



30 October 2014
Project 730482302

Mr. Mark Detterman, PG, CEG
Senior Hazardous Materials Specialist
Alameda County Health Care Services Agency
Environmental Health Department
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Subject: Environmental Site Characterization
2302-2332 Valdez Street and 2321-2335 Waverly Street
Oakland, California
Alameda County SCP Case No. RO0003149
Langan Project: 731641601

Dear Mr. Detterman:

As a legally authorized representative of WP West Acquisitions, LLC, and on behalf of WP West Acquisitions, LLC, I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document titled *Environmental Site Characterization, 2302-2332 Valdez Street and 2321-2335 Waverly Street, Oakland, CA, Alameda County SCP Case No. RO0003149*, are true and correct to the best of my knowledge.

Sincerely yours,

A handwritten signature in blue ink, appearing to read "Brian Pianca". The signature is fluid and cursive, with a large initial "B" and "P".

Brian Pianca
WP West Acquisitions, LLC

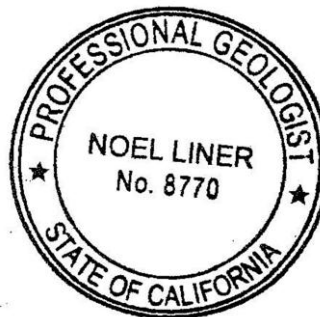
**ENVIRONMENTAL SITE CHARACTERIZATION
2302-2332 Valdez Street and
2321-2335 Waverly Street
Oakland, California**

Prepared For:

**Wood Partners
Mill Valley, California**

Prepared By:

**Langan Treadwell Rollo
555 Montgomery Street, Suite 1300
San Francisco, California 94111**



A handwritten signature in black ink, appearing to read "Noel Liner".

**Noel Liner
Project Geologist**

A handwritten signature in black ink, appearing to read "Peter J. Cusack".

**Peter J. Cusack
Senior Associate/VP**

**22 October 2014
731641601**

LANGAN TREADWELL ROLLO

22 October 2014

Mr. Brian Pianca
Wood Partners
20 Sunnyside Avenue, Suite B
Mill Valley, CA 94941

Subject: Environmental Site Characterization
2302-2332 Valdez Street and 2321-2335 Waverly Street
Oakland, California
Langan Project No.: 731641601

Dear Mr. Pianca:

Langan Treadwell Rollo is pleased to submit this Environmental Site Characterization (ESC), for the properties located at 2302-2332 Valdez Street and 2321-2335 Waverly Street in Oakland, California.

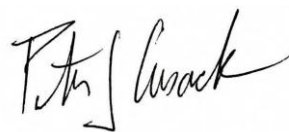
In performing this ESC, we have endeavored to observe that degree of care and skill generally exercised by other consultants undertaking similar studies at the same time, under similar circumstances and conditions, and in the same geographical area.

We appreciate the opportunity to assist you with this project. If you have any questions or need any information clarified, please call Mr. Peter J. Cusack at (415) 955-5200.

Sincerely yours,
Langan Treadwell Rollo



Noel Liner
Project Geologist



Peter J. Cusack
Senior Associate/VP

731641601.02 PJC

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ENVIRONMENTAL SITE CHARACTERIZATION
2302-2332 Valdez Street and 2321-2335 Waverly Street
Oakland, California

1.0 INTRODUCTION

This Environmental Site Characterization (ESC) was prepared for the proposed project at 2302-2332 Valdez Street and 2321-2335 Waverly Street (Site) in Oakland, California (Figure 1). The ESC was performed on behalf of Wood Partners (Client) of Mill Valley, California. The Site is T-shaped and bound by commercial and residential properties to the north, Waverly Street to the east, 23rd Street and a parking garage facility to the south, and Valdez Street to the west. The Site has a lot area of approximately 46,350 square feet (1.06 acres) which is currently occupied by a one-story warehouse type building and an at-grade parking lot.

2.0 PROJECT DESCRIPTION

We understand that the proposed project includes constructing a five-story wood frame building over a two-story concrete podium, the lower level of which is partially below grade. Our understanding of the project and Site conditions is based on discussions with you, nearby geotechnical investigations by Langan Treadwell Rollo (Langan), and previous environmental reports; including our recently completed Phase I Environmental Site Assessment (ESA), dated 30 September 2014.

3.0 BACKGROUND AND PREVIOUS INVESTIGATIONS

The 2302 Valdez Street property was previously occupied by the Oakland Tribune Garage facility which contained three service bays with hydraulic lifts for vehicle repair, located on the eastern side of the building; a gasoline dispensing pump was formerly located near the center of the building; and a floor sump, presumably used to drain fluids from cleaning the floors, was located in the northeastern corner of the building. The sump was reportedly removed and sealed in 1988. In addition, two underground storage tanks (USTs) (one 8,000-gallon gasoline tank and one 750-gallon waste oil tank) previously located beneath the Valdez Street sidewalk, directly outside of the western side of the building, were removed in February 1988.

Between August 1988 and August 1990, nine groundwater monitoring wells (MW-1 through MW-9) were installed on the Site and adjacent right-of-ways. The analytical results of the groundwater samples collected by others indicated groundwater was impacted at the Site. Between 1990 and 1996, numerous notices from Alameda County Department of

Environmental Health (ACDEH) were sent to the owner stating that additional sampling was required. Starting in January 1996, the nine groundwater monitoring wells were reportedly purged and sampled for the next three years.

Based on the contaminated soil remediation and groundwater monitoring activities conducted at the Site, administrative case closure was granted by the ACDEH in a letter dated 31 July 1998. Administrative case closure was granted upon acknowledging the following condition:

- If a change in land use was proposed or excavation of soils is planned at the Site, then an evaluation of risk from exposure to contaminated soil and groundwater would be made.

Data from nearby investigations indicates that the upper soils are underlain by heterogeneous soils that include mixtures of sand, silt, and clay. Regional geologic maps (Graymen, 2000) indicated the Site is underlain by the Temescal Formation. The Temescal Formation consists of interbedded alluvial fan deposits comprised of generally stiff to very stiff clay with sand lenses.

Recently, Langan completed a Phase I ESA at the Site for the Client. The results are summarized below and presented in our *Phase I Environmental Site Assessment, 2302-2332 Valdez Street and 2321-2335 Waverly Street, Oakland, California*, dated 30 September 2014:

Langan's Phase I ESA revealed no evidence of recognized environmental conditions (REC) in connection with the Site, and one controlled REC (CREC). A CREC is defined as a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (e.g., as evidenced by the issuance of a no further action [NFA] letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (e.g., property use restrictions, activity and use limitation (AULs), institutional controls, or engineering controls). The following CREC was identified:

CREC 1 – Fuel Leak Site Case Closure at Oakland Tribune Building, 2302 Valdez Street, Oakland, CA

Two USTs were removed from the Site in February 1988. Petroleum hydrocarbon contamination was detected in the soil and groundwater and over excavation was performed within the former UST pits. A total of nine groundwater monitoring wells

were installed and sampled. Historic analytical results indicated the contamination is limited in area.

In a letter dated 31 July 1998, administrative case closure for the fuel leak was granted by the ACDEHS for the former Oakland Tribune Building located at 2302 Valdez Street in Oakland, California.

At the time of closure, the final level(s) of contamination on the site consisted of 655 parts per billion (ppb) or micrograms per liter ($\mu\text{g/L}$) of TPH as gasoline (TPHg) and 630 ppb, 49 ppb, 21 ppb, and 130 ppb of benzene, toluene, ethylbenzene, and xylenes (BTEX), respectively. It should be noted that the 665 ppb TPHg concentration detected in groundwater was reported incorrectly in the case closure summary (page 2). The correct TPHg concentration detected in groundwater was 3,500 ppb.

A change in land use consisting of excavation of soils at the Site would trigger the requirement for an evaluation of risk from exposure to contaminated soil and groundwater.

Based on findings of the Phase I ESA and the above identified CREC, subsurface investigation was completed in order to evaluate the current subsurface conditions at the Site with regards to groundwater.

4.0 SCOPE AND PURPOSE OF SITE CHARACTERIZATION WORK

Our work included collecting soil, soil vapor, and groundwater samples throughout the Site and from previously installed monitoring wells.

Our scope of services included obtaining shallow soil samples from four borings advanced during the geotechnical investigation and from six exploratory environmental borings. Two sub-slab soil vapor sampling locations within the former Oakland Tribune Garage facility and three borings at the at-grade parking lot were advanced for the collection of soil vapor samples. Groundwater was sampled from the six previously installed monitoring wells after redevelopment of the wells. All sampling locations are shown on Figure 2.

5.0 FIELD INVESTIGATION

Geotechnical and environmental drilling and sampling of soil and soil vapor were conducted on 6 September 2014. Groundwater monitoring well redevelopment and sampling was conducted between the period of 4 September 2014 to 24 September 2014.

Prior to drilling and sampling activities, underground utilities were located and sampling locations were cleared by a private utility locator (Precision Locating, LLC) and Underground Services Alert (USA) was notified.

Soil Sampling

Four geotechnical borings, B-1 through B-4, were drilled to a maximum depth of 35 feet below the ground surface (bgs) and six environmental borings, EB-1 through EB-6, were drilled to a maximum depth of 8 feet bgs at the locations shown on Figure 2. The environmental borings were advanced using direct push methods. Continuous soil cores were collected into four-foot-long clear acetate sample liners. All soils collected from geotechnical and environmental borings were logged by Langan personnel in substantial conformance with the Unified Soil Classification System (USCS).

Based on the depth of the proposed excavation and in an effort to adequately characterize the soil to be off-hauled during construction, soil sampling locations were staggered across the site and samples collected at the following approximate depths: 1.5, 3.0, 5.0, and 8.0 feet bgs. Sample liners were covered with Teflon, sealed with plastic end caps, labeled, and stored on ice until delivery under chain-of-custody control to McCampbell Analytical, Inc. (McCampbell), a California Department of Public Health certified analytical laboratory in Pittsburg, California.

Boring logs from this investigation are presented in Appendix A as Figures A-1 through A-10. The material encountered was classified according to the soil classification system described on Figure A-11.

Soil Vapor and Sub-Slab Vapor Sampling

Soil vapor and sub-slab vapor sampling was performed in accordance with the DTSC "Advisory—Active Soil Gas Investigation" dated April 2012 and "Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air" dated October 2011. Soil vapor samples were collected from three locations (SG-1 through SG-3) within the asphalt

parking lot s and sub-slab vapor samples were collected from two locations (SSG-1 and SSG-2) within the Site building.

All soil vapor and sub-slab sampling locations are illustrated on Figure 2.

Soil Vapor Sampling

Soil vapor samples were collected within the asphalt parking lot using temporary soil vapor wells. Direct push sample rods were advanced to the proposed soil vapor sample depth, approximately five feet bgs.

Gregg Drilling and Testing (Gregg) of Martinez, California constructed the temporary soil vapor wells at each of the three boring locations (Figure 2) using Nylaflow® tubing with a 1/8-inch inside diameter connected to a nylon soil vapor screen with a 1.5-inch length and 3/8-inch diameter. Monterey, kiln-dried sand with 30% porosity was used to install a two foot filter pack at the bottom of the vapor well borehole. The 1.5-inch screen was placed at the midpoint of the sand filter pack. A 3-inch layer of dry bentonite chips was placed above the filter pack followed by hydrated bentonite to the ground surface. The hydrated bentonite serves to create a seal around the sample collection tubing to prevent ambient air intrusion into the soil vapor sample. A closed valve was installed at the end of the sample-collection tubing at the surface and the well system was allowed to equilibrate for at least two hours before purging and sampling.

The sampling manifolds consisted of 1/8-inch stainless steel or Teflon tubing, a valve for connecting a luer-lock syringe for purging, a 200 mL/min flow regulator, and two vacuum pressure gauges. One pressure gauge was installed between the flow regulator and the well head to monitor the vacuum maintained during the shut-in test and to measure the vacuum applied to the vapor well, and the other was placed after the flow regulator to measure the vacuum pressure within the sample canister. Samples were collected in 1 liter (L) Summa canisters with an initial vacuum of 30 inches-Hg. New tubing was used for each sample collection.

A shut-in test was performed after the construction of each sampling manifold. The shut-in test consisted of closing the valves at the vapor well head and on the Summa canister, then using a syringe to create 14 to 20-inches mercury of vacuum within the sampling system. If the vacuum was maintained with less than 10% deviation for five minutes, then the manifold was determined to be sufficiently sealed. Following a successful shut-in test, the valve to the vapor well was placed under a helium shroud and opened.

The helium shroud allows an atmosphere of known helium content to be maintained above the vapor well, which allows for the detection of leaks of ambient air into the vapor well and sample. The helium content within the shroud was maintained at approximately 20% and monitored with a portable helium and hydrogen detector during purging and sampling. The shroud consisted of a clear plastic box with ports for connecting a helium compressed gas cylinder and the helium detector.

A single purge volume was calculated by adding the pore space volume associated with the filter pack and the volume of all of the tubing within the well and in the sampling manifold. Approximately three times the single purge volume was purged from the system, using a 60 mL luer-lock syringe. The last 50 mL of gas that was purged was analyzed with the portable helium detector to ensure that there were no ambient air leaks into the sampling train. The vapor samples were then collected into Summa canisters until a residual vacuum of approximately 5-inches mercury was left. The canisters remained under the residual vacuum during transport from the sampling location to the analytical laboratory to indicate if any leaks of ambient air into the canister occurred. Samples were delivered to the analytical laboratories under chain-of-custody protocol and were analyzed for VOCs by EPA Method TO-15. Samples were also analyzed for helium to quantify any intrusion of ambient air into the vapor well during sampling and to confirm sample integrity for quality assurance/quality control (QA/QC) purposes. The soil vapor samples were analyzed for VOCs via EPA Method TO-15 by Curtis & Tompkins, Ltd. (Curtis & Tompkins) of Berkeley, California.

Following sample collection, each vapor well was properly abandoned. The borehole was backfilled and grouted to the surface with neat cement.

Sub-slab vapor sampling

Sub-slab vapor samples were collected from within the parking garage. The sub-slab vapor sampling procedures were similar to those for soil vapor sampling with the following exceptions. A hole was drilled in the concrete floor using a roto-hammer with a 5/8- or 3/4-inch drill bit at each of the two sub-slab sampling locations (Figure 2). The vapor sample point screen was connected to 1/8-inch nyla-flow tubing, placed approximately two inches below the bottom of the slab, and surrounded by a sand filter pack. Hydrated bentonite was placed above the filter pack to create a seal between the sampling tubing and the slab to prevent ambient air intrusion.

The slab thickness in the garage is approximately eight-inches. The flow controllers used during sub-slab sampling were adjusted to approximately 50 mL/min by Curtis & Tompkins. After sampling was complete, the sample point holes in the slab were patched by Gregg using neat cement.

Groundwater Sampling

As discussed in our recent Phase I ESA for the Site, nine previously installed groundwater monitoring well locations (MW-1 through MW-9) were observed during the Site reconnaissance. Upon further investigation, seven of the monitoring wells were still present, while the remaining two (MW-1 and MW-5) had previously been abandoned. Installation and abandonment documentation and monitoring events/data collected from these monitoring wells was very limited, and in some cases non-existent. Due to the lack of documentation, it is unclear when the monitoring wells were last sampled, and were therefore redeveloped (via surging and bailing) to ensure the collection of representative samples of the groundwater.

Langan field personnel developed the seven groundwater monitoring wells (MW-2, MW-3, MW-4, MW-6, MW-7, MW-8, and MW-9) on 4 September 2014 and 5 September 2014 via hand surging each well and purging a minimum of three well volumes of groundwater with a clean disposable bailer. Following monitoring well redevelopment, the wells were allowed to stabilize for a minimum of 48 hours, and groundwater was sampled by Langan on 12 September 2014 and again on 24 September 2014.

Groundwater was sampled using low-flow method, utilizing a peristaltic pump, clean disposable tubing, and a YSI meter with flow through cell, to continuously record the following groundwater parameters:

- Temperature
- Dissolved oxygen (DO)
- pH
- Oxidation-reduction potential (ORP)
- Conductivity
- Turbidity

Groundwater samples were collected upon stabilization of water quality parameters. The sampling was conducted following Langan's standard operating procedures (SOP) for low-flow groundwater sampling, which are in substantial conformance with the U.S. Environmental Protection Agency's (USEPA) low-flow groundwater sampling procedures. Groundwater samples were collected using clean disposable tubing, decanted into laboratory supplied containers, and stored in an ice-chilled cooler until delivery to the analytical laboratory. All samples were delivered under chain-of-custody control to McCampbell Analytical. Due to a downhole obstruction encountered during the initial well development activities, MW-3 was not sampled during either of Langan's groundwater sampling events.

6.0 SUBSURFACE CONDITIONS

The results of our field investigation indicate the Site is blanketed by approximately two to five feet of fill, which is comprised of silt, sand, and clay. The fill is underlain by interlayered medium dense to very dense silty and clayey sand and medium stiff to hard silt and clay with varying amounts of sand and gravel. Gravel was encountered intermittently. In the northeastern portion of the Site, we encountered a stiff to very stiff sandy silt to silty clay from depths of 13 and 18 feet to the maximum depth explored of 35 feet below ground surface (bgs).

Groundwater was encountered in each of the Site's five previously installed groundwater monitoring wells at various depths ranging from 13.5 feet to 16 feet bgs. Due to the years of the wells being idle and minimal redevelopment, it is Langan's opinion that the groundwater levels measured at the time of our investigation may not be representative of actual groundwater elevations.

7.0 SAMPLE SELECTION AND ANALYTICAL TESTING

The objective of the soil, soil vapor, and groundwater sampling was to assess the presence of hazardous materials and petroleum hydrocarbons in the soil, soil vapor, and groundwater beneath the Site that may be disturbed during the proposed construction activities.

The soil samples were submitted to McCampbell Analytical for some or all of the analyses as listed below:

- Total petroleum hydrocarbons (TPH) as gasoline (TPHg), diesel (TPHd), and motor oil (TPHmo) by Modified EPA Method 8015B;

- Volatile organic compounds (VOCs) by EPA Method 8260B;
- Semi-volatile organic compounds (SVOCs) by EPA Method 8270C;
- Polychlorinated biphenyls (PCBs) and Organochlorine Pesticides (OCPs) by EPA Method 8081A/8082;
- California administrative manual (CAM) 17 metals by EPA Method 6020; and
- Leaking underground fuel tank (LUFT) five metals by EPA Method 6020.

Soil samples initially analyzed for total lead and chromium were compared to the total threshold limit concentration (TTLC). Samples with concentrations of total lead or chromium greater than 50 mg/kg, were analyzed for soluble lead or soluble chromium using the soluble threshold limit concentration (STLC) by California waste extraction test (WET) method and federal toxicity characteristic leaching potential (TCLP) analyses. These soluble lead and chromium analyses were run to assess if lead concentrations in soil were at State and/or Federal hazardous waste levels.

The objective of the soil vapor and sub-slab soil vapor sampling was to assess the presence of VOCs beneath the Site. All soil vapor samples were submitted to Curtis & Tompkins of Berkeley, CA for the analyses listed below:

- Helium by ASTM Method D1946; and
- Volatile organic compounds (VOCs) by EPA Method TO-15.

The groundwater samples were submitted to McCampbell Analytical for some or all of the analyses as listed below:

- Total petroleum hydrocarbons (TPH) as gasoline (TPHg), diesel (TPHd), and motor oil (TPHmo) by Modified EPA Method 8015B; and
- Volatile organic compounds (VOCs) by EPA Method 8260B.

8.0 LABORATORY TEST RESULTS AND EVALUATION

The laboratory analytical results are summarized in Tables 1 through 4. Copies of the laboratory analytical reports are presented in Appendix B. The analytical results are discussed in the following section.

8.1 Soil Results

Soil analytical results for parameters other than metals are summarized in Table 1. TPHg was detected at or above the method reporting limit (1.0 milligram per kilogram (mg/kg)) in a single sample (EB-3-1.5) of the 25 samples analyzed, at a concentration of 2.9 mg/kg. TPHd was detected at or above the method reporting limit (1.0 mg/kg) in 12 of the 25 samples analyzed at concentrations ranging from 1.0 mg/kg to 290 mg/kg. TPHmo was detected at or above the method reporting limit (5.0 mg/kg) in 9 of the 25 samples analyzed at concentrations ranging from 5.5 mg/kg to 660 mg/kg. With the exception of sample EB-3-1.5, none of the soil samples exceeded the Regional Water Quality Control Board's (RWQCB) shallow soil residential environmental screening levels (ESLs) of 100 mg/kg for TPHg, TPHd, or motor oil. Sample EB-3-1.5 had detected concentrations of TPHd and TPHmo at 290 mg/kg and 660 mg/kg, respectively, which both exceed the residential ESL of 100 mg/kg and the respective commercial ESLs of 110 mg/kg and 500 mg/kg. No VOCs, SVOCs, OCPs, or PCBs were detected at or above method reporting limits in the samples analyzed.

The metal analytical results are summarized in Table 2. Total lead was detected at or above the method reporting limit (5.0 mg/kg) in all 24 samples analyzed at concentrations ranging from 4.8 mg/kg to 510 mg/kg. Total lead was detected at concentrations above 50 mg/kg but below 1,000 mg/kg (TTL) in seven soil samples. Each of these samples was subsequently run for STLC and TCLP analyses lead to determine soluble lead levels.

STLC lead was detected at or above the method reporting limits in each of the seven samples analyzed at concentrations ranging from 1.2 milligrams per liter (mg/L) to 27mg/L. A total of six soil samples exceeded the State of California hazardous waste criteria of 5 mg/L. TCLP lead was detected at or above the method reporting limits in two of the seven samples analyzed (EB-3-1.5 and EB-5-3.0), at concentrations of 1.1 mg/L and 0.36 mg/L, respectively. None of the soil samples exceeded the federal hazardous waste criteria of 5 mg/L.

Total chromium was detected at or above the method reporting limits in all 24 samples analyzed at concentrations ranging from 12 mg/kg to 62 mg/kg. Chromium was detected at concentrations above 50 mg/kg but below the TTL value of 1,000 mg/kg in nine soil samples. These samples were subsequently run for STLC chromium to determine soluble lead levels. STLC chromium was detected at or above the method reporting limits in two of the nine samples analyzed at concentrations of 0.077 mg/L and 1.2 mg/L. Neither of the two soil samples exceeded the State of California hazardous waste criteria of 5 mg/L.

The remaining metal concentrations were within normal background ranges found in the western United States.¹

8.2 Soil Vapor and Sub-Slab Vapor Results

Soil vapor and sub-slab vapor analytical results are summarized in Table 4. Several VOCs, including 1,3-butadiene, acetone, carbon disulfide, isopropanol, n-hexane, 2-butanone, ethyl acetate, tetrahydrofuran, cyclohexane, benzene, n-heptane, toluene, tetrachloroethylene (PCE), ethylbenzene, total xylenes, 1,2,4-trimethylbenzene, and 1,3-dichlorobenzene were detected at concentrations at or above laboratory method reporting limits. Detected soil vapor and sub-slab vapor results were compared to the San Francisco Regional Water Quality Control Board's (RWQCB) shallow soil gas vapor intrusion ESLs for residential land use (Table E, RWQCB, 2013). Benzene was the only compound detected above its respective calculated² ESL in the sub-slab sample, SSG-2. Benzene was detected above its residential ESL (1.68 µg/m³) in SSG-2 at a concentration of 1.9 µg/m³. No other soil gas or sub-slab detections were reported at concentrations exceeding their residential ESLs during this investigation.

8.3 Groundwater Results

Groundwater sampling events occurred on 12 September 2014 and 24 September 2014. Groundwater analytical results for petroleum hydrocarbons and VOCs are summarized in Table 3. TPHg, TPHd, TPHmo, and VOCs were not detected at or above the method reporting limits in three of the six monitoring wells sampled and analyzed (MW-6, MW-7, and MW-8). The remaining three monitoring wells (MW-2, MW-4, and MW-9) were sampled and analyzed during both events. Because the wells had been apparently dormant for many years, Langan performed additional purging and sampling.

After the first sampling event on 12 September 2014, sample MW-2 detected TPHg at a concentration of 190 micrograms per liter (µg/L). The detection of TPHg in groundwater exceeds the RWQCB ESL of 100 µg/L. Isopropyl benzene and n-propyl benzene (both VOCs), were detected at concentrations of 1.1 µg/L and 1.4 µg/L, respectively. Neither isopropyl benzene or n-propyl benzene have established ESLs. However, after the second sampling event on 24 September 2014, TPHg, TPHd, TPHmo, and VOCs were not detected at or above the method reporting limits in the sample collected and analyzed at MW-2.

¹ "U.S.G.S. Professional Paper 1270, Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States," 1984

² There are no published ESLs for sub-slab vapor. The sub-slab ESLs were obtained by using residential indoor air ESLs with a DTSC default slab-attenuation factor of 0.05.

After the first sampling event on 12 September 2014, sample MW-4 detected TPHd at a concentration of 78 µg/L. The detection of TPHd in groundwater does not exceed the RWQCB ESL of 100 µg/L. No other constituents were identified. After the second sampling event on 24 September 2014, TPHg, TPHd, TPHmo, and VOCs were not detected at or above the method reporting limits in the sample collected and analyzed at MW-4.

After the first sampling event on 12 September 2014, sample MW-9 had reported concentrations of TPHg and TPHd of 620 µg/L and 460 µg/L, respectively. Both detections of TPHg and TPHd in groundwater exceed the RWQCB ESL of 100 µg/L. Acetone, benzene, 2-butanone, n-butyl benzene, sect-butyl benzene, ethylbenzene, isopropyl benzene, 4-isopropyl toluene, naphthalene, n-propyl benzene, toluene, 1,3,5-trimethylbenzene, and total xylenes (all VOCs), were detected at concentrations of 17 µg/L, 2.3 µg/L, 8.3 µg/L, 2.2 µg/L, 1.7 µg/L, 4.4 µg/L, 11 µg/L, 0.68 µg/L, 6.2 µg/L, 14 µg/L, 2.0 µg/L, 0.73 µg/L, and 2.7 µg/L, respectively. Both detections of benzene (2.3 µg/L) and naphthalene (6.2 µg/L) in groundwater exceed the RWQCB ESLs of 1.0 µg/L and 6.1 µg/L, respectively. After the second sampling event on 24 September 2014, detections of TPHg, TPHd, were reduced to concentrations of 520 µg/L and 220 µg/L, respectively (lower when compared to the first sampling event results, and a full order of magnitude lower than the concentrations of MW-9 (5,200 µg/L sampled 11 February 1998) reported in the County's 31 July 1998 Closure Letter). Three VOCs, isopropyl benzene, 4-isopropyl toluene, and naphthalene were detected at concentrations of 0.55 µg/L, 0.73 µg/L, and 1.5 µg/L, respectively. These VOC concentrations in groundwater do not exceed the RWQCB ESLs, where established ESLs exist for the respective compounds.

9.0 CONCLUSIONS AND RECOMMENDATIONS

The 2302-2332 Valdez Street and 2321-2335 Waverly Street property is located in a fully developed area of Oakland generally dominated by commercial and residential properties in the immediate vicinity and surrounding area. The Site has an approximate area of 1.06 acres that is currently occupied by a one-story garage and an at-grade parking lot.

We understand the proposed project includes constructing a five-story wood frame building over a two-story concrete podium, the lower level of which is partially below grade. We also understand that ventilated parking will be below all residential units.

In September 2014, Langan completed a Phase I ESA at the Site for the Client. The results are summarized below and presented in our *Phase I Environmental Site Assessment, 2302-2332 Valdez Street and 2321-2335 Waverly Street, Oakland, California*, dated 30 September 2014:

Langan's Phase I ESA revealed no evidence of recognized environmental conditions (REC) in connection with the Site. The following controlled REC was identified:

CREC 1 – Fuel Leak Site Case Closure at Oakland Tribune Building, 2302 Valdez Street, Oakland, CA

Two USTs were removed from the 2302 Valdez Street property in February 1988. Petroleum hydrocarbon contamination was detected in the soil and groundwater and over excavation within the former USTs pits was performed and a total of nine groundwater monitoring wells were installed and sampled. Based on the analytical results, it appeared that the contamination was limited in area and that the groundwater contamination would attenuate over time.

Based on the contaminated soil remediation and groundwater monitoring activities, administrative case closure for the fuel leak case was granted by the ACDEH in a letter dated 31 July 1998 for the former Oakland Tribune Building located at 2302 Valdez Street in Oakland, California.

