double rinsed between sample locations and intervals
- Boreholes will be backfilled with overburden soil or grout
- Samples will be sealed with Teflon sheeting and polyethylene caps, labeled with sample a ID and client name, and submitted under chain of custody to a state certified laboratory for chemical evaluation

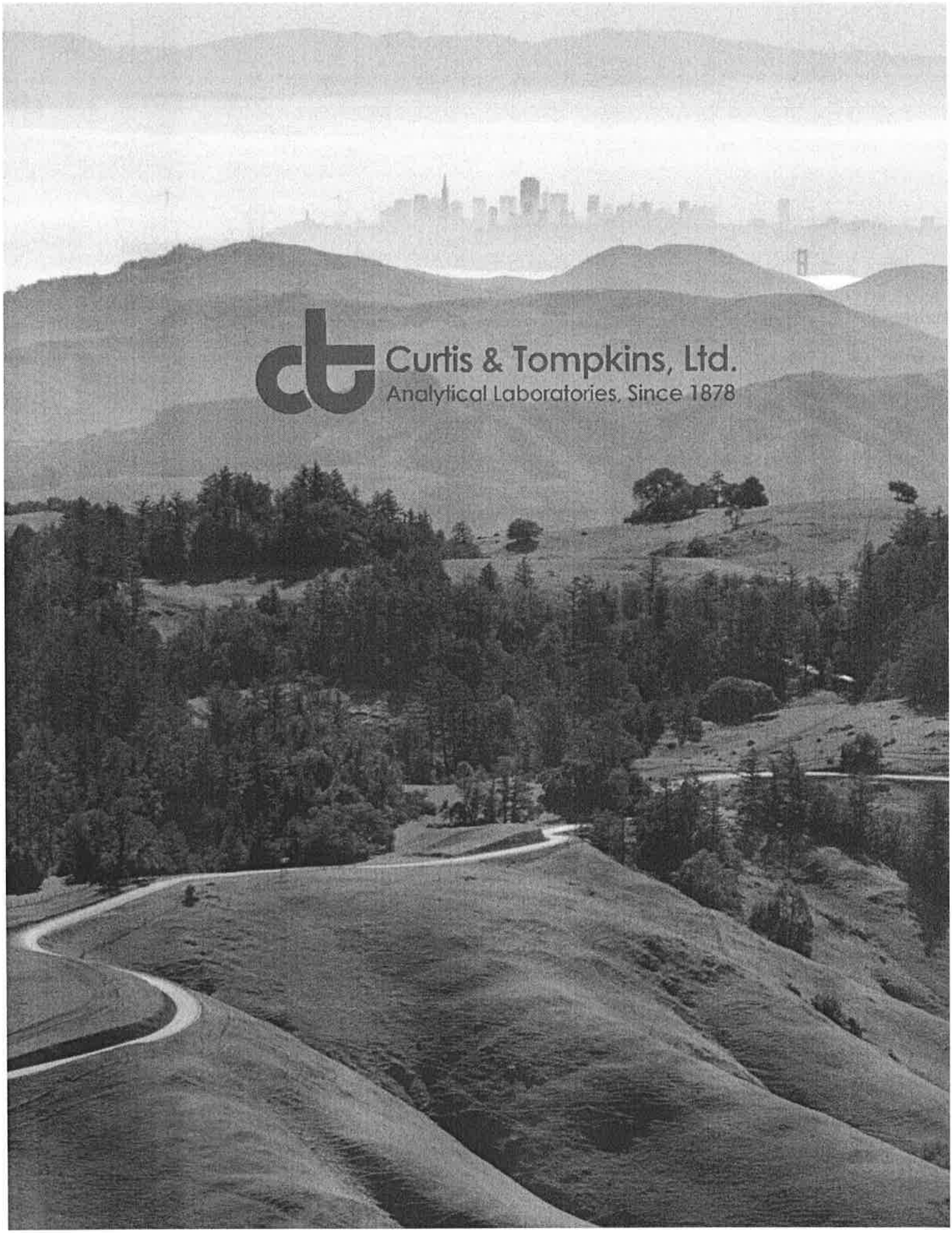
CHEMICAL ANALYSIS

COC	SOIL ANALYSIS (SW-846 METHOD)		WATER ANALYSIS (Water/Waste Water Method)	
Waste, Used, or Unknown Oil	TPHG	8015M or 8260B	TPHG	8015M or 524.2/624 (8260B)
	TPHD	8015M or 8260B	TPHD	8015M
	O&G	9070	O&G	418.1
	FULL SUITE	8260	FULL SUITE	524.2/624 (8260B)
	1,4-Dioxane	8270M	1,4-Dioxane	8270M
	CAM 17 METALS by ICAP or AA			
	PCB*, PCP*, PNA, CREOSOTE by 8270			
	* If found, analyze for dibenzofurans (PCBs) or dioxins (PCP)			

**Work Plan for Angle Boring if needed will be submitted separately at a later date.

APPENDIX G

CURTIS & TOMPKINS LABORATORY REPORT


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 259748
ANALYTICAL REPORT

Ninyo & Moore	Project : 402268001
1956 Webster St.	Location : Alameda UST
Oakland, CA 94612	Level : II

Sample ID	Lab ID
B1-3.0	259748-001
B1-6.0	259748-002
B2-3.0	259748-003
B2-5.0	259748-004
B1-GW	259748-005
B3-3.0	259748-006
B3-4.5	259748-007

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: Will Rice Date: 08/21/2014

Will S Rice
Project Manager
will.rice@ctberk.com

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**259748**
Client:	**Ninyo & Moore**
Project:	**402268001**
Location:	**Alameda UST**
Request Date:	**08/12/14**
Samples Received:	**08/12/14**

This data package contains sample and QC results for six soil samples and one water sample, requested for the above referenced project on 08/12/14. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B) Water:
No analytical problems were encountered.

TPH-Purgeables and/or BTXE by GC (EPA 8015B) Soil:
Low recoveries were observed for gasoline C7-C12 in the MS/MSD of B1-3.0 (lab # 259748-001); the LCS was within limits, and the associated RPD was within limits. No other analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B) Water:
No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B) Soil:
B1-3.0 (lab # 259748-001) and B2-5.0 (lab # 259748-004) 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) Water:
No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B) Soil:
High surrogate recoveries were observed for 1,2-dichloroethane-d4 in B1-6.0 (lab # 259748-002) and the MS/MSD for batch 214385. No other analytical problems were encountered.

Semivolatile Organics by GC/MS SIM (EPA 8270C-SIM) Water:
No analytical problems were encountered.

Semivolatile Organics by GC/MS SIM (EPA 8270C-SIM) Soil:
B1-3.0 (lab # 259748-001) was diluted due to the dark and viscous nature of the sample extract. 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. Matrix spikes QC753392,QC753393 (batch 214355) were not reported because the parent sample required a dilution that would have diluted out the spikes. Low surrogate recovery was observed for TCMX in B1-3.0 (lab # 259748-001); the

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**259748**
Client:	**Ninyo & Moore**
Project:	**402268001**
Location:	**Alameda UST**
Request Date:	**08/12/14**
Samples Received:	**08/12/14**

PCBs (EPA 8082):
corresponding decachlorobiphenyl surrogate recovery was within limits. No other analytical problems were encountered.

Metals (EPA 6010B and EPA 7471A):
Low recovery was observed for nickel in the MS for batch 214420; the parent sample was not a project sample, the BS/BSD were within limits, and the associated RPD was within limits. High recovery was observed for lead in the MSD for batch 214420; the BS/BSD were within limits, and the associated RPD was within limits. No other analytical problems were encountered.

Total Oil & Grease (HEM) (EPA 1664A):
Matrix spikes were not performed for this analysis due to insufficient sample volume. No analytical problems were encountered.

Oil & Grease in Soil (EPA 9070):
Cal Science in Garden Grove, CA performed the analysis (NELAP certified). Please see the Cal Science 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 # 259748

Project No: 402268001 | Sampler: Peter Sims
Project Name: Alameda UST | Report To: Peter Sims
Project P. O. No: | Company: Ninyo + Moore
EDD Format: Report Level ☐ II ☐ III ☐ IV | Telephone: 510-343-3000
Turnaround Time: ☐ RUSH _____ ☒ Standard | Email: psims@ninyoandmoore.com

Lab No.	Sample ID.	SAMPLING		MATRIX			# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST																			
		Date Collected	Time Collected	Water	Solid			HCl	H2SO4	HNO3	NaOH	None	TPHg 8015M	TPHd 8015M	Oil and Grease 9070	VOCs 8260	1,4-Dioxane 8270M	CAM 17 Metals	PCB, PCP, PNA, Creosote 8270												
1	B1-3.0	8-12-14	0933		X		1						X	X	X	X	X	X	X												
2	B1-6.0		1020		X		1						X	X	X	X	X	X	X												
3	B2-3.0		1100		X		1						X	X	X	X	X	X	X												
4	B2-5.0		1117		X		1						X	X	X	X	X	X	X												
5	B1-GW		1115	X			10	X					X	X	X	X	X														
6	B3-3.0		1131		X		1						X	X	X	X	X	X	X												
7	B3-4.5		1154		X		1						X	X	X	X	X	X	X												

Notes:

SAMPLE RECEIPT
☒ Intact
☐ Cold
☒ On Ice
☐ Ambient

RELINQUISHED BY:
Peter Sims DATE: 8/14 TIME: 1400
DATE: TIME:
DATE: TIME:

RECEIVED BY:
DATE: 8/12/14 TIME: 14:30
DATE: TIME:
DATE: TIME:

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 259748 Date Received 8/12/14 Number of coolers 1
Client Ninyo + Moore Project Alameda UST

Date Opened 8/12 By (print) KL (sign)
Date Logged in 8/12 By (print) MC (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)

☐ 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, 10/11

Curtis & Tompkins, Ltd.

Detections Summary for 259748

Results for any subcontracted analyses are not included in this summary.

Client : Ninyo & Moore
Project : 402268001
Location : Alameda UST

Client Sample ID : B1-3.0 Laboratory Sample ID : 259748-001

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	410		5.0	1.5	mg/Kg	As Recd	5.000	EPA 8015B	EPA 3550B
Arsenic	2.9		0.24	0.080	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Barium	56		0.24	0.047	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Beryllium	0.22		0.096	0.018	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cadmium	0.43		0.24	0.015	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Chromium	38		0.24	0.020	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cobalt	5.7		0.24	0.019	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Copper	18		0.25	0.083	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Lead	14		0.24	0.070	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Mercury	0.028		0.017	0.00096	mg/Kg	As Recd	1.000	EPA 7471A	METHOD
Nickel	25		0.24	0.065	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Vanadium	31		0.24	0.024	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Zinc	170		0.96	0.094	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Client Sample ID : B1-6.0 Laboratory Sample ID : 259748-002

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Arsenic	0.98		0.23	0.075	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Barium	52		0.23	0.044	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Beryllium	0.23		0.091	0.017	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Chromium	41		0.23	0.019	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cobalt	4.7		0.23	0.018	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Copper	6.5		0.24	0.079	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Lead	2.5		0.23	0.066	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Nickel	29		0.23	0.062	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Vanadium	27		0.23	0.022	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Zinc	19		0.91	0.089	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Client Sample ID : B2-3.0 Laboratory Sample ID : 259748-003

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Arsenic	1.7		0.25	0.083	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Barium	52		0.25	0.049	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Beryllium	0.21		0.10	0.019	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Chromium	40		0.25	0.021	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cobalt	4.0		0.25	0.019	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Copper	5.9		0.26	0.086	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Lead	2.1		0.25	0.073	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Nickel	23		0.25	0.068	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Vanadium	29		0.25	0.025	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Zinc	16		1.0	0.098	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Client Sample ID : B2-5.0 Laboratory Sample ID : 259748-004

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	65	Y	5.0	1.5	mg/Kg	As Recd	5.000	EPA 8015B	EPA 3550B
Arsenic	1.9		0.25	0.081	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Barium	56		0.25	0.048	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Beryllium	0.22		0.098	0.019	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Chromium	32		0.25	0.021	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cobalt	5.8		0.25	0.019	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Copper	22		0.25	0.085	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Lead	12		0.25	0.072	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Mercury	0.061		0.017	0.00095	mg/Kg	As Recd	1.000	EPA 7471A	METHOD
Nickel	21		0.25	0.066	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Vanadium	36		0.25	0.024	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Zinc	43		0.98	0.096	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Client Sample ID : B1-GW Laboratory Sample ID : 259748-005

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	1,200		50	16	ug/L	As Recd	1.000	EPA 8015B	EPA 3520C

Client Sample ID : B3-3.0 Laboratory Sample ID : 259748-006

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Arsenic	1.4		0.24	0.081	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Barium	58		0.24	0.047	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Beryllium	0.26		0.097	0.018	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Chromium	47		0.24	0.020	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cobalt	4.7		0.24	0.019	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Copper	6.4		0.25	0.084	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Lead	2.7		0.24	0.071	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Nickel	33		0.24	0.066	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Vanadium	31		0.24	0.024	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Zinc	21		0.97	0.095	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Curtis & Tompkins, Ltd.

Client Sample ID : B3-4.5 Laboratory Sample ID : 259748-007

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Arsenic	2.1		0.25	0.082	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Barium	61		0.25	0.048	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Beryllium	0.29		0.099	0.019	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cadmium	0.25		0.25	0.016	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Chromium	52		0.25	0.021	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cobalt	4.4		0.25	0.019	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Copper	12		0.26	0.086	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Lead	3.4		0.25	0.072	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Nickel	38		0.25	0.067	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Vanadium	34		0.25	0.025	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Zinc	25		0.99	0.097	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Y = Sample exhibits chromatographic pattern which does not resemble standard

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8015B
Field ID:	B1-GW	Batch#:	214457
Matrix:	Water	Sampled:	08/12/14
Units:	ug/L	Received:	08/12/14
Diln Fac:	1.000	Analyzed:	08/16/14

Type: SAMPLE Lab ID: 259748-005

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	99	77-128

Type: BLANK Lab ID: QC753794

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	87	77-128

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons			
Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC753793	Batch#:	214457
Matrix:	Water	Analyzed:	08/16/14
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	931.0	93	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	94	77-128

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	214457
MSS Lab ID:	259897-001	Sampled:	08/15/14
Matrix:	Water	Received:	08/15/14
Units:	ug/L	Analyzed:	08/16/14
Diln Fac:	1.000		

Type: MS Lab ID: QC753823

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	83.32	2,000	1,880	90	74-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	102	77-128

Type: MSD Lab ID: QC753824

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,896	91	74-120	1	27

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	101	77-128

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	214343
Units:	mg/Kg	Sampled:	08/12/14
Basis:	as received	Received:	08/12/14
Diln Fac:	1.000	Analyzed:	08/13/14

Field ID: B1-3.0 Lab ID: 259748-001
Type: SAMPLE

Analyte	Result	RL
Gasoline C7-C12	ND	0.96

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	104	67-137

Field ID: B1-6.0 Lab ID: 259748-002
Type: SAMPLE

Analyte	Result	RL
Gasoline C7-C12	ND	0.93

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	102	67-137

Field ID: B2-3.0 Lab ID: 259748-003
Type: SAMPLE

Analyte	Result	RL
Gasoline C7-C12	ND	1.0

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	110	67-137

Field ID: B2-5.0 Lab ID: 259748-004
Type: SAMPLE

Analyte	Result	RL
Gasoline C7-C12	ND	0.93

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	111	67-137

Field ID: B3-3.0 Lab ID: 259748-006
Type: SAMPLE

Analyte	Result	RL
Gasoline C7-C12	ND	1.0

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	103	67-137

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	214343
Units:	mg/Kg	Sampled:	08/12/14
Basis:	as received	Received:	08/12/14
Diln Fac:	1.000	Analyzed:	08/13/14

Field ID: B3-4.5 Lab ID: 259748-007
Type: SAMPLE

Analyte	Result	RL
Gasoline C7-C12	ND	0.94

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	101	67-137

Type: BLANK Lab ID: QC753337

Analyte	Result	RL
Gasoline C7-C12	ND	0.20

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	95	67-137

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC753336	Batch#:	214343
Matrix:	Soil	Analyzed:	08/13/14
Units:	mg/Kg		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	0.9320	93	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	85	67-137

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8015B
Field ID:	B1-3.0	Diln Fac:	1.000
MSS Lab ID:	259748-001	Batch#:	214343
Matrix:	Soil	Sampled:	08/12/14
Units:	mg/Kg	Received:	08/12/14
Basis:	as received	Analyzed:	08/14/14

Type: MS Lab ID: QC753348

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.1882	9.434	3.223	32 *	42-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	104	67-137

Type: MSD Lab ID: QC753349

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	9.346	2.962	30 *	42-120	8	44

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	109	67-137

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 3520C
Project#:	402268001	Analysis:	EPA 8015B
Field ID:	B1-GW	Batch#:	214326
Matrix:	Water	Sampled:	08/12/14
Units:	ug/L	Received:	08/12/14
Diln Fac:	1.000		

Type:	SAMPLE	Prepared:	08/13/14
Lab ID:	259748-005	Analyzed:	08/14/14

Analyte	Result	RL
Diesel C10-C24	1,200	50

Surrogate	%REC	Limits
o-Terphenyl	105	66-129

Type:	BLANK	Prepared:	08/12/14
Lab ID:	QC753279	Analyzed:	08/13/14

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
o-Terphenyl	104	66-129

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 3520C
Project#:	402268001	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	214326
Units:	ug/L	Prepared:	08/12/14
Diln Fac:	1.000	Analyzed:	08/13/14

Type: BS Lab ID: QC753280

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,418	97	61-120

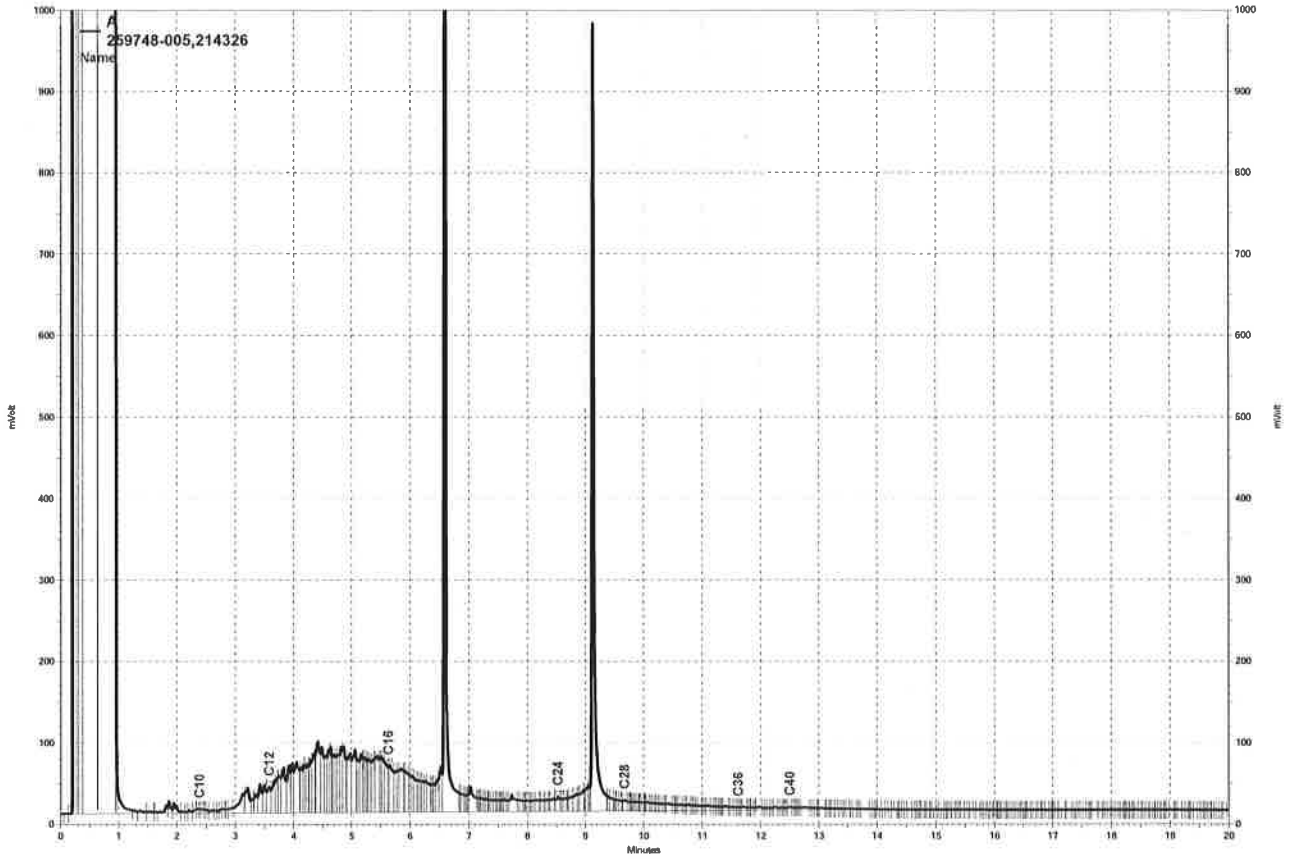
Surrogate	%REC	Limits
o-Terphenyl	108	66-129

Type: BSD Lab ID: QC753281

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,258	90	61-120	7	45

Surrogate	%REC	Limits
o-Terphenyl	103	66-129

RPD= Relative Percent Difference



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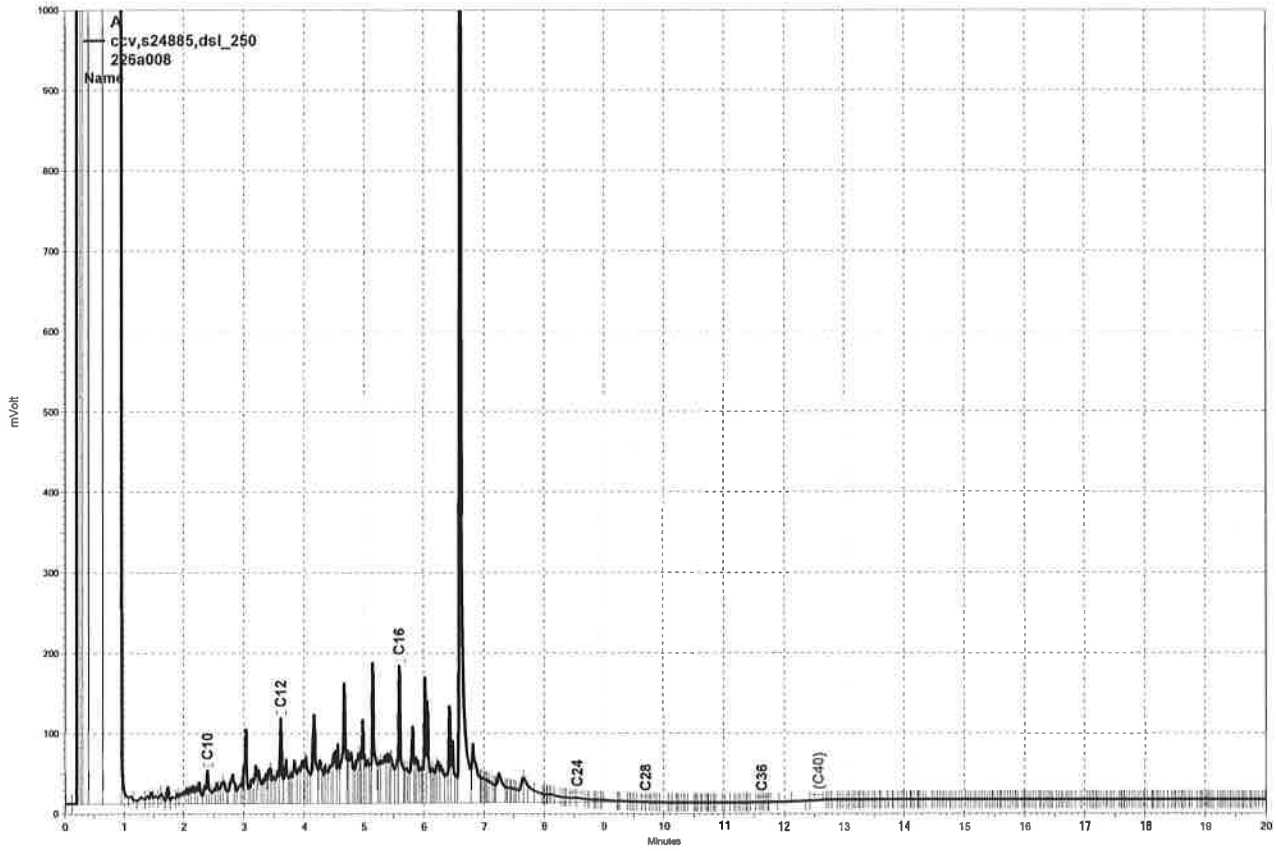