The following conditions exist for the property:

1. The final level(s) of contamination consists of 655 ppb or 655 µg/L of TPHg and 630 ppb, 49 ppb, 21 ppb, and 130 ppb of BTEX, respectively. It should be noted that the TPHg concentration detected in groundwater was reported incorrectly, in the case closure summary (page 2) from ACDEHS, at 665 ppb, which was the TPHg concentration detected in the soil. The correct TPHg concentration detected in groundwater should be reported at 3,500 ppb instead.
2. A change in land use consisting of excavation of soils would trigger an evaluation of risk from exposure to contaminated soil and groundwater must be made.

The results of our ESC and other available subsurface information at the Site indicate the Site is generally underlain by approximately two to five feet of fill, which is comprised of silt, sand, and clay mixtures. The fill is generally underlain by interlayered medium dense to very dense silty and clayey sand and medium stiff to hard silt and clay with varying amounts of sand and gravel. Gravel was encountered intermittently. In the northeastern portion of the Site, we encountered a stiff to very stiff sandy silt to silty clay from depths of 13 and 18 feet to the maximum depth explored of 35 feet.

The area of fill material containing soluble lead concentrations exceeding the State of California waste criteria are located near boring EB-3, at a depth of 1.5 bgs, boring EB-4, at a depth of 1.5 feet bgs and 3.0 feet bgs, and boring EB-5, at depths of 1.5 feet bgs, 3.0 feet bgs, and 5.0 feet bgs (Figure 2). Considering that the Site's projected excavation depth will be approximately ten feet bgs, this shallow material will be excavated and disposed and therefore is not representative of the material to be left on Site.

The fill material near the sampling locations and depths that exceeded the State of California waste criteria will be disposed as Class I hazardous waste. The remaining fill and native material to be excavated would likely be disposed of as unrestricted waste.

Detected soil vapor and sub-slab vapor results were compared to the RWQCB's lowest residential ambient air and indoor air ESLs (with a calculated attenuation factor of 0.05)³ and the RWQCB's lowest residential soil gas ESLs for potential vapor intrusion (Table E, RWQCB, 2013). Benzene was the only compound detected above its respective calculated ESL in the sub-slab sample, SSG-2. Benzene was detected above its residential ESL (1.68 $\mu\text{g}/\text{m}^3$) in SSG-2 at a concentration of 1.9 $\mu\text{g}/\text{m}^3$. No other soil vapor or sub-slab vapor detections were reported at concentrations exceeding their residential ESLs during this investigation. Soil in this area of the Site will be excavated to at least ten feet bgs. In addition, we understand that the Site will be redeveloped with ventilated parking under all residential units. Based on the proposed soil excavation, the singular soil vapor exceedance, and the design plan for the Site, it is Langan's opinion that a vapor mitigation system (VMS) is not required for the proposed development project at the Site.

Groundwater analytical results indicated low concentrations of TPHg and TPHd were detected in two on-Site groundwater monitoring wells (MW-2 and MW-4) at concentrations of 190 micrograms per liter ($\mu\text{g}/\text{L}$) and 78 $\mu\text{g}/\text{L}$, respectively. The detection of TPHg in groundwater exceeded the RWQCB ESL of 100 $\mu\text{g}/\text{L}$ and the TPHd did not exceed the RWQCB ESL of 100 $\mu\text{g}/\text{L}$. After additional groundwater purging and sampling, the concentrations of TPHg and TPHd were not detected at or above the method reporting limits in the same monitoring wells.

Analytical results of the groundwater samples collected from the off-Site monitoring well MW-9, indicated TPHg was detected at a concentration of 620 $\mu\text{g}/\text{L}$ and TPHd was detected at a concentration of 460 $\mu\text{g}/\text{L}$. Various VOCs were also detected in the groundwater sample

³ There are no published ESLs for sub-slab vapor. The sub-slab ESLs were obtained by using residential indoor air ESLs with a DTSC default slab-attenuation factor of 0.05.

collected from MW-9 with detections of benzene (2.3 µg/L) and naphthalene (6.2 µg/L) exceeding the RWQCB ESLs of 1.0 µg/L and 6.1 µg/L, respectively. After additional groundwater purging and sampling, the concentrations of TPHg and TPHd were reduced to 520 ug/L and 220 ug/L, respectively. VOCs were not detected above RWQCB established ESLs in the monitoring well MW-9.

Because the wells were apparently dormant for a number of years, it is Langan's opinion that the second sampling event, after additional groundwater purging, is the most representative of the current groundwater conditions at the Site and surrounding area. Based on these current soil and groundwater results and past monitoring events, the previously approved remediation activities performed at the Site have removed the primary source of petroleum hydrocarbons, although low levels still exist off-Site.

Because hazardous materials were detected at the Site, a soil management plan (SMP) and a health and safety plan (HASP) will be required prior to construction. The SMP will provide recommended measures to mitigate the long-term environmental or health and safety risks caused by the presence of hazardous materials in the soil. The SMP will also contain contingency plans to be implemented during soil excavation if unanticipated hazardous materials are encountered. The HASP will outline proper soil handling procedures and health and safety requirements to minimize worker and public exposure to hazardous materials during construction.

10.0 LIMITATIONS

Descriptions of specific field activities and historical events are based on our observations and on information provided by others. The opinions and information presented in this report apply to Site conditions and the information that was available at the time the work was performed and do not apply to changes of which we are not aware or have not had the opportunity to evaluate. Langan Treadwell Rollo makes no guarantees or warranties with respect to the accuracy or completeness of this information.

REFERENCES

Langan Treadwell Rollo, Inc., *Phase I Environmental Site Assessment, 2302-2332 Valdez Street and 2321-2335 Waverly Street, Oakland, California*. Dated 30 September 2014

TABLES

Table 1
Non-Metals Analytical Results in Soil
2302-2332 Valdez Street and 2321-2335 Waverly Street
Oakland, California

Langan Project: 731641601
 October 2014

Sample ID	Depth (feet)	Date Sample	TPHg	TPHd	TPHmo	VOCs	SVOCs	OCPs and PCBs
(mg/kg)								
EB-1-1.5	1.5	09/06/14	< 1.0	< 1.0	< 5.0	--	--	ND
EB-1-5.0	5.0	09/06/14	< 1.0	2.7	33	ND	ND	--
EB-1-8.0	8.0	09/06/14	< 1.0	1.1	5.5	--	--	--
EB-2-1.5	1.5	09/06/14	< 1.0	2.2	19	--	--	--
EB-2-3.0	3.0	09/06/14	< 1.0	< 1.0	< 5.0	--	--	--
EB-2-8.0	8.0	09/06/14	< 1.0	< 1.0	< 5.0	--	--	--
EB-3-1.5	1.5	09/06/14	2.9	290	660	--	--	ND
EB-3-5.0	5.0	09/06/14	< 1.0	< 1.0	< 5.0	ND	ND	--
EB-4-1.5	1.5	09/06/14	< 1.0	4.5	59	--	--	--
EB-4-3.0	3.0	09/06/14	< 1.0	< 1.0	< 5.0	--	--	--
EB-4-8.0	8.0	09/06/14	< 1.0	< 1.0	< 5.0	--	--	--
EB-5-1.5	1.5	09/06/14	< 1.0	3.8	26	--	--	ND
EB-5-3.0	3.0	09/06/14	< 1.0	1.2	15	--	--	--
EB-5-5.0	5.0	09/06/14	< 1.0	3.6	70	--	--	--
EB-5-8.0	8.0	09/06/14	< 1.0	< 1.0	< 5.0	--	--	--
EB-6-1.5	1.5	09/06/14	< 1.0	< 1.0	< 5.0	--	--	--
EB-6-3.0	3.0	09/06/14	< 1.0	1.0	< 5.0	ND	ND	< 0.050 PCBs Only
B-1-3.0	3.0	09/06/14	< 1.0	2.1	8.9	--	--	--
B-1-9.0	9.0	09/06/14	< 1.0	< 1.0	< 5.0	--	--	--
B-2-3.0	3.0	09/06/14	< 1.0	< 1.0	< 5.0	--	--	--
B-2-5.5	5.5	09/06/14	< 1.0	1.3	< 5.0	--	--	--
B-3-3.0	3.0	09/06/14	< 1.0	< 1.0	< 5.0	--	--	--
B-3-5.0	5.0	09/06/14	< 1.0	2.6	< 5.0	--	--	--
B-4-3.0	3.0	09/06/14	< 1.0	< 1.0	< 5.0	--	--	--
B-4-5.5	5.5	09/06/14	< 1.0	< 1.0	< 5.0	--	--	--
ESL-R			100	100	100	NE	NE	NE
ESL-C			500	110	500	NE	NE	NE

Notes:

mg/kg - milligrams per kilogram

TPHg - Total Petroleum Hydrocarbons as Gasoline, EPA Method 8015M

TPHd - Total Petroleum Hydrocarbons as Diesel Range, EPA Method 8015M

TPHmo - Total Petroleum Hydrocarbons as Motor Oil EPA Method 8015M

VOCs - Volatile Organics, EPA Method 8260B

SVOCs - Semi-Volatile Organics, EPA Method 8270C

OCPs - Organochlorine Pesticides (EPA Method 8081A/8082)

PCBs - Polychlorinated Biphenyls (EPA Method 8081A/8082)

Bold - concentration exceeds screening level(s)

< 1.0 - Analyte was not detected above the laboratory reporting limit (1.0 mg/kg)

-- Not analyzed

ND - Not detected at or above the laboratory reporting limit

NE - ESL(s) Not Established

Table 2
Metal Analytical Results in Soil
2302-2332 Valdez Street and 2321-2335 Waverly Street
Oakland, California

Sample ID	Depth (feet)	Date Sampled	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Chromium STLC	Cobalt	Copper	Lead	Lead STLC	Lead TCLP	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
			(mg/kg)						(mg/L)	(mg/kg)			(mg/L)		(mg/kg)							
EB-1-1.5	1.5	09/06/14	< 0.50	3.6	180	0.54	< 0.25	50	< 0.050	14	17	10	--	--	< 0.050	0.65	38	< 0.50	< 0.50	< 0.50	39	32
EB-1-5.0	5.0	09/06/14	--	--	--	--	< 0.25	38	--	--	--	5.1	--	--	--	--	74	--	--	--	--	30
EB-1-8.0	8.0	09/06/14	--	--	--	--	< 0.25	53	< 0.050	--	--	14	--	--	--	--	79	--	--	--	--	46
EB-2-1.5	1.5	09/06/14	0.59	4.3	140	0.52	< 0.25	43	--	10	19	44	--	--	0.052	< 0.50	43	< 0.50	< 0.50	< 0.50	39	54
EB-2-3.0	3.0	09/06/14	--	--	--	--	< 0.25	49	--	--	--	7.6	--	--	--	--	54	--	--	--	--	31
EB-2-8.0	8.0	09/06/14	--	--	--	--	< 0.25	61	0.077	--	--	15	--	--	--	--	85	--	--	--	--	52
EB-3-1.5	1.5	09/06/14	--	--	--	--	0.50	38	--	--	--	290	24	1.1	--	--	32	--	--	--	--	260
EB-3-5.0	5.0	09/06/14	--	--	--	--	< 0.25	40	--	--	--	6.3	--	--	--	--	27	--	--	--	--	26
EB-4-1.5	1.5	09/06/14	1.8	6.7	350	0.57	0.51	45	--	13	52	190	8.5	< 0.20	0.45	0.57	44	< 0.50	< 0.50	< 0.50	42	180
EB-4-3.0	3.0	09/06/14	--	--	--	--	< 0.25	45	--	--	--	310	26	< 0.20	--	--	38	--	--	--	--	65
EB-4-8.0	8.0	09/06/14	--	--	--	--	< 0.25	12	--	--	--	2.6	--	--	--	--	7.8	--	--	--	--	43
EB-5-1.5	1.5	09/06/14	1.0	6.6	320	0.68	0.34	44	--	13	42	170	11	< 0.20	0.24	0.61	47	< 0.50	< 0.50	< 0.50	41	150
EB-5-3.0	3.0	09/06/14	--	--	--	--	0.37	48	--	--	--	510	27	0.36	--	--	57	--	--	--	--	210
EB-5-5.0	5.0	09/06/14	--	--	--	--	0.53	36	--	--	--	360	19	< 0.20	--	--	30	--	--	--	--	250
EB-5-8.0	8.0	09/06/14	--	--	--	--	< 0.25	60	--	--	--	7.8	--	--	--	--	55	--	--	--	--	28
EB-6-1.5	1.5	09/06/14	--	--	--	--	< 0.25	57	< 0.050	--	--	7.1	--	--	--	--	89	--	--	--	--	36
EB-6-3.0	3.0	09/06/14	< 0.50	3.6	130	0.62	< 0.25	58	< 0.050	--	18	6.0	--	--	< 0.050	< 0.50	89	< 0.50	< 0.50	< 0.50	43	38
B-1-3.0	3.0	09/06/14	< 0.50	4.0	140	0.68	< 0.25	62	< 0.050	14	20	7.1	--	--	0.074	< 0.50	92	< 0.50	< 0.50	< 0.50	47	41
B-1-9.0	9.0	09/06/14	--	--	--	--	< 0.25	59	< 0.050	--	--	7.7	--	--	--	--	78	--	--	--	--	49
B-2-3.0	3.0	09/06/14	--	--	--	--	< 0.25	39	--	--	--	4.8	--	--	--	--	32	--	--	--	--	20
B-2-5.5	5.5	09/06/14	--	--	--	--	< 0.25	62	< 0.050	--	--	12	--	--	--	--	94	--	--	--	--	41
B-3-3.0	3.0	09/06/14	< 0.50	3.8	120	0.51	< 0.25	49	--	11	17	5.1	--	--	0.077	< 0.50	66	< 0.50	< 0.50	< 0.50	40	33
B-4-3.0	3.0	09/06/14	< 0.50	2.8	180	< 0.50	0.31	29	1.2	9.0	14	60	1.2	< 0.20	0.054	< 0.50	27	< 0.50	< 0.50	< 0.50	28	120
B-4-5.5	5.5	09/06/14	--	--	--	--	< 0.25	44	--	--	--	4.8	--	--	--	--	38	--	--	--	--	29
Hazardous Waste Criteria																						
TTLc	(mg/kg)		500	500	10,000	75	100	2,500	--	8,000	2,500	1,000	--	--	20	3,500	2,000	100	500	700	2,400	5,000
STLC	(mg/L)		15	5	100	0.75	1	--	5	80	25	--	5	--	0.2	350	20	1	5	7	24	250
TCLP	(mg/L)		--	5	100	--	1	--	--	--	--	--	--	5	0.2	--	--	1	5	--	--	--
ESL	(mg/kg)		20	0.39	750	4.0	12	1,000	--	23	230	80	--	--	6.7	40	150	10	20	0.78	200	600

Notes:
mg/kg - milligrams per kilogram
mg/L - milligrams per liter
< 0.5 - Analyte was not detected above the laboratory reporting limit (0.5 mg/kg).
-- Not analyzed
TTLc - California Total Threshold Limit Concentration - State hazardous waste criterion
STLC - California Soluble Threshold Limit Concentration
TCLP - Federal Toxicity Characteristic Leaching Procedure
ESL - Regional Water Quality Control Board, SFBay, Environmental Screening Level from Summary Table for Shallow Soils (December 2013)
Bold - Exceeds State of California Hazardous Waste Criteria

Table 3
Volatile Organic Compound Analytical Results in Grab Water
2302-2332Valdez and 2321-2335 Waverly Street
Oakland, California

Sample ID	Date Sampled	TPHg	TPHd	TPHmo	Acetone	Benzene	2-Butanone (MEK)	n-Butyl benzene	sec-Butyl benzene	Ethyl-benzene	Isopropyl-benzene	4-Isopropyl toluene	Naphthalene	n-Propyl benzene	Toluene	1,3,5- Trimethyl-benzene	Total Xylenes	All Other VOCs
(µg/L)																		
MW-2	09/12/14	190	< 50	< 250	< 10	< 0.50	< 2.0	< 0.50	< 0.50	< 0.50	1.1	< 0.50	< 0.50	1.4	< 0.50	< 0.50	< 0.50	ND
MW-2	09/24/14	< 50	< 50	< 250	< 10	< 0.50	< 2.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	ND
MW-4	09/12/14	< 50	78	< 250	< 10	< 0.50	< 2.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	ND
MW-4	09/24/14	< 50	< 50	< 250	< 10	< 0.50	< 2.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	ND
MW-6	09/24/14	< 50	< 50	< 250	< 10	< 0.50	< 2.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	ND
MW-7	09/12/14	< 50	< 50	< 250	< 10	< 0.50	< 2.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	ND
MW-8	09/12/14	< 50	< 50	< 250	< 10	< 0.50	< 2.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	ND
MW-9	09/12/14	620	460	< 250	17	2.3	8.3	2.2	1.7	4.4	11	0.68	6.2	14	2.0	0.73	2.7	ND
MW-9	09/24/14	520	220	< 250	< 10	< 0.50	< 2.0	< 0.50	< 0.50	< 0.50	0.55	0.73	1.5	< 0.50	< 0.50	< 0.50	< 0.50	ND
ESLs		100	100	100	1,500	1.0	7,100	--	--	30	--	--	6.1	--	40	--	20	--

Notes:

µg/L - micrograms per liter

TPHg - Total Petroleum Hydrocarbons as Gasoline, EPA Method 8015M

TPHd - Total Petroleum Hydrocarbons as Diesel Range, EPA Method 8015M

TPHmo - Total Petroleum Hydrocarbons as Motor Oil, EPA Method 8015M

MEK - Methyl ethyl ketone

VOC - Volatile Organics Compounds, EPA 8260B

< 50 - Analyte was not detected above the laboratory reporting limit (50 µg/L)

ND - Analyte was not detected above the laboratory reporting limits

ESLs - Regional Water Quality Control Board, SFBay, Environmental Screening Level from Summary Table for Groundwater (December 2013)

Bold - Exceeds Screening Level(s)

Table 4
Non-Metals Analytical Results in Soil Gas
2302-2332 Valdez Street and 2321-2335 Waverly Street
Oakland, California

Sample ID	Date Sample	VOCs																			Helium	
		1,3-Butadiene	Acetone	Carbon Disulfide	Isopropanol	n-Hexane	2-Butanone (MEK)	Ethyl Acetate	Tetrahydrofuran	Cyclohexane	Benzene	n-Heptane	Toluene	Tetrachloroethylene (PCE)	Ethylbenzene	mp-Xylenes	o-Xylenes	Total Xylenes	1,2,4-Trimethylbenzene	1,3-Dichlorobenzene		All Other VOCs
		(µg/m ³)																			(Mol %)	
SSG-1	09/06/14	< 0.92	15	< 0.92	100	< 0.92	4.7	< 0.92	< 0.92	< 0.92	< 0.92	< 0.92	2.1	< 0.92	< 0.92	3.0	1.1	4.1	< 0.92	1.6	ND	< 0.18
SSG-2	09/06/14	1.5	150	1.4	170	2.3	14	1.1	< 0.89	3.6	1.9	2.2	3.4	< 0.89	< 0.89	2.5	1.1	3.6	< 0.89	4.2	ND	< 0.18
ESL-R¹		--	6.4E+05	--	--	--	1.04E+05	--	--	--	1.68	--	6.2E+03	8.2	19.4	--	--	2.0E+03	--	--	--	--
CHHSLs²		--	--	--	--	--	--	--	--	--	1.68	--	6.26E+03	8.24	--	1.46E+04	1.46E+04	--	--	--	--	--
SG-1	09/06/14	2.0	36	< 0.92	21	6.7	4.8	< 0.92	2.3	5.1	2.7	2.4	2.5	< 0.92	28	100	32	132	< 0.92	1.4	ND	< 0.18
SG-2	09/06/14	3.1	24	1.4	32	14	6.5	< 0.98	< 0.98	3.1	6.4	3.8	5.2	4.8	15	56	18	74	< 0.98	3.8	ND	< 0.20
SG-3	09/06/14	3.3	9.2	2.2	25	3.2	3.3	< 0.99	3.1	2.4	5.1	1.8	5.9	< 0.99	17	61	20	81	1.4	2.3	ND	<0.20
ESL-R³		--	1.60E+07	--	--	--	2.60E+06	--	--	--	42	--	1.60E+05	210	490	--	--	5.20E+04	--	--	--	--
CHHSLs⁴		--	--	--	--	--	--	--	--	--	36.2	--	1.35E+05	180	--	3.18E+05	3.15E+05	--	--	--	--	--

Notes:

µg/m³ - micrograms per cubic meter

VOCs - Volatile Organics, EPA Method 8260B

< 0.92 - Analyte was not detected above the laboratory reporting limit (0.92 µg/m³)

ND - Not detected at or above method reporting limits

Bold - Exceeds Screening Level(s)

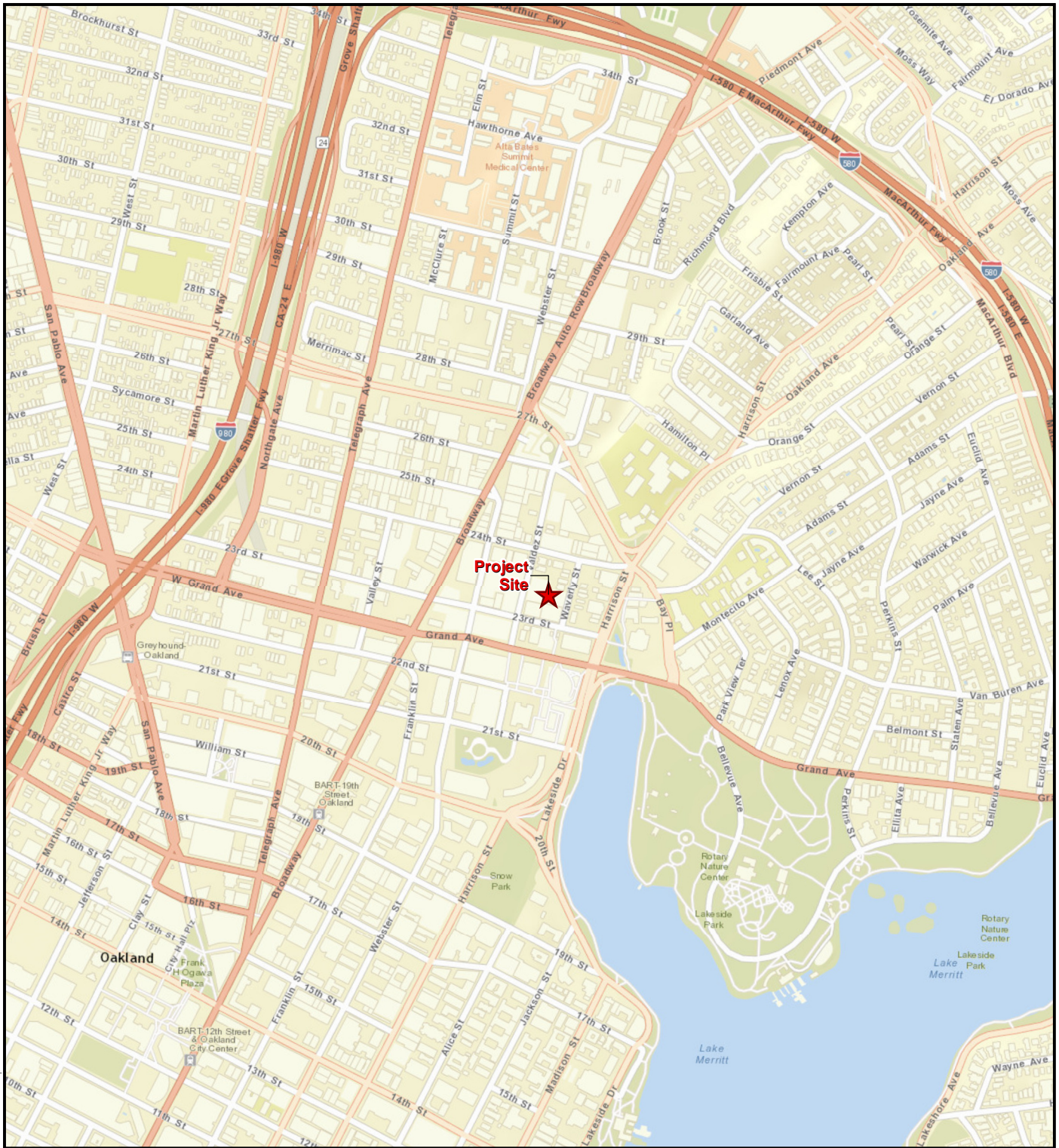
ESL-R¹ - Regional Water Quality Control Board, Table E-3, Environmental Screening Levels for lowest residential Ambient and Indoor Air, December 2013 and calculated with an attenuation factor of 0.05

CHHSLs² - California Environmental Protection Agency's (Cal/EPA), Table 2, California Human Health Screening Levels (CHHSLs) for Indoor Air, residential land use, January 2005 and calculated with an attenuation factor of 0.05

ESL-R³ - Regional Water Quality Control Board, Table E-2, Environmental Screening Levels for lowest residential Soil Gas, December 2013

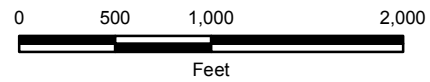
CHHSLs⁴ - California Environmental Protection Agency's (Cal/EPA), Table 2, California Human Health Screening Levels (CHHSLs) for Shallow Soil Gas, residential land use, January 2005

FIGURES



Notes:

1. World street basemap is provided through Langan's Esri ArcGIS software licensing and ArcGIS online. Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN.
2. Map displayed in California State Plane Coordinate System , Zone III, North American Datum of 1983 (NAD83), US Survey Feet.



**2302-2332 VALDEZ STREET
2321-2335 WAVERLY STREET**
Oakland, California

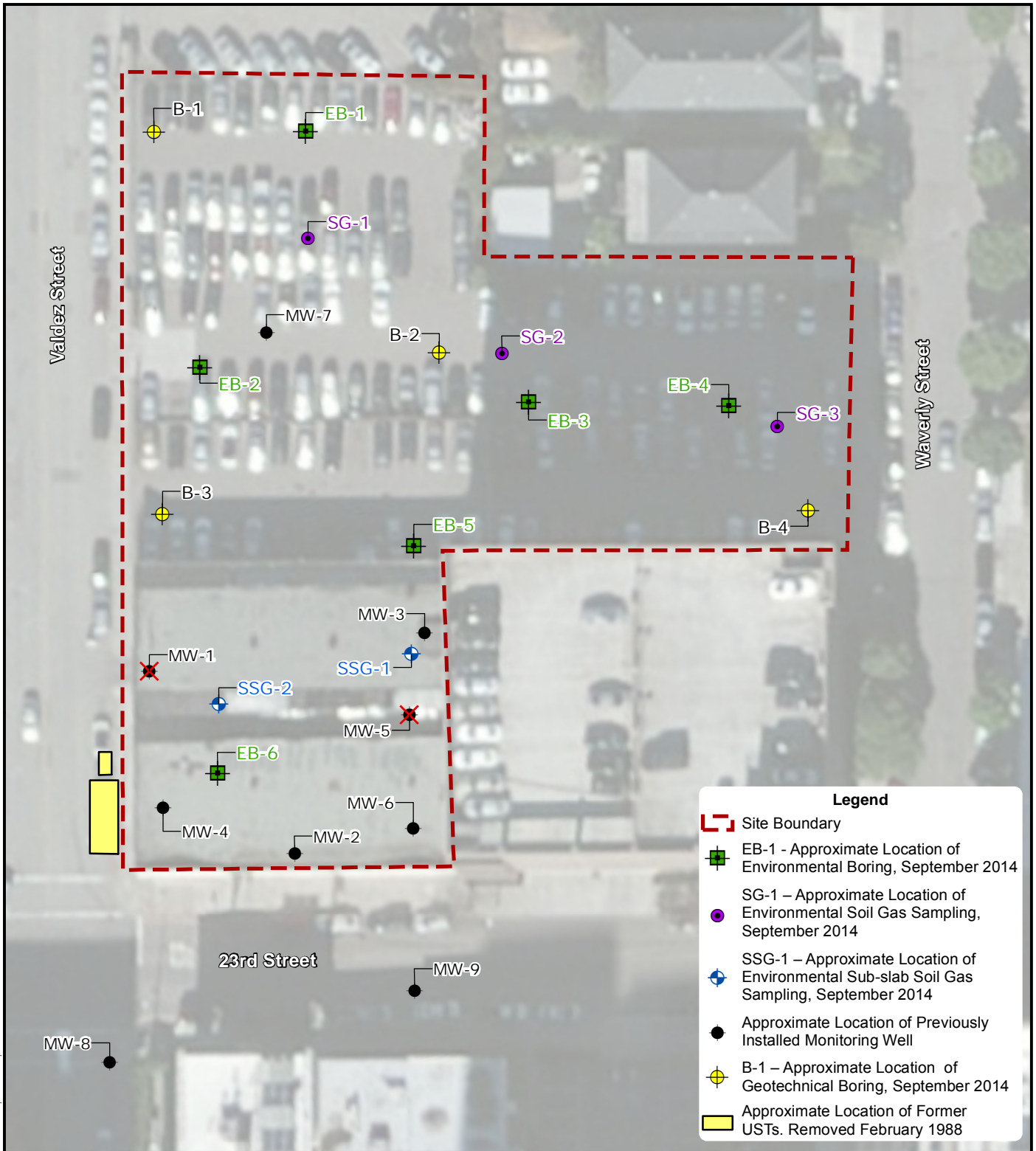
SITE LOCATION MAP

LANGAN TREADWELL ROLLO

Date 9/29/2014

Project 731641601

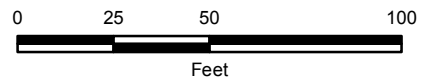
Figure 1



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Notes:

- World aerial imagery basemap is provided through Langan's Esri ArcGIS software licensing and ArcGIS online. Source of aerial imagery is Microsoft from 10/26/2010. Credits: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community
- Map displayed in California State Plane Coordinate System, Zone III, North American Datum of 1983 (NAD83), US Survey Feet.