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Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 3550B
Project#:	402268001	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	08/12/14
Units:	mg/Kg	Received:	08/12/14
Basis:	as received	Prepared:	08/13/14
Batch#:	214364	Analyzed:	08/14/14

Field ID: B1-3.0 | Lab ID: 259748-001
Type: SAMPLE | Diln Fac: 5.000

Analyte	Result	RL
Diesel C10-C24	410	5.0

Surrogate	%REC	Limits
o-Terphenyl	97	64-136

Field ID: B1-6.0 | Lab ID: 259748-002
Type: SAMPLE | Diln Fac: 1.000

Analyte	Result	RL
Diesel C10-C24	ND	1.0

Surrogate	%REC	Limits
o-Terphenyl	118	64-136

Field ID: B2-3.0 | Lab ID: 259748-003
Type: SAMPLE | Diln Fac: 1.000

Analyte	Result	RL
Diesel C10-C24	ND	1.0

Surrogate	%REC	Limits
o-Terphenyl	115	64-136

Field ID: B2-5.0 | Lab ID: 259748-004
Type: SAMPLE | Diln Fac: 5.000

Analyte	Result	RL
Diesel C10-C24	65 Y	5.0

Surrogate	%REC	Limits
o-Terphenyl	119	64-136

Field ID: B3-3.0 | Lab ID: 259748-006
Type: SAMPLE | Diln Fac: 1.000

Analyte	Result	RL
Diesel C10-C24	ND	1.0

Surrogate	%REC	Limits
o-Terphenyl	104	64-136

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

15.0

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 3550B
Project#:	402268001	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	08/12/14
Units:	mg/Kg	Received:	08/12/14
Basis:	as received	Prepared:	08/13/14
Batch#:	214364	Analyzed:	08/14/14

Field ID:	B3-4.5	Lab ID:	259748-007
Type:	SAMPLE	Diln Fac:	1.000

Analyte	Result	RL
Diesel C10-C24	ND	1.0

Surrogate	%REC	Limits
o-Terphenyl	103	64-136

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC753420		

Analyte	Result	RL
Diesel C10-C24	ND	1.0

Surrogate	%REC	Limits
o-Terphenyl	95	64-136

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 #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 3550B
Project#:	402268001	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC753421	Batch#:	214364
Matrix:	Soil	Prepared:	08/13/14
Units:	mg/Kg	Analyzed:	08/14/14

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	50.13	43.59	87	61-132

Surrogate	%REC	Limits
o-Terphenyl	98	64-136

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 3550B
Project#:	402268001	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	214364
MSS Lab ID:	259652-012	Sampled:	08/07/14
Matrix:	Soil	Received:	08/07/14
Units:	mg/Kg	Prepared:	08/13/14
Basis:	as received	Analyzed:	08/14/14
Diln Fac:	20.00		

Type: MS Lab ID: QC753422

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	31.92	50.16	69.37	75	40-146

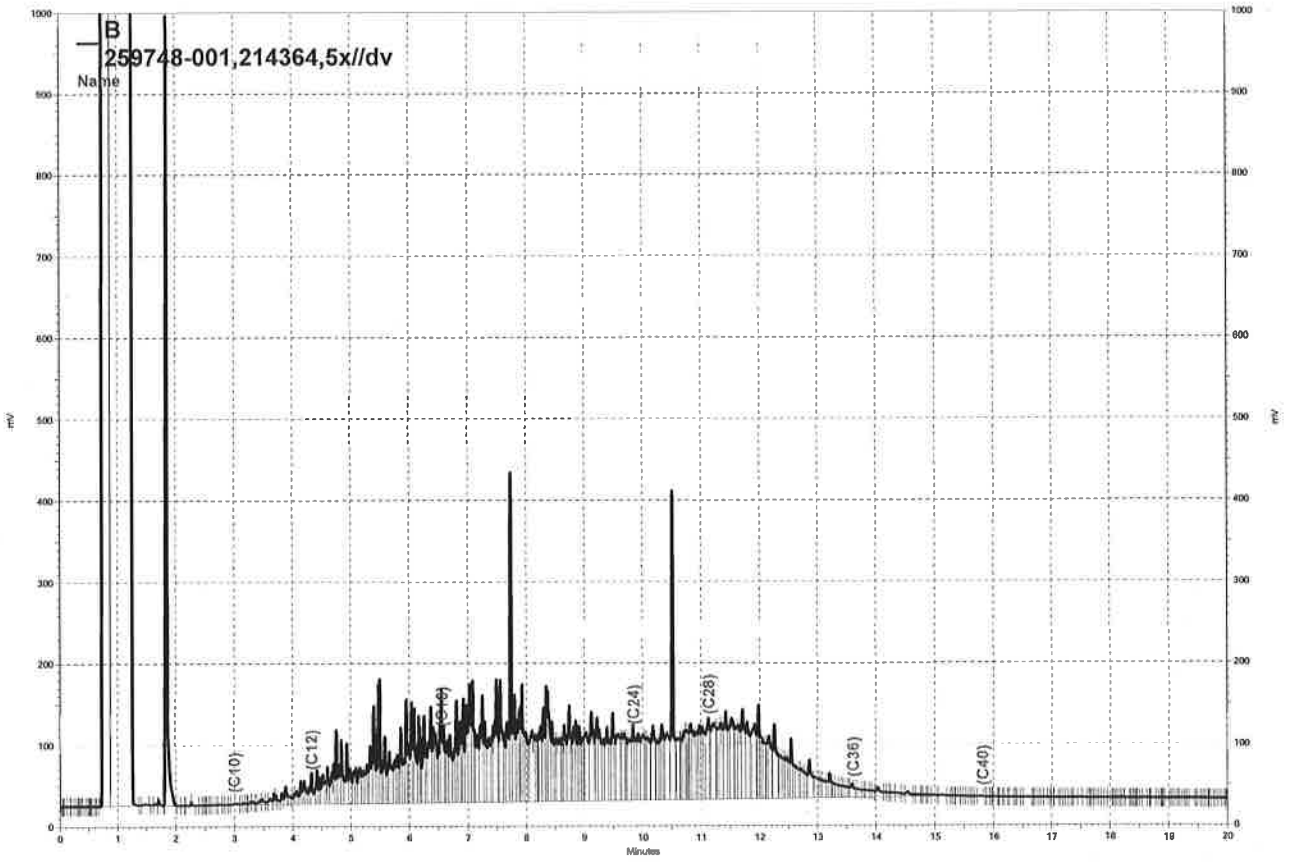
Surrogate	%REC	Limits
o-Terphenyl	DO	64-136

Type: MSD Lab ID: QC753423

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	49.61	57.18	51	40-146	19	56

Surrogate	%REC	Limits
o-Terphenyl	DO	64-136

DO= Diluted Out
RPD= Relative Percent Difference



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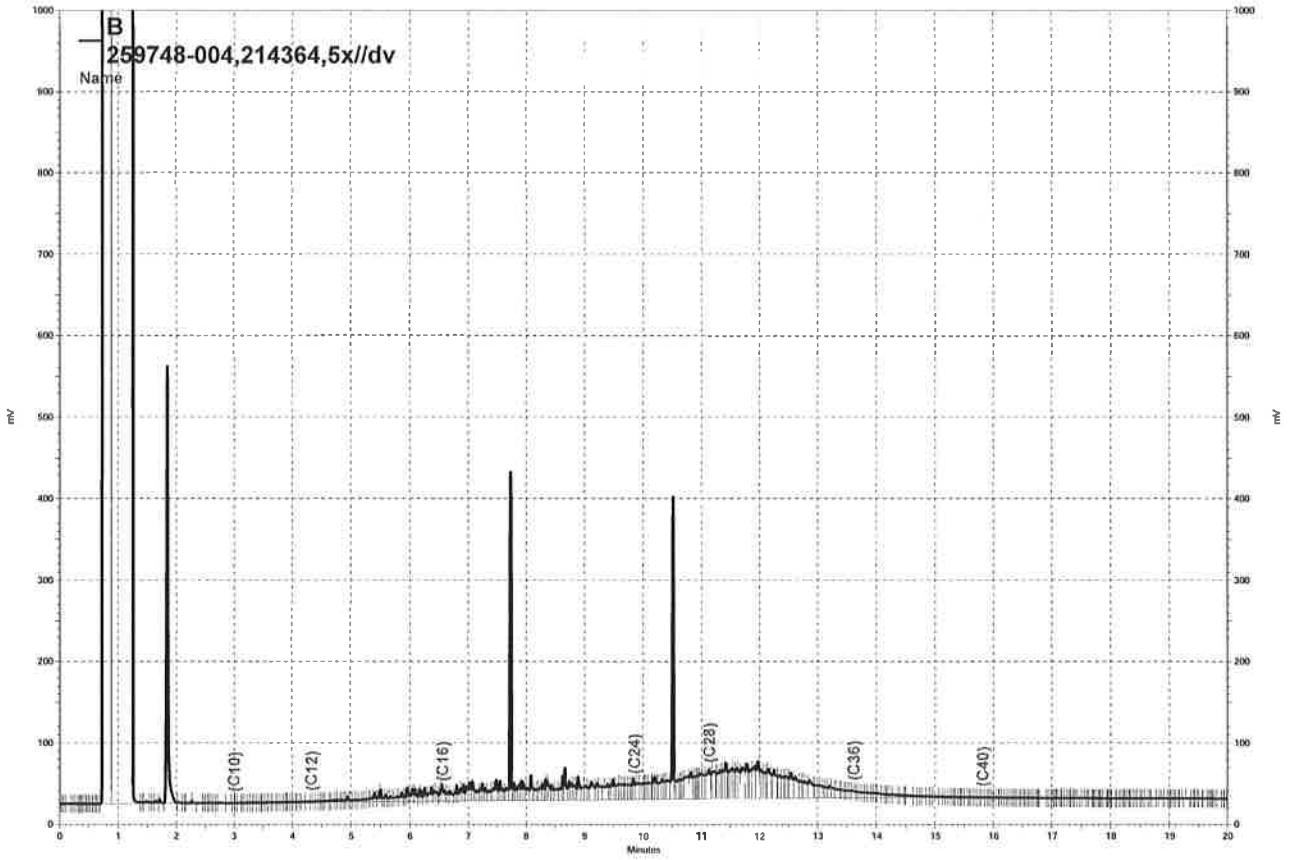