2302-2332 VALDEZ STREET
2321-2335 WAVERLY STREET
 Oakland, California

SITE PLAN

LANGAN TREADWELL ROLLO

Date 10/9/2014

Project 731641601

Figure 2

APPENDIX A
EXPLORATORY BORING LOGS

PROJECT:

2302-2332 VALDEZ STREET AND
2321-2335 WAVERLY STREET
Oakland, California

Log of Boring B-1

Boring location: See Site Plan, Figure 2

Logged by: K. Watkins

Date started: 9/6/14

Date finished: 9/6/14

Drilling method: Hollow Stem Auger

Hammer weight/drop: 140 lbs./30 inches

Hammer type: Safety Downhole Wireline

LABORATORY TEST DATA

Sampler: Sprague & Henwood (S&H), Standard Penetration Test (SPT)

DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
	Sampler Type	Sample	Blows/ 6"	SPT N-Value ¹								
Ground Surface Elevation: 20 feet ²												
1						3 inches asphalt concrete (AC)						
2						3 inches aggregate base (AB)						
3	S&H		11	41	CL	CLAY with SAND (CL) yellow-brown, hard, moist, fine-grained sand						
4			26									
5			42									
6	S&H		12	36	CL	CLAY with SAND (CL) brown mottled red-brown, hard, moist, fine-grained to coarse-grained sand, fine angular gravel						
7			24									
8			36									
9	S&H		7	14		CLAY (CL) light brown, stiff, moist, trace fine-grained sand	PP		3,500			
10			10									
11			13									
12					CL							
13												
14	S&H		9	22		very stiff, with fine-grained sand	PP		4,000			
15			14									
16			23									
17												
18						▽ (09/06/14, 13:20)						
19	SPT		13	22	SC	CLAYEY SAND (SC) light-brown, medium dense, wet, fine- to coarse-grained sand, trace fine gravel						
20			10									
21			12		CL	CLAY with GRAVEL (CL) light brown mottled olive brown, very soft, wet						
22												
23												
24	S&H		33	50/6"	SM	CLAYEY SAND with GRAVEL (SM) red-brown, very dense, wet, coarse-grained sand, fine angular gravel						
25			50/6"									
26												
27												
28												
29	SPT		13	37	CL	CLAY (CL) yellow-brown, hard, wet, trace fine-grained sand						
30			17									
			20									

TEST GEOTECH LOG 731641602.GPJ TR.GDT 9/12/14

LANGAN TREADWELL ROLLO

Project No.: 731641602 Figure: A-1a

PROJECT:

2302-2332 VALDEZ STREET AND
2321-2335 WAVERLY STREET
Oakland, California

Log of Boring B-1

DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA					
	Sampler Type	Sample	Blows/ 6"	SPT N-Value ¹			Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
31					CL	CLAY (CL) (continued)						
32						trace organic inclusions	PP		4,500			
34	S&H		17	36								
35			28									
36			32									
37												
38												
39												
40												
41												
42												
43												
44												
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60												

TEST GEOTECH LOG 731641602.GPJ TR.GDT 9/12/14

Boring terminated at a depth of 35 feet below ground surface.
Boring backfilled with cement grout.
Groundwater encountered at a depth of 18 feet during drilling.

¹ S&H and SPT blow counts for the last two increments were converted to SPT N-Values using factors of 0.6 and 1.0, respectively to account for sampler type and hammer energy.
² Elevations based on ...

PROJECT:

2302-2332 VALDEZ STREET AND
2321-2335 WAVERLY STREET
Oakland, California

Log of Boring B-2

Boring location: See Site Plan, Figure 2

Logged by: K. Watkins

Date started: 9/6/14

Date finished: 9/6/14

Drilling method: Hollow Stem Auger

Hammer weight/drop: 140 lbs./30 inches

Hammer type: Safety Downhole Wireline

Sampler: Sprague & Henwood (S&H), Standard Penetration Test (SPT)

LABORATORY TEST DATA


DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
	Sampler Type	Sample	Blows/ 6"	SPT N-Value ¹								
Ground Surface Elevation: 16 feet ²												
1						4 inches asphalt concrete (AC)						
2						12 inches aggregate base (AB)						
3	S&H		9	17	CL	CLAY with SAND (CL) dark brown, stiff, moist, fine-grained sand	PP	3,500				
4			12									
5			17									
6	S&H		21	50	CL	brown, organic inclusions						
7			33									
8			50/6"			SANDY CLAY (CL) brown, hard, moist, fine- to coarse-grained sand						
9												
10	SPT		26	55	SC	CLAYEY SAND with GRAVEL (SC) brown, very dense, moist, fine-grained sand, fine angular gravel						
11			30									
12			25									
13					CL	GRAVELLY CLAY with SAND (CL) red-brown, very stiff, wet, fine to coarse angular gravel						
14	S&H		11	16	CL							
15			16									
16			10		CL	SANDY CLAY (CL) yellow-brown, very stiff, wet, fine-grained sand						
17												
18						CLAYEY SAND (SC) yellow brown, dense, wet						
19												
20	SPT		15	45	SC							
21			19									
22			26									
23												
24	S&H		18	35	CL	CLAY (CL) yellow-brown with olive pocket, hard, wet, trace fine-grained sand	PP	4,500				
25			26									
26			33									
27					CL							
28												
29	SPT		9	29		very stiff						
30			13									
			16									

TEST GEOTECH LOG 731641602.GPJ TR.GDT 9/12/14

PROJECT:

2302-2332 VALDEZ STREET AND
2321-2335 WAVERLY STREET
Oakland, California

Log of Boring B-2

DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA								
	Sampler Type	Sample	Blows/ 6"	SPT N-Value ¹			Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft			
31						CLAY (CL) (continued)									
32					CL										
33															
34	S&H		16 27 26	32		hard	PP		4,500						
35															
36															
37															
38															
39															
40															
41															
42															
43															
44															
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57															
58															
59															
60															

TEST GEOTECH LOG 731641602.GPJ TR.GDT 9/12/14

Boring terminated at a depth of 35 feet below ground surface.
Boring backfilled with cement grout.
Groundwater encountered at a depth of 13 feet during drilling.

¹ S&H and SPT blow counts for the last two increments were converted to SPT N-Values using factors of 0.6 and 1.0, respectively to account for sampler type and hammer energy.
² Elevations based on ...

LANGAN TREADWELL ROLLO

Project No.:
731641602

Figure:
A-2b

PROJECT:

2302-2332 VALDEZ STREET AND
2321-2335 WAVERLY STREET
Oakland, California

Log of Boring B-3

PAGE 1 OF 2

Boring location: See Site Plan, Figure 2

Logged by: K. Watkins

Date started: 9/6/14

Date finished: 9/6/14

Drilling method: Hollow Stem Auger

Hammer weight/drop: 140 lbs./30 inches

Hammer type: Safety Downhole Wireline

Sampler: Sprague & Henwood (S&H), Standard Penetration Test (SPT)

LABORATORY TEST DATA

DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
	Sampler Type	Sample	Blows/ 6"	SPT N-Value ¹								
Ground Surface Elevation: 21 feet ²												
1						3 inches asphalt concrete (AC)						
2						5 inches aggregate base (AB)						
3	S&H		11	51	CL	CLAY with SAND (CL) yellow-brown, hard, moist, fine-grained sand						
4			35	50/6"								
5	S&H		26	51	CL							
6			37	48								
7												
8												
9	S&H		17	29	CL	very stiff	PP	4,000				
10			23	26								
11												
12												
13					SC	CLAYEY SAND with GRAVEL (SC) olive brown, dense, moist, fine-grained sand, fine, angular to subangular gravel						
14	S&H		16	35								
15			21	38		yellow-brown						
16												
17												
18						▽ (09/06/14, 08:05 AM)						
19	S&H		23	39	SC							
20			29	36								
21												
22					CL	CLAY with SAND (CL) olive-brown, hard, wet, fine-grained sand, trace fine gravel						
23												
24	S&H		24	34	CL		PP	4,000				
25			26	31								
26												
27												
28					GC	CLAYEY GRAVEL (GC) gray, very dense, wet, fine to coarse gravel, angular to subangular gravel						
29	S&H		24	53								
30			38	50/6"								

TEST GEOTECH LOG 731641602.GPJ TR.GDT 9/12/14

LANGAN TREADWELL ROLLO

Project No.: 731641602

Figure: A-3a

PROJECT:

2302-2332 VALDEZ STREET AND
2321-2335 WAVERLY STREET
Oakland, California

Log of Boring B-3

DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA					
	Sampler Type	Sample	Blows/ 6"	SPT N-Value ¹			Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
31					SC	CLAYEY SAND (SC) red-brown, dense, wet, fine- to coarse-grained sand, some fine angular gravel						
32												
33												
34	S&H		21	37								
35			26									
36			36									
37												
38												
39												
40												
41												
42												
43												
44												
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59												
60												

TEST GEOTECH LOG 731641602.GPJ TR.GDT 9/12/14

Boring terminated at a depth of 35 feet below ground surface.
Boring backfilled with cement grout.
Groundwater encountered at a depth of 18 feet during drilling.

¹ S&H and SPT blow counts for the last two increments were converted to SPT N-Values using factors of 0.6 and 1.0, respectively to account for sampler type and hammer energy.
² Elevations based on ...

LANGAN TREADWELL ROLLO

PROJECT:

2302-2332 VALDEZ STREET AND
2321-2335 WAVERLY STREET
Oakland, California

Log of Boring B-4

Boring location: See Site Plan, Figure 2

Logged by: K. Watkins

Date started: 9/6/14

Date finished: 9/6/14

Drilling method: Hollow Stem Auger

Hammer weight/drop: 140 lbs./30 inches

Hammer type: Safety Downhole Wireline

Sampler: Sprague & Henwood (S&H), Standard Penetration Test (SPT)

LABORATORY TEST DATA

DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft	
	Sampler Type	Sample	Blows/ 6"	SPT N-Value ¹									
						Ground Surface Elevation: 9 feet ²							
1						2 inches asphalt concrete (AC)							
2						6 inches aggregate base (AB)							
3	S&H		4	7	ML	SILT with SAND (ML) dark brown, medium stiff, moist, fine-grained sand, trace fine subangular gravel							
4			5										
5			6										
6	S&H		8	16		light brown, stiff,							
7			11										
8			16										
9	S&H		15	28	SM	▽ (09/06/14, 9:45 AM) SILTY SAND with GRAVEL (SM) brown, medium dense, wet, fine- to coarse-grained sand, angular gravel							
10			20										
11			26										
12													
13													
14	SPT		23	19	CL	CLAY (CL) light brown, very stiff, wet	PP	1,600					
15			9	10									
16													
17													
18					ML	SILT with SAND (ML) light-brown, stiff, wet, very fine-grained sand	PP	2,500					
19	S&H		8	15									
20			11										
21			14										
22					SM	SILTY SAND (SM) yellow-brown, medium dense, wet, fine-grained sand							
23													
24	SPT		6	25	CL	CLAY (CL) yellow-brown, very stiff, wet, black inclusions							
25			8	17									
26													
27													
28													
29	S&H		12	21			PP	4,100					
30			16										
			19										

TEST GEOTECH LOG 731641602.GPJ TR.GDT 9/12/14

LANGAN TREADWELL ROLLO


Project No.: 731641602 Figure: A-4a

PROJECT:

2302-2332 VALDEZ STREET AND
2321-2335 WAVERLY STREET
Oakland, California

Log of Boring B-4

PAGE 2 OF 2

DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA								
	Sampler Type	Sample	Blows/ 6"	SPT N-Value ¹			Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft			
31						CLAY (CL) (continued)									
32					CL										
33															
34	SPT		12 14 18	32		hard	PP		4,500						
35															
36															
37															
38															
39															
40															
41															
42															
43															
44															
45															
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57															
58															
59															
60															

TEST GEOTECH LOG 731641602.GPJ TR.GDT 9/12/14

Boring terminated at a depth of 35 feet below ground surface.
Boring backfilled with cement grout.
Groundwater encountered at a depth of 8 feet during drilling.

¹ S&H and SPT blow counts for the last two increments were converted to SPT N-Values using factors of 0.6 and 1.0, respectively to account for sampler type and hammer energy.
² Elevations based on ...

LANGAN TREADWELL ROLLO

Project No.: 731641602 Figure: A-4b

PROJECT:

2302-2332 VALDEZ STREET
2321-2335 WAVERLY STREET
Oakland, California

Log of Boring EB-1

PAGE 1 OF 1

Boring location: See Site Plan, Figure 2

Logged by: K. Staehlin
Drilled By: Gregg

Date started: 9/6/14

Date finished: 9/6/14

Drilling method: Direct Push

Hammer weight/drop: N/A

Hammer type: N/A

Sampler: Continuous Core

DEPTH (feet)	SAMPLES				OVW (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (inches)			
1	EB-1-1.5	●				CL	Surface Conditions: 2 inches asphalt concrete (AC) 4 inches aggregate base (AB)
2				24/48		CL	SANDY CLAY (CL) brown, soft, moist, slightly plastic, no odor, trace brick
3	EB-1-3.0	●				CL	CLAY with GRAVEL (CL) brown, medium stiff, subangular <0.25" diameter, no odor
4						SC	CLAYEY SAND (SC) brown, dense to moderately dense, moist, no odor
5	EB-1-5.0	●					trace brick
6				48/48			
7							
8	EB-1-8.0	●					
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Boring terminated at a depth of 8 feet below ground surface.
Boring backfilled with cement grout.
Groundwater not encountered during drilling.

¹ Elevations based on...

LANGAN TREADWELL ROLLO

Project No.: 731641601

Figure: A-5

TEST ENVIRONMENT 731641601-ENVIRO.GPJ T&R.GDT 10/1/14

PROJECT:

2302-2332 VALDEZ STREET
2321-2335 WAVERLY STREET
Oakland, California

Log of Boring EB-2

PAGE 1 OF 1

Boring location: See Site Plan, Figure 2

Logged by: K. Staehlin
Drilled By: Gregg

Date started: 9/6/14

Date finished: 9/6/14

Drilling method: Direct Push

Hammer weight/drop: N/A

Hammer type: N/A

Sampler: Continuous Core

DEPTH (feet)	SAMPLES					LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (inches)	OMV (ppm)		
1	EB-2-1.5	●				CL	Surface Conditions: 2 inches asphalt concrete (AC) 4 inches aggregate base (AB) SANDY CLAY (CL) dark brown, soft, moist, plastic, no odor, trace brick
2						SC	CLAYEY SAND (SC) brown, moderately dense to dense, moist, no odor, trace brick and oxidation
3	EB-2-3.0	●					
4							
5	EB-2-5.0	●					
6							
7						CL	SANDY CLAY (CL) brown, stiff to very stiff, moist, no odor, oxidation
8	EB-2-8.0	●					
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Boring terminated at a depth of 8 feet below ground surface.
Boring backfilled with cement grout.
Groundwater not encountered during drilling.

¹ Elevations based on...

LANGAN TREADWELL ROLLO

Project No.: 731641601

Figure: A-6

TEST ENVIRONMENT 731641601-ENVIRO.GPJ T&R.GDT 10/1/14

PROJECT:

2302-2332 VALDEZ STREET
2321-2335 WAVERLY STREET
Oakland, California

Log of Boring EB-3

PAGE 1 OF 1

Boring location: See Site Plan, Figure 2

Logged by: K. Staehlin
Drilled By: Gregg

Date started: 9/6/14

Date finished: 9/6/14

Drilling method: Direct Push

Hammer weight/drop: N/A

Hammer type: N/A

Sampler: Continuous Core

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (inches)			
1	EB-3-1.5	●					Surface Conditions: 2 inches asphalt concrete (AC) 10 inches aggregate base (AB)
2				24/48		CL	SANDY CLAY (CL) dark brown, soft, moist, slightly plastic, no odor
3	EB-3-3.0	●				SC	CLAYEY SAND (SC) dark brown, moderately dense, moist, no odor
4							
5	EB-3-5.0	●					CLAYEY SAND (SC) light brown/orange brown, moderately dense, moist to wet, no odor, increasing sand content with depth
6				36/48		SC	
7							
8	EB-3-8.0	●					
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Boring terminated at a depth of 8 feet below ground surface.
Boring backfilled with cement grout.
Groundwater not encountered during drilling.

¹ Elevations based on...

LANGAN TREADWELL ROLLO

Project No.:
731641601

Figure:
A-7

TEST ENVIRONMENT 731641601-ENVIRO.GPJ T&R.GDT 10/1/14

PROJECT:

2302-2332 VALDEZ STREET
2321-2335 WAVERLY STREET
Oakland, California

Log of Boring EB-4

PAGE 1 OF 1

Boring location: See Site Plan, Figure 2

Logged by: K. Staehlin
Drilled By: Gregg

Date started: 9/6/14

Date finished: 9/6/14

Drilling method: Direct Push

Hammer weight/drop: N/A

Hammer type: N/A

Sampler: Continuous Core

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (inches)			
1	EB-4-1.5	●				CL	Surface Conditions: 2 inches asphalt concrete (AC) 7 inches aggregate base (AB) CLAY (CL) orange brown, soft, moist, plastic, no odor
2				24/48		SC	CLAYEY SAND (SC) dark brown, moderately dense, moist to wet, no odor, trace brick and wood
3	EB-4-3.0	●					
4							
5	EB-4-5.0	●				SC	light brown and wet sand
6				36/48			
7						CL	SANDY CLAY (CL) orange brown, medium stiff to stiff, moist to wet, slightly plastic, no odor
8	EB-4-8.0	●					
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Boring terminated at a depth of 8 feet below ground surface.
Boring backfilled with cement grout.
Groundwater not encountered during drilling.

¹ Elevations based on...

LANGAN TREADWELL ROLLO

Project No.:
731641601

Figure:
A-8

TEST ENVIRONMENT 731641601-ENVIRO.GPJ T&R.GDT 10/1/14

PROJECT:

2302-2332 VALDEZ STREET
2321-2335 WAVERLY STREET
Oakland, California

Log of Boring EB-5

PAGE 1 OF 1

Boring location: See Site Plan, Figure 2

Logged by: K. Staehlin
Drilled By: Gregg

Date started: 9/6/14

Date finished: 9/6/14

Drilling method: Direct Push

Hammer weight/drop: N/A

Hammer type: N/A

Sampler: Continuous Core

DEPTH (feet)	SAMPLES				OVW (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (inches)			
1	EB-5-1.5	●					Surface Conditions: 2 inches asphalt concrete (AC) 10 inches aggregate base (AB)
2				24/48		CL	SANDY CLAY (CL) dark brown, soft to medium stiff, no odor
3	EB-5-3.0	●					slightly hydrocarbon odor
4						CL	SANDY CLAY with GRAVEL (CL) gray brown, medium stiff, moist, subangular <0.5" diameter, wet, trace brick and debris
5	EB-5-5.0	●				CL	SANDY CLAY (CL) dark brown, soft to medium stiff, moist
6				36/48			
7						SC	CLAYEY SAND (SC) brown, moderately dense, moist to wet, no odor
8	EB-5-8.0	●					
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Boring terminated at a depth of 8 feet below ground surface.
Boring backfilled with cement grout.
Groundwater not encountered during drilling.

¹ Elevations based on...

LANGAN TREADWELL ROLLO

Project No.:
731641601

Figure:
A-9

TEST ENVIRONMENT 731641601-ENVIRO.GPJ T&R.GDT 10/1/14

PROJECT:

2302-2332 VALDEZ STREET
2321-2335 WAVERLY STREET
Oakland, California

Log of Boring EB-6

PAGE 1 OF 1

Boring location: See Site Plan, Figure 2

Logged by: K. Staehlin
Drilled By: Gregg

Date started: 9/6/14

Date finished: 9/6/14

Drilling method: Direct Push

Hammer weight/drop: N/A

Hammer type: N/A

Sampler: Continuous Core

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (inches)			
							Surface Conditions:
							6 inches asphalt concrete (AC)
1	EB-6-1.5	●				CL	SANDY CLAY (CL) brown, soft, moist, no odor
2				24/48		SM	SILTY SAND (SM) brown
3	EB-6-3.0	●					SANDY CLAY (CL) brown, stiff, moist, no odor
4							
5	EB-6-5.0	●				CL	
6				36/48			
7							
8	EB-6-8.0	●					
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Boring terminated at a depth of 8 feet below ground surface.
Boring backfilled with cement grout.
Groundwater not encountered during drilling.

¹ Elevations based on...

LANGAN TREADWELL ROLLO

Project No.:
731641601

Figure:
A-10










TEST ENVIRONMENT 731641601-ENVIRO.GPJ T&R.GDT 10/1/14

UNIFIED SOIL CLASSIFICATION SYSTEM


Major Divisions		Symbols	Typical Names
Coarse-Grained Soils (more than half of soil > no. 200 sieve size)	Gravels (More than half of coarse fraction > no. 4 sieve size)	GW	Well-graded gravels or gravel-sand mixtures, little or no fines
		GP	Poorly-graded gravels or gravel-sand mixtures, little or no fines
		GM	Silty gravels, gravel-sand-silt mixtures
		GC	Clayey gravels, gravel-sand-clay mixtures
	Sands (More than half of coarse fraction < no. 4 sieve size)	SW	Well-graded sands or gravelly sands, little or no fines
		SP	Poorly-graded sands or gravelly sands, little or no fines
		SM	Silty sands, sand-silt mixtures
Fine-Grained Soils (more than half of soil < no. 200 sieve size)	Silts and Clays LL = < 50	ML	Inorganic silts and clayey silts of low plasticity, sandy silts, gravelly silts
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, lean clays
		OL	Organic silts and organic silt-clays of low plasticity
	Silts and Clays LL = > 50	MH	Inorganic silts of high plasticity
		CH	Inorganic clays of high plasticity, fat clays
		OH	Organic silts and clays of high plasticity
Highly Organic Soils	PT	Peat and other highly organic soils	

SAMPLE DESIGNATIONS/SYMBOLS

GRAIN SIZE CHART		
Classification	Range of Grain Sizes	
	U.S. Standard Sieve Size	Grain Size in Millimeters
Boulders	Above 12"	Above 305
Cobbles	12" to 3"	305 to 76.2
Gravel coarse fine	3" to No. 4	76.2 to 4.76
	3" to 3/4" 3/4" to No. 4	76.2 to 19.1 19.1 to 4.76
Sand coarse medium fine	No. 4 to No. 200	4.76 to 0.075
	No. 4 to No. 10	4.76 to 2.00
	No. 10 to No. 40 No. 40 to No. 200	2.00 to 0.420 0.420 to 0.075
Silt and Clay	Below No. 200	Below 0.075

-  Sample taken with Sprague & Henwood split-barrel sampler with a 3.0-inch outside diameter and a 2.43-inch inside diameter. Darkened area indicates soil recovered
-  Classification sample taken with Standard Penetration Test sampler
-  Undisturbed sample taken with thin-walled tube
-  Disturbed sample
-  Sampling attempted with no recovery
-  Core sample
-  Analytical laboratory sample, grab groundwater
-  Sample taken with Direct Push sampler
-  Sonic

 Unstabilized groundwater level

 Stabilized groundwater level

SAMPLER TYPE

- C** Core barrel
- CA** California split-barrel sampler with 2.5-inch outside diameter and a 1.93-inch inside diameter
- D&M** Dames & Moore piston sampler using 2.5-inch outside diameter, thin-walled tube
- O** Osterberg piston sampler using 3.0-inch outside diameter, thin-walled Shelby tube

- PT** Pitcher tube sampler using 3.0-inch outside diameter, thin-walled Shelby tube
- S&H** Sprague & Henwood split-barrel sampler with a 3.0-inch outside diameter and a 2.43-inch inside diameter
- SPT** Standard Penetration Test (SPT) split-barrel sampler with a 2.0-inch outside diameter and a 1.5-inch inside diameter
- ST** Shelby Tube (3.0-inch outside diameter, thin-walled tube) advanced with hydraulic pressure

**2302-2332 VALDEZ STREET
2321-2335 WAVERLY STREET
Oakland, California**

CLASSIFICATION CHART

LANGAN TREADWELL ROLLO

Date 09/22/14 Project No. 731641601 Figure A-11

APPENDIX B

**CERTIFIED ANALYTICAL RESULTS AND
CHAIN-OF-CUSTODY RECORDS**



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1409239

Report Created for: Treadwell & Rollo
555 Montgomery St., Suite 1300
San Francisco, CA 94111

Project Contact: Peter Cusack

Project P.O.:

Project Name: #731641601; Valdez & Waverly Street

Project Received: 09/08/2014

Analytical Report reviewed & approved for release on 09/16/2014 by:

*Question about
your data?*

[Click here to email
McC Campbell](#)

Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
WorkOrder: 1409239

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Matrix interferences, or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix; or sample diluted due to high matrix or analyte content.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence

Analytical Qualifiers

S	spike recovery outside accepted recovery limits
a3	sample diluted due to high organic content.
c1	surrogate recovery outside of the control limits due to the dilution of the sample.
d7	strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
e2	diesel range compounds are significant; no recognizable pattern
e7	oil range compounds are significant

Quality Control Qualifiers

F1	MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.
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Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14

WorkOrder: 1409239
Extraction Method: SW3550B
Analytical Method: SW8081A/8082
Unit: mg/kg

Organochlorine Pesticides (Basic Target List) + PCBs

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-1-1.5	1409239-001A	Soil	09/06/2014 10:15	GC20	94914

Analytes	Result	RL	DF	Date Analyzed
Aldrin	ND	0.0010	1	09/10/2014 22:31
a-BHC	ND	0.0010	1	09/10/2014 22:31
b-BHC	ND	0.0010	1	09/10/2014 22:31
d-BHC	ND	0.0010	1	09/10/2014 22:31
g-BHC	ND	0.0010	1	09/10/2014 22:31
Chlordane (Technical)	ND	0.025	1	09/10/2014 22:31
a-Chlordane	ND	0.0010	1	09/10/2014 22:31
g-Chlordane	ND	0.0010	1	09/10/2014 22:31
p,p-DDD	ND	0.0010	1	09/10/2014 22:31
p,p-DDE	ND	0.0010	1	09/10/2014 22:31
p,p-DDT	ND	0.0010	1	09/10/2014 22:31
Dieldrin	ND	0.0010	1	09/10/2014 22:31
Endosulfan I	ND	0.0010	1	09/10/2014 22:31
Endosulfan II	ND	0.0010	1	09/10/2014 22:31
Endosulfan sulfate	ND	0.0010	1	09/10/2014 22:31
Endrin	ND	0.0010	1	09/10/2014 22:31
Endrin aldehyde	ND	0.0010	1	09/10/2014 22:31
Endrin ketone	ND	0.0010	1	09/10/2014 22:31
Heptachlor	ND	0.0010	1	09/10/2014 22:31
Heptachlor epoxide	ND	0.0010	1	09/10/2014 22:31
Hexachlorobenzene	ND	0.010	1	09/10/2014 22:31
Hexachlorocyclopentadiene	ND	0.020	1	09/10/2014 22:31
Methoxychlor	ND	0.0010	1	09/10/2014 22:31
Toxaphene	ND	0.050	1	09/10/2014 22:31
Aroclor1016	ND	0.050	1	09/10/2014 22:31
Aroclor1221	ND	0.050	1	09/10/2014 22:31
Aroclor1232	ND	0.050	1	09/10/2014 22:31
Aroclor1242	ND	0.050	1	09/10/2014 22:31
Aroclor1248	ND	0.050	1	09/10/2014 22:31
Aroclor1254	ND	0.050	1	09/10/2014 22:31
Aroclor1260	ND	0.050	1	09/10/2014 22:31
PCBs, total	ND	0.050	1	09/10/2014 22:31

Surrogates	REC (%)	Limits	Date Analyzed
Decachlorobiphenyl	117	70-130	09/10/2014 22:31

Analyst(s): CK

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14

WorkOrder: 1409239
Extraction Method: SW3550B
Analytical Method: SW8081A/8082
Unit: mg/kg

Organochlorine Pesticides (Basic Target List) + PCBs

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-3-1.5	1409239-009A	Soil	09/06/2014 09:35	GC23	94914

Analytes	Result	RL	DF	Date Analyzed
Aldrin	ND	0.10	100	09/13/2014 01:51
a-BHC	ND	0.10	100	09/13/2014 01:51
b-BHC	ND	0.10	100	09/13/2014 01:51
d-BHC	ND	0.10	100	09/13/2014 01:51
g-BHC	ND	0.10	100	09/13/2014 01:51
Chlordane (Technical)	ND	2.5	100	09/13/2014 01:51
a-Chlordane	ND	0.10	100	09/13/2014 01:51
g-Chlordane	ND	0.10	100	09/13/2014 01:51
p,p-DDD	ND	0.10	100	09/13/2014 01:51
p,p-DDE	ND	0.10	100	09/13/2014 01:51
p,p-DDT	ND	0.10	100	09/13/2014 01:51
Dieldrin	ND	0.10	100	09/13/2014 01:51
Endosulfan I	ND	0.10	100	09/13/2014 01:51
Endosulfan II	ND	0.10	100	09/13/2014 01:51
Endosulfan sulfate	ND	0.10	100	09/13/2014 01:51
Endrin	ND	0.10	100	09/13/2014 01:51
Endrin aldehyde	ND	0.10	100	09/13/2014 01:51
Endrin ketone	ND	0.10	100	09/13/2014 01:51
Heptachlor	ND	0.10	100	09/13/2014 01:51
Heptachlor epoxide	ND	0.10	100	09/13/2014 01:51
Hexachlorobenzene	ND	1.0	100	09/13/2014 01:51
Hexachlorocyclopentadiene	ND	2.0	100	09/13/2014 01:51
Methoxychlor	ND	0.10	100	09/13/2014 01:51
Toxaphene	ND	5.0	100	09/13/2014 01:51
Aroclor1016	ND	5.0	100	09/13/2014 01:51
Aroclor1221	ND	5.0	100	09/13/2014 01:51
Aroclor1232	ND	5.0	100	09/13/2014 01:51
Aroclor1242	ND	5.0	100	09/13/2014 01:51
Aroclor1248	ND	5.0	100	09/13/2014 01:51
Aroclor1254	ND	5.0	100	09/13/2014 01:51
Aroclor1260	ND	5.0	100	09/13/2014 01:51
PCBs, total	ND	5.0	100	09/13/2014 01:51

Surrogates	REC (%)	Qualifiers	Limits	Analytical Comments: a3,c1
Decachlorobiphenyl	184	S	70-130	09/13/2014 01:51

Analyst(s): SS

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14

WorkOrder: 1409239
Extraction Method: SW3550B
Analytical Method: SW8081A/8082
Unit: mg/kg

Organochlorine Pesticides (Basic Target List) + PCBs

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-5-1.5	1409239-017A	Soil	09/06/2014 12:45	GC23	94914

Analytes	Result	RL	DF	Date Analyzed
Aldrin	ND	0.0010	1	09/12/2014 07:01
a-BHC	ND	0.0010	1	09/12/2014 07:01
b-BHC	ND	0.0010	1	09/12/2014 07:01
d-BHC	ND	0.0010	1	09/12/2014 07:01
g-BHC	ND	0.0010	1	09/12/2014 07:01
Chlordane (Technical)	ND	0.025	1	09/12/2014 07:01
a-Chlordane	ND	0.0010	1	09/12/2014 07:01
g-Chlordane	ND	0.0010	1	09/12/2014 07:01
p,p-DDD	ND	0.0010	1	09/12/2014 07:01
p,p-DDE	ND	0.0010	1	09/12/2014 07:01
p,p-DDT	ND	0.0010	1	09/12/2014 07:01
Dieldrin	ND	0.0010	1	09/12/2014 07:01
Endosulfan I	ND	0.0010	1	09/12/2014 07:01
Endosulfan II	ND	0.0010	1	09/12/2014 07:01
Endosulfan sulfate	ND	0.0010	1	09/12/2014 07:01
Endrin	ND	0.0010	1	09/12/2014 07:01
Endrin aldehyde	ND	0.0010	1	09/12/2014 07:01
Endrin ketone	ND	0.0010	1	09/12/2014 07:01
Heptachlor	ND	0.0010	1	09/12/2014 07:01
Heptachlor epoxide	ND	0.0010	1	09/12/2014 07:01
Hexachlorobenzene	ND	0.010	1	09/12/2014 07:01
Hexachlorocyclopentadiene	ND	0.020	1	09/12/2014 07:01
Methoxychlor	ND	0.0010	1	09/12/2014 07:01
Toxaphene	ND	0.050	1	09/12/2014 07:01
Aroclor1016	ND	0.050	1	09/12/2014 07:01
Aroclor1221	ND	0.050	1	09/12/2014 07:01
Aroclor1232	ND	0.050	1	09/12/2014 07:01
Aroclor1242	ND	0.050	1	09/12/2014 07:01
Aroclor1248	ND	0.050	1	09/12/2014 07:01
Aroclor1254	ND	0.050	1	09/12/2014 07:01
Aroclor1260	ND	0.050	1	09/12/2014 07:01
PCBs, total	ND	0.050	1	09/12/2014 07:01

Surrogates	REC (%)	Limits	Date Analyzed
Decachlorobiphenyl	106	70-130	09/12/2014 07:01

Analyst(s): CK



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14

WorkOrder: 1409239
Extraction Method: SW3550B
Analytical Method: SW8082
Unit: mg/kg

Polychlorinated Biphenyls (PCBs) Aroclors

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-6-3.0	1409239-022A	Soil	09/06/2014 12:15	GC23	94921

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Aroclor1016	ND	0.050	1	09/10/2014 04:14
Aroclor1221	ND	0.050	1	09/10/2014 04:14
Aroclor1232	ND	0.050	1	09/10/2014 04:14
Aroclor1242	ND	0.050	1	09/10/2014 04:14
Aroclor1248	ND	0.050	1	09/10/2014 04:14
Aroclor1254	ND	0.050	1	09/10/2014 04:14
Aroclor1260	ND	0.050	1	09/10/2014 04:14
PCBs, total	ND	0.050	1	09/10/2014 04:14

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	<u>Date Analyzed</u>
Decachlorobiphenyl	89	70-130	09/10/2014 04:14



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14

WorkOrder: 1409239
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-1-5.0	1409239-003A	Soil	09/06/2014 10:25	GC10	94912

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	09/11/2014 06:01
tert-Amyl methyl ether (TAME)	ND	0.0050	1	09/11/2014 06:01
Benzene	ND	0.0050	1	09/11/2014 06:01
Bromobenzene	ND	0.0050	1	09/11/2014 06:01
Bromochloromethane	ND	0.0050	1	09/11/2014 06:01
Bromodichloromethane	ND	0.0050	1	09/11/2014 06:01
Bromoform	ND	0.0050	1	09/11/2014 06:01
Bromomethane	ND	0.0050	1	09/11/2014 06:01
2-Butanone (MEK)	ND	0.020	1	09/11/2014 06:01
t-Butyl alcohol (TBA)	ND	0.050	1	09/11/2014 06:01
n-Butyl benzene	ND	0.0050	1	09/11/2014 06:01
sec-Butyl benzene	ND	0.0050	1	09/11/2014 06:01
tert-Butyl benzene	ND	0.0050	1	09/11/2014 06:01
Carbon Disulfide	ND	0.0050	1	09/11/2014 06:01
Carbon Tetrachloride	ND	0.0050	1	09/11/2014 06:01
Chlorobenzene	ND	0.0050	1	09/11/2014 06:01
Chloroethane	ND	0.0050	1	09/11/2014 06:01
Chloroform	ND	0.0050	1	09/11/2014 06:01
Chloromethane	ND	0.0050	1	09/11/2014 06:01
2-Chlorotoluene	ND	0.0050	1	09/11/2014 06:01
4-Chlorotoluene	ND	0.0050	1	09/11/2014 06:01
Dibromochloromethane	ND	0.0050	1	09/11/2014 06:01
1,2-Dibromo-3-chloropropane	ND	0.0040	1	09/11/2014 06:01
1,2-Dibromoethane (EDB)	ND	0.0040	1	09/11/2014 06:01
Dibromomethane	ND	0.0050	1	09/11/2014 06:01
1,2-Dichlorobenzene	ND	0.0050	1	09/11/2014 06:01
1,3-Dichlorobenzene	ND	0.0050	1	09/11/2014 06:01
1,4-Dichlorobenzene	ND	0.0050	1	09/11/2014 06:01
Dichlorodifluoromethane	ND	0.0050	1	09/11/2014 06:01
1,1-Dichloroethane	ND	0.0050	1	09/11/2014 06:01
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	09/11/2014 06:01
1,1-Dichloroethene	ND	0.0050	1	09/11/2014 06:01
cis-1,2-Dichloroethene	ND	0.0050	1	09/11/2014 06:01
trans-1,2-Dichloroethene	ND	0.0050	1	09/11/2014 06:01
1,2-Dichloropropane	ND	0.0050	1	09/11/2014 06:01
1,3-Dichloropropane	ND	0.0050	1	09/11/2014 06:01
2,2-Dichloropropane	ND	0.0050	1	09/11/2014 06:01
1,1-Dichloropropene	ND	0.0050	1	09/11/2014 06:01

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14

WorkOrder: 1409239
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-1-5.0	1409239-003A	Soil	09/06/2014 10:25	GC10	94912

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.0050	1	09/11/2014 06:01
trans-1,3-Dichloropropene	ND	0.0050	1	09/11/2014 06:01
Diisopropyl ether (DIPE)	ND	0.0050	1	09/11/2014 06:01
Ethylbenzene	ND	0.0050	1	09/11/2014 06:01
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	09/11/2014 06:01
Freon 113	ND	0.10	1	09/11/2014 06:01
Hexachlorobutadiene	ND	0.0050	1	09/11/2014 06:01
Hexachloroethane	ND	0.0050	1	09/11/2014 06:01
2-Hexanone	ND	0.0050	1	09/11/2014 06:01
Isopropylbenzene	ND	0.0050	1	09/11/2014 06:01
4-Isopropyl toluene	ND	0.0050	1	09/11/2014 06:01
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	09/11/2014 06:01
Methylene chloride	ND	0.0050	1	09/11/2014 06:01
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	09/11/2014 06:01
Naphthalene	ND	0.0050	1	09/11/2014 06:01
n-Propyl benzene	ND	0.0050	1	09/11/2014 06:01
Styrene	ND	0.0050	1	09/11/2014 06:01
1,1,1,2-Tetrachloroethane	ND	0.0050	1	09/11/2014 06:01
1,1,2,2-Tetrachloroethane	ND	0.0050	1	09/11/2014 06:01
Tetrachloroethene	ND	0.0050	1	09/11/2014 06:01
Toluene	ND	0.0050	1	09/11/2014 06:01
1,2,3-Trichlorobenzene	ND	0.0050	1	09/11/2014 06:01
1,2,4-Trichlorobenzene	ND	0.0050	1	09/11/2014 06:01
1,1,1-Trichloroethane	ND	0.0050	1	09/11/2014 06:01
1,1,2-Trichloroethane	ND	0.0050	1	09/11/2014 06:01
Trichloroethene	ND	0.0050	1	09/11/2014 06:01
Trichlorofluoromethane	ND	0.0050	1	09/11/2014 06:01
1,2,3-Trichloropropane	ND	0.0050	1	09/11/2014 06:01
1,2,4-Trimethylbenzene	ND	0.0050	1	09/11/2014 06:01
1,3,5-Trimethylbenzene	ND	0.0050	1	09/11/2014 06:01
Vinyl Chloride	ND	0.0050	1	09/11/2014 06:01
Xylenes, Total	ND	0.0050	1	09/11/2014 06:01
Surrogates	REC (%)	Limits		
Dibromofluoromethane	76	70-130		09/11/2014 06:01
Toluene-d8	85	70-130		09/11/2014 06:01
4-BFB	82	70-130		09/11/2014 06:01

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14

WorkOrder: 1409239
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-3-5.0	1409239-011A	Soil	09/06/2014 09:45	GC10	94912

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	09/11/2014 06:42
tert-Amyl methyl ether (TAME)	ND	0.0050	1	09/11/2014 06:42
Benzene	ND	0.0050	1	09/11/2014 06:42
Bromobenzene	ND	0.0050	1	09/11/2014 06:42
Bromochloromethane	ND	0.0050	1	09/11/2014 06:42
Bromodichloromethane	ND	0.0050	1	09/11/2014 06:42
Bromoform	ND	0.0050	1	09/11/2014 06:42
Bromomethane	ND	0.0050	1	09/11/2014 06:42
2-Butanone (MEK)	ND	0.020	1	09/11/2014 06:42
t-Butyl alcohol (TBA)	ND	0.050	1	09/11/2014 06:42
n-Butyl benzene	ND	0.0050	1	09/11/2014 06:42
sec-Butyl benzene	ND	0.0050	1	09/11/2014 06:42
tert-Butyl benzene	ND	0.0050	1	09/11/2014 06:42
Carbon Disulfide	ND	0.0050	1	09/11/2014 06:42
Carbon Tetrachloride	ND	0.0050	1	09/11/2014 06:42
Chlorobenzene	ND	0.0050	1	09/11/2014 06:42
Chloroethane	ND	0.0050	1	09/11/2014 06:42
Chloroform	ND	0.0050	1	09/11/2014 06:42
Chloromethane	ND	0.0050	1	09/11/2014 06:42
2-Chlorotoluene	ND	0.0050	1	09/11/2014 06:42
4-Chlorotoluene	ND	0.0050	1	09/11/2014 06:42
Dibromochloromethane	ND	0.0050	1	09/11/2014 06:42
1,2-Dibromo-3-chloropropane	ND	0.0040	1	09/11/2014 06:42
1,2-Dibromoethane (EDB)	ND	0.0040	1	09/11/2014 06:42
Dibromomethane	ND	0.0050	1	09/11/2014 06:42
1,2-Dichlorobenzene	ND	0.0050	1	09/11/2014 06:42
1,3-Dichlorobenzene	ND	0.0050	1	09/11/2014 06:42
1,4-Dichlorobenzene	ND	0.0050	1	09/11/2014 06:42
Dichlorodifluoromethane	ND	0.0050	1	09/11/2014 06:42
1,1-Dichloroethane	ND	0.0050	1	09/11/2014 06:42
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	09/11/2014 06:42
1,1-Dichloroethene	ND	0.0050	1	09/11/2014 06:42
cis-1,2-Dichloroethene	ND	0.0050	1	09/11/2014 06:42
trans-1,2-Dichloroethene	ND	0.0050	1	09/11/2014 06:42
1,2-Dichloropropane	ND	0.0050	1	09/11/2014 06:42
1,3-Dichloropropane	ND	0.0050	1	09/11/2014 06:42
2,2-Dichloropropane	ND	0.0050	1	09/11/2014 06:42
1,1-Dichloropropene	ND	0.0050	1	09/11/2014 06:42

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Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14

WorkOrder: 1409239
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-3-5.0	1409239-011A	Soil	09/06/2014 09:45	GC10	94912

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.0050	1	09/11/2014 06:42
trans-1,3-Dichloropropene	ND	0.0050	1	09/11/2014 06:42
Diisopropyl ether (DIPE)	ND	0.0050	1	09/11/2014 06:42
Ethylbenzene	ND	0.0050	1	09/11/2014 06:42
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	09/11/2014 06:42
Freon 113	ND	0.10	1	09/11/2014 06:42
Hexachlorobutadiene	ND	0.0050	1	09/11/2014 06:42
Hexachloroethane	ND	0.0050	1	09/11/2014 06:42
2-Hexanone	ND	0.0050	1	09/11/2014 06:42
Isopropylbenzene	ND	0.0050	1	09/11/2014 06:42
4-Isopropyl toluene	ND	0.0050	1	09/11/2014 06:42
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	09/11/2014 06:42
Methylene chloride	ND	0.0050	1	09/11/2014 06:42
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	09/11/2014 06:42
Naphthalene	ND	0.0050	1	09/11/2014 06:42
n-Propyl benzene	ND	0.0050	1	09/11/2014 06:42
Styrene	ND	0.0050	1	09/11/2014 06:42
1,1,1,2-Tetrachloroethane	ND	0.0050	1	09/11/2014 06:42
1,1,2,2-Tetrachloroethane	ND	0.0050	1	09/11/2014 06:42
Tetrachloroethene	ND	0.0050	1	09/11/2014 06:42
Toluene	ND	0.0050	1	09/11/2014 06:42
1,2,3-Trichlorobenzene	ND	0.0050	1	09/11/2014 06:42
1,2,4-Trichlorobenzene	ND	0.0050	1	09/11/2014 06:42
1,1,1-Trichloroethane	ND	0.0050	1	09/11/2014 06:42
1,1,2-Trichloroethane	ND	0.0050	1	09/11/2014 06:42
Trichloroethene	ND	0.0050	1	09/11/2014 06:42
Trichlorofluoromethane	ND	0.0050	1	09/11/2014 06:42
1,2,3-Trichloropropane	ND	0.0050	1	09/11/2014 06:42
1,2,4-Trimethylbenzene	ND	0.0050	1	09/11/2014 06:42
1,3,5-Trimethylbenzene	ND	0.0050	1	09/11/2014 06:42
Vinyl Chloride	ND	0.0050	1	09/11/2014 06:42
Xylenes, Total	ND	0.0050	1	09/11/2014 06:42
Surrogates	REC (%)	Limits		
Dibromofluoromethane	77	70-130		09/11/2014 06:42
Toluene-d8	87	70-130		09/11/2014 06:42
4-BFB	75	70-130		09/11/2014 06:42

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Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14

WorkOrder: 1409239
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-6-3.0	1409239-022A	Soil	09/06/2014 12:15	GC16	94912

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	09/11/2014 12:55
tert-Amyl methyl ether (TAME)	ND	0.0050	1	09/11/2014 12:55
Benzene	ND	0.0050	1	09/11/2014 12:55
Bromobenzene	ND	0.0050	1	09/11/2014 12:55
Bromochloromethane	ND	0.0050	1	09/11/2014 12:55
Bromodichloromethane	ND	0.0050	1	09/11/2014 12:55
Bromoform	ND	0.0050	1	09/11/2014 12:55
Bromomethane	ND	0.0050	1	09/11/2014 12:55
2-Butanone (MEK)	ND	0.020	1	09/11/2014 12:55
t-Butyl alcohol (TBA)	ND	0.050	1	09/11/2014 12:55
n-Butyl benzene	ND	0.0050	1	09/11/2014 12:55
sec-Butyl benzene	ND	0.0050	1	09/11/2014 12:55
tert-Butyl benzene	ND	0.0050	1	09/11/2014 12:55
Carbon Disulfide	ND	0.0050	1	09/11/2014 12:55
Carbon Tetrachloride	ND	0.0050	1	09/11/2014 12:55
Chlorobenzene	ND	0.0050	1	09/11/2014 12:55
Chloroethane	ND	0.0050	1	09/11/2014 12:55
Chloroform	ND	0.0050	1	09/11/2014 12:55
Chloromethane	ND	0.0050	1	09/11/2014 12:55
2-Chlorotoluene	ND	0.0050	1	09/11/2014 12:55
4-Chlorotoluene	ND	0.0050	1	09/11/2014 12:55
Dibromochloromethane	ND	0.0050	1	09/11/2014 12:55
1,2-Dibromo-3-chloropropane	ND	0.0040	1	09/11/2014 12:55
1,2-Dibromoethane (EDB)	ND	0.0040	1	09/11/2014 12:55
Dibromomethane	ND	0.0050	1	09/11/2014 12:55
1,2-Dichlorobenzene	ND	0.0050	1	09/11/2014 12:55
1,3-Dichlorobenzene	ND	0.0050	1	09/11/2014 12:55
1,4-Dichlorobenzene	ND	0.0050	1	09/11/2014 12:55
Dichlorodifluoromethane	ND	0.0050	1	09/11/2014 12:55
1,1-Dichloroethane	ND	0.0050	1	09/11/2014 12:55
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	09/11/2014 12:55
1,1-Dichloroethene	ND	0.0050	1	09/11/2014 12:55
cis-1,2-Dichloroethene	ND	0.0050	1	09/11/2014 12:55
trans-1,2-Dichloroethene	ND	0.0050	1	09/11/2014 12:55
1,2-Dichloropropane	ND	0.0050	1	09/11/2014 12:55
1,3-Dichloropropane	ND	0.0050	1	09/11/2014 12:55
2,2-Dichloropropane	ND	0.0050	1	09/11/2014 12:55
1,1-Dichloropropene	ND	0.0050	1	09/11/2014 12:55

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Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14

WorkOrder: 1409239
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-6-3.0	1409239-022A	Soil	09/06/2014 12:15	GC16	94912

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.0050	1	09/11/2014 12:55
trans-1,3-Dichloropropene	ND	0.0050	1	09/11/2014 12:55
Diisopropyl ether (DIPE)	ND	0.0050	1	09/11/2014 12:55
Ethylbenzene	ND	0.0050	1	09/11/2014 12:55
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	09/11/2014 12:55
Freon 113	ND	0.10	1	09/11/2014 12:55
Hexachlorobutadiene	ND	0.0050	1	09/11/2014 12:55
Hexachloroethane	ND	0.0050	1	09/11/2014 12:55
2-Hexanone	ND	0.0050	1	09/11/2014 12:55
Isopropylbenzene	ND	0.0050	1	09/11/2014 12:55
4-Isopropyl toluene	ND	0.0050	1	09/11/2014 12:55
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	09/11/2014 12:55
Methylene chloride	ND	0.0050	1	09/11/2014 12:55
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	09/11/2014 12:55
Naphthalene	ND	0.0050	1	09/11/2014 12:55
n-Propyl benzene	ND	0.0050	1	09/11/2014 12:55
Styrene	ND	0.0050	1	09/11/2014 12:55
1,1,1,2-Tetrachloroethane	ND	0.0050	1	09/11/2014 12:55
1,1,2,2-Tetrachloroethane	ND	0.0050	1	09/11/2014 12:55
Tetrachloroethene	ND	0.0050	1	09/11/2014 12:55
Toluene	ND	0.0050	1	09/11/2014 12:55
1,2,3-Trichlorobenzene	ND	0.0050	1	09/11/2014 12:55
1,2,4-Trichlorobenzene	ND	0.0050	1	09/11/2014 12:55
1,1,1-Trichloroethane	ND	0.0050	1	09/11/2014 12:55
1,1,2-Trichloroethane	ND	0.0050	1	09/11/2014 12:55
Trichloroethene	ND	0.0050	1	09/11/2014 12:55
Trichlorofluoromethane	ND	0.0050	1	09/11/2014 12:55
1,2,3-Trichloropropane	ND	0.0050	1	09/11/2014 12:55
1,2,4-Trimethylbenzene	ND	0.0050	1	09/11/2014 12:55
1,3,5-Trimethylbenzene	ND	0.0050	1	09/11/2014 12:55
Vinyl Chloride	ND	0.0050	1	09/11/2014 12:55
Xylenes, Total	ND	0.0050	1	09/11/2014 12:55
Surrogates	REC (%)	Limits		
Dibromofluoromethane	92	70-130		09/11/2014 12:55
Toluene-d8	88	70-130		09/11/2014 12:55
4-BFB	81	70-130		09/11/2014 12:55



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/9/14

WorkOrder: 1409239
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-1-5.0	1409239-003A	Soil	09/06/2014 10:25	GC17	94973

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.25	1	09/10/2014 10:20
Acenaphthylene	ND	0.25	1	09/10/2014 10:20
Acetochlor	ND	0.25	1	09/10/2014 10:20
Anthracene	ND	0.25	1	09/10/2014 10:20
Benzidine	ND	1.3	1	09/10/2014 10:20
Benzo (a) anthracene	ND	0.25	1	09/10/2014 10:20
Benzo (b) fluoranthene	ND	0.25	1	09/10/2014 10:20
Benzo (k) fluoranthene	ND	0.25	1	09/10/2014 10:20
Benzo (g,h,i) perylene	ND	0.25	1	09/10/2014 10:20
Benzo (a) pyrene	ND	0.25	1	09/10/2014 10:20
Benzyl Alcohol	ND	1.3	1	09/10/2014 10:20
1,1-Biphenyl	ND	0.25	1	09/10/2014 10:20
Bis (2-chloroethoxy) Methane	ND	0.25	1	09/10/2014 10:20
Bis (2-chloroethyl) Ether	ND	0.25	1	09/10/2014 10:20
Bis (2-chloroisopropyl) Ether	ND	0.25	1	09/10/2014 10:20
Bis (2-ethylhexyl) Adipate	ND	0.25	1	09/10/2014 10:20
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	09/10/2014 10:20
4-Bromophenyl Phenyl Ether	ND	0.25	1	09/10/2014 10:20
Butylbenzyl Phthalate	ND	0.25	1	09/10/2014 10:20
4-Chloroaniline	ND	0.25	1	09/10/2014 10:20
4-Chloro-3-methylphenol	ND	0.25	1	09/10/2014 10:20
2-Chloronaphthalene	ND	0.25	1	09/10/2014 10:20
2-Chlorophenol	ND	0.25	1	09/10/2014 10:20
4-Chlorophenyl Phenyl Ether	ND	0.25	1	09/10/2014 10:20
Chrysene	ND	0.25	1	09/10/2014 10:20
Dibenzo (a,h) anthracene	ND	0.25	1	09/10/2014 10:20
Dibenzofuran	ND	0.25	1	09/10/2014 10:20
Di-n-butyl Phthalate	ND	0.25	1	09/10/2014 10:20
1,2-Dichlorobenzene	ND	0.25	1	09/10/2014 10:20
1,3-Dichlorobenzene	ND	0.25	1	09/10/2014 10:20
1,4-Dichlorobenzene	ND	0.25	1	09/10/2014 10:20
3,3-Dichlorobenzidine	ND	0.50	1	09/10/2014 10:20
2,4-Dichlorophenol	ND	0.25	1	09/10/2014 10:20
Diethyl Phthalate	ND	0.25	1	09/10/2014 10:20
2,4-Dimethylphenol	ND	0.25	1	09/10/2014 10:20
Dimethyl Phthalate	ND	0.25	1	09/10/2014 10:20
4,6-Dinitro-2-methylphenol	ND	1.3	1	09/10/2014 10:20
2,4-Dinitrophenol	ND	6.3	1	09/10/2014 10:20

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Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/9/14

WorkOrder: 1409239
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-1-5.0	1409239-003A	Soil	09/06/2014 10:25	GC17	94973

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	0.25	1	09/10/2014 10:20
2,6-Dinitrotoluene	ND	0.25	1	09/10/2014 10:20
Di-n-octyl Phthalate	ND	0.50	1	09/10/2014 10:20
1,2-Diphenylhydrazine	ND	0.25	1	09/10/2014 10:20
Fluoranthene	ND	0.25	1	09/10/2014 10:20
Fluorene	ND	0.25	1	09/10/2014 10:20
Hexachlorobenzene	ND	0.25	1	09/10/2014 10:20
Hexachlorobutadiene	ND	0.25	1	09/10/2014 10:20
Hexachlorocyclopentadiene	ND	1.3	1	09/10/2014 10:20
Hexachloroethane	ND	0.25	1	09/10/2014 10:20
Indeno (1,2,3-cd) pyrene	ND	0.25	1	09/10/2014 10:20
Isophorone	ND	0.25	1	09/10/2014 10:20
2-Methylnaphthalene	ND	0.25	1	09/10/2014 10:20
2-Methylphenol (o-Cresol)	ND	0.25	1	09/10/2014 10:20
3 &/or 4-Methylphenol (m,p-Cresol)	ND	0.25	1	09/10/2014 10:20
Naphthalene	ND	0.25	1	09/10/2014 10:20
2-Nitroaniline	ND	1.3	1	09/10/2014 10:20
3-Nitroaniline	ND	1.3	1	09/10/2014 10:20
4-Nitroaniline	ND	1.3	1	09/10/2014 10:20
Nitrobenzene	ND	0.25	1	09/10/2014 10:20
2-Nitrophenol	ND	1.3	1	09/10/2014 10:20
4-Nitrophenol	ND	1.3	1	09/10/2014 10:20
N-Nitrosodiphenylamine	ND	0.25	1	09/10/2014 10:20
N-Nitrosodi-n-propylamine	ND	0.25	1	09/10/2014 10:20
Pentachlorophenol	ND	1.3	1	09/10/2014 10:20
Phenanthrene	ND	0.25	1	09/10/2014 10:20
Phenol	ND	0.25	1	09/10/2014 10:20
Pyrene	ND	0.25	1	09/10/2014 10:20
1,2,4-Trichlorobenzene	ND	0.25	1	09/10/2014 10:20
2,4,5-Trichlorophenol	ND	0.25	1	09/10/2014 10:20
2,4,6-Trichlorophenol	ND	0.25	1	09/10/2014 10:20