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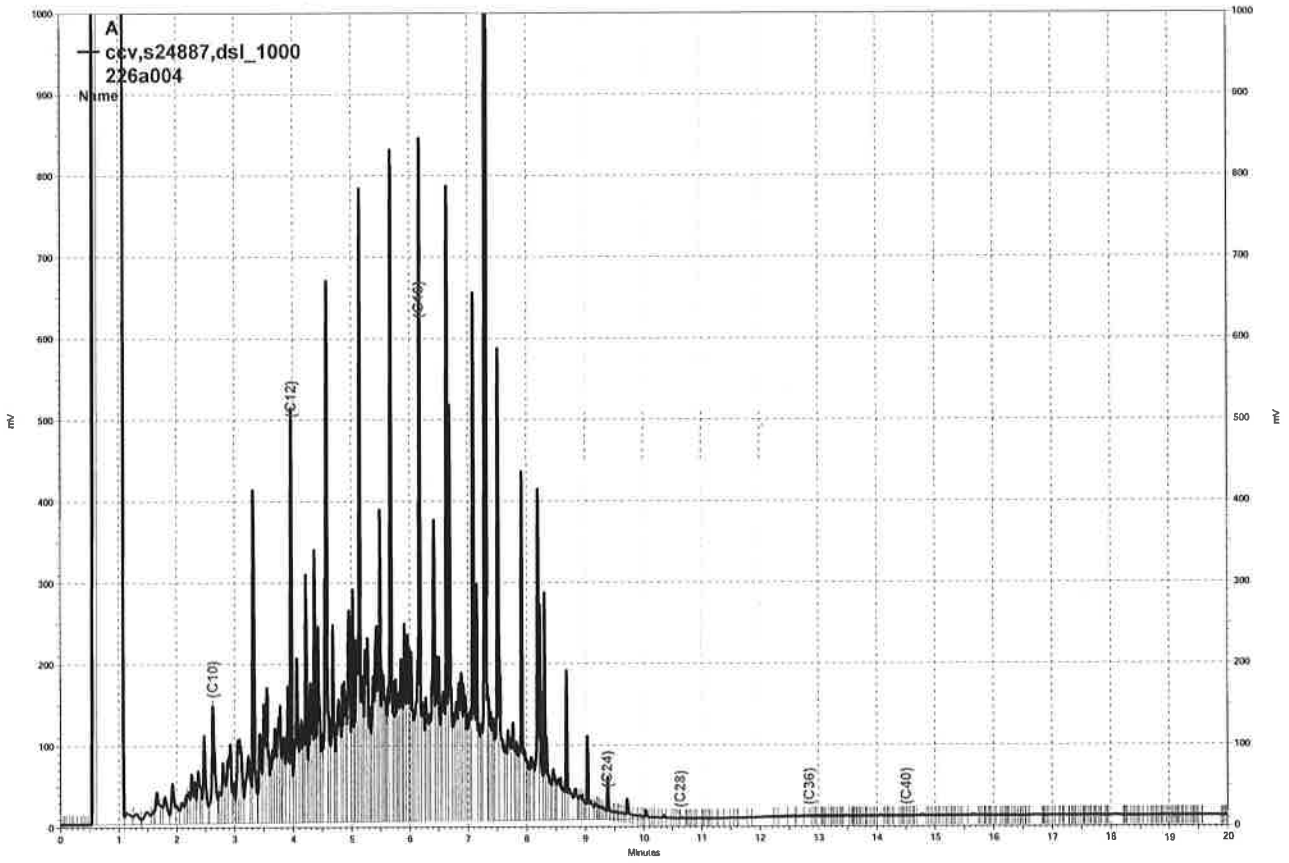

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Field ID:	B1-GW	Batch#:	214377
Lab ID:	259748-005	Sampled:	08/12/14
Matrix:	Water	Received:	08/12/14
Units:	ug/L	Analyzed:	08/14/14
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected
RL= Reporting Limit

12.0

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Field ID:	B1-GW	Batch#:	214377
Lab ID:	259748-005	Sampled:	08/12/14
Matrix:	Water	Received:	08/12/14
Units:	ug/L	Analyzed:	08/14/14
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	97	77-136
1,2-Dichloroethane-d4	116	75-139
Toluene-d8	106	80-120
Bromofluorobenzene	92	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	214377
Units:	ug/L	Analyzed:	08/14/14
Diln Fac:	1.000		

Type: BS Lab ID: QC753463

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	21.62	86	65-134
Benzene	25.00	23.95	96	80-124
Trichloroethene	25.00	23.35	93	80-120
Toluene	25.00	23.44	94	80-122
Chlorobenzene	25.00	24.53	98	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	96	77-136
1,2-Dichloroethane-d4	116	75-139
Toluene-d8	104	80-120
Bromofluorobenzene	92	80-120

Type: BSD Lab ID: QC753464

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	24.16	97	65-134	11	20
Benzene	25.00	26.11	104	80-124	9	20
Trichloroethene	25.00	25.81	103	80-120	10	20
Toluene	25.00	25.28	101	80-122	8	20
Chlorobenzene	25.00	26.79	107	80-120	9	20

Surrogate	%REC	Limits
Dibromofluoromethane	95	77-136
1,2-Dichloroethane-d4	116	75-139
Toluene-d8	105	80-120
Bromofluorobenzene	92	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC753465	Batch#:	214377
Matrix:	Water	Analyzed:	08/14/14
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC753465	Batch#:	214377
Matrix:	Water	Analyzed:	08/14/14
Units:	ug/L		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	97	77-136
1,2-Dichloroethane-d4	121	75-139
Toluene-d8	105	80-120
Bromofluorobenzene	97	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Field ID:	B1-3.0	Diln Fac:	0.9363
Lab ID:	259748-001	Batch#:	214434
Matrix:	Soil	Sampled:	08/12/14
Units:	ug/Kg	Received:	08/12/14
Basis:	as received	Analyzed:	08/15/14

Analyte	Result	RL
Freon 12	ND	9.4
Chloromethane	ND	9.4
Vinyl Chloride	ND	9.4
Bromomethane	ND	9.4
Chloroethane	ND	9.4
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	9.4
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	9.4
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	9.4
1,3-Dichloropropane	ND	4.7
Tetrachloroethene	ND	4.7

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Field ID:	B1-3.0	Diln Fac:	0.9363
Lab ID:	259748-001	Batch#:	214434
Matrix:	Soil	Sampled:	08/12/14
Units:	ug/Kg	Received:	08/12/14
Basis:	as received	Analyzed:	08/15/14

Analyte	Result	RL
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
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	97	76-128
1,2-Dichloroethane-d4	109	80-137
Toluene-d8	99	80-120
Bromofluorobenzene	98	79-128

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Field ID:	B1-6.0	Diln Fac:	0.9901
Lab ID:	259748-002	Batch#:	214385
Matrix:	Soil	Sampled:	08/12/14
Units:	ug/Kg	Received:	08/12/14
Basis:	as received	Analyzed:	08/15/14

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
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

42.0

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Field ID:	B1-6.0	Diln Fac:	0.9901
Lab ID:	259748-002	Batch#:	214385
Matrix:	Soil	Sampled:	08/12/14
Units:	ug/Kg	Received:	08/12/14
Basis:	as received	Analyzed:	08/15/14

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	92	76-128
1,2-Dichloroethane-d4	146 *	80-137
Toluene-d8	104	80-120
Bromofluorobenzene	116	79-128

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Field ID:	B2-3.0	Diln Fac:	0.9671
Lab ID:	259748-003	Batch#:	214434
Matrix:	Soil	Sampled:	08/12/14
Units:	ug/Kg	Received:	08/12/14
Basis:	as received	Analyzed:	08/15/14

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	4.8
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	9.7
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	9.7
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	9.7
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 #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Field ID:	B2-3.0	Diln Fac:	0.9671
Lab ID:	259748-003	Batch#:	214434
Matrix:	Soil	Sampled:	08/12/14
Units:	ug/Kg	Received:	08/12/14
Basis:	as received	Analyzed:	08/15/14

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	95	76-128
1,2-Dichloroethane-d4	112	80-137
Toluene-d8	98	80-120
Bromofluorobenzene	100	79-128

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Field ID:	B2-5.0	Diln Fac:	0.9141
Lab ID:	259748-004	Batch#:	214434
Matrix:	Soil	Sampled:	08/12/14
Units:	ug/Kg	Received:	08/12/14
Basis:	as received	Analyzed:	08/15/14

Analyte	Result	RL
Freon 12	ND	9.1
Chloromethane	ND	9.1
Vinyl Chloride	ND	9.1
Bromomethane	ND	9.1
Chloroethane	ND	9.1
Trichlorofluoromethane	ND	4.6
Acetone	ND	18
Freon 113	ND	4.6
1,1-Dichloroethene	ND	4.6
Methylene Chloride	ND	18
Carbon Disulfide	ND	4.6
MTBE	ND	4.6
trans-1,2-Dichloroethene	ND	4.6
Vinyl Acetate	ND	46
1,1-Dichloroethane	ND	4.6
2-Butanone	ND	9.1
cis-1,2-Dichloroethene	ND	4.6
2,2-Dichloropropane	ND	4.6
Chloroform	ND	4.6
Bromochloromethane	ND	4.6
1,1,1-Trichloroethane	ND	4.6
1,1-Dichloropropene	ND	4.6
Carbon Tetrachloride	ND	4.6
1,2-Dichloroethane	ND	4.6
Benzene	ND	4.6
Trichloroethene	ND	4.6
1,2-Dichloropropane	ND	4.6
Bromodichloromethane	ND	4.6
Dibromomethane	ND	4.6
4-Methyl-2-Pentanone	ND	9.1
cis-1,3-Dichloropropene	ND	4.6
Toluene	ND	4.6
trans-1,3-Dichloropropene	ND	4.6
1,1,2-Trichloroethane	ND	4.6
2-Hexanone	ND	9.1
1,3-Dichloropropane	ND	4.6
Tetrachloroethene	ND	4.6

ND= Not Detected
RL= Reporting Limit

44.0

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Field ID:	B2-5.0	Diln Fac:	0.9141
Lab ID:	259748-004	Batch#:	214434
Matrix:	Soil	Sampled:	08/12/14
Units:	ug/Kg	Received:	08/12/14
Basis:	as received	Analyzed:	08/15/14

Analyte	Result	RL
Dibromochloromethane	ND	4.6
1,2-Dibromoethane	ND	4.6
Chlorobenzene	ND	4.6
1,1,1,2-Tetrachloroethane	ND	4.6
Ethylbenzene	ND	4.6
m,p-Xylenes	ND	4.6
o-Xylene	ND	4.6
Styrene	ND	4.6
Bromoform	ND	4.6
Isopropylbenzene	ND	4.6
1,1,2,2-Tetrachloroethane	ND	4.6
1,2,3-Trichloropropane	ND	4.6
Propylbenzene	ND	4.6
Bromobenzene	ND	4.6
1,3,5-Trimethylbenzene	ND	4.6
2-Chlorotoluene	ND	4.6
4-Chlorotoluene	ND	4.6
tert-Butylbenzene	ND	4.6
1,2,4-Trimethylbenzene	ND	4.6
sec-Butylbenzene	ND	4.6
para-Isopropyl Toluene	ND	4.6
1,3-Dichlorobenzene	ND	4.6
1,4-Dichlorobenzene	ND	4.6
n-Butylbenzene	ND	4.6
1,2-Dichlorobenzene	ND	4.6
1,2-Dibromo-3-Chloropropane	ND	4.6
1,2,4-Trichlorobenzene	ND	4.6
Hexachlorobutadiene	ND	4.6
Naphthalene	ND	4.6
1,2,3-Trichlorobenzene	ND	4.6

Surrogate	%REC	Limits
Dibromofluoromethane	97	76-128
1,2-Dichloroethane-d4	107	80-137
Toluene-d8	110	80-120
Bromofluorobenzene	101	79-128

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Field ID:	B3-3.0	Diln Fac:	0.8977
Lab ID:	259748-006	Batch#:	214434
Matrix:	Soil	Sampled:	08/12/14
Units:	ug/Kg	Received:	08/12/14
Basis:	as received	Analyzed:	08/15/14