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Analytical Report

Client: Treadwell & Rollo	WorkOrder: 1409239
Project: #731641601; Valdez & Waverly Street	Extraction Method: SW3550B
Date Received: 9/8/14 15:06	Analytical Method: SW8270C
Date Prepared: 9/9/14	Unit: mg/Kg

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-1-5.0	1409239-003A	Soil	09/06/2014 10:25	GC17	94973

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorophenol	103	30-130		09/10/2014 10:20
Phenol-d5	93	30-130		09/10/2014 10:20
Nitrobenzene-d5	84	30-130		09/10/2014 10:20
2-Fluorobiphenyl	84	30-130		09/10/2014 10:20
2,4,6-Tribromophenol	71	16-130		09/10/2014 10:20
4-Terphenyl-d14	80	30-130		09/10/2014 10:20

Analyst(s): HK



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/9/14

WorkOrder: 1409239
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-3-5.0	1409239-011A	Soil	09/06/2014 09:45	GC21	94973

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.25	1	09/10/2014 09:35
Acenaphthylene	ND	0.25	1	09/10/2014 09:35
Acetochlor	ND	0.25	1	09/10/2014 09:35
Anthracene	ND	0.25	1	09/10/2014 09:35
Benzidine	ND	1.3	1	09/10/2014 09:35
Benzo (a) anthracene	ND	0.25	1	09/10/2014 09:35
Benzo (b) fluoranthene	ND	0.25	1	09/10/2014 09:35
Benzo (k) fluoranthene	ND	0.25	1	09/10/2014 09:35
Benzo (g,h,i) perylene	ND	0.25	1	09/10/2014 09:35
Benzo (a) pyrene	ND	0.25	1	09/10/2014 09:35
Benzyl Alcohol	ND	1.3	1	09/10/2014 09:35
1,1-Biphenyl	ND	0.25	1	09/10/2014 09:35
Bis (2-chloroethoxy) Methane	ND	0.25	1	09/10/2014 09:35
Bis (2-chloroethyl) Ether	ND	0.25	1	09/10/2014 09:35
Bis (2-chloroisopropyl) Ether	ND	0.25	1	09/10/2014 09:35
Bis (2-ethylhexyl) Adipate	ND	0.25	1	09/10/2014 09:35
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	09/10/2014 09:35
4-Bromophenyl Phenyl Ether	ND	0.25	1	09/10/2014 09:35
Butylbenzyl Phthalate	ND	0.25	1	09/10/2014 09:35
4-Chloroaniline	ND	0.25	1	09/10/2014 09:35
4-Chloro-3-methylphenol	ND	0.25	1	09/10/2014 09:35
2-Chloronaphthalene	ND	0.25	1	09/10/2014 09:35
2-Chlorophenol	ND	0.25	1	09/10/2014 09:35
4-Chlorophenyl Phenyl Ether	ND	0.25	1	09/10/2014 09:35
Chrysene	ND	0.25	1	09/10/2014 09:35
Dibenzo (a,h) anthracene	ND	0.25	1	09/10/2014 09:35
Dibenzofuran	ND	0.25	1	09/10/2014 09:35
Di-n-butyl Phthalate	ND	0.25	1	09/10/2014 09:35
1,2-Dichlorobenzene	ND	0.25	1	09/10/2014 09:35
1,3-Dichlorobenzene	ND	0.25	1	09/10/2014 09:35
1,4-Dichlorobenzene	ND	0.25	1	09/10/2014 09:35
3,3-Dichlorobenzidine	ND	0.50	1	09/10/2014 09:35
2,4-Dichlorophenol	ND	0.25	1	09/10/2014 09:35
Diethyl Phthalate	ND	0.25	1	09/10/2014 09:35
2,4-Dimethylphenol	ND	0.25	1	09/10/2014 09:35
Dimethyl Phthalate	ND	0.25	1	09/10/2014 09:35
4,6-Dinitro-2-methylphenol	ND	1.3	1	09/10/2014 09:35
2,4-Dinitrophenol	ND	6.3	1	09/10/2014 09:35

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Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/9/14

WorkOrder: 1409239
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-3-5.0	1409239-011A	Soil	09/06/2014 09:45	GC21	94973

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	0.25	1	09/10/2014 09:35
2,6-Dinitrotoluene	ND	0.25	1	09/10/2014 09:35
Di-n-octyl Phthalate	ND	0.50	1	09/10/2014 09:35
1,2-Diphenylhydrazine	ND	0.25	1	09/10/2014 09:35
Fluoranthene	ND	0.25	1	09/10/2014 09:35
Fluorene	ND	0.25	1	09/10/2014 09:35
Hexachlorobenzene	ND	0.25	1	09/10/2014 09:35
Hexachlorobutadiene	ND	0.25	1	09/10/2014 09:35
Hexachlorocyclopentadiene	ND	1.3	1	09/10/2014 09:35
Hexachloroethane	ND	0.25	1	09/10/2014 09:35
Indeno (1,2,3-cd) pyrene	ND	0.25	1	09/10/2014 09:35
Isophorone	ND	0.25	1	09/10/2014 09:35
2-Methylnaphthalene	ND	0.25	1	09/10/2014 09:35
2-Methylphenol (o-Cresol)	ND	0.25	1	09/10/2014 09:35
3 &/or 4-Methylphenol (m,p-Cresol)	ND	0.25	1	09/10/2014 09:35
Naphthalene	ND	0.25	1	09/10/2014 09:35
2-Nitroaniline	ND	1.3	1	09/10/2014 09:35
3-Nitroaniline	ND	1.3	1	09/10/2014 09:35
4-Nitroaniline	ND	1.3	1	09/10/2014 09:35
Nitrobenzene	ND	0.25	1	09/10/2014 09:35
2-Nitrophenol	ND	1.3	1	09/10/2014 09:35
4-Nitrophenol	ND	1.3	1	09/10/2014 09:35
N-Nitrosodiphenylamine	ND	0.25	1	09/10/2014 09:35
N-Nitrosodi-n-propylamine	ND	0.25	1	09/10/2014 09:35
Pentachlorophenol	ND	1.3	1	09/10/2014 09:35
Phenanthrene	ND	0.25	1	09/10/2014 09:35
Phenol	ND	0.25	1	09/10/2014 09:35
Pyrene	ND	0.25	1	09/10/2014 09:35
1,2,4-Trichlorobenzene	ND	0.25	1	09/10/2014 09:35
2,4,5-Trichlorophenol	ND	0.25	1	09/10/2014 09:35
2,4,6-Trichlorophenol	ND	0.25	1	09/10/2014 09:35

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Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/9/14

WorkOrder: 1409239
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-3-5.0	1409239-011A	Soil	09/06/2014 09:45	GC21	94973

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorophenol	94	30-130		09/10/2014 09:35
Phenol-d5	91	30-130		09/10/2014 09:35
Nitrobenzene-d5	88	30-130		09/10/2014 09:35
2-Fluorobiphenyl	83	30-130		09/10/2014 09:35
2,4,6-Tribromophenol	68	16-130		09/10/2014 09:35
4-Terphenyl-d14	87	30-130		09/10/2014 09:35

Analyst(s): HK



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/9/14

WorkOrder: 1409239
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-6-3.0	1409239-022A	Soil	09/06/2014 12:15	GC21	94964
Analytes	Result	RL	DF	Date Analyzed	
Acenaphthene	ND	0.25	1	09/10/2014 10:02	
Acenaphthylene	ND	0.25	1	09/10/2014 10:02	
Acetochlor	ND	0.25	1	09/10/2014 10:02	
Anthracene	ND	0.25	1	09/10/2014 10:02	
Benzidine	ND	1.3	1	09/10/2014 10:02	
Benzo (a) anthracene	ND	0.25	1	09/10/2014 10:02	
Benzo (b) fluoranthene	ND	0.25	1	09/10/2014 10:02	
Benzo (k) fluoranthene	ND	0.25	1	09/10/2014 10:02	
Benzo (g,h,i) perylene	ND	0.25	1	09/10/2014 10:02	
Benzo (a) pyrene	ND	0.25	1	09/10/2014 10:02	
Benzyl Alcohol	ND	1.3	1	09/10/2014 10:02	
1,1-Biphenyl	ND	0.25	1	09/10/2014 10:02	
Bis (2-chloroethoxy) Methane	ND	0.25	1	09/10/2014 10:02	
Bis (2-chloroethyl) Ether	ND	0.25	1	09/10/2014 10:02	
Bis (2-chloroisopropyl) Ether	ND	0.25	1	09/10/2014 10:02	
Bis (2-ethylhexyl) Adipate	ND	0.25	1	09/10/2014 10:02	
Bis (2-ethylhexyl) Phthalate	ND	0.25	1	09/10/2014 10:02	
4-Bromophenyl Phenyl Ether	ND	0.25	1	09/10/2014 10:02	
Butylbenzyl Phthalate	ND	0.25	1	09/10/2014 10:02	
4-Chloroaniline	ND	0.25	1	09/10/2014 10:02	
4-Chloro-3-methylphenol	ND	0.25	1	09/10/2014 10:02	
2-Chloronaphthalene	ND	0.25	1	09/10/2014 10:02	
2-Chlorophenol	ND	0.25	1	09/10/2014 10:02	
4-Chlorophenyl Phenyl Ether	ND	0.25	1	09/10/2014 10:02	
Chrysene	ND	0.25	1	09/10/2014 10:02	
Dibenzo (a,h) anthracene	ND	0.25	1	09/10/2014 10:02	
Dibenzofuran	ND	0.25	1	09/10/2014 10:02	
Di-n-butyl Phthalate	ND	0.25	1	09/10/2014 10:02	
1,2-Dichlorobenzene	ND	0.25	1	09/10/2014 10:02	
1,3-Dichlorobenzene	ND	0.25	1	09/10/2014 10:02	
1,4-Dichlorobenzene	ND	0.25	1	09/10/2014 10:02	
3,3-Dichlorobenzidine	ND	0.50	1	09/10/2014 10:02	
2,4-Dichlorophenol	ND	0.25	1	09/10/2014 10:02	
Diethyl Phthalate	ND	0.25	1	09/10/2014 10:02	
2,4-Dimethylphenol	ND	0.25	1	09/10/2014 10:02	
Dimethyl Phthalate	ND	0.25	1	09/10/2014 10:02	
4,6-Dinitro-2-methylphenol	ND	1.3	1	09/10/2014 10:02	
2,4-Dinitrophenol	ND	6.3	1	09/10/2014 10:02	

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Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/9/14

WorkOrder: 1409239
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-6-3.0	1409239-022A	Soil	09/06/2014 12:15	GC21	94964
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
2,4-Dinitrotoluene	ND		0.25	1	09/10/2014 10:02
2,6-Dinitrotoluene	ND		0.25	1	09/10/2014 10:02
Di-n-octyl Phthalate	ND		0.50	1	09/10/2014 10:02
1,2-Diphenylhydrazine	ND		0.25	1	09/10/2014 10:02
Fluoranthene	ND		0.25	1	09/10/2014 10:02
Fluorene	ND		0.25	1	09/10/2014 10:02
Hexachlorobenzene	ND		0.25	1	09/10/2014 10:02
Hexachlorobutadiene	ND		0.25	1	09/10/2014 10:02
Hexachlorocyclopentadiene	ND		1.3	1	09/10/2014 10:02
Hexachloroethane	ND		0.25	1	09/10/2014 10:02
Indeno (1,2,3-cd) pyrene	ND		0.25	1	09/10/2014 10:02
Isophorone	ND		0.25	1	09/10/2014 10:02
2-Methylnaphthalene	ND		0.25	1	09/10/2014 10:02
2-Methylphenol (o-Cresol)	ND		0.25	1	09/10/2014 10:02
3 &/or 4-Methylphenol (m,p-Cresol)	ND		0.25	1	09/10/2014 10:02
Naphthalene	ND		0.25	1	09/10/2014 10:02
2-Nitroaniline	ND		1.3	1	09/10/2014 10:02
3-Nitroaniline	ND		1.3	1	09/10/2014 10:02
4-Nitroaniline	ND		1.3	1	09/10/2014 10:02
Nitrobenzene	ND		0.25	1	09/10/2014 10:02
2-Nitrophenol	ND		1.3	1	09/10/2014 10:02
4-Nitrophenol	ND		1.3	1	09/10/2014 10:02
N-Nitrosodiphenylamine	ND		0.25	1	09/10/2014 10:02
N-Nitrosodi-n-propylamine	ND		0.25	1	09/10/2014 10:02
Pentachlorophenol	ND		1.3	1	09/10/2014 10:02
Phenanthrene	ND		0.25	1	09/10/2014 10:02
Phenol	ND		0.25	1	09/10/2014 10:02
Pyrene	ND		0.25	1	09/10/2014 10:02
1,2,4-Trichlorobenzene	ND		0.25	1	09/10/2014 10:02
2,4,5-Trichlorophenol	ND		0.25	1	09/10/2014 10:02
2,4,6-Trichlorophenol	ND		0.25	1	09/10/2014 10:02

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Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/9/14

WorkOrder: 1409239
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-6-3.0	1409239-022A	Soil	09/06/2014 12:15	GC21	94964

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorophenol	90	30-130		09/10/2014 10:02
Phenol-d5	85	30-130		09/10/2014 10:02
Nitrobenzene-d5	85	30-130		09/10/2014 10:02
2-Fluorobiphenyl	78	30-130		09/10/2014 10:02
2,4,6-Tribromophenol	67	16-130		09/10/2014 10:02
4-Terphenyl-d14	86	30-130		09/10/2014 10:02

Analyst(s): HK



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14

WorkOrder: 1409239
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-1-1.5	1409239-001A	Soil/TOTAL	09/06/2014 10:15	ICP-MS2	94902

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	09/10/2014 01:42
Arsenic	3.6	0.50	1	09/10/2014 01:42
Barium	180	5.0	1	09/10/2014 01:42
Beryllium	0.54	0.50	1	09/10/2014 01:42
Cadmium	ND	0.25	1	09/10/2014 01:42
Chromium	50	0.50	1	09/10/2014 01:42
Cobalt	14	0.50	1	09/10/2014 01:42
Copper	17	0.50	1	09/10/2014 01:42
Lead	10	0.50	1	09/10/2014 01:42
Mercury	ND	0.050	1	09/10/2014 01:42
Molybdenum	0.65	0.50	1	09/10/2014 01:42
Nickel	38	0.50	1	09/10/2014 01:42
Selenium	ND	0.50	1	09/10/2014 01:42
Silver	ND	0.50	1	09/10/2014 01:42
Thallium	ND	0.50	1	09/10/2014 01:42
Vanadium	39	0.50	1	09/10/2014 01:42
Zinc	32	5.0	1	09/10/2014 01:42
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	100	70-130		09/10/2014 01:42

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14

WorkOrder: 1409239
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-2-1.5	1409239-005A	Soil/TOTAL	09/06/2014 11:00	ICP-MS2	94902

Analytes	Result	RL	DF	Date Analyzed
Antimony	0.59	0.50	1	09/10/2014 02:00
Arsenic	4.3	0.50	1	09/10/2014 02:00
Barium	140	5.0	1	09/10/2014 02:00
Beryllium	0.52	0.50	1	09/10/2014 02:00
Cadmium	ND	0.25	1	09/10/2014 02:00
Chromium	43	0.50	1	09/10/2014 02:00
Cobalt	10	0.50	1	09/10/2014 02:00
Copper	19	0.50	1	09/10/2014 02:00
Lead	44	0.50	1	09/10/2014 02:00
Mercury	0.052	0.050	1	09/10/2014 02:00
Molybdenum	ND	0.50	1	09/10/2014 02:00
Nickel	43	0.50	1	09/10/2014 02:00
Selenium	ND	0.50	1	09/10/2014 02:00
Silver	ND	0.50	1	09/10/2014 02:00
Thallium	ND	0.50	1	09/10/2014 02:00
Vanadium	39	0.50	1	09/10/2014 02:00
Zinc	54	5.0	1	09/10/2014 02:00
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	103	70-130		09/10/2014 02:00

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14

WorkOrder: 1409239
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-4-1.5	1409239-013A	Soil/TOTAL	09/06/2014 09:05	ICP-MS2	94919

Analytes	Result	RL	DF	Date Analyzed
Antimony	1.8	0.50	1	09/10/2014 02:43
Arsenic	6.7	0.50	1	09/10/2014 02:43
Barium	350	5.0	1	09/10/2014 02:43
Beryllium	0.57	0.50	1	09/10/2014 02:43
Cadmium	0.51	0.25	1	09/10/2014 02:43
Chromium	45	0.50	1	09/10/2014 02:43
Cobalt	13	0.50	1	09/10/2014 02:43
Copper	52	0.50	1	09/10/2014 02:43
Lead	190	5.0	10	09/10/2014 16:26
Mercury	0.45	0.050	1	09/10/2014 02:43
Molybdenum	0.57	0.50	1	09/10/2014 02:43
Nickel	44	0.50	1	09/10/2014 02:43
Selenium	ND	0.50	1	09/10/2014 02:43
Silver	ND	0.50	1	09/10/2014 02:43
Thallium	ND	0.50	1	09/10/2014 02:43
Vanadium	42	0.50	1	09/10/2014 02:43
Zinc	180	5.0	1	09/10/2014 02:43
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	121	70-130		09/10/2014 02:43

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14

WorkOrder: 1409239
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-5-1.5	1409239-017A	Soil/TOTAL	09/06/2014 12:45	ICP-MS2	94919

Analytes	Result	RL	DF	Date Analyzed
Antimony	1.0	0.50	1	09/10/2014 02:55
Arsenic	6.6	0.50	1	09/10/2014 02:55
Barium	320	5.0	1	09/10/2014 02:55
Beryllium	0.68	0.50	1	09/10/2014 02:55
Cadmium	0.34	0.25	1	09/10/2014 02:55
Chromium	44	0.50	1	09/10/2014 02:55
Cobalt	13	0.50	1	09/10/2014 02:55
Copper	42	0.50	1	09/10/2014 02:55
Lead	170	5.0	10	09/10/2014 16:50
Mercury	0.24	0.050	1	09/10/2014 02:55
Molybdenum	0.61	0.50	1	09/10/2014 02:55
Nickel	47	0.50	1	09/10/2014 02:55
Selenium	ND	0.50	1	09/10/2014 02:55
Silver	ND	0.50	1	09/10/2014 02:55
Thallium	ND	0.50	1	09/10/2014 02:55
Vanadium	41	0.50	1	09/10/2014 02:55
Zinc	150	5.0	1	09/10/2014 02:55
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	123	70-130		09/10/2014 02:55

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14

WorkOrder: 1409239
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-6-3.0	1409239-022A	Soil/TOTAL	09/06/2014 12:15	ICP-MS2	94919

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	09/10/2014 03:07
Arsenic	3.6	0.50	1	09/10/2014 03:07
Barium	130	5.0	1	09/10/2014 03:07
Beryllium	0.62	0.50	1	09/10/2014 03:07
Cadmium	ND	0.25	1	09/10/2014 03:07
Chromium	58	0.50	1	09/10/2014 03:07
Cobalt	7.8	0.50	1	09/10/2014 03:07
Copper	18	0.50	1	09/10/2014 03:07
Lead	6.0	0.50	1	09/10/2014 03:07
Mercury	ND	0.050	1	09/10/2014 03:07
Molybdenum	ND	0.50	1	09/10/2014 03:07
Nickel	89	5.0	10	09/10/2014 16:57
Selenium	ND	0.50	1	09/10/2014 03:07
Silver	ND	0.50	1	09/10/2014 03:07
Thallium	ND	0.50	1	09/10/2014 03:07
Vanadium	43	0.50	1	09/10/2014 03:07
Zinc	38	5.0	1	09/10/2014 03:07
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	113	70-130		09/10/2014 03:07



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14-9/11/14

WorkOrder: 1409239
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-1-1.5	1409239-001A	Soil	09/06/2014 10:15	GC3	94909

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	09/11/2014 05:14
MTBE	---	0.050	1	09/11/2014 05:14
Benzene	---	0.0050	1	09/11/2014 05:14
Toluene	---	0.0050	1	09/11/2014 05:14
Ethylbenzene	---	0.0050	1	09/11/2014 05:14
Xylenes	---	0.0050	1	09/11/2014 05:14
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	91	70-130		09/11/2014 05:14

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-1-5.0	1409239-003A	Soil	09/06/2014 10:25	GC3	94909

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	09/11/2014 05:43
MTBE	---	0.050	1	09/11/2014 05:43
Benzene	---	0.0050	1	09/11/2014 05:43
Toluene	---	0.0050	1	09/11/2014 05:43
Ethylbenzene	---	0.0050	1	09/11/2014 05:43
Xylenes	---	0.0050	1	09/11/2014 05:43
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	91	70-130		09/11/2014 05:43

Analyst(s): IA



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14-9/11/14

WorkOrder: 1409239
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-1-8.0	1409239-004A	Soil	09/06/2014 10:30	GC3	94909

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	09/11/2014 07:11
MTBE	---	0.050	1	09/11/2014 07:11
Benzene	---	0.0050	1	09/11/2014 07:11
Toluene	---	0.0050	1	09/11/2014 07:11
Ethylbenzene	---	0.0050	1	09/11/2014 07:11
Xylenes	---	0.0050	1	09/11/2014 07:11

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	94	70-130	09/11/2014 07:11

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-2-1.5	1409239-005A	Soil	09/06/2014 11:00	GC3	94909

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	09/11/2014 07:41
MTBE	---	0.050	1	09/11/2014 07:41
Benzene	---	0.0050	1	09/11/2014 07:41
Toluene	---	0.0050	1	09/11/2014 07:41
Ethylbenzene	---	0.0050	1	09/11/2014 07:41
Xylenes	---	0.0050	1	09/11/2014 07:41

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	94	70-130	09/11/2014 07:41

Analyst(s): IA



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14-9/11/14

WorkOrder: 1409239
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-2-3.0	1409239-006A	Soil	09/06/2014 11:05	GC7	94909

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	09/12/2014 02:24
MTBE	---	0.050	1	09/12/2014 02:24
Benzene	---	0.0050	1	09/12/2014 02:24
Toluene	---	0.0050	1	09/12/2014 02:24
Ethylbenzene	---	0.0050	1	09/12/2014 02:24
Xylenes	---	0.0050	1	09/12/2014 02:24
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	94	70-130		09/12/2014 02:24

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-2-8.0	1409239-008A	Soil	09/06/2014 11:35	GC7	94918

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	09/12/2014 02:54
MTBE	---	0.050	1	09/12/2014 02:54
Benzene	---	0.0050	1	09/12/2014 02:54
Toluene	---	0.0050	1	09/12/2014 02:54
Ethylbenzene	---	0.0050	1	09/12/2014 02:54
Xylenes	---	0.0050	1	09/12/2014 02:54
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	107	70-130		09/12/2014 02:54

Analyst(s): IA

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14-9/11/14

WorkOrder: 1409239
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-3-1.5	1409239-009A	Soil	09/06/2014 09:35	GC7	94918

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	2.9	1.0	1	09/10/2014 23:32
MTBE	---	0.050	1	09/10/2014 23:32
Benzene	---	0.0050	1	09/10/2014 23:32
Toluene	---	0.0050	1	09/10/2014 23:32
Ethylbenzene	---	0.0050	1	09/10/2014 23:32
Xylenes	---	0.0050	1	09/10/2014 23:32

Surrogates	REC (%)	Limits	Analytical Comments: d7	Date Analyzed
2-Fluorotoluene	107	70-130		09/10/2014 23:32

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-3-5.0	1409239-011A	Soil	09/06/2014 09:45	GC7	94918

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	09/12/2014 03:54
MTBE	---	0.050	1	09/12/2014 03:54
Benzene	---	0.0050	1	09/12/2014 03:54
Toluene	---	0.0050	1	09/12/2014 03:54
Ethylbenzene	---	0.0050	1	09/12/2014 03:54
Xylenes	---	0.0050	1	09/12/2014 03:54

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	103	70-130	09/12/2014 03:54

Analyst(s): IA



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14-9/11/14

WorkOrder: 1409239
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-4-1.5	1409239-013A	Soil	09/06/2014 09:05	GC7	94918

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	09/12/2014 04:24
MTBE	---	0.050	1	09/12/2014 04:24
Benzene	---	0.0050	1	09/12/2014 04:24
Toluene	---	0.0050	1	09/12/2014 04:24
Ethylbenzene	---	0.0050	1	09/12/2014 04:24
Xylenes	---	0.0050	1	09/12/2014 04:24
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	102	70-130		09/12/2014 04:24

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-4-3.0	1409239-014A	Soil	09/06/2014 09:10	GC7	94918

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	09/12/2014 05:53
MTBE	---	0.050	1	09/12/2014 05:53
Benzene	---	0.0050	1	09/12/2014 05:53
Toluene	---	0.0050	1	09/12/2014 05:53
Ethylbenzene	---	0.0050	1	09/12/2014 05:53
Xylenes	---	0.0050	1	09/12/2014 05:53
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	87	70-130		09/12/2014 05:53

Analyst(s): IA

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14-9/11/14

WorkOrder: 1409239
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-4-8.0	1409239-016A	Soil	09/06/2014 09:20	GC19	94918

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	09/12/2014 22:53
MTBE	---	0.050	1	09/12/2014 22:53
Benzene	---	0.0050	1	09/12/2014 22:53
Toluene	---	0.0050	1	09/12/2014 22:53
Ethylbenzene	---	0.0050	1	09/12/2014 22:53
Xylenes	---	0.0050	1	09/12/2014 22:53
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	101	70-130		09/12/2014 22:53

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-5-1.5	1409239-017A	Soil	09/06/2014 12:45	GC7	94918

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	09/12/2014 22:47
MTBE	---	0.050	1	09/12/2014 22:47
Benzene	---	0.0050	1	09/12/2014 22:47
Toluene	---	0.0050	1	09/12/2014 22:47
Ethylbenzene	---	0.0050	1	09/12/2014 22:47
Xylenes	---	0.0050	1	09/12/2014 22:47
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	105	70-130		09/12/2014 22:47

Analyst(s): IA

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14-9/11/14

WorkOrder: 1409239
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-5-3.0	1409239-018A	Soil	09/06/2014 12:50	GC7	94918

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	09/12/2014 06:23
MTBE	---	0.050	1	09/12/2014 06:23
Benzene	---	0.0050	1	09/12/2014 06:23
Toluene	---	0.0050	1	09/12/2014 06:23
Ethylbenzene	---	0.0050	1	09/12/2014 06:23
Xylenes	---	0.0050	1	09/12/2014 06:23
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	89	70-130		09/12/2014 06:23

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-5-5.0	1409239-019A	Soil	09/06/2014 12:55	GC7	95054

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	09/13/2014 02:48
MTBE	---	0.050	1	09/13/2014 02:48
Benzene	---	0.0050	1	09/13/2014 02:48
Toluene	---	0.0050	1	09/13/2014 02:48
Ethylbenzene	---	0.0050	1	09/13/2014 02:48
Xylenes	---	0.0050	1	09/13/2014 02:48
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	102	70-130		09/13/2014 02:48

Analyst(s): IA



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14-9/11/14

WorkOrder: 1409239
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-6-1.5	1409239-021A	Soil	09/06/2014 12:10	GC19	94918

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	09/10/2014 02:28
MTBE	---	0.050	1	09/10/2014 02:28
Benzene	---	0.0050	1	09/10/2014 02:28
Toluene	---	0.0050	1	09/10/2014 02:28
Ethylbenzene	---	0.0050	1	09/10/2014 02:28
Xylenes	---	0.0050	1	09/10/2014 02:28

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	108	70-130	09/10/2014 02:28

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-6-3.0	1409239-022A	Soil	09/06/2014 12:15	GC19	94918

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	09/10/2014 05:57
MTBE	---	0.050	1	09/10/2014 05:57
Benzene	---	0.0050	1	09/10/2014 05:57
Toluene	---	0.0050	1	09/10/2014 05:57
Ethylbenzene	---	0.0050	1	09/10/2014 05:57
Xylenes	---	0.0050	1	09/10/2014 05:57

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	97	70-130	09/10/2014 05:57

Analyst(s): IA



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14

WorkOrder: 1409239
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

LUFT 5 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-1-5.0	1409239-003A	Soil/TOTAL	09/06/2014 10:25	ICP-MS2	94902

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	09/10/2014 01:48
Chromium	38	0.50	1	09/10/2014 01:48
Lead	5.1	0.50	1	09/10/2014 01:48
Nickel	74	0.50	1	09/10/2014 01:48
Zinc	30	5.0	1	09/10/2014 01:48
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	110	70-130		09/10/2014 01:48

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-1-8.0	1409239-004A	Soil/TOTAL	09/06/2014 10:30	ICP-MS2	94902

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	09/10/2014 01:54
Chromium	53	0.50	1	09/10/2014 01:54
Lead	14	0.50	1	09/10/2014 01:54
Nickel	79	0.50	1	09/10/2014 01:54
Zinc	46	5.0	1	09/10/2014 01:54
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	95	70-130		09/10/2014 01:54

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-2-3.0	1409239-006A	Soil/TOTAL	09/06/2014 11:05	ICP-MS2	94919

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	09/10/2014 02:19
Chromium	49	0.50	1	09/10/2014 02:19
Lead	7.6	0.50	1	09/10/2014 02:19
Nickel	54	0.50	1	09/10/2014 02:19
Zinc	31	5.0	1	09/10/2014 02:19
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	105	70-130		09/10/2014 02:19

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14

WorkOrder: 1409239
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

LUFT 5 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-2-8.0	1409239-008A	Soil/TOTAL	09/06/2014 11:35	ICP-MS2	94919

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	09/10/2014 02:25
Chromium	61	0.50	1	09/10/2014 02:25
Lead	15	0.50	1	09/10/2014 02:25
Nickel	85	5.0	10	09/10/2014 16:13
Zinc	52	5.0	1	09/10/2014 02:25
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	124	70-130		09/10/2014 02:25

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-3-1.5	1409239-009A	Soil/TOTAL	09/06/2014 09:35	ICP-MS2	94919

Analytes	Result	RL	DF	Date Analyzed
Cadmium	0.50	0.25	1	09/10/2014 02:31
Chromium	38	0.50	1	09/10/2014 02:31
Lead	290	5.0	10	09/10/2014 16:19
Nickel	32	0.50	1	09/10/2014 02:31
Zinc	260	5.0	1	09/10/2014 02:31
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	111	70-130		09/10/2014 02:31

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-3-5.0	1409239-011A	Soil/TOTAL	09/06/2014 09:45	ICP-MS2	94919

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	09/10/2014 02:37
Chromium	40	0.50	1	09/10/2014 02:37
Lead	6.3	0.50	1	09/10/2014 02:37
Nickel	27	0.50	1	09/10/2014 02:37
Zinc	26	5.0	1	09/10/2014 02:37
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	114	70-130		09/10/2014 02:37

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14

WorkOrder: 1409239
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

LUFT 5 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-4-3.0	1409239-014A	Soil/TOTAL	09/06/2014 09:10	ICP-MS2	94919

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	09/10/2014 02:49
Chromium	45	0.50	1	09/10/2014 02:49
Lead	310	5.0	10	09/10/2014 16:32
Nickel	38	0.50	1	09/10/2014 02:49
Zinc	65	5.0	1	09/10/2014 02:49
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	114	70-130		09/10/2014 02:49

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-4-8.0	1409239-016A	Soil/TOTAL	09/06/2014 09:20	ICP-MS1	94919

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	09/11/2014 05:25
Chromium	12	0.50	1	09/11/2014 05:25
Lead	2.6	0.50	1	09/11/2014 05:25
Nickel	7.8	0.50	1	09/11/2014 05:25
Zinc	43	5.0	1	09/11/2014 05:25
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	93	70-130		09/11/2014 05:25

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-5-3.0	1409239-018A	Soil/TOTAL	09/06/2014 12:50	ICP-MS2	94919

Analytes	Result	RL	DF	Date Analyzed
Cadmium	0.37	0.25	1	09/09/2014 17:51
Chromium	48	0.50	1	09/09/2014 17:51
Lead	510	5.0	10	09/10/2014 01:11
Nickel	57	0.50	1	09/09/2014 17:51
Zinc	210	5.0	1	09/09/2014 17:51
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	113	70-130		09/09/2014 17:51

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14

WorkOrder: 1409239
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

LUFT 5 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-5-5.0	1409239-019A	Soil/TOTAL	09/06/2014 12:55	ICP-MS2	94919

Analytes	Result	RL	DF	Date Analyzed
Cadmium	0.53	0.25	1	09/09/2014 19:06
Chromium	36	0.50	1	09/09/2014 19:06
Lead	360	5.0	10	09/10/2014 01:23
Nickel	30	0.50	1	09/09/2014 19:06
Zinc	250	5.0	1	09/09/2014 19:06
Surrogates	REC (%)	Limits		
Tb 350.917	96	70-130		09/09/2014 19:06

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-6-1.5	1409239-021A	Soil/TOTAL	09/06/2014 12:10	ICP-MS2	94919

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	09/10/2014 03:01
Chromium	57	0.50	1	09/10/2014 03:01
Lead	7.1	0.50	1	09/10/2014 03:01
Nickel	89	0.50	1	09/10/2014 03:01
Zinc	36	5.0	1	09/10/2014 03:01
Surrogates	REC (%)	Limits		
Tb 350.917	115	70-130		09/10/2014 03:01



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14

WorkOrder: 1409239
Extraction Method: SW3550B/3630C
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-1-1.5	1409239-001A	Soil	09/06/2014 10:15	GC6B	94917

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	09/12/2014 08:03
TPH-Motor Oil (C18-C36)	ND	5.0	1	09/12/2014 08:03

Surrogates	REC (%)	Limits	Date Analyzed
C9	110	70-130	09/12/2014 08:03

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-1-5.0	1409239-003A	Soil	09/06/2014 10:25	GC6B	94917

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	2.7	1.0	1	09/09/2014 18:41
TPH-Motor Oil (C18-C36)	33	5.0	1	09/09/2014 18:41

Surrogates	REC (%)	Limits	Analytical Comments	Date Analyzed
C9	116	70-130	e7,e2	09/09/2014 18:41

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-1-8.0	1409239-004A	Soil	09/06/2014 10:30	GC11A	94917

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	1.1	1.0	1	09/12/2014 20:26
TPH-Motor Oil (C18-C36)	5.5	5.0	1	09/12/2014 20:26

Surrogates	REC (%)	Limits	Analytical Comments	Date Analyzed
C9	121	70-130	e7,e2	09/12/2014 20:26

Analyst(s): MAM

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14

WorkOrder: 1409239
Extraction Method: SW3550B/3630C
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-2-1.5	1409239-005A	Soil	09/06/2014 11:00	GC6B	94917

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	2.2	1.0	1	09/09/2014 19:53
TPH-Motor Oil (C18-C36)	19	5.0	1	09/09/2014 19:53

Surrogates	REC (%)	Limits	Analytical Comments: e7,e2
C9	111	70-130	09/09/2014 19:53

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-2-3.0	1409239-006A	Soil	09/06/2014 11:05	GC11B	94917

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	09/11/2014 22:20
TPH-Motor Oil (C18-C36)	ND	5.0	1	09/11/2014 22:20

Surrogates	REC (%)	Limits
C9	107	70-130

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-2-8.0	1409239-008A	Soil	09/06/2014 11:35	GC11A	94917

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	09/12/2014 18:09
TPH-Motor Oil (C18-C36)	ND	5.0	1	09/12/2014 18:09

Surrogates	REC (%)	Limits
C9	118	70-130

Analyst(s): MAM

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14

WorkOrder: 1409239
Extraction Method: SW3550B/3630C
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-3-1.5	1409239-009A	Soil	09/06/2014 09:35	GC11A	94917

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	290	10	10	09/16/2014 03:32
TPH-Motor Oil (C18-C36)	660	50	10	09/16/2014 03:32

Surrogates	REC (%)	Limits	Analytical Comments: e7,e2
C9	111	70-130	09/16/2014 03:32

Analyst(s): MAM

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-3-5.0	1409239-011A	Soil	09/06/2014 09:45	GC6A	94917

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	09/14/2014 16:03
TPH-Motor Oil (C18-C36)	ND	5.0	1	09/14/2014 16:03

Surrogates	REC (%)	Limits
C9	117	70-130

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-4-1.5	1409239-013A	Soil	09/06/2014 09:05	GC11A	94917

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	4.5	1.0	1	09/10/2014 02:58
TPH-Motor Oil (C18-C36)	59	5.0	1	09/10/2014 02:58

Surrogates	REC (%)	Limits	Analytical Comments: e7,e2
C9	117	70-130	09/10/2014 02:58

Analyst(s): TK

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14

WorkOrder: 1409239
Extraction Method: SW3550B/3630C
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-4-3.0	1409239-014A	Soil	09/06/2014 09:10	GC6B	94917

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	09/09/2014 17:28
TPH-Motor Oil (C18-C36)	ND	5.0	1	09/09/2014 17:28

Surrogates	REC (%)	Limits	Date Analyzed
C9	115	70-130	09/09/2014 17:28

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-4-8.0	1409239-016A	Soil	09/06/2014 09:20	GC11A	94917

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	09/12/2014 22:43
TPH-Motor Oil (C18-C36)	ND	5.0	1	09/12/2014 22:43

Surrogates	REC (%)	Limits	Date Analyzed
C9	117	70-130	09/12/2014 22:43

Analyst(s): MAM

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-5-1.5	1409239-017A	Soil	09/06/2014 12:45	GC11A	94917

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	3.8	1.0	1	09/09/2014 18:58
TPH-Motor Oil (C18-C36)	26	5.0	1	09/09/2014 18:58

Surrogates	REC (%)	Limits	Analytical Comments	Date Analyzed
C9	118	70-130	e7,e2	09/09/2014 18:58

Analyst(s): TK

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14

WorkOrder: 1409239
Extraction Method: SW3550B/3630C
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-5-3.0	1409239-018A	Soil	09/06/2014 12:50	GC11A	94917

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	1.2	1.0	1	09/12/2014 19:17
TPH-Motor Oil (C18-C36)	15	5.0	1	09/12/2014 19:17

Surrogates	REC (%)	Limits	Analytical Comments: e7,e2
C9	107	70-130	09/12/2014 19:17

Analyst(s): MAM

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-5-5.0	1409239-019A	Soil	09/06/2014 12:55	GC11A	94917

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	3.6	1.0	1	09/12/2014 23:52
TPH-Motor Oil (C18-C36)	70	5.0	1	09/12/2014 23:52

Surrogates	REC (%)	Limits	Analytical Comments: e7,e2
C9	108	70-130	09/12/2014 23:52

Analyst(s): MAM

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-6-1.5	1409239-021A	Soil	09/06/2014 12:10	GC11B	94917

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	09/12/2014 01:46
TPH-Motor Oil (C18-C36)	ND	5.0	1	09/12/2014 01:46

Surrogates	REC (%)	Limits
C9	111	70-130

Analyst(s): TK

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/8/14

WorkOrder: 1409239
Extraction Method: SW3550B/3630C
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-6-3.0	1409239-022A	Soil	09/06/2014 12:15	GC11B	94917

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	1.0	1.0	1	09/15/2014 13:43
TPH-Motor Oil (C18-C36)	ND	5.0	1	09/15/2014 13:43

Surrogates	REC (%)	Limits	Analytical Comments: e2	Date Analyzed
C9	113	70-130		09/15/2014 13:43

Analyst(s): MAM



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/8/14
Date Analyzed: 9/10/14 - 9/11/14
Instrument: GC20, GC23
Matrix: Soil
Project: #731641601; Valdez & Waverly Street

WorkOrder: 1409239
BatchID: 94914
Extraction Method: SW3550B
Analytical Method: SW8081A/8082
Unit: mg/kg
Sample ID: MB/LCS-94914
 1409234-001AMS/MSD

QC Summary Report for SW8081A/8082

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aldrin	ND	0.0498	0.0010	0.050	-	99.5	70-130
a-BHC	ND	-	0.0010	-	-	-	-
b-BHC	ND	-	0.0010	-	-	-	-
d-BHC	ND	-	0.0010	-	-	-	-
g-BHC	ND	0.0597	0.0010	0.050	-	119	70-130
Chlordane (Technical)	ND	-	0.025	-	-	-	-
a-Chlordane	ND	-	0.0010	-	-	-	-
g-Chlordane	ND	-	0.0010	-	-	-	-
p,p-DDD	ND	-	0.0010	-	-	-	-
p,p-DDE	ND	-	0.0010	-	-	-	-
p,p-DDT	ND	0.0551	0.0010	0.050	-	110	70-130
Dieldrin	ND	0.0587	0.0010	0.050	-	117	70-130
Endosulfan I	ND	-	0.0010	-	-	-	-
Endosulfan II	ND	-	0.0010	-	-	-	-
Endosulfan sulfate	ND	-	0.0010	-	-	-	-
Endrin	ND	0.0579	0.0010	0.050	-	116	70-130
Endrin aldehyde	ND	-	0.0010	-	-	-	-
Endrin ketone	ND	-	0.0010	-	-	-	-
Heptachlor	ND	0.0475	0.0010	0.050	-	95	70-130
Heptachlor epoxide	ND	-	0.0010	-	-	-	-
Hexachlorobenzene	ND	-	0.010	-	-	-	-
Hexachlorocyclopentadiene	ND	-	0.020	-	-	-	-
Methoxychlor	ND	-	0.0010	-	-	-	-
Toxaphene	ND	-	0.050	-	-	-	-
Surrogate Recovery							
Decachlorobiphenyl	0.0622	0.0533		0.050	125	107	70-130

(Cont.)



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/8/14
Date Analyzed: 9/10/14 - 9/11/14
Instrument: GC20, GC23
Matrix: Soil
Project: #731641601; Valdez & Waverly Street

WorkOrder: 1409239
BatchID: 94914
Extraction Method: SW3550B
Analytical Method: SW8081A/8082
Unit: mg/kg
Sample ID: MB/LCS-94914
 1409234-001AMS/MSD

QC Summary Report for SW8081A/8082

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aldrin	0.0539	0.0539	0.050	ND	108	108	70-130	0	30
g-BHC	0.0640	0.0638	0.050	ND	128	128	70-130	0	30
p,p-DDT	0.0564	0.0571	0.050	0.004505	104	105	70-130	1.11	30
Dieldrin	0.0594	0.0601	0.050	ND	119	120	70-130	1.14	30
Endrin	0.0610	0.0617	0.050	ND	122	123	70-130	1.20	30
Heptachlor	0.0522	0.0525	0.050	ND	104	105	70-130	0.477	30
Surrogate Recovery									
Decachlorobiphenyl	0.0487	0.0488	0.050		97	98	70-130	0.329	30



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/8/14
Date Analyzed: 9/10/14 - 9/11/14
Instrument: GC22, GC23
Matrix: Soil
Project: #731641601; Valdez & Waverly Street

WorkOrder: 1409239
BatchID: 94921
Extraction Method: SW3550B
Analytical Method: SW8082
Unit: mg/kg
Sample ID: MB/LCS-94921
 1409239-022AMS/MSD

QC Summary Report for SW8082

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aroclor1016	ND	-	0.050	-	-	-	-
Aroclor1221	ND	-	0.050	-	-	-	-
Aroclor1232	ND	-	0.050	-	-	-	-
Aroclor1242	ND	-	0.050	-	-	-	-
Aroclor1248	ND	-	0.050	-	-	-	-
Aroclor1254	ND	-	0.050	-	-	-	-
Aroclor1260	ND	0.170	0.050	0.15	-	113	70-130
PCBs, total	ND	-	0.050	-	-	-	-

Surrogate Recovery

Decachlorobiphenyl	0.0647	0.0465		0.050	129	93	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aroclor1260	0.140	0.148	0.15	ND	93.5	98.5	70-130	5.23	30
Surrogate Recovery									
Decachlorobiphenyl	0.0452	0.0510	0.050		90	102	70-130	12.1	30



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/8/14
Date Analyzed: 9/8/14 - 9/9/14
Instrument: GC10
Matrix: Soil
Project: #731641601; Valdez & Waverly Street

WorkOrder: 1409239
BatchID: 94912
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/Kg
Sample ID: MB/LCS-94912
 1409234-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.0391	0.0050	0.050	-	78.1	61-115
Benzene	ND	0.0456	0.0050	0.050	-	91.1	75-126
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.162	0.050	0.20	-	81	63-125
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.0451	0.0050	0.050	-	90.2	80-118
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0413	0.0040	0.050	-	82.6	74-121
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0433	0.0040	0.050	-	86.6	68-122
1,1-Dichloroethene	ND	0.0424	0.0050	0.050	-	84.8	65-138
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

(Cont.)



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/8/14
Date Analyzed: 9/8/14 - 9/9/14
Instrument: GC10
Matrix: Soil
Project: #731641601; Valdez & Waverly Street

WorkOrder: 1409239
BatchID: 94912
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/Kg
Sample ID: MB/LCS-94912
 1409234-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	0.0456	0.0050	0.050	-	91.2	68-117
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0432	0.0050	0.050	-	86.3	67-116
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0416	0.0050	0.050	-	83.1	66-118
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.0486	0.0050	0.050	-	97.2	84-129
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.0459	0.0050	0.050	-	91.9	82-130
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-

Surrogate Recovery

Dibromofluoromethane	0.0973	0.104		0.12	78	83	70-130
Toluene-d8	0.113	0.110		0.12	91	88	70-130
4-BFB	0.0102	0.0101		0.012	82	81	70-130

(Cont.)



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/8/14
Date Analyzed: 9/8/14 - 9/9/14
Instrument: GC10
Matrix: Soil
Project: #731641601; Valdez & Waverly Street

WorkOrder: 1409239
BatchID: 94912
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/Kg
Sample ID: MB/LCS-94912
 1409234-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	0.0318	0.0327	0.050	ND	63.7,F1	65.3,F1	70-130	2.55	30
Benzene	0.0372	0.0374	0.050	ND	74.4	74.8	70-130	0.562	30
t-Butyl alcohol (TBA)	0.149	0.156	0.20	ND	74.4	78.2	70-130	5.00	30
Chlorobenzene	0.0392	0.0396	0.050	ND	78.3	79.3	70-130	1.26	30
1,2-Dibromoethane (EDB)	0.0323	0.0342	0.050	ND	64.6,F1	68.4,F1	70-130	5.72	30
1,2-Dichloroethane (1,2-DCA)	0.0345	0.0359	0.050	ND	68.9,F1	71.9	70-130	4.18	30
1,1-Dichloroethene	0.0347	0.0354	0.050	ND	69.3,F1	70.7	70-130	2.02	30
Diisopropyl ether (DIPE)	0.0363	0.0375	0.050	ND	72.5	75.1	70-130	3.44	30
Ethyl tert-butyl ether (ETBE)	0.0347	0.0354	0.050	ND	69.3,F1	70.9	70-130	2.23	30
Methyl-t-butyl ether (MTBE)	0.0338	0.0347	0.050	ND	67.7,F1	69.4,F1	70-130	2.53	30
Toluene	0.0396	0.0404	0.050	ND	79.2	80.9	70-130	2.06	30
Trichloroethene	0.0368	0.0370	0.050	ND	73.6	74.1	70-130	0.599	30
Surrogate Recovery									
Dibromofluoromethane	0.102	0.102	0.12		82	82	70-130	0	30
Toluene-d8	0.108	0.109	0.12		86	87	70-130	0.862	30
4-BFB	0.00956	0.00945	0.012		76	76	70-130	0	30



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/9/14
Date Analyzed: 9/9/14
Instrument: GC21
Matrix: Soil
Project: #731641601; Valdez & Waverly Street

WorkOrder: 1409239
BatchID: 94964
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg
Sample ID: MB/LCS-94964

QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acenaphthene	ND	3.08	0.25	5	-	61.6	30-130
Acenaphthylene	ND	-	0.25	-	-	-	-
Acetochlor	ND	-	0.25	-	-	-	-
Anthracene	ND	-	0.25	-	-	-	-
Benzidine	ND	-	1.3	-	-	-	-
Benzo (a) anthracene	ND	-	0.25	-	-	-	-
Benzo (b) fluoranthene	ND	-	0.25	-	-	-	-
Benzo (k) fluoranthene	ND	-	0.25	-	-	-	-
Benzo (g,h,i) perylene	ND	-	0.25	-	-	-	-
Benzo (a) pyrene	ND	-	0.25	-	-	-	-
Benzyl Alcohol	ND	-	1.3	-	-	-	-
1,1-Biphenyl	ND	-	0.25	-	-	-	-
Bis (2-chloroethoxy) Methane	ND	-	0.25	-	-	-	-
Bis (2-chloroethyl) Ether	ND	-	0.25	-	-	-	-
Bis (2-chloroisopropyl) Ether	ND	-	0.25	-	-	-	-
Bis (2-ethylhexyl) Adipate	ND	-	0.25	-	-	-	-
Bis (2-ethylhexyl) Phthalate	ND	-	0.25	-	-	-	-
4-Bromophenyl Phenyl Ether	ND	-	0.25	-	-	-	-
Butylbenzyl Phthalate	ND	-	0.25	-	-	-	-
4-Chloroaniline	ND	-	0.25	-	-	-	-
4-Chloro-3-methylphenol	ND	3.62	0.25	5	-	72.3	30-130
2-Chloronaphthalene	ND	-	0.25	-	-	-	-
2-Chlorophenol	ND	3.46	0.25	5	-	69.1	30-130
4-Chlorophenyl Phenyl Ether	ND	-	0.25	-	-	-	-
Chrysene	ND	-	0.25	-	-	-	-
Dibenzo (a,h) anthracene	ND	-	0.25	-	-	-	-
Dibenzofuran	ND	-	0.25	-	-	-	-
Di-n-butyl Phthalate	ND	-	0.25	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.25	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.25	-	-	-	-
1,4-Dichlorobenzene	ND	3.15	0.25	5	-	63.1	30-130
3,3-Dichlorobenzidine	ND	-	0.50	-	-	-	-
2,4-Dichlorophenol	ND	-	0.25	-	-	-	-
Diethyl Phthalate	ND	-	0.25	-	-	-	-
2,4-Dimethylphenol	ND	-	0.25	-	-	-	-
Dimethyl Phthalate	ND	-	0.25	-	-	-	-
4,6-Dinitro-2-methylphenol	ND	-	1.3	-	-	-	-
2,4-Dinitrophenol	ND	-	6.3	-	-	-	-
2,4-Dinitrotoluene	ND	3.45	0.25	5	-	69.1	30-130
2,6-Dinitrotoluene	ND	-	0.25	-	-	-	-

(Cont.)



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/9/14
Date Analyzed: 9/9/14
Instrument: GC21
Matrix: Soil
Project: #731641601; Valdez & Waverly Street

WorkOrder: 1409239
BatchID: 94964
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg
Sample ID: MB/LCS-94964

QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Di-n-octyl Phthalate	ND	-	0.50	-	-	-	-
1,2-Diphenylhydrazine	ND	-	0.25	-	-	-	-
Fluoranthene	ND	-	0.25	-	-	-	-
Fluorene	ND	-	0.25	-	-	-	-
Hexachlorobenzene	ND	-	0.25	-	-	-	-
Hexachlorobutadiene	ND	-	0.25	-	-	-	-
Hexachlorocyclopentadiene	ND	-	1.3	-	-	-	-
Hexachloroethane	ND	-	0.25	-	-	-	-
Indeno (1,2,3-cd) pyrene	ND	-	0.25	-	-	-	-
Isophorone	ND	-	0.25	-	-	-	-
2-Methylnaphthalene	ND	-	0.25	-	-	-	-
2-Methylphenol (o-Cresol)	ND	-	0.25	-	-	-	-
3 &/or 4-Methylphenol (m,p-Cresol)	ND	-	0.25	-	-	-	-
Naphthalene	ND	-	0.25	-	-	-	-
2-Nitroaniline	ND	-	1.3	-	-	-	-
3-Nitroaniline	ND	-	1.3	-	-	-	-
4-Nitroaniline	ND	-	1.3	-	-	-	-
Nitrobenzene	ND	-	0.25	-	-	-	-
2-Nitrophenol	ND	-	1.3	-	-	-	-
4-Nitrophenol	ND	2.84	1.3	5	-	56.7	30-130
N-Nitrosodiphenylamine	ND	-	0.25	-	-	-	-
N-Nitrosodi-n-propylamine	ND	3.03	0.25	5	-	60.6	30-130
Pentachlorophenol	ND	2.86	1.3	5	-	57.2	30-130
Phenanthrene	ND	-	0.25	-	-	-	-
Phenol	ND	3.57	0.25	5	-	71.4	30-130
Pyrene	ND	3.15	0.25	5	-	63.1	30-130
1,2,4-Trichlorobenzene	ND	3.57	0.25	5	-	71.4	30-130
2,4,5-Trichlorophenol	ND	-	0.25	-	-	-	-
2,4,6-Trichlorophenol	ND	-	0.25	-	-	-	-

Surrogate Recovery

2-Fluorophenol	4.60	2.97		5	92	59	30-130
Phenol-d5	4.40	2.88		5	88	58	30-130
Nitrobenzene-d5	4.37	3.09		5	87	62	30-130
2-Fluorobiphenyl	4.26	2.84		5	85	57	30-130
2,4,6-Tribromophenol	2.94	2.24		5	59	45	16-130
4-Terphenyl-d14	4.60	2.96		5	92	59	30-130

(Cont.)



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/9/14
Date Analyzed: 9/9/14 - 9/10/14
Instrument: GC21
Matrix: Soil
Project: #731641601; Valdez & Waverly Street

WorkOrder: 1409239
BatchID: 94973
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg
Sample ID: MB/LCS-94973
 1409234-003AMS/MSD

QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acenaphthene	ND	4.32	0.25	5	-	86.5	30-130
Acenaphthylene	ND	-	0.25	-	-	-	-
Acetochlor	ND	-	0.25	-	-	-	-
Anthracene	ND	-	0.25	-	-	-	-
Benzidine	ND	-	1.3	-	-	-	-
Benzo (a) anthracene	ND	-	0.25	-	-	-	-
Benzo (b) fluoranthene	ND	-	0.25	-	-	-	-
Benzo (k) fluoranthene	ND	-	0.25	-	-	-	-
Benzo (g,h,i) perylene	ND	-	0.25	-	-	-	-
Benzo (a) pyrene	ND	-	0.25	-	-	-	-
Benzyl Alcohol	ND	-	1.3	-	-	-	-
1,1-Biphenyl	ND	-	0.25	-	-	-	-
Bis (2-chloroethoxy) Methane	ND	-	0.25	-	-	-	-
Bis (2-chloroethyl) Ether	ND	-	0.25	-	-	-	-
Bis (2-chloroisopropyl) Ether	ND	-	0.25	-	-	-	-
Bis (2-ethylhexyl) Adipate	ND	-	0.25	-	-	-	-
Bis (2-ethylhexyl) Phthalate	ND	-	0.25	-	-	-	-
4-Bromophenyl Phenyl Ether	ND	-	0.25	-	-	-	-
Butylbenzyl Phthalate	ND	-	0.25	-	-	-	-
4-Chloroaniline	ND	-	0.25	-	-	-	-
4-Chloro-3-methylphenol	ND	5.33	0.25	5	-	107	30-130
2-Chloronaphthalene	ND	-	0.25	-	-	-	-
2-Chlorophenol	ND	4.99	0.25	5	-	99.8	30-130
4-Chlorophenyl Phenyl Ether	ND	-	0.25	-	-	-	-
Chrysene	ND	-	0.25	-	-	-	-
Dibenzo (a,h) anthracene	ND	-	0.25	-	-	-	-
Dibenzofuran	ND	-	0.25	-	-	-	-
Di-n-butyl Phthalate	ND	-	0.25	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.25	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.25	-	-	-	-
1,4-Dichlorobenzene	ND	4.50	0.25	5	-	89.9	30-130
3,3-Dichlorobenzidine	ND	-	0.50	-	-	-	-
2,4-Dichlorophenol	ND	-	0.25	-	-	-	-
Diethyl Phthalate	ND	-	0.25	-	-	-	-
2,4-Dimethylphenol	ND	-	0.25	-	-	-	-
Dimethyl Phthalate	ND	-	0.25	-	-	-	-
4,6-Dinitro-2-methylphenol	ND	-	1.3	-	-	-	-
2,4-Dinitrophenol	ND	-	6.3	-	-	-	-
2,4-Dinitrotoluene	ND	4.96	0.25	5	-	99.3	30-130
2,6-Dinitrotoluene	ND	-	0.25	-	-	-	-

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Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/9/14
Date Analyzed: 9/9/14 - 9/10/14
Instrument: GC21
Matrix: Soil
Project: #731641601; Valdez & Waverly Street

WorkOrder: 1409239
BatchID: 94973
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg
Sample ID: MB/LCS-94973
 1409234-003AMS/MSD

QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Di-n-octyl Phthalate	ND	-	0.50	-	-	-	-
1,2-Diphenylhydrazine	ND	-	0.25	-	-	-	-
Fluoranthene	ND	-	0.25	-	-	-	-
Fluorene	ND	-	0.25	-	-	-	-
Hexachlorobenzene	ND	-	0.25	-	-	-	-
Hexachlorobutadiene	ND	-	0.25	-	-	-	-
Hexachlorocyclopentadiene	ND	-	1.3	-	-	-	-
Hexachloroethane	ND	-	0.25	-	-	-	-
Indeno (1,2,3-cd) pyrene	ND	-	0.25	-	-	-	-
Isophorone	ND	-	0.25	-	-	-	-
2-Methylnaphthalene	ND	-	0.25	-	-	-	-
2-Methylphenol (o-Cresol)	ND	-	0.25	-	-	-	-
3 &/or 4-Methylphenol (m,p-Cresol)	ND	-	0.25	-	-	-	-
Naphthalene	ND	-	0.25	-	-	-	-
2-Nitroaniline	ND	-	1.3	-	-	-	-
3-Nitroaniline	ND	-	1.3	-	-	-	-
4-Nitroaniline	ND	-	1.3	-	-	-	-
Nitrobenzene	ND	-	0.25	-	-	-	-
2-Nitrophenol	ND	-	1.3	-	-	-	-
4-Nitrophenol	ND	4.14	1.3	5	-	82.8	30-130
N-Nitrosodiphenylamine	ND	-	0.25	-	-	-	-
N-Nitrosodi-n-propylamine	ND	4.45	0.25	5	-	89	30-130
Pentachlorophenol	ND	4.08	1.3	5	-	81.6	30-130
Phenanthrene	ND	-	0.25	-	-	-	-
Phenol	ND	5.21	0.25	5	-	104	30-130
Pyrene	ND	4.40	0.25	5	-	88.1	30-130
1,2,4-Trichlorobenzene	ND	5.07	0.25	5	-	101	30-130
2,4,5-Trichlorophenol	ND	-	0.25	-	-	-	-
2,4,6-Trichlorophenol	ND	-	0.25	-	-	-	-

Surrogate Recovery

2-Fluorophenol	4.29	4.44		5	86	89	30-130
Phenol-d5	4.06	4.28		5	81	86	30-130
Nitrobenzene-d5	3.98	4.44		5	80	89	30-130
2-Fluorobiphenyl	3.49	4.00		5	70	80	30-130
2,4,6-Tribromophenol	2.87	3.34		5	57	67	16-130
4-Terphenyl-d14	3.97	4.20		5	79	84	30-130

(Cont.)