Analyte	Result	RL
Freon 12	ND	9.0
Chloromethane	ND	9.0
Vinyl Chloride	ND	9.0
Bromomethane	ND	9.0
Chloroethane	ND	9.0
Trichlorofluoromethane	ND	4.5
Acetone	ND	18
Freon 113	ND	4.5
1,1-Dichloroethene	ND	4.5
Methylene Chloride	ND	18
Carbon Disulfide	ND	4.5
MTBE	ND	4.5
trans-1,2-Dichloroethene	ND	4.5
Vinyl Acetate	ND	45
1,1-Dichloroethane	ND	4.5
2-Butanone	ND	9.0
cis-1,2-Dichloroethene	ND	4.5
2,2-Dichloropropane	ND	4.5
Chloroform	ND	4.5
Bromochloromethane	ND	4.5
1,1,1-Trichloroethane	ND	4.5
1,1-Dichloropropene	ND	4.5
Carbon Tetrachloride	ND	4.5
1,2-Dichloroethane	ND	4.5
Benzene	ND	4.5
Trichloroethene	ND	4.5
1,2-Dichloropropane	ND	4.5
Bromodichloromethane	ND	4.5
Dibromomethane	ND	4.5
4-Methyl-2-Pentanone	ND	9.0
cis-1,3-Dichloropropene	ND	4.5
Toluene	ND	4.5
trans-1,3-Dichloropropene	ND	4.5
1,1,2-Trichloroethane	ND	4.5
2-Hexanone	ND	9.0
1,3-Dichloropropane	ND	4.5
Tetrachloroethene	ND	4.5

ND= Not Detected
RL= Reporting Limit

45.0

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Field ID:	B3-3.0	Diln Fac:	0.8977
Lab ID:	259748-006	Batch#:	214434
Matrix:	Soil	Sampled:	08/12/14
Units:	ug/Kg	Received:	08/12/14
Basis:	as received	Analyzed:	08/15/14

Analyte	Result	RL
Dibromochloromethane	ND	4.5
1,2-Dibromoethane	ND	4.5
Chlorobenzene	ND	4.5
1,1,1,2-Tetrachloroethane	ND	4.5
Ethylbenzene	ND	4.5
m,p-Xylenes	ND	4.5
o-Xylene	ND	4.5
Styrene	ND	4.5
Bromoform	ND	4.5
Isopropylbenzene	ND	4.5
1,1,2,2-Tetrachloroethane	ND	4.5
1,2,3-Trichloropropane	ND	4.5
Propylbenzene	ND	4.5
Bromobenzene	ND	4.5
1,3,5-Trimethylbenzene	ND	4.5
2-Chlorotoluene	ND	4.5
4-Chlorotoluene	ND	4.5
tert-Butylbenzene	ND	4.5
1,2,4-Trimethylbenzene	ND	4.5
sec-Butylbenzene	ND	4.5
para-Isopropyl Toluene	ND	4.5
1,3-Dichlorobenzene	ND	4.5
1,4-Dichlorobenzene	ND	4.5
n-Butylbenzene	ND	4.5
1,2-Dichlorobenzene	ND	4.5
1,2-Dibromo-3-Chloropropane	ND	4.5
1,2,4-Trichlorobenzene	ND	4.5
Hexachlorobutadiene	ND	4.5
Naphthalene	ND	4.5
1,2,3-Trichlorobenzene	ND	4.5

Surrogate	%REC	Limits
Dibromofluoromethane	97	76-128
1,2-Dichloroethane-d4	111	80-137
Toluene-d8	119	80-120
Bromofluorobenzene	96	79-128

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Field ID:	B3-4.5	Diln Fac:	0.9141
Lab ID:	259748-007	Batch#:	214501
Matrix:	Soil	Sampled:	08/12/14
Units:	ug/Kg	Received:	08/12/14
Basis:	as received	Analyzed:	08/18/14

Analyte	Result	RL
Freon 12	ND	9.1
Chloromethane	ND	9.1
Vinyl Chloride	ND	9.1
Bromomethane	ND	9.1
Chloroethane	ND	9.1
Trichlorofluoromethane	ND	4.6
Acetone	ND	18
Freon 113	ND	4.6
1,1-Dichloroethene	ND	4.6
Methylene Chloride	ND	18
Carbon Disulfide	ND	4.6
MTBE	ND	4.6
trans-1,2-Dichloroethene	ND	4.6
Vinyl Acetate	ND	46
1,1-Dichloroethane	ND	4.6
2-Butanone	ND	9.1
cis-1,2-Dichloroethene	ND	4.6
2,2-Dichloropropane	ND	4.6
Chloroform	ND	4.6
Bromochloromethane	ND	4.6
1,1,1-Trichloroethane	ND	4.6
1,1-Dichloropropene	ND	4.6
Carbon Tetrachloride	ND	4.6
1,2-Dichloroethane	ND	4.6
Benzene	ND	4.6
Trichloroethene	ND	4.6
1,2-Dichloropropane	ND	4.6
Bromodichloromethane	ND	4.6
Dibromomethane	ND	4.6
4-Methyl-2-Pentanone	ND	9.1
cis-1,3-Dichloropropene	ND	4.6
Toluene	ND	4.6
trans-1,3-Dichloropropene	ND	4.6
1,1,2-Trichloroethane	ND	4.6
2-Hexanone	ND	9.1
1,3-Dichloropropane	ND	4.6
Tetrachloroethene	ND	4.6

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Field ID:	B3-4.5	Diln Fac:	0.9141
Lab ID:	259748-007	Batch#:	214501
Matrix:	Soil	Sampled:	08/12/14
Units:	ug/Kg	Received:	08/12/14
Basis:	as received	Analyzed:	08/18/14

Analyte	Result	RL
Dibromochloromethane	ND	4.6
1,2-Dibromoethane	ND	4.6
Chlorobenzene	ND	4.6
1,1,1,2-Tetrachloroethane	ND	4.6
Ethylbenzene	ND	4.6
m,p-Xylenes	ND	4.6
o-Xylene	ND	4.6
Styrene	ND	4.6
Bromoform	ND	4.6
Isopropylbenzene	ND	4.6
1,1,2,2-Tetrachloroethane	ND	4.6
1,2,3-Trichloropropane	ND	4.6
Propylbenzene	ND	4.6
Bromobenzene	ND	4.6
1,3,5-Trimethylbenzene	ND	4.6
2-Chlorotoluene	ND	4.6
4-Chlorotoluene	ND	4.6
tert-Butylbenzene	ND	4.6
1,2,4-Trimethylbenzene	ND	4.6
sec-Butylbenzene	ND	4.6
para-Isopropyl Toluene	ND	4.6
1,3-Dichlorobenzene	ND	4.6
1,4-Dichlorobenzene	ND	4.6
n-Butylbenzene	ND	4.6
1,2-Dichlorobenzene	ND	4.6
1,2-Dibromo-3-Chloropropane	ND	4.6
1,2,4-Trichlorobenzene	ND	4.6
Hexachlorobutadiene	ND	4.6
Naphthalene	ND	4.6
1,2,3-Trichlorobenzene	ND	4.6

Surrogate	%REC	Limits
Dibromofluoromethane	106	76-128
1,2-Dichloroethane-d4	116	80-137
Toluene-d8	96	80-120
Bromofluorobenzene	94	79-128

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC753498	Batch#:	214385
Matrix:	Soil	Analyzed:	08/14/14
Units:	ug/Kg		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	22.48	90	68-135
Benzene	25.00	23.82	95	80-127
Trichloroethene	25.00	28.57	114	77-129
Toluene	25.00	25.81	103	79-125
Chlorobenzene	25.00	24.49	98	78-120

Surrogate	%REC	Limits
Dibromofluoromethane	91	76-128
1,2-Dichloroethane-d4	132	80-137
Toluene-d8	105	80-120
Bromofluorobenzene	101	79-128

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC753499	Batch#:	214385
Matrix:	Soil	Analyzed:	08/14/14
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

48.0

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC753499	Batch#:	214385
Matrix:	Soil	Analyzed:	08/14/14
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	94	76-128
1,2-Dichloroethane-d4	128	80-137
Toluene-d8	111	80-120
Bromofluorobenzene	107	79-128

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	214385
MSS Lab ID:	259730-001	Sampled:	08/12/14
Matrix:	Soil	Received:	08/12/14
Units:	ug/Kg	Analyzed:	08/14/14
Basis:	as received		

Type: MS Diln Fac: 0.9690
Lab ID: QC753624

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.9158	48.45	32.90	68	46-138
Benzene	<0.8794	48.45	37.54	77	51-125
Trichloroethene	<0.8140	48.45	38.57	80	41-146
Toluene	<0.6933	48.45	36.32	75	45-123
Chlorobenzene	<0.6687	48.45	31.16	64	39-120

Surrogate	%REC	Limits
Dibromofluoromethane	93	76-128
1,2-Dichloroethane-d4	138 *	80-137
Toluene-d8	103	80-120
Bromofluorobenzene	101	79-128

Type: MSD Diln Fac: 0.9921
Lab ID: QC753625

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	49.60	39.94	81	46-138	17	51
Benzene	49.60	40.80	82	51-125	6	46
Trichloroethene	49.60	41.05	83	41-146	4	55
Toluene	49.60	37.73	76	45-123	1	59
Chlorobenzene	49.60	32.74	66	39-120	3	54

Surrogate	%REC	Limits
Dibromofluoromethane	93	76-128
1,2-Dichloroethane-d4	139 *	80-137
Toluene-d8	107	80-120
Bromofluorobenzene	100	79-128

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC753691	Batch#:	214434
Matrix:	Soil	Analyzed:	08/15/14
Units:	ug/Kg		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	20.66	83	68-135
Benzene	25.00	21.94	88	80-127
Trichloroethene	25.00	21.62	86	77-129
Toluene	25.00	21.33	85	79-125
Chlorobenzene	25.00	21.53	86	78-120

Surrogate	%REC	Limits
Dibromofluoromethane	90	76-128
1,2-Dichloroethane-d4	103	80-137
Toluene-d8	101	80-120
Bromofluorobenzene	96	79-128

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC753692	Batch#:	214434
Matrix:	Soil	Analyzed:	08/15/14
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

51.0

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC753692	Batch#:	214434
Matrix:	Soil	Analyzed:	08/15/14
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	91	76-128
1,2-Dichloroethane-d4	110	80-137
Toluene-d8	101	80-120
Bromofluorobenzene	100	79-128

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	214434
MSS Lab ID:	259845-003	Sampled:	08/14/14
Matrix:	Soil	Received:	08/14/14
Units:	ug/Kg	Analyzed:	08/15/14
Basis:	as received		

Type: MS
Lab ID: QC753713

Diln Fac: 0.9381

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.4112	46.90	37.02	79	46-138
Benzene	<0.4077	46.90	46.15	98	51-125
Trichloroethene	<0.3917	46.90	43.65	93	41-146
Toluene	<0.2962	46.90	42.95	92	45-123
Chlorobenzene	<0.3694	46.90	44.93	96	39-120

Surrogate	%REC	Limits
Dibromofluoromethane	93	76-128
1,2-Dichloroethane-d4	115	80-137
Toluene-d8	104	80-120
Bromofluorobenzene	94	79-128

Type: MSD
Lab ID: QC753714

Diln Fac: 0.9542

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	47.71	46.04	96	46-138	20	51
Benzene	47.71	51.15	107	51-125	9	46
Trichloroethene	47.71	47.34	99	41-146	6	55
Toluene	47.71	51.39	108	45-123	16	59
Chlorobenzene	47.71	49.30	103	39-120	8	54

Surrogate	%REC	Limits
Dibromofluoromethane	100	76-128
1,2-Dichloroethane-d4	117	80-137
Toluene-d8	111	80-120
Bromofluorobenzene	94	79-128

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC753954	Batch#:	214501
Matrix:	Soil	Analyzed:	08/18/14
Units:	ug/Kg		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	26.32	105	68-135
Benzene	25.00	24.82	99	80-127
Trichloroethene	25.00	25.84	103	77-129
Toluene	25.00	24.91	100	79-125
Chlorobenzene	25.00	26.73	107	78-120

Surrogate	%REC	Limits
Dibromofluoromethane	101	76-128
1,2-Dichloroethane-d4	116	80-137
Toluene-d8	97	80-120
Bromofluorobenzene	92	79-128

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC753955	Batch#:	214501
Matrix:	Soil	Analyzed:	08/18/14
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 #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC753955	Batch#:	214501
Matrix:	Soil	Analyzed:	08/18/14
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	100	76-128
1,2-Dichloroethane-d4	114	80-137
Toluene-d8	96	80-120
Bromofluorobenzene	93	79-128