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/9/14
Date Analyzed: 9/9/14 - 9/10/14
Instrument: GC21
Matrix: Soil
Project: #731641601; Valdez & Waverly Street

WorkOrder: 1409239
BatchID: 94973
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg
Sample ID: MB/LCS-94973
 1409234-003AMS/MSD

QC Summary Report for SW8270C

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Acenaphthene	4.75	4.52	5	ND	95	90.3	30-130	5.06	30
4-Chloro-3-methylphenol	5.60	5.36	5	ND	112	107	30-130	4.37	30
2-Chlorophenol	5.23	5.09	5	ND	105	102	30-130	2.72	30
1,4-Dichlorobenzene	4.71	4.47	5	ND	94.2	89.3	30-130	5.28	30
2,4-Dinitrotoluene	5.30	4.94	5	ND	106	98.9	30-130	6.88	30
4-Nitrophenol	4.78	4.28	5	ND	95.6	85.5	30-130	11.2	30
N-Nitrosodi-n-propylamine	4.66	4.48	5	ND	93.3	89.6	30-130	4.07	30
Pentachlorophenol	5.18	5.13	5	ND	104	103	30-130	1.00	30
Phenol	5.35	5.18	5	ND	107	104	30-130	3.37	30
Pyrene	4.98	4.78	5	ND	99.5	95.6	30-130	4.03	30
1,2,4-Trichlorobenzene	5.36	5.10	5	ND	107	102	30-130	4.84	30
Surrogate Recovery									
2-Fluorophenol	4.56	4.41	5		91	88	30-130	3.31	30
Phenol-d5	4.35	4.25	5		87	85	30-130	2.52	30
Nitrobenzene-d5	4.63	4.47	5		93	89	30-130	3.48	30
2-Fluorobiphenyl	4.34	4.14	5		87	83	30-130	4.92	30
2,4,6-Tribromophenol	3.54	3.38	5		71	68	16-130	4.62	30
4-Terphenyl-d14	4.64	4.20	5		93	84	30-130	9.99	30



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/8/14
Date Analyzed: 9/9/14
Instrument: ICP-MS1
Matrix: Soil
Project: #731641601; Valdez & Waverly Street

WorkOrder: 1409239
BatchID: 94902
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg
Sample ID: MB/LCS-94902
 1409229-001AMS/MSD

QC Summary Report for SW6020

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Antimony	ND	51.9	0.50	50	-	104	75-125
Arsenic	ND	52.5	0.50	50	-	105	75-125
Barium	ND	533	5.0	500	-	107	75-125
Beryllium	ND	54.8	0.50	50	-	110	75-125
Cadmium	ND	53.6	0.25	50	-	107	75-125
Chromium	ND	52.2	0.50	50	-	104	75-125
Cobalt	ND	53.1	0.50	50	-	106	75-125
Copper	ND	52.4	0.50	50	-	105	75-125
Lead	ND	52.1	0.50	50	-	104	75-125
Mercury	ND	1.11	0.050	1.25	-	88.9	75-125
Molybdenum	ND	48.2	0.50	50	-	96.4	75-125
Nickel	ND	53.1	0.50	50	-	106	75-125
Selenium	ND	54.7	0.50	50	-	109	75-125
Silver	ND	53.3	0.50	50	-	107	75-125
Thallium	ND	50.0	0.50	50	-	99.9	75-125
Vanadium	ND	51.4	0.50	50	-	103	75-125
Zinc	ND	551	5.0	500	-	110	75-125
Surrogate Recovery							
Tb 350.917	505	520		500	101	104	70-130

(Cont.)



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/8/14
Date Analyzed: 9/9/14
Instrument: ICP-MS1
Matrix: Soil
Project: #731641601; Valdez & Waverly Street

WorkOrder: 1409239
BatchID: 94902
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg
Sample ID: MB/LCS-94902
 1409229-001AMS/MSD

QC Summary Report for SW6020

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Antimony	62.1	52.6	50	ND	124	105	75-125	16.5	20
Arsenic	65.9	57.2	50	4.419	123	106	75-125	14.2	20
Barium	761	647	500	98.13	132,F1	110	75-125	16.2	20
Beryllium	59.5	53.3	50	ND	119	106	75-125	11.0	20
Cadmium	62.9	54.4	50	ND	126,F1	109	75-125	14.4	20
Chromium	78.2	72.4	50	18.26	120	108	75-125	7.70	20
Cobalt	67.7	62.0	50	7.104	121	110	75-125	8.79	20
Copper	73.6	67.7	50	11.59	124	112	75-125	8.31	20
Lead	69.8	59.6	50	5.733	128,F1	108	75-125	15.8	20
Mercury	1.30	1.28	1.25	ND	104	100	75-125	1.24	20
Molybdenum	62.1	52.9	50	0.5092	123	105	75-125	16.0	20
Nickel	75.4	70.9	50	13.70	123	114	75-125	6.06	20
Selenium	57.7	54.7	50	ND	115	109	75-125	5.28	20
Silver	63.7	55.6	50	ND	127,F1	111	75-125	13.6	20
Thallium	59.6	53.7	50	ND	119	107	75-125	10.5	20
Vanadium	118	107	50	49.81	135,F1	114	75-125	9.35	20
Zinc	650	589	500	42.25	122	109	75-125	9.91	20
Surrogate Recovery									
Tb 350.917	605	519	500		121	104	70-130	15.2	20



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/8/14
Date Analyzed: 9/9/14
Instrument: ICP-MS1
Matrix: Soil
Project: #731641601; Valdez & Waverly Street

WorkOrder: 1409239
BatchID: 94919
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg
Sample ID: MB/LCS-94919
 1409239-018AMS/MSD

QC Summary Report for SW6020

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Antimony	ND	50.4	0.50	50	-	101	75-125
Arsenic	ND	52.6	0.50	50	-	105	75-125
Barium	ND	520	5.0	500	-	104	75-125
Beryllium	ND	53.7	0.50	50	-	107	75-125
Cadmium	ND	52.5	0.25	50	-	105	75-125
Chromium	ND	51.4	0.50	50	-	103	75-125
Cobalt	ND	52.0	0.50	50	-	104	75-125
Copper	ND	51.3	0.50	50	-	103	75-125
Lead	ND	51.0	0.50	50	-	102	75-125
Mercury	ND	1.08	0.050	1.25	-	86.2	75-125
Molybdenum	ND	47.2	0.50	50	-	94.5	75-125
Nickel	ND	52.1	0.50	50	-	104	75-125
Selenium	ND	54.1	0.50	50	-	108	75-125
Silver	ND	52.1	0.50	50	-	104	75-125
Thallium	ND	48.5	0.50	50	-	97.1	75-125
Vanadium	ND	50.9	0.50	50	-	102	75-125
Zinc	ND	542	5.0	500	-	108	75-125
Surrogate Recovery							
Tb 350.917	490	510		500	98	102	70-130

(Cont.)



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/8/14
Date Analyzed: 9/9/14
Instrument: ICP-MS1
Matrix: Soil
Project: #731641601; Valdez & Waverly Street

WorkOrder: 1409239
BatchID: 94919
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg
Sample ID: MB/LCS-94919
 1409239-018AMS/MSD

QC Summary Report for SW6020

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Antimony	56.5	55.8	50	1.3	110	109	75-125	1.30	20
Arsenic	62.5	60.5	50	4.8	115	111	75-125	3.25	20
Barium	861	943	500	330	107	123	75-125	9.17	20
Beryllium	55.3	55.3	50	0.77	109	109	75-125	0	20
Cadmium	58.1	57.0	50	0.3694	116	113	75-125	1.88	20
Chromium	105	95.3	50	48.01	113	94.5	75-125	9.44	20
Cobalt	69.9	64.8	50	13	115	104	75-125	7.69	20
Copper	96.9	101	50	36	121	130,F1	75-125	4.42	20
Lead	NR	NR	50	430	NR	NR	75-125	NR	20
Mercury	1.30	1.33	1.25	0.22	86	88.6	75-125	2.44	20
Molybdenum	55.9	54.8	50	0.65	111	108	75-125	2.06	20
Nickel	114	97.0	50	56.86	115	80.2	75-125	16.6	20
Selenium	54.8	54.7	50	ND	110	109	75-125	0.146	20
Silver	59.4	58.0	50	ND	119	116	75-125	2.33	20
Thallium	56.9	55.8	50	ND	114	112	75-125	1.92	20
Vanadium	101	95.7	50	42	118	108	75-125	5.15	20
Zinc	761	791	500	214.2	109	115	75-125	3.84	20
Surrogate Recovery									
Tb 350.917	547	544	500		109	109	70-130	0	20



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/8/14
Date Analyzed: 9/8/14 - 9/9/14
Instrument: GC19, GC3
Matrix: Soil
Project: #731641601; Valdez & Waverly Street

WorkOrder: 1409239
BatchID: 94909
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg
Sample ID: MB/LCS-94909
 1409234-001AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.652	0.40	0.60	-	109	70-130
MTBE	ND	0.0975	0.050	0.10	-	97.5	70-130
Benzene	ND	0.101	0.0050	0.10	-	101	70-130
Toluene	ND	0.102	0.0050	0.10	-	102	70-130
Ethylbenzene	ND	0.103	0.0050	0.10	-	103	70-130
Xylenes	ND	0.313	0.0050	0.30	-	104	70-130

Surrogate Recovery

2-Fluorotoluene	0.104	0.0924		0.10	105	92	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.546	0.565	0.60	ND	91	94.2	70-130	3.53	20
MTBE	0.0812	0.0917	0.10	ND	81.2	91.7	70-130	12.2	20
Benzene	0.101	0.111	0.10	ND	101	111	70-130	10.0	20
Toluene	0.103	0.113	0.10	ND	103	113	70-130	9.22	20
Ethylbenzene	0.102	0.112	0.10	ND	102	113	70-130	9.35	20
Xylenes	0.326	0.358	0.30	ND	109	119	70-130	9.53	20

Surrogate Recovery

2-Fluorotoluene	0.101	0.108	0.10		101	109	70-130	7.43	20
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(Cont.)



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/8/14
Date Analyzed: 9/9/14 - 9/10/14
Instrument: GC19
Matrix: Soil
Project: #731641601; Valdez & Waverly Street

WorkOrder: 1409239
BatchID: 94918
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg
Sample ID: MB/LCS-94918
 1409239-019AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.591	0.40	0.60	-	98.5	70-130
MTBE	ND	0.0876	0.050	0.10	-	87.6	70-130
Benzene	ND	0.113	0.0050	0.10	-	113	70-130
Toluene	ND	0.114	0.0050	0.10	-	114	70-130
Ethylbenzene	ND	0.114	0.0050	0.10	-	114	70-130
Xylenes	ND	0.358	0.0050	0.30	-	119	70-130

Surrogate Recovery

2-Fluorotoluene	0.111	0.108		0.10	111	108	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.544	0.559	0.60	ND	90.7	93.2	70-130	2.70	20
MTBE	0.0936	0.0907	0.10	ND	93.6	90.7	70-130	3.08	20
Benzene	0.0968	0.0970	0.10	ND	96.8	97	70-130	0.177	20
Toluene	0.0985	0.100	0.10	0.01128	87.2	89.2	70-130	2.01	20
Ethylbenzene	0.104	0.104	0.10	0.006506	97	97.6	70-130	0.499	20
Xylenes	0.328	0.334	0.30	0.03543	97.7	99.4	70-130	1.58	20

Surrogate Recovery

2-Fluorotoluene	0.0915	0.0940	0.10		92	94	70-130	2.72	20
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(Cont.)



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/10/14
Date Analyzed: 9/11/14
Instrument: GC3
Matrix: Soil
Project: #731641601; Valdez & Waverly Street

WorkOrder: 1409239
BatchID: 95054
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg
Sample ID: MB/LCS-95054
 1409351-022AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.697	0.40	0.60	-	116	70-130
MTBE	ND	0.0960	0.050	0.10	-	96	70-130
Benzene	ND	0.108	0.0050	0.10	-	108	70-130
Toluene	ND	0.109	0.0050	0.10	-	109	70-130
Ethylbenzene	ND	0.110	0.0050	0.10	-	109	70-130
Xylenes	ND	0.331	0.0050	0.30	-	110	70-130

Surrogate Recovery

2-Fluorotoluene	0.0967	0.0976		0.10	97	98	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.653	0.647	0.60	ND	109	108	70-130	0.938	20
MTBE	0.0791	0.0829	0.10	ND	79.1	82.9	70-130	4.70	20
Benzene	0.0971	0.103	0.10	ND	97.1	103	70-130	6.21	20
Toluene	0.0946	0.0984	0.10	ND	94.6	98.4	70-130	3.89	20
Ethylbenzene	0.108	0.114	0.10	ND	108	114	70-130	5.25	20
Xylenes	0.350	0.370	0.30	ND	117	123	70-130	5.59	20

Surrogate Recovery

2-Fluorotoluene	0.113	0.116	0.10		113	116	70-130	2.87	20
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Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/8/14
Date Analyzed: 9/9/14
Instrument: GC9b
Matrix: Soil
Project: #731641601; Valdez & Waverly Street

WorkOrder: 1409239
BatchID: 94917
Extraction Method: SW3550B/3630C
Analytical Method: SW8015B
Unit: mg/Kg
Sample ID: MB/LCS-94917
 1409239-021AMS/MSD

QC Summary Report for SW8015B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	45.4	1.0	40	-	114	70-130
Surrogate Recovery							
C9	26.8	26.8		25	107	107	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	47.0	48.2	40	ND	117	120	70-130	2.46	30
Surrogate Recovery									
C9	26.3	27.4	25		105	110	70-130	3.91	30

1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1409239

ClientCode: TWRF

WaterTrax WriteOn EDF Excel EQulS Email HardCopy ThirdParty J-flag

Report to:
Peter Cusack
Treadwell & Rollo
555 Montgomery St., Suite 1300
San Francisco, CA 94111
(415) 955-5244 FAX: (415) 955-9041

Email: pcusack@langan.com
cc/3rd Party:
PO:
ProjectNo: #731641601; Valdez & Waverly Street

Bill to:
Accounts Payable
Treadwell & Rollo
555 Montgomery St., Suite 1300
San Francisco, CA 94111
Langan_InvoiceCapture@concursoft.com

Requested TAT: 5 days
Date Received: 09/08/2014
Date Printed: 09/16/2014

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1409239-001	EB-1-1.5	Soil	9/6/2014 10:15	<input type="checkbox"/>	A					A		A					
1409239-003	EB-1-5.0	Soil	9/6/2014 10:25	<input type="checkbox"/>			A	A			A	A					
1409239-004	EB-1-8.0	Soil	9/6/2014 10:30	<input type="checkbox"/>							A	A					
1409239-005	EB-2-1.5	Soil	9/6/2014 11:00	<input type="checkbox"/>						A		A					
1409239-006	EB-2-3.0	Soil	9/6/2014 11:05	<input type="checkbox"/>							A	A					
1409239-008	EB-2-8.0	Soil	9/6/2014 11:35	<input type="checkbox"/>							A	A					
1409239-009	EB-3-1.5	Soil	9/6/2014 9:35	<input type="checkbox"/>	A						A	A					
1409239-011	EB-3-5.0	Soil	9/6/2014 9:45	<input type="checkbox"/>			A	A			A	A					
1409239-013	EB-4-1.5	Soil	9/6/2014 9:05	<input type="checkbox"/>						A		A					
1409239-014	EB-4-3.0	Soil	9/6/2014 9:10	<input type="checkbox"/>							A	A					
1409239-016	EB-4-8.0	Soil	9/6/2014 9:20	<input type="checkbox"/>							A	A					
1409239-017	EB-5-1.5	Soil	9/6/2014 12:45	<input type="checkbox"/>	A						A		A				
1409239-018	EB-5-3.0	Soil	9/6/2014 12:50	<input type="checkbox"/>								A	A				
1409239-019	EB-5-5.0	Soil	9/6/2014 12:55	<input type="checkbox"/>								A	A				
1409239-021	EB-6-1.5	Soil	9/6/2014 12:10	<input type="checkbox"/>								A	A				
1409239-022	EB-6-3.0	Soil	9/6/2014 12:15	<input type="checkbox"/>		A	A	A	A				A				

Test Legend:

1	8081PCB_S	2	8082A_PCB_S	3	8260B_S	4	8270D_S	5	CAM17MS_S
6	LUFTMS_S	7	TPH(DMO)WSG_S	8		9		10	
11		12							

The following SamplIDs: 001A, 003A, 004A, 005A, 006A, 008A, 009A, 011A, 013A, 014A, 016A, 017A, 018A, 019A, 021A, 022A contain testgroup.

Prepared by: Maria Venegas

Comments: SEND HARD COPY

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: TREADWELL & ROLLO
Project: #731641601; Valdez & Waverly Street
Comments: SEND HARD COPY

QC Level: LEVEL 2
Client Contact: Peter Cusack
Contact's Email: pcusack@langan.com

Work Order: 1409239
Date Received: 9/8/2014

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1409239-001A	EB-1-1.5	Soil	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up SW6020 (CAM 17) SW8081A/8082 (OC Pesticides+PCBs)	1	Acetate Liner	<input type="checkbox"/>	9/6/2014 10:15	5 days		<input type="checkbox"/>	
						<input type="checkbox"/>		5 days		<input type="checkbox"/>	
						<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1409239-002A	EB-1-3.0	Soil		1	Acetate Liner	<input type="checkbox"/>	9/6/2014 10:20			<input checked="" type="checkbox"/>	
1409239-003A	EB-1-5.0	Soil	SW6020 (LUFT) Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up SW8270C (SVOCs) SW8260B (VOCs)	1	Acetate Liner	<input type="checkbox"/>	9/6/2014 10:25	5 days		<input type="checkbox"/>	
						<input type="checkbox"/>		5 days		<input type="checkbox"/>	
						<input type="checkbox"/>		5 days		<input type="checkbox"/>	
						<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1409239-004A	EB-1-8.0	Soil	SW6020 (LUFT) Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	1	Acetate Liner	<input type="checkbox"/>	9/6/2014 10:30	5 days		<input type="checkbox"/>	
						<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1409239-005A	EB-2-1.5	Soil	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up SW6020 (CAM 17)	1	Acetate Liner	<input type="checkbox"/>	9/6/2014 11:00	5 days		<input type="checkbox"/>	
						<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1409239-006A	EB-2-3.0	Soil	SW6020 (LUFT) Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	1	Acetate Liner	<input type="checkbox"/>	9/6/2014 11:05	5 days		<input type="checkbox"/>	
						<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1409239-007A	EB-2-5.0	Soil		1	Acetate Liner	<input type="checkbox"/>	9/6/2014 11:30			<input checked="" type="checkbox"/>	

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

Bottle Legend:

Acetate Liner = Acetate Liner



WORK ORDER SUMMARY

Client Name: TREADWELL & ROLLO
Project: #731641601; Valdez & Waverly Street
Comments: SEND HARD COPY

QC Level: LEVEL 2
Client Contact: Peter Cusack
Contact's Email: pcusack@langan.com

Work Order: 1409239
Date Received: 9/8/2014

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut		
1409239-008A	EB-2-8.0	Soil	SW6020 (LUFT)	1	Acetate Liner	<input type="checkbox"/>	9/6/2014 11:35	5 days		<input type="checkbox"/>			
			Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up			<input type="checkbox"/>						5 days	<input type="checkbox"/>
1409239-009A	EB-3-1.5	Soil	SW6020 (LUFT)	1	Acetate Liner	<input type="checkbox"/>	9/6/2014 9:35	5 days		<input type="checkbox"/>			
			Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up			<input type="checkbox"/>						5 days	<input type="checkbox"/>
			SW8081A/8082 (OC Pesticides+PCBs)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
1409239-010A	EB-3-3.0	Soil		1	Acetate Liner	<input type="checkbox"/>	9/6/2014 9:40			<input checked="" type="checkbox"/>			
1409239-011A	EB-3-5.0	Soil	SW6020 (LUFT)	1	Acetate Liner	<input type="checkbox"/>	9/6/2014 9:45	5 days		<input type="checkbox"/>			
			Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up			<input type="checkbox"/>						5 days	<input type="checkbox"/>
			SW8270C (SVOCs)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
			SW8260B (VOCs)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
1409239-012A	EB-3-8.0	Soil		1	Acetate Liner	<input type="checkbox"/>	9/6/2014 9:50			<input checked="" type="checkbox"/>			
1409239-013A	EB-4-1.5	Soil	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	1	Acetate Liner	<input type="checkbox"/>	9/6/2014 9:05	5 days		<input type="checkbox"/>			
			SW6020 (CAM 17)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
1409239-014A	EB-4-3.0	Soil	SW6020 (LUFT)	1	Acetate Liner	<input type="checkbox"/>	9/6/2014 9:10	5 days		<input type="checkbox"/>			
			Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up			<input type="checkbox"/>						5 days	<input type="checkbox"/>

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

Bottle Legend:

Acetate Liner = Acetate Liner



WORK ORDER SUMMARY

Client Name: TREADWELL & ROLLO
Project: #731641601; Valdez & Waverly Street
Comments: SEND HARD COPY

QC Level: LEVEL 2
Client Contact: Peter Cusack
Contact's Email: pcusack@langan.com

Work Order: 1409239
Date Received: 9/8/2014

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1409239-015A	EB-4-5.0	Soil		1	Acetate Liner	<input type="checkbox"/>	9/6/2014 9:15			<input checked="" type="checkbox"/>	
1409239-016A	EB-4-8.0	Soil	SW6020 (LUFT)	1	Acetate Liner	<input type="checkbox"/>	9/6/2014 9:20	5 days		<input type="checkbox"/>	
			Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1409239-017A	EB-5-1.5	Soil	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	1	Acetate Liner	<input type="checkbox"/>	9/6/2014 12:45	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8081A/8082 (OC Pesticides+PCBs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1409239-018A	EB-5-3.0	Soil	SW6020 (LUFT)	1	Acetate Liner	<input type="checkbox"/>	9/6/2014 12:50	5 days		<input type="checkbox"/>	
			Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1409239-019A	EB-5-5.0	Soil	SW6020 (LUFT)	1	Acetate Liner	<input type="checkbox"/>	9/6/2014 12:55	5 days		<input type="checkbox"/>	
			Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1409239-020A	EB-5-8.0	Soil		1	Acetate Liner	<input type="checkbox"/>	9/6/2014 13:00			<input checked="" type="checkbox"/>	
1409239-021A	EB-6-1.5	Soil	SW6020 (LUFT)	1	Acetate Liner	<input type="checkbox"/>	9/6/2014 12:10	5 days		<input type="checkbox"/>	
			Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1409239-022A	EB-6-3.0	Soil	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	1	Acetate Liner	<input type="checkbox"/>	9/6/2014 12:15	5 days		<input type="checkbox"/>	

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

Bottle Legend:

Acetate Liner = Acetate Liner



WORK ORDER SUMMARY

Client Name: TREADWELL & ROLLO
Project: #731641601; Valdez & Waverly Street
Comments: SEND HARD COPY

QC Level: LEVEL 2
Client Contact: Peter Cusack
Contact's Email: pcusack@langan.com

Work Order: 1409239
Date Received: 9/8/2014

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut		
1409239-022A	EB-6-3.0	Soil	SW6020 (CAM 17)	1	Acetate Liner	<input type="checkbox"/>	9/6/2014 12:15	5 days			<input type="checkbox"/>		
			SW8270C (SVOCs)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
			SW8260B (VOCs)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
			SW8082 (PCBs Only)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
1409239-023A	EB-6-5.0	Soil		1	Acetate Liner	<input type="checkbox"/>	9/6/2014 12:20				<input checked="" type="checkbox"/>		
1409239-024A	EB-6-8.0	Soil		1	Acetate Liner	<input type="checkbox"/>	9/6/2014 12:25				<input checked="" type="checkbox"/>		

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

Bottle Legend:

Acetate Liner = Acetate Liner

555 Montgomery Street, Suite 1300, San Francisco, CA 94111 Ph: 415.955.9040/Fax: 415.955.9041
 501 14th Street, Third Floor, Oakland CA 94612 Ph: 510.874.4500/Fax: 510.874.4507
 777 Campus Commons Rd., Suite 200, Sacramento, CA 95825 Ph: 916.565.7412/Fax: 916.565.7412

Site Name: VALDEZ & WAVERLY STREETS
 Job Number: 731641601
 Project Manager/Contact: PETER CUSACK
 Samplers: [Signature]
 Recorder (Signature Required): [Signature] KSS

Turnaround Time
Normal

Field Sample Identification No.	Date	Time	Lab Sample No.	Matrix			No. Containers & Preservative						Analysis Requested											Silica gel clean-up	Hold	Remarks							
				Soil	Water	Other	HCL	H ₂ SO ₄	HNO ₃	Ice	Other	TPH g/d, mg	VOCs	SVOCs	PESTICIDES	PCBs	CAM17	LUFT 5															
EB-1-1.5	9/6/2014	1015		X										X					X	X	X												
EB-1-3.0		1020		X										X					X														
EB-1-5.0		1025		X										X	X				X														
EB-1-8.0		1030		X										X					X														
EB-2-1.5		1100		X										X					X														
EB-2-3.0		1105		X										X					X														
EB-2-5.0		1130		X										X					X														
EB-2-8.0		1135		X										X					X														
EB-3-1.5		0935		X										X					X														
EB-3-3.0		0940		X										X					X														
EB-3-5.0		0945		X										X	X				X														
EB-3-8.0		0950		X										X					X														
EB-4-1.5		0905		X										X					X														
EB-4-3.0	9/6/2014	0910		X										X					X														

Relinquished by: (Signature) <u>[Signature]</u>	Date <u>9/8/14</u>	Time <u>1205</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>9/8/14</u>	Time <u>1205</u>
Relinquished by: (Signature) <u>[Signature]</u>	Date <u>9/8/14</u>	Time <u>1455</u>	Received by: (Signature) <u>[Signature]</u>	Date	Time
Relinquished by: (Signature)	Date	Time	Received by Lab: (Signature) <u>[Signature]</u>	Date <u>9/8/14</u>	Time <u>1455</u>

Sent to Laboratory (Name): MCCAMPBELL ANALYTICAL
 Laboratory Comments/Notes:

Method of Shipment Lab courier Fed Ex Airborne UPS
 Hand Carried Private Courier (Co. Name)

White Copy - Original
 Yellow Copy - Laboratory
 Pink Copy - Field
 COC Number: **005760**

ICE/1# 6.5
 GOOD CONDITION _____
 HEAD SPACE ABSENT _____
 DECHLORINATED IN LAB _____
 PRESERVATION VOAS | O&G | METALS | OTHER

APPROPRIATE CONTAINERS _____
 PRESERVED IN LAB _____

CHAIN OF CUSTODY RECORD

555 Montgomery Street, Suite 1300, San Francisco, CA 94111 Ph: 415.955.9040/Fax: 415.955.9041
 501 14th Street, Third Floor, Oakland CA 94612 Ph: 510.874.4500/Fax: 510.874.4507
 777 Campus Commons Rd., Suite 200, Sacramento, CA 95825 Ph: 916.565.7412/Fax: 916.565.7412

Site Name: VALDEZ = WAVERLY STREETS
 Job Number: 7311641601
 Project Manager/Contact: PETER CUSACK
 Samplers: K.S.S.
 Recorder (Signature Required):

Turnaround
Time
Normal

Field Sample Identification No.	Date	Time	Lab Sample No.	Matrix			No. Containers & Preservative						Analysis Requested										Silica gel clean-up	Hold	Remarks						
				Soil	Water	Other	HCL	H ₂ SO ₄	HNO ₃	Ice	Other	TPH g/d, mo	VOCs	SVOCs	PESTICIDES	PCBs	CAM I/F	LUFT S													
EB-4-5.0	9/6/2014	0915		X																											
EB-4-8.0		0920		X																											
EB-5-1.5		1245		X																											
EB-5-3.0		1250		X																											
EB-5-5.0		1255		X																											
EB-5-8.0		1300		X																											
EB-6-1.5		1210		X																											
EB-6-3.0		1215		X																											
EB-6-5.0		1220		X																											
EB-6-8.0	9/6/2014	1225		X																											

Relinquished by: (Signature)	Date <u>9/8/14</u>	Time <u>1205</u>	Received by: (Signature)	Date <u>9/8/14</u>	Time <u>1205</u>
Relinquished by: (Signature)	Date <u>9/8/14</u>	Time <u>1455</u>	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by Lab: (Signature)	Date <u>9/8/14</u>	Time <u>1455</u>

Sent to Laboratory (Name): MCCAMPBELL ANALYTICAL

Laboratory Comments/Notes:

Method of Shipment: Lab courier Fed Ex Airborne UPS
 Hand Carried Private Courier (Co. Name)



Sample Receipt Checklist

Client Name: **Treadwell & Rollo** Date and Time Received: **9/8/2014 3:06:51 PM**
 Project Name: **#731641601; Valdez & Waverly Street** LogIn Reviewed by: **Maria Venegas**
 WorkOrder No: **1409239** Matrix: Soil Carrier: Daniel (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present? Yes No
 Chain of custody signed when relinquished and received? Yes No
 Chain of custody agrees with sample labels? Yes No
 Sample IDs noted by Client on COC? Yes No
 Date and Time of collection noted by Client on COC? Yes No
 Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
 Shipping container/cooler in good condition? Yes No
 Samples in proper containers/bottles? Yes No
 Sample containers intact? Yes No
 Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Container/Temp Blank temperature Cooler Temp: 6.5°C NA
 Water - VOA vials have zero headspace / no bubbles? Yes No NA
 Sample labels checked for correct preservation? Yes No
 pH acceptable upon receipt (Metal: pH<2; 522: pH<4)? Yes No NA
 Samples Received on Ice? Yes No
 (Ice Type: WET ICE)
 Total Chlorine tested and acceptable upon receipt for EPA 522? Yes No NA

* NOTE: If the "No" box is checked, see comments below.