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	402268001	Analysis:	EPA 8260B
Field ID:	B3-4.5	Batch#:	214501
MSS Lab ID:	259748-007	Sampled:	08/12/14
Matrix:	Soil	Received:	08/12/14
Units:	ug/Kg	Analyzed:	08/19/14
Basis:	as received		

Type: MS Diln Fac: 0.9311
Lab ID: QC754002

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.5472	46.55	47.12	101	46-138
Benzene	<0.6376	46.55	42.49	91	51-125
Trichloroethene	<0.6641	46.55	44.53	96	41-146
Toluene	<0.6984	46.55	40.72	87	45-123
Chlorobenzene	<0.5725	46.55	42.26	91	39-120

Surrogate	%REC	Limits
Dibromofluoromethane	105	76-128
1,2-Dichloroethane-d4	121	80-137
Toluene-d8	95	80-120
Bromofluorobenzene	90	79-128

Type: MSD Diln Fac: 0.9294
Lab ID: QC754003

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	46.47	49.71	107	46-138	6	51
Benzene	46.47	45.29	97	51-125	7	46
Trichloroethene	46.47	46.97	101	41-146	6	55
Toluene	46.47	44.29	95	45-123	9	59
Chlorobenzene	46.47	45.50	98	39-120	8	54

Surrogate	%REC	Limits
Dibromofluoromethane	105	76-128
1,2-Dichloroethane-d4	120	80-137
Toluene-d8	96	80-120
Bromofluorobenzene	88	79-128

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

1,4-Dioxane by 8270-SIM

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 3520C
Project#:	402268001	Analysis:	EPA 8270C-SIM
Field ID:	B1-GW	Batch#:	214327
Matrix:	Water	Sampled:	08/12/14
Units:	ug/L	Received:	08/12/14
Diln Fac:	1.000		

Type:	SAMPLE	Prepared:	08/13/14
Lab ID:	259748-005	Analyzed:	08/15/14

Analyte	Result	RL
1,4-Dioxane	ND	0.98

Surrogate	%REC	Limits
Nitrobenzene-d5	74	50-135
2-Fluorobiphenyl	53	51-120

Type:	BLANK	Prepared:	08/12/14
Lab ID:	QC753282	Analyzed:	08/13/14

Analyte	Result	RL
1,4-Dioxane	ND	1.0

Surrogate	%REC	Limits
Nitrobenzene-d5	82	50-135
2-Fluorobiphenyl	84	51-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

1,4-Dioxane by 8270-SIM

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 3520C
Project#:	402268001	Analysis:	EPA 8270C-SIM
Matrix:	Water	Batch#:	214327
Units:	ug/L	Prepared:	08/12/14
Diln Fac:	1.000	Analyzed:	08/13/14

Type: BS Lab ID: QC753283

Analyte	Spiked	Result	%REC	Limits
1,4-Dioxane	3.000	2.707	90	53-123

Surrogate	%REC	Limits
Nitrobenzene-d5	99	50-135
2-Fluorobiphenyl	88	51-120

Type: BSD Lab ID: QC753284

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,4-Dioxane	3.000	2.542	85	53-123	6	39

Surrogate	%REC	Limits
Nitrobenzene-d5	86	50-135
2-Fluorobiphenyl	81	51-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

1,4-Dioxane by 8270-SIM

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 3550B
Project#:	402268001	Analysis:	EPA 8270C-SIM
Matrix:	Soil	Sampled:	08/12/14
Units:	ug/Kg	Received:	08/12/14
Basis:	as received	Prepared:	08/13/14
Batch#:	214366		

Field ID: B1-3.0
Type: SAMPLE
Lab ID: 259748-001

Diln Fac: 10.00
Analyzed: 08/15/14

Analyte	Result	RL
1,4-Dioxane	ND	330

Surrogate	%REC	Limits
Nitrobenzene-d5	DO	39-136
2-Fluorobiphenyl	DO	42-120

Field ID: B1-6.0
Type: SAMPLE
Lab ID: 259748-002

Diln Fac: 1.000
Analyzed: 08/15/14

Analyte	Result	RL
1,4-Dioxane	ND	33

Surrogate	%REC	Limits
Nitrobenzene-d5	48	39-136
2-Fluorobiphenyl	48	42-120

Field ID: B2-3.0
Type: SAMPLE
Lab ID: 259748-003

Diln Fac: 1.000
Analyzed: 08/15/14

Analyte	Result	RL
1,4-Dioxane	ND	33

Surrogate	%REC	Limits
Nitrobenzene-d5	57	39-136
2-Fluorobiphenyl	51	42-120

Field ID: B2-5.0
Type: SAMPLE
Lab ID: 259748-004

Diln Fac: 1.000
Analyzed: 08/15/14

Analyte	Result	RL
1,4-Dioxane	ND	33

Surrogate	%REC	Limits
Nitrobenzene-d5	54	39-136
2-Fluorobiphenyl	55	42-120

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

1,4-Dioxane by 8270-SIM

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 3550B
Project#:	402268001	Analysis:	EPA 8270C-SIM
Matrix:	Soil	Sampled:	08/12/14
Units:	ug/Kg	Received:	08/12/14
Basis:	as received	Prepared:	08/13/14
Batch#:	214366		

Field ID:	B3-3.0	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	08/15/14
Lab ID:	259748-006		

Analyte	Result	RL
1,4-Dioxane	ND	33

Surrogate	%REC	Limits
Nitrobenzene-d5	48	39-136
2-Fluorobiphenyl	46	42-120

Field ID:	B3-4.5	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	08/15/14
Lab ID:	259748-007		

Analyte	Result	RL
1,4-Dioxane	ND	33

Surrogate	%REC	Limits
Nitrobenzene-d5	56	39-136
2-Fluorobiphenyl	51	42-120

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC753426	Analyzed:	08/14/14

Analyte	Result	RL
1,4-Dioxane	ND	33

Surrogate	%REC	Limits
Nitrobenzene-d5	56	39-136
2-Fluorobiphenyl	62	42-120

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

1,4-Dioxane by 8270-SIM

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 3550B
Project#:	402268001	Analysis:	EPA 8270C-SIM
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC753427	Batch#:	214366
Matrix:	Soil	Prepared:	08/13/14
Units:	ug/Kg	Analyzed:	08/14/14

Analyte	Spiked	Result	%REC	Limits
1,4-Dioxane	99.50	46.23	46	10-120

Surrogate	%REC	Limits
Nitrobenzene-d5	56	39-136
2-Fluorobiphenyl	62	42-120

Curtis & Tompkins, Ltd.

Batch QC Report

1,4-Dioxane by 8270-SIM

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 3550B
Project#:	402268001	Analysis:	EPA 8270C-SIM
Field ID:	ZZZZZZZZZZ	Batch#:	214366
MSS Lab ID:	259733-001	Sampled:	08/12/14
Matrix:	Soil	Received:	08/12/14
Units:	ug/Kg	Prepared:	08/13/14
Basis:	as received	Analyzed:	08/14/14
Diln Fac:	1.000		

Type: MS Lab ID: QC753428

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,4-Dioxane	<2.523	99.80	35.80	36	9-120

Surrogate	%REC	Limits
Nitrobenzene-d5	59	39-136
2-Fluorobiphenyl	65	42-120

Type: MSD Lab ID: QC753429

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,4-Dioxane	99.70	32.32	32	9-120	10	50

Surrogate	%REC	Limits
Nitrobenzene-d5	59	39-136
2-Fluorobiphenyl	64	42-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 3550B
Project#:	402268001	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	214355
Units:	ug/Kg	Sampled:	08/12/14
Basis:	as received	Received:	08/12/14
Diln Fac:	1.000	Prepared:	08/13/14

Field ID: B1-3.0 Lab ID: 259748-001
Type: SAMPLE Analyzed: 08/14/14

Analyte	Result	RL
Aroclor-1016	ND	9.7
Aroclor-1221	ND	19
Aroclor-1232	ND	9.7
Aroclor-1242	ND	9.7
Aroclor-1248	ND	9.7
Aroclor-1254	ND	9.7
Aroclor-1260	ND	9.7

Surrogate	%REC	Limits
TCMX	49 *	60-140
Decachlorobiphenyl	41	36-133

Field ID: B1-6.0 Lab ID: 259748-002
Type: SAMPLE Analyzed: 08/14/14

Analyte	Result	RL
Aroclor-1016	ND	9.6
Aroclor-1221	ND	19
Aroclor-1232	ND	9.6
Aroclor-1242	ND	9.6
Aroclor-1248	ND	9.6
Aroclor-1254	ND	9.6
Aroclor-1260	ND	9.6

Surrogate	%REC	Limits
TCMX	82	60-140
Decachlorobiphenyl	76	36-133

Field ID: B2-3.0 Lab ID: 259748-003
Type: SAMPLE Analyzed: 08/14/14

Analyte	Result	RL
Aroclor-1016	ND	9.7
Aroclor-1221	ND	19
Aroclor-1232	ND	9.7
Aroclor-1242	ND	9.7
Aroclor-1248	ND	9.7
Aroclor-1254	ND	9.7
Aroclor-1260	ND	9.7

Surrogate	%REC	Limits
TCMX	115	60-140
Decachlorobiphenyl	110	36-133

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 3550B
Project#:	402268001	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	214355
Units:	ug/Kg	Sampled:	08/12/14
Basis:	as received	Received:	08/12/14
Diln Fac:	1.000	Prepared:	08/13/14

Field ID: B2-5.0 Lab ID: 259748-004
Type: SAMPLE Analyzed: 08/14/14

Analyte	Result	RL
Aroclor-1016	ND	9.6
Aroclor-1221	ND	19
Aroclor-1232	ND	9.6
Aroclor-1242	ND	9.6
Aroclor-1248	ND	9.6
Aroclor-1254	ND	9.6
Aroclor-1260	ND	9.6

Surrogate	%REC	Limits
TCMX	94	60-140
Decachlorobiphenyl	88	36-133

Field ID: B3-3.0 Lab ID: 259748-006
Type: SAMPLE Analyzed: 08/14/14

Analyte	Result	RL
Aroclor-1016	ND	9.7
Aroclor-1221	ND	19
Aroclor-1232	ND	9.7
Aroclor-1242	ND	9.7
Aroclor-1248	ND	9.7
Aroclor-1254	ND	9.7
Aroclor-1260	ND	9.7

Surrogate	%REC	Limits
TCMX	80	60-140
Decachlorobiphenyl	67	36-133

Field ID: B3-4.5 Lab ID: 259748-007
Type: SAMPLE Analyzed: 08/14/14

Analyte	Result	RL
Aroclor-1016	ND	9.7
Aroclor-1221	ND	19
Aroclor-1232	ND	9.7
Aroclor-1242	ND	9.7
Aroclor-1248	ND	9.7
Aroclor-1254	ND	9.7
Aroclor-1260	ND	9.7

Surrogate	%REC	Limits
TCMX	88	60-140
Decachlorobiphenyl	93	36-133

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 3550B
Project#:	402268001	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	214355
Units:	ug/Kg	Sampled:	08/12/14
Basis:	as received	Received:	08/12/14
Diln Fac:	1.000	Prepared:	08/13/14

Type: BLANK
Lab ID: QC753383

Analyzed: 08/13/14

Analyte	Result	RL
Aroclor-1016	ND	9.5
Aroclor-1221	ND	19
Aroclor-1232	ND	9.5
Aroclor-1242	ND	9.5
Aroclor-1248	ND	9.5
Aroclor-1254	ND	9.5
Aroclor-1260	ND	9.5

Surrogate	%REC	Limits
TCMX	103	60-140
Decachlorobiphenyl	88	36-133

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)			
Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 3550B
Project#:	402268001	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC753384	Batch#:	214355
Matrix:	Soil	Prepared:	08/13/14
Units:	ug/Kg	Analyzed:	08/13/14

Analyte	Spiked	Result	%REC	Limits
Aroclor-1016	167.3	171.7	103	58-144
Aroclor-1260	167.3	181.3	108	55-146

Surrogate	%REC	Limits
TCMX	73	60-140
Decachlorobiphenyl	76	36-133

Curtis & Tompkins, Ltd.

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 3550B
Project#:	402268001	Analysis:	EPA 8082
Field ID:	ZZZZZZZZZZ	Batch#:	214355
MSS Lab ID:	259742-001	Sampled:	08/07/14
Matrix:	Soil	Received:	08/07/14
Units:	ug/Kg	Prepared:	08/13/14
Basis:	as received	Analyzed:	08/13/14
Diln Fac:	1.000		

Type: MS Lab ID: QC753385

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1016	<2.384	167.1	188.9	113	51-155
Aroclor-1260	5.990	167.1	210.2	122	38-155

Surrogate	%REC	Limits
TCMX	98	60-140
Decachlorobiphenyl	79	36-133

Type: MSD Lab ID: QC753386

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1016	166.9	178.1	107	51-155	6	38
Aroclor-1260	166.9	191.8	111	38-155	9	55

Surrogate	%REC	Limits
TCMX	83	60-140
Decachlorobiphenyl	69	36-133

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	259748	Project#:	402268001
Client:	Ninyo & Moore	Location:	Alameda UST
Field ID:	B1-3.0	Basis:	as received
Lab ID:	259748-001	Diln Fac:	1.000
Matrix:	Soil	Sampled:	08/12/14
Units:	mg/Kg	Received:	08/12/14

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.48	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Arsenic	2.9	0.24	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Barium	56	0.24	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Beryllium	0.22	0.096	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Cadmium	0.43	0.24	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Chromium	38	0.24	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Cobalt	5.7	0.24	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Copper	18	0.25	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Lead	14	0.24	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Mercury	0.028	0.017	214386	08/14/14	08/14/14	METHOD	EPA 7471A
Molybdenum	ND	0.24	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Nickel	25	0.24	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Selenium	ND	0.48	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Silver	ND	0.24	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Thallium	ND	0.48	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Vanadium	31	0.24	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Zinc	170	0.96	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	259748	Project#:	402268001
Client:	Ninyo & Moore	Location:	Alameda UST
Field ID:	B1-6.0	Basis:	as received
Lab ID:	259748-002	Diln Fac:	1.000
Matrix:	Soil	Sampled:	08/12/14
Units:	mg/Kg	Received:	08/12/14

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.45	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Arsenic	0.98	0.23	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Barium	52	0.23	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Beryllium	0.23	0.091	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Cadmium	ND	0.23	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Chromium	41	0.23	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Cobalt	4.7	0.23	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Copper	6.5	0.24	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Lead	2.5	0.23	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Mercury	ND	0.017	214386	08/14/14	08/14/14	METHOD	EPA 7471A
Molybdenum	ND	0.23	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Nickel	29	0.23	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Selenium	ND	0.45	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Silver	ND	0.23	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Thallium	ND	0.45	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Vanadium	27	0.23	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Zinc	19	0.91	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	259748	Project#:	402268001
Client:	Ninyo & Moore	Location:	Alameda UST
Field ID:	B2-3.0	Basis:	as received
Lab ID:	259748-003	Diln Fac:	1.000
Matrix:	Soil	Sampled:	08/12/14
Units:	mg/Kg	Received:	08/12/14

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	214420	08/15/14	08/19/14	EPA 3050B	EPA 6010B
Arsenic	1.7	0.25	214420	08/15/14	08/19/14	EPA 3050B	EPA 6010B
Barium	52	0.25	214420	08/15/14	08/19/14	EPA 3050B	EPA 6010B
Beryllium	0.21	0.10	214420	08/15/14	08/19/14	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	214420	08/15/14	08/19/14	EPA 3050B	EPA 6010B
Chromium	40	0.25	214420	08/15/14	08/19/14	EPA 3050B	EPA 6010B
Cobalt	4.0	0.25	214420	08/15/14	08/19/14	EPA 3050B	EPA 6010B
Copper	5.9	0.26	214420	08/15/14	08/19/14	EPA 3050B	EPA 6010B
Lead	2.1	0.25	214420	08/15/14	08/19/14	EPA 3050B	EPA 6010B
Mercury	ND	0.017	214386	08/14/14	08/14/14	METHOD	EPA 7471A
Molybdenum	ND	0.25	214420	08/15/14	08/19/14	EPA 3050B	EPA 6010B
Nickel	23	0.25	214420	08/15/14	08/19/14	EPA 3050B	EPA 6010B
Selenium	ND	0.50	214420	08/15/14	08/19/14	EPA 3050B	EPA 6010B
Silver	ND	0.25	214420	08/15/14	08/19/14	EPA 3050B	EPA 6010B
Thallium	ND	0.50	214420	08/15/14	08/19/14	EPA 3050B	EPA 6010B
Vanadium	29	0.25	214420	08/15/14	08/19/14	EPA 3050B	EPA 6010B
Zinc	16	1.0	214420	08/15/14	08/19/14	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	259748	Project#:	402268001
Client:	Ninyo & Moore	Location:	Alameda UST
Field ID:	B2-5.0	Basis:	as received
Lab ID:	259748-004	Diln Fac:	1.000
Matrix:	Soil	Sampled:	08/12/14
Units:	mg/Kg	Received:	08/12/14

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.49	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Arsenic	1.9	0.25	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Barium	56	0.25	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Beryllium	0.22	0.098	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Chromium	32	0.25	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Cobalt	5.8	0.25	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Copper	22	0.25	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Lead	12	0.25	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Mercury	0.061	0.017	214386	08/14/14	08/14/14	METHOD	EPA 7471A
Molybdenum	ND	0.25	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Nickel	21	0.25	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Selenium	ND	0.49	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Silver	ND	0.25	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Thallium	ND	0.49	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Vanadium	36	0.25	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Zinc	43	0.98	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	259748	Project#:	402268001
Client:	Ninyo & Moore	Location:	Alameda UST
Field ID:	B3-3.0	Basis:	as received
Lab ID:	259748-006	Diln Fac:	1.000
Matrix:	Soil	Sampled:	08/12/14
Units:	mg/Kg	Received:	08/12/14

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.49	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Arsenic	1.4	0.24	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Barium	58	0.24	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Beryllium	0.26	0.097	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Cadmium	ND	0.24	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Chromium	47	0.24	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Cobalt	4.7	0.24	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Copper	6.4	0.25	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Lead	2.7	0.24	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Mercury	ND	0.018	214386	08/14/14	08/14/14	METHOD	EPA 7471A
Molybdenum	ND	0.24	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Nickel	33	0.24	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Selenium	ND	0.49	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Silver	ND	0.24	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Thallium	ND	0.49	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Vanadium	31	0.24	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Zinc	21	0.97	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	259748	Project#:	402268001
Client:	Ninyo & Moore	Location:	Alameda UST
Field ID:	B3-4.5	Basis:	as received
Lab ID:	259748-007	Diln Fac:	1.000
Matrix:	Soil	Sampled:	08/12/14
Units:	mg/Kg	Received:	08/12/14

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Arsenic	2.1	0.25	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Barium	61	0.25	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Beryllium	0.29	0.099	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Cadmium	0.25	0.25	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Chromium	52	0.25	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Cobalt	4.4	0.25	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Copper	12	0.26	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Lead	3.4	0.25	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Mercury	ND	0.017	214386	08/14/14	08/14/14	METHOD	EPA 7471A
Molybdenum	ND	0.25	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Nickel	38	0.25	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Selenium	ND	0.50	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Silver	ND	0.25	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Thallium	ND	0.50	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Vanadium	34	0.25	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B
Zinc	25	0.99	214420	08/15/14	08/15/14	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals			
Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	METHOD
Project#:	402268001	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	214386
Lab ID:	QC753502	Prepared:	08/14/14
Matrix:	Soil	Analyzed:	08/14/14
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 #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	METHOD
Project#:	402268001	Analysis:	EPA 7471A
Analyte:	Mercury	Batch#:	214386
Matrix:	Soil	Prepared:	08/14/14
Units:	mg/Kg	Analyzed:	08/14/14
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC753503	0.2083	0.2263	109	80-120		
BSD	QC753504	0.2083	0.2180	105	80-120	4	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	METHOD
Project#:	402268001	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	214386
MSS Lab ID:	259767-001	Sampled:	08/12/14
Matrix:	Soil	Received:	08/13/14
Units:	mg/Kg	Prepared:	08/14/14
Basis:	as received	Analyzed:	08/14/14

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC753505	0.03609	0.1923	0.2327	102	69-136		
MSD	QC753506		0.1953	0.2243	96	69-136	5	35

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals			
Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 3050B
Project#:	402268001	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC753642	Batch#:	214420
Matrix:	Soil	Prepared:	08/15/14
Units:	mg/Kg	Analyzed:	08/15/14

Analyte	Result	RL
Antimony	ND	0.50
Arsenic	ND	0.25
Barium	ND	0.25
Beryllium	ND	0.10
Cadmium	ND	0.25
Chromium	ND	0.25
Cobalt	ND	0.25
Copper	ND	0.26
Lead	ND	0.25
Molybdenum	ND	0.25
Nickel	ND	0.25
Selenium	ND	0.50
Silver	ND	0.25
Thallium	ND	0.50
Vanadium	ND	0.25
Zinc	ND	1.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 3050B
Project#:	402268001	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	214420
Units:	mg/Kg	Prepared:	08/15/14
Diln Fac:	5.000	Analyzed:	08/15/14

Type: BS Lab ID: QC753643

Analyte	Spiked	Result	%REC	Limits
Antimony	50.00	50.36	101	80-120
Arsenic	50.00	51.80	104	80-120
Barium	50.00	51.63	103	80-120
Beryllium	50.00	52.16	104	80-120
Cadmium	50.00	53.23	106	80-120
Chromium	50.00	51.82	104	80-120
Cobalt	50.00	50.21	100	80-120
Copper	50.00	50.14	100	80-120
Lead	50.00	50.04	100	80-120
Molybdenum	50.00	52.46	105	80-120
Nickel	50.00	51.02	102	80-120
Selenium	50.00	52.02	104	80-120
Silver	50.00	50.62	101	80-120
Thallium	50.00	50.75	101	80-120
Vanadium	50.00	52.84	106	80-120
Zinc	50.00	51.60	103	80-120

Type: BSD Lab ID: QC753644

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	50.00	54.91	110	80-120	9	20
Arsenic	50.00	55.63	111	80-120	7	20
Barium	50.00	55.79	112	80-120	8	20
Beryllium	50.00	56.93	114	80-120	9	20
Cadmium	50.00	57.66	115	80-120	8	20
Chromium	50.00	56.19	112	80-120	8	20
Cobalt	50.00	53.74	107	80-120	7	20
Copper	50.00	54.63	109	80-120	9	20
Lead	50.00	53.82	108	80-120	7	20
Molybdenum	50.00	56.47	113	80-120	7	20
Nickel	50.00	54.74	109	80-120	7	20
Selenium	50.00	56.32	113	80-120	8	20
Silver	50.00	54.92	110	80-120	8	20
Thallium	50.00	54.52	109	80-120	7	20
Vanadium	50.00	57.54	115	80-120	9	20
Zinc	50.00	55.31	111	80-120	7	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	EPA 3050B
Project#:	402268001	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	259652-011	Batch#:	214420
Matrix:	Soil	Sampled:	08/07/14
Units:	mg/Kg	Received:	08/07/14
Basis:	as received	Prepared:	08/15/14

Type: MS Lab ID: QC753645

Analyte	MSS Result	Spiked	Result	%REC	Limits	Analyzed
Antimony	1.103	52.08	25.96	48	9-120	08/15/14
Arsenic	7.143	52.08	55.37	93	72-120	08/19/14
Barium	170.1	52.08	199.6	57	50-133	08/15/14
Beryllium	0.4595	52.08	47.97	91	80-120	08/15/14
Cadmium	0.7411	52.08	47.08	89	72-120	08/15/14
Chromium	66.09	52.08	114.0	92	61-120	08/15/14
Cobalt	11.57	52.08	55.27	84	60-120	08/15/14
Copper	53.06	52.08	112.4	114	47-149	08/15/14
Lead	75.22	52.08	127.5	100	52-122	08/15/14
Molybdenum	<0.06103	52.08	45.23	87	68-120	08/15/14
Nickel	62.72	52.08	86.16	45 *	46-135	08/15/14
Selenium	<0.1590	52.08	44.62	86	70-120	08/15/14
Silver	<0.08125	52.08	48.86	94	67-120	08/15/14
Thallium	<0.1772	52.08	41.67	80	64-120	08/15/14
Vanadium	50.31	52.08	99.53	95	54-137	08/15/14
Zinc	125.8	52.08	177.8	100	39-141	08/15/14

Type: MSD Lab ID: QC753646

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Analyzed
Antimony	53.76	27.43	49	9-120	2	26	08/15/14
Arsenic	53.76	56.12	91	72-120	1	30	08/19/14
Barium	53.76	209.9	74	50-133	4	43	08/15/14
Beryllium	53.76	48.29	89	80-120	2	20	08/15/14
Cadmium	53.76	47.90	88	72-120	1	22	08/15/14
Chromium	53.76	118.2	97	61-120	2	31	08/15/14
Cobalt	53.76	55.61	82	60-120	2	39	08/15/14
Copper	53.76	114.3	114	47-149	0	32	08/15/14
Lead	53.76	192.5	218 *	52-122	39	49	08/15/14
Molybdenum	53.76	46.18	86	68-120	1	23	08/15/14
Nickel	53.76	87.72	47	46-135	0	37	08/15/14
Selenium	53.76	45.81	85	70-120	1	26	08/15/14
Silver	53.76	49.37	92	67-120	2	25	08/15/14
Thallium	53.76	42.77	80	64-120	1	20	08/15/14
Vanadium	53.76	98.69	90	54-137	2	31	08/15/14
Zinc	53.76	189.2	118	39-141	5	37	08/15/14

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

40.0

Curtis & Tompkins, Ltd.

Total Oil & Grease (HEM)

Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	METHOD
Project#:	402268001	Analysis:	EPA 1664A
Analyte:	Oil & Grease (HEM)	Batch#:	214632
Field ID:	B1-GW	Sampled:	08/12/14
Matrix:	Water	Received:	08/12/14
Units:	mg/L	Analyzed:	08/21/14
Diln Fac:	1.000		

Type	Lab ID	Result	RL
SAMPLE	259748-005	ND	4.72
BLANK	QC754469	ND	5.00

ND= Not Detected
RL= Reporting Limit

58.0

Curtis & Tompkins, Ltd.

Batch QC Report

Total Oil & Grease (HEM)			
Lab #:	259748	Location:	Alameda UST
Client:	Ninyo & Moore	Prep:	METHOD
Project#:	402268001	Analysis:	EPA 1664A
Analyte:	Oil & Grease (HEM)	Diln Fac:	1.000
Matrix:	Water	Batch#:	214632
Units:	mg/L	Analyzed:	08/21/14

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC754470	40.00	38.00	95	78-114		
BSD	QC754471	40.00	39.00	97	78-114	3	18

RPD= Relative Percent Difference

Laboratory Job Number 259748

Subcontracted Products

Cal Science

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WORK ORDER NUMBER: 14-08-1145

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Curtis & Tompkins, Ltd.

Client Project Name: 259748

Attention: Will S. Rice
2323 Fifth Street
Berkeley, CA 94710-2407

Nicole Scott for

Approved for release on 08/20/2014 by:
Vikas Patel
Project Manager

ResultLink ▸

Email your PM ▸

nelac

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Work Order Narrative

Work Order: 14-08-1145

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 08/15/14. They were assigned to Work Order 14-08-1145.

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.

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.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

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.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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Detections Summary

Client: Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Work Order: 14-08-1145
Project Name: 259748
Received: 08/15/14

Attn: Will S. Rice

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B1-3.0 (14-08-1145-1)						
HEM: Oil and Grease	660		10	mg/kg	EPA 1664A (M)	N/A
B1-6.0 (14-08-1145-2)						
HEM: Oil and Grease	27		10	mg/kg	EPA 1664A (M)	N/A
B2-3.0 (14-08-1145-3)						
HEM: Oil and Grease	85		10	mg/kg	EPA 1664A (M)	N/A
B2-5.0 (14-08-1145-4)						
HEM: Oil and Grease	33		10	mg/kg	EPA 1664A (M)	N/A
B3-3.0 (14-08-1145-5)						
HEM: Oil and Grease	25		10	mg/kg	EPA 1664A (M)	N/A
B3-4.5 (14-08-1145-6)						
HEM: Oil and Grease	19		10	mg/kg	EPA 1664A (M)	N/A

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown

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Analytical Report

Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Project: 259748

Date Received: 08/15/14
Work Order: 14-08-1145
Preparation: N/A
Method: EPA 1664A (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B1-3.0	14-08-1145-1-A	08/12/14 09:33	Solid	N/A	08/19/14	08/19/14 16:00	E0819HEML1

Parameter	Result	RL	DF	Qualifiers
HEM: Oil and Grease	660	10	1.00	

B1-6.0	14-08-1145-2-A	08/12/14 10:20	Solid	N/A	08/19/14	08/19/14 16:00	E0819HEML1

Parameter	Result	RL	DF	Qualifiers
HEM: Oil and Grease	27	10	1.00	

B2-3.0	14-08-1145-3-A	08/12/14 11:00	Solid	N/A	08/19/14	08/19/14 16:00	E0819HEML1

Parameter	Result	RL	DF	Qualifiers
HEM: Oil and Grease	85	10	1.00	

B2-5.0	14-08-1145-4-A	08/12/14 11:17	Solid	N/A	08/19/14	08/19/14 16:00	E0819HEML1

Parameter	Result	RL	DF	Qualifiers
HEM: Oil and Grease	33	10	1.00	

B3-3.0	14-08-1145-5-A	08/12/14 11:31	Solid	N/A	08/19/14	08/19/14 16:00	E0819HEML1

Parameter	Result	RL	DF	Qualifiers
HEM: Oil and Grease	25	10	1.00	

B3-4.5	14-08-1145-6-A	08/12/14 11:54	Solid	N/A	08/19/14	08/19/14 16:00	E0819HEML1

Parameter	Result	RL	DF	Qualifiers
HEM: Oil and Grease	19	10	1.00	

Method Blank	099-12-040-462	N/A	Solid	N/A	08/19/14	08/19/14 16:00	E0819HEML1

Parameter	Result	RL	DF	Qualifiers
HEM: Oil and Grease	ND	10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - LCS/LCSD

Curtis & Tompkins, Ltd.	Date Received: 08/15/14
2323 Fifth Street	Work Order: 14-08-1145
Berkeley, CA 94710-2407	Preparation: N/A
	Method: EPA 1664A (M)
Project: 259748	Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-040-462	LCS	Solid	N/A	08/19/14	08/19/14 16:00	E0819HEML1
099-12-040-462	LCSD	Solid	N/A	08/19/14	08/19/14 16:00	E0819HEML1

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
HEM: Oil and Grease	40.00	36.70	92	36.70	92	78-114	0	0-18	

RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 14-08-1145

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 1664A (M)	N/A	691	N/A	1

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

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Glossary of Terms and Qualifiers

Work Order: 14-08-1145 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.
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.

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900
(510) 486-0532

14-08-1145

Project Number: 259748
Site: Alameda UST

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: Will S Rice (will.rice@ctberk.com)
*** Please report using Sample ID rather than C&T Lab #.

	Sample ID	Sampled	Matrix	Analysis	C&T Lab #	Comments
1	B1-3.0	08/12 09:33	Soil	OIL & GREASE	259748-001	
2	B1-6.0	08/12 10:20	Soil	OIL & GREASE	259748-002	
3	B2-3.0	08/12 11:00	Soil	OIL & GREASE	259748-003	
4	B2-5.0	08/12 11:17	Soil	OIL & GREASE	259748-004	
5	B3-3.0	08/12 11:31	Soil	OIL & GREASE	259748-006	
6	B3-4.5	08/12 11:54	Soil	OIL & GREASE	259748-007	

Notes:	Relinquished By:	Received By:
	Mikelle Chong	EG
	Date/Time: 08/14/14 @ 1445	Date/Time: 8/15/14 1030
		(Fedex)
	Date/Time:	Date/Time:

Signature on this form constitutes a firm Purchase Order for the services requested above.

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From: (510) 486-0900
Sample Control
Curtis & Tompkins
2323 5th Street

Berkeley, CA 94710

Origin ID: JEMA

FedEx Express

J1420140619O3uv

Ship Date: 14AUG14
ActWgt: 15.0 LB
CAD: 7603800/INET3550

1145

Delivery Address Bar Code

Ref # 259748
Invoice #
PO #
Dept #

SHIP TO: (714) 895-5494 BILL THIRD PARTY

Vik Patel
Cal Science Environmental Lab
7440 LINCOLN WAY

GARDEN GROVE, CA 92841

FRI - 15 AUG AA
STANDARD OVERNIGHT

TRK# 0201 7708 4048 1315

92 APVA

92841
CA-US
SNA

522G1/ECF2/8AC9

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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WORK ORDER #: 14-08-1145

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: C & T

DATE: 08/15/14

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.5 °C - 0.3 °C (CF) = 2.2 °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.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Checked by: 876

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Checked by: 876

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: 876

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☐	☐	☑
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☐	☐	☑
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☑2 ozCGJ

Aqueous: ☐VOA ☐VOAh ☐VOAna_2 ☐125AGB ☐125AGBh ☐125AGBp ☐1AGB ☐1AGBna_2 ☐1AGBs ☐500AGB ☐500AGJ ☐500AGJs ☐250AGB ☐250CGB ☐250CGBs ☐1PB ☐1PBna ☐500PB ☐250PB ☐250PBn ☐125PB ☐125PBznna ☐100PJ ☐100PJna_2 ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** 876

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** 759

Preservative: h: HCL n: HNO_3 na_2:$Na_2S_2O_3$ na: NaOH p: H_3PO_4 s: H_2SO_4 u: Ultra-pure znna: $ZnAc_2$+NaOH f: Filtered **Scanned by:** 759

Vikas Patel

From: Will Rice [will.rice@ctberk.com]
Sent: Friday, August 15, 2014 5:43 PM
To: Vikas Patel
Subject: Re: 259748 - 14-08-1145 - Sample Receipt Confirmation & COC Document

Please note we would like these results by the 20th.

Thanks,
Will Rice
Project Manager
(510)204-2221
www.curtisandtompkins.com

Usual office hours are Mon-Fri, 10AM to 6PM

On 8/15/2014 5:39 PM, Vikas Patel wrote:

> Hello Will - Sample receipt confirmation for your records.
>
> Regards,
>
> Vik Patel
> Project Manager
>
> Eurofins Calscience, Inc
> 7440 Lincoln Way
> Garden Grove, CA 92841-1427
> USA
>
> Phone +1 714 895 5494
> Fax +1 714 894 7501
>
> **Please note new e-mail adddress below, please update your records. Thank you.**
>
> Email: vikaspatel@eurofinsUS.com
> Website: www.calscience.com

APPENDIX H

PHOTOGRAPHIC LOG

Photograph of sidewalk removal

Additional photograph of sidewalk removal

Photograph showing oil product seep beneath the sidewalk

Additional photograph showing oil seep beneath sidewalk

Photograph of soil over-burden stockpile that was placed in 20 CY bins

Photograph of joint trench located on south edge of tank excavation

UST excavation facing east. The main fill pipe is visible in the background

UST excavation facing west. The product delivery system manifold and piping is visible in the background

Main fill pipe. Product seepage in visible on surface of the tank

Surface of the tank showing both fill pipe and product delivery system manifold.
The joint trench is visible to the left of the photograph

Close view of product delivery system manifold

Photograph of return line found running parallel to North edge of tank

Termination point of return line found at utility pole

Photograph showing cutting of tank system piping

Photograph showing product seeping from pipes

Product removal from tank

Photograph showing access holes cut into top of tank for cleaning

Tank cleaning operations

Inside surface of tank post cleaning

Pressure filling tank with CDF

Overfill of CDF through access ports

Removal of return line

Backfill of excavation

Restoration of sidewalk