 Comments:



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1409311

Report Created for: Treadwell & Rollo
555 Montgomery St., Suite 1300
San Francisco, CA 94111

Project Contact: Peter Cusack

Project P.O.:

Project Name: #731641601; Valdez & Waverly Streets

Project Received: 09/09/2014

Analytical Report reviewed & approved for release on 09/17/2014 by:

*Question about
your data?*

[Click here to email
McC Campbell](#)

Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
WorkOrder: 1409311

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Matrix interferences, or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix; or sample diluted due to high matrix or analyte content.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence

Analytical Qualifiers

e2	diesel range compounds are significant; no recognizable pattern
e7	oil range compounds are significant

Quality Control Qualifiers

F1	MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.
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Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
Date Received: 9/9/14 21:21
Date Prepared: 9/9/14

WorkOrder: 1409311
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-1-3.0	1409311-001A	Soil/TOTAL	09/06/2014	ICP-MS1	94996

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	09/11/2014 21:02
Arsenic	4.0	0.50	1	09/11/2014 21:02
Barium	140	5.0	1	09/11/2014 21:02
Beryllium	0.68	0.50	1	09/11/2014 21:02
Cadmium	ND	0.25	1	09/11/2014 21:02
Chromium	62	0.50	1	09/11/2014 21:02
Cobalt	14	0.50	1	09/11/2014 21:02
Copper	20	0.50	1	09/11/2014 21:02
Lead	7.1	0.50	1	09/11/2014 21:02
Mercury	0.074	0.050	1	09/11/2014 21:02
Molybdenum	ND	0.50	1	09/11/2014 21:02
Nickel	92	5.0	10	09/12/2014 14:32
Selenium	ND	0.50	1	09/11/2014 21:02
Silver	ND	0.50	1	09/11/2014 21:02
Thallium	ND	0.50	1	09/11/2014 21:02
Vanadium	47	0.50	1	09/11/2014 21:02
Zinc	41	5.0	1	09/11/2014 21:02
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	103	70-130		09/11/2014 21:02

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
Date Received: 9/9/14 21:21
Date Prepared: 9/9/14

WorkOrder: 1409311
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-3-3.0	1409311-006A	Soil/TOTAL	09/06/2014	ICP-MS1	94996

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	09/11/2014 21:39
Arsenic	3.8	0.50	1	09/11/2014 21:39
Barium	120	5.0	1	09/11/2014 21:39
Beryllium	0.51	0.50	1	09/11/2014 21:39
Cadmium	ND	0.25	1	09/11/2014 21:39
Chromium	49	0.50	1	09/11/2014 21:39
Cobalt	11	0.50	1	09/11/2014 21:39
Copper	17	0.50	1	09/11/2014 21:39
Lead	5.1	0.50	1	09/11/2014 21:39
Mercury	0.077	0.050	1	09/11/2014 21:39
Molybdenum	ND	0.50	1	09/11/2014 21:39
Nickel	66	0.50	1	09/11/2014 21:39
Selenium	ND	0.50	1	09/11/2014 21:39
Silver	ND	0.50	1	09/11/2014 21:39
Thallium	ND	0.50	1	09/11/2014 21:39
Vanadium	40	0.50	1	09/11/2014 21:39
Zinc	33	5.0	1	09/11/2014 21:39
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	105	70-130		09/11/2014 21:39

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
Date Received: 9/9/14 21:21
Date Prepared: 9/9/14

WorkOrder: 1409311
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-4-3.0	1409311-009A	Soil/TOTAL	09/06/2014	ICP-MS1	94996

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	09/11/2014 21:46
Arsenic	2.8	0.50	1	09/11/2014 21:46
Barium	180	5.0	1	09/11/2014 21:46
Beryllium	ND	0.50	1	09/11/2014 21:46
Cadmium	0.31	0.25	1	09/11/2014 21:46
Chromium	29	0.50	1	09/11/2014 21:46
Cobalt	9.0	0.50	1	09/11/2014 21:46
Copper	14	0.50	1	09/11/2014 21:46
Lead	60	0.50	1	09/11/2014 21:46
Mercury	0.054	0.050	1	09/11/2014 21:46
Molybdenum	ND	0.50	1	09/11/2014 21:46
Nickel	27	0.50	1	09/11/2014 21:46
Selenium	ND	0.50	1	09/11/2014 21:46
Silver	ND	0.50	1	09/11/2014 21:46
Thallium	ND	0.50	1	09/11/2014 21:46
Vanadium	28	0.50	1	09/11/2014 21:46
Zinc	120	5.0	1	09/11/2014 21:46
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Tb 350.917	92	70-130		09/11/2014 21:46



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
Date Received: 9/9/14 21:21
Date Prepared: 9/9/14

WorkOrder: 1409311
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-1-3.0	1409311-001A	Soil	09/06/2014	GC7	94998

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	09/13/2014 05:17
MTBE	---	0.050	1	09/13/2014 05:17
Benzene	---	0.0050	1	09/13/2014 05:17
Toluene	---	0.0050	1	09/13/2014 05:17
Ethylbenzene	---	0.0050	1	09/13/2014 05:17
Xylenes	---	0.0050	1	09/13/2014 05:17

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	113	70-130	09/13/2014 05:17

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-1-9.0	1409311-003A	Soil	09/06/2014	GC3	94998

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	09/13/2014 00:40
MTBE	---	0.050	1	09/13/2014 00:40
Benzene	---	0.0050	1	09/13/2014 00:40
Toluene	---	0.0050	1	09/13/2014 00:40
Ethylbenzene	---	0.0050	1	09/13/2014 00:40
Xylenes	---	0.0050	1	09/13/2014 00:40

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	87	70-130	09/13/2014 00:40

Analyst(s): IA



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
Date Received: 9/9/14 21:21
Date Prepared: 9/9/14

WorkOrder: 1409311
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-2-3.0	1409311-004A	Soil	09/06/2014	GC3	94998

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND	1.0	1	09/13/2014 01:39
MTBE	---	0.050	1	09/13/2014 01:39
Benzene	---	0.0050	1	09/13/2014 01:39
Toluene	---	0.0050	1	09/13/2014 01:39
Ethylbenzene	---	0.0050	1	09/13/2014 01:39
Xylenes	---	0.0050	1	09/13/2014 01:39

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	<u>Date Analyzed</u>
2-Fluorotoluene	91	70-130	09/13/2014 01:39

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-2-5.5	1409311-005A	Soil	09/06/2014	GC3	94998

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND	1.0	1	09/13/2014 02:09
MTBE	---	0.050	1	09/13/2014 02:09
Benzene	---	0.0050	1	09/13/2014 02:09
Toluene	---	0.0050	1	09/13/2014 02:09
Ethylbenzene	---	0.0050	1	09/13/2014 02:09
Xylenes	---	0.0050	1	09/13/2014 02:09

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	<u>Date Analyzed</u>
2-Fluorotoluene	91	70-130	09/13/2014 02:09

Analyst(s): IA



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
Date Received: 9/9/14 21:21
Date Prepared: 9/9/14

WorkOrder: 1409311
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-3-3.0	1409311-006A	Soil	09/06/2014	GC3	94998

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND	1.0	1	09/13/2014 02:39
MTBE	---	0.050	1	09/13/2014 02:39
Benzene	---	0.0050	1	09/13/2014 02:39
Toluene	---	0.0050	1	09/13/2014 02:39
Ethylbenzene	---	0.0050	1	09/13/2014 02:39
Xylenes	---	0.0050	1	09/13/2014 02:39

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	<u>Date Analyzed</u>
2-Fluorotoluene	88	70-130	09/13/2014 02:39

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-3-5.0	1409311-007A	Soil	09/06/2014	GC3	95001

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND	1.0	1	09/11/2014 13:47
MTBE	---	0.050	1	09/11/2014 13:47
Benzene	---	0.0050	1	09/11/2014 13:47
Toluene	---	0.0050	1	09/11/2014 13:47
Ethylbenzene	---	0.0050	1	09/11/2014 13:47
Xylenes	---	0.0050	1	09/11/2014 13:47

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	<u>Date Analyzed</u>
2-Fluorotoluene	88	70-130	09/11/2014 13:47

Analyst(s): IA

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
Date Received: 9/9/14 21:21
Date Prepared: 9/9/14

WorkOrder: 1409311
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-4-3.0	1409311-009A	Soil	09/06/2014	GC3	95001

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND	1.0	1	09/13/2014 03:08
MTBE	---	0.050	1	09/13/2014 03:08
Benzene	---	0.0050	1	09/13/2014 03:08
Toluene	---	0.0050	1	09/13/2014 03:08
Ethylbenzene	---	0.0050	1	09/13/2014 03:08
Xylenes	---	0.0050	1	09/13/2014 03:08
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	88	70-130		09/13/2014 03:08

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-4-5.5	1409311-010A	Soil	09/06/2014	GC7	95001

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND	1.0	1	09/13/2014 10:47
MTBE	---	0.050	1	09/13/2014 10:47
Benzene	---	0.0050	1	09/13/2014 10:47
Toluene	---	0.0050	1	09/13/2014 10:47
Ethylbenzene	---	0.0050	1	09/13/2014 10:47
Xylenes	---	0.0050	1	09/13/2014 10:47
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	81	70-130		09/13/2014 10:47

Analyst(s): IA



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
Date Received: 9/9/14 21:21
Date Prepared: 9/9/14

WorkOrder: 1409311
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

LUFT 5 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-1-9.0	1409311-003A	Soil/TOTAL	09/06/2014	ICP-MS1	94996

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	09/11/2014 21:21
Chromium	59	0.50	1	09/11/2014 21:21
Lead	7.7	0.50	1	09/11/2014 21:21
Nickel	78	0.50	1	09/11/2014 21:21
Zinc	49	5.0	1	09/11/2014 21:21
Surrogates	REC (%)	Limits		
Tb 350.917	110	70-130		09/11/2014 21:21

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-2-3.0	1409311-004A	Soil/TOTAL	09/06/2014	ICP-MS1	94996

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	09/11/2014 21:27
Chromium	39	0.50	1	09/11/2014 21:27
Lead	4.8	0.50	1	09/11/2014 21:27
Nickel	32	0.50	1	09/11/2014 21:27
Zinc	20	5.0	1	09/11/2014 21:27
Surrogates	REC (%)	Limits		
Tb 350.917	103	70-130		09/11/2014 21:27

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-2-5.5	1409311-005A	Soil/TOTAL	09/06/2014	ICP-MS1	94996

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	09/11/2014 21:33
Chromium	62	0.50	1	09/11/2014 21:33
Lead	12	0.50	1	09/11/2014 21:33
Nickel	94	5.0	10	09/12/2014 14:38
Zinc	41	5.0	1	09/11/2014 21:33
Surrogates	REC (%)	Limits		
Tb 350.917	105	70-130		09/11/2014 21:33

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
Date Received: 9/9/14 21:21
Date Prepared: 9/9/14

WorkOrder: 1409311
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

LUFT 5 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-4-5.5	1409311-010A	Soil/TOTAL	09/06/2014	ICP-MS1	94996

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	09/11/2014 21:52
Chromium	44	0.50	1	09/11/2014 21:52
Lead	4.8	0.50	1	09/11/2014 21:52
Nickel	38	0.50	1	09/11/2014 21:52
Zinc	29	5.0	1	09/11/2014 21:52
Surrogates	REC (%)	Limits		
Tb 350.917	96	70-130		09/11/2014 21:52



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
Date Received: 9/9/14 21:21
Date Prepared: 9/9/14-9/10/14

WorkOrder: 1409311
Extraction Method: SW3550B/3630C
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-1-3.0	1409311-001A	Soil	09/06/2014	GC6B	94976

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	2.1	1.0	1	09/14/2014 02:46
TPH-Motor Oil (C18-C36)	8.9	5.0	1	09/14/2014 02:46

Surrogates	REC (%)	Limits	Analytical Comments: e7,e2
C9	109	70-130	09/14/2014 02:46

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-1-9.0	1409311-003A	Soil	09/06/2014	GC6B	94976

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	09/16/2014 17:03
TPH-Motor Oil (C18-C36)	ND	5.0	1	09/16/2014 17:03

Surrogates	REC (%)	Limits
C9	113	70-130

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-2-3.0	1409311-004A	Soil	09/06/2014	GC6B	94976

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	09/14/2014 07:34
TPH-Motor Oil (C18-C36)	ND	5.0	1	09/14/2014 07:34

Surrogates	REC (%)	Limits
C9	108	70-130

Analyst(s): TK

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
Date Received: 9/9/14 21:21
Date Prepared: 9/9/14-9/10/14

WorkOrder: 1409311
Extraction Method: SW3550B/3630C
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-2-5.5	1409311-005A	Soil	09/06/2014	GC6A	94976

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	1.3	1.0	1	09/16/2014 05:14
TPH-Motor Oil (C18-C36)	ND	5.0	1	09/16/2014 05:14

Surrogates	REC (%)	Limits	Analytical Comments: e2
C9	106	70-130	09/16/2014 05:14

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-3-3.0	1409311-006A	Soil	09/06/2014	GC6B	94976

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	09/14/2014 11:11
TPH-Motor Oil (C18-C36)	ND	5.0	1	09/14/2014 11:11

Surrogates	REC (%)	Limits
C9	108	70-130

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-3-5.0	1409311-007A	Soil	09/06/2014	GC6B	94976

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	2.6	1.0	1	09/13/2014 19:33
TPH-Motor Oil (C18-C36)	ND	5.0	1	09/13/2014 19:33

Surrogates	REC (%)	Limits	Analytical Comments: e2
C9	107	70-130	09/13/2014 19:33

Analyst(s): TK

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
Date Received: 9/9/14 21:21
Date Prepared: 9/9/14-9/10/14

WorkOrder: 1409311
Extraction Method: SW3550B/3630C
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-4-3.0	1409311-009A	Soil	09/06/2014	GC6B	95025

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND	1.0	1	09/12/2014 20:30
TPH-Motor Oil (C18-C36)	ND	5.0	1	09/12/2014 20:30

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	<u>Date Analyzed</u>
C9	100	70-130	09/12/2014 20:30

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-4-5.5	1409311-010A	Soil	09/06/2014	GC6B	95025

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND	1.0	1	09/14/2014 13:37
TPH-Motor Oil (C18-C36)	ND	5.0	1	09/14/2014 13:37

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	<u>Date Analyzed</u>
C9	110	70-130	09/14/2014 13:37

Analyst(s): TK



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/9/14
Date Analyzed: 9/11/14
Instrument: ICP-MS2
Matrix: Soil
Project: #731641601; Valdez & Waverly Streets

WorkOrder: 1409311
BatchID: 94996
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg
Sample ID: MB/LCS-94996
 1409304-008AMS/MSD

QC Summary Report for SW6020

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Antimony	ND	55.3	0.50	50	-	111	75-125
Arsenic	ND	59.4	0.50	50	-	119	75-125
Barium	ND	585	5.0	500	-	117	75-125
Beryllium	ND	59.6	0.50	50	-	119	75-125
Cadmium	ND	57.2	0.25	50	-	114	75-125
Chromium	ND	58.1	0.50	50	-	116	75-125
Cobalt	ND	60.0	0.50	50	-	120	75-125
Copper	ND	59.3	0.50	50	-	119	75-125
Lead	ND	58.0	0.50	50	-	116	75-125
Mercury	ND	1.32	0.050	1.25	-	105	75-125
Molybdenum	ND	55.1	0.50	50	-	110	75-125
Nickel	ND	59.0	0.50	50	-	118	75-125
Selenium	ND	58.0	0.50	50	-	116	75-125
Silver	ND	58.6	0.50	50	-	117	75-125
Thallium	ND	56.7	0.50	50	-	113	75-125
Vanadium	ND	57.8	0.50	50	-	116	75-125
Zinc	ND	582	5.0	500	-	116	75-125
Surrogate Recovery							
Tb 350.917	550	554		500	110	111	70-130

(Cont.)



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/9/14
Date Analyzed: 9/11/14
Instrument: ICP-MS2
Matrix: Soil
Project: #731641601; Valdez & Waverly Streets

WorkOrder: 1409311
BatchID: 94996
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg
Sample ID: MB/LCS-94996
 1409304-008AMS/MSD

QC Summary Report for SW6020

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Antimony	50.8	60.6	50	0.8115	99.9	119	75-125	17.6	20
Arsenic	56.9	66.4	50	5.143	103	122	75-125	15.4	20
Barium	672	798	500	122.7	110	135,F1	75-125	17.2	20
Beryllium	48.4	56.7	50	ND	96.7	113	75-125	15.9	20
Cadmium	50.8	60.0	50	ND	102	120	75-125	16.7	20
Chromium	NR	NR	50	59.04	NR	NR	75-125	NR	20
Cobalt	57.8	70.6	50	10.83	94	120	75-125	19.9	20
Copper	83.8	92.9	50	34.96	97.7	116	75-125	10.2	20
Lead	NR	NR	50	69.04	NR	NR	75-125	NR	20
Mercury	1.28	1.43	1.25	0.1553	89.6	102	75-125	11.6	20
Molybdenum	48.4	57.8	50	1.031	94.8	114	75-125	17.7	20
Nickel	NR	NR	50	52.52	NR	NR	75-125	NR	20
Selenium	50.6	59.7	50	ND	101	119	75-125	16.4	20
Silver	50.0	58.7	50	ND	100	117	75-125	16.0	20
Thallium	48.8	58.3	50	ND	97.6	117	75-125	17.7	20
Vanadium	97.5	116	50	48.32	98.4	136,F1	75-125	17.7	20
Zinc	620	719	500	103.3	103	123	75-125	14.8	20
Surrogate Recovery									
Tb 350.917	518	622	500		104	124	70-130	18.2	20



Quality Control Report

Client: Treadwell & Rollo	WorkOrder: 1409311
Date Prepared: 9/9/14	BatchID: 94998
Date Analyzed: 9/11/14	Extraction Method: SW5030B
Instrument: GC3, GC7	Analytical Method: SW8021B/8015Bm
Matrix: Soil	Unit: mg/Kg
Project: #731641601; Valdez & Waverly Streets	Sample ID: MB/LCS-94998 1409304-008AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.705	0.40	0.60	-	117	70-130
MTBE	ND	0.0960	0.050	0.10	-	96	70-130
Benzene	ND	0.0997	0.0050	0.10	-	99.7	70-130
Toluene	ND	0.101	0.0050	0.10	-	101	70-130
Ethylbenzene	ND	0.102	0.0050	0.10	-	101	70-130
Xylenes	ND	0.308	0.0050	0.30	-	103	70-130

Surrogate Recovery

2-Fluorotoluene	0.110	0.0907	0.10	110	91	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.759	0.810	0.60	ND	126	135,F1	70-130	6.60	20
MTBE	0.0768	0.0845	0.10	ND	76.8	84.5	70-130	9.50	20
Benzene	0.106	0.0994	0.10	ND	106	99.4	70-130	6.66	20
Toluene	0.103	0.0944	0.10	ND	103	94.4	70-130	8.55	20
Ethylbenzene	0.118	0.112	0.10	ND	118	112	70-130	4.92	20
Xylenes	0.366	0.356	0.30	ND	122	119	70-130	2.85	20

Surrogate Recovery

2-Fluorotoluene	0.116	0.110	0.10	116	110	70-130	5.44	20
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(Cont.)



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/9/14
Date Analyzed: 9/11/14
Instrument: GC7
Matrix: Soil
Project: #731641601; Valdez & Waverly Streets

WorkOrder: 1409311
BatchID: 95001
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg
Sample ID: MB/LCS-95001
 1409311-007AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.653	0.40	0.60	-	109	70-130
MTBE	ND	0.0797	0.050	0.10	-	79.7	70-130
Benzene	ND	0.105	0.0050	0.10	-	105	70-130
Toluene	ND	0.101	0.0050	0.10	-	101	70-130
Ethylbenzene	ND	0.117	0.0050	0.10	-	117	70-130
Xylenes	ND	0.366	0.0050	0.30	-	122	70-130

Surrogate Recovery

2-Fluorotoluene	0.117	0.116		0.10	117	115	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.655	0.660	0.60	ND	109	110	70-130	0.657	20
MTBE	0.0903	0.0934	0.10	ND	90.3	93.4	70-130	3.39	20
Benzene	0.0905	0.0968	0.10	ND	90.5	96.8	70-130	6.73	20
Toluene	0.0922	0.0981	0.10	ND	92.2	98.1	70-130	6.21	20
Ethylbenzene	0.0924	0.0983	0.10	ND	92.4	98.3	70-130	6.23	20
Xylenes	0.281	0.297	0.30	ND	93.6	99.1	70-130	5.66	20

Surrogate Recovery

2-Fluorotoluene	0.0835	0.0878	0.10		84	88	70-130	4.94	20
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Quality Control Report

Client: Treadwell & Rollo	WorkOrder: 1409311
Date Prepared: 9/9/14	BatchID: 94976
Date Analyzed: 9/10/14	Extraction Method: SW3550B/3630C
Instrument: GC2A	Analytical Method: SW8015B
Matrix: Soil	Unit: mg/Kg
Project: #731641601; Valdez & Waverly Streets	Sample ID: MB/LCS-94976 1409283-017BMS/MSD

QC Summary Report for SW8015B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	45.0	1.0	40	-	113	70-130

Surrogate Recovery

C9	26.7	26.9		25	107	108	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	54.6	50.1	40	ND	136,F1	125	70-130	8.53	30

Surrogate Recovery

C9	30.1	29.8	25		120	119	70-130	0.850	30
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(Cont.)



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/10/14
Date Analyzed: 9/11/14
Instrument: GC9b
Matrix: Soil
Project: #731641601; Valdez & Waverly Streets

WorkOrder: 1409311
BatchID: 95025
Extraction Method: SW3550B/3630C
Analytical Method: SW8015B
Unit: mg/Kg
Sample ID: MB/LCS-95025
 1409311-009AMS/MSD

QC Summary Report for SW8015B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	47.8	1.0	40	-	120	70-130

Surrogate Recovery

C9	26.5	26.6		25	106	106	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	43.7	43.0	40	ND	109	107	70-130	1.63	30

Surrogate Recovery

C9	26.5	26.5	25		106	106	70-130	0	30
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1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1409311

ClientCode: TWRF

WaterTrax
 WriteOn
 EDF
 Excel
 EQUS
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:
 Peter Cusack
 Treadwell & Rollo
 555 Montgomery St., Suite 1300
 San Francisco, CA 94111
 (415) 955-5244 FAX: (415) 955-9041

Email: pcusack@langan.com
 cc/3rd Party:
 PO:
 ProjectNo: #731641601; Valdez & Waverly Streets

Bill to:
 Accounts Payable
 Treadwell & Rollo
 555 Montgomery St., Suite 1300
 San Francisco, CA 94111
 Langan_InvoiceCapture@concursoft.com

Requested TAT: 5 days

Date Received: 09/09/2014
Date Printed: 09/17/2014

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1409311-001	B-1-3.0	Soil	9/6/2014	<input type="checkbox"/>	A		A										
1409311-003	B-1-9.0	Soil	9/6/2014	<input type="checkbox"/>		A	A										
1409311-004	B-2-3.0	Soil	9/6/2014	<input type="checkbox"/>		A	A										
1409311-005	B-2-5.5	Soil	9/6/2014	<input type="checkbox"/>		A	A										
1409311-006	B-3-3.0	Soil	9/6/2014	<input type="checkbox"/>	A		A										
1409311-007	B-3-5.0	Soil	9/6/2014	<input type="checkbox"/>			A										
1409311-009	B-4-3.0	Soil	9/6/2014	<input type="checkbox"/>	A		A										
1409311-010	B-4-5.5	Soil	9/6/2014	<input type="checkbox"/>		A	A										

Test Legend:

1	CAM17MS_S	2	LUFTMS_S	3	TPH(DMO)WSG_S	4		5	
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 003A, 004A, 005A, 006A, 007A, 009A, 010A contain testgroup.

Prepared by: Jena Alfaro

Comments: SEND HARD COPY/ Always notify the PM when TAT is not going to bet met! JEL 9-9-14

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: TREADWELL & ROLLO

QC Level: LEVEL 2

Work Order: 1409311

Project: #731641601; Valdez & Waverly Streets

Client Contact: Peter Cusack

Date Received: 9/9/2014

Comments: SEND HARD COPY/ Always notify the PM when TAT is not going to bet met! JEL 9-9-14

Contact's Email: pcusack@langan.com

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1409311-001A	B-1-3.0	Soil	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up SW6020 (CAM 17)	1	Wide Stainless Tube	<input type="checkbox"/>	9/6/2014	5 days		<input type="checkbox"/>	
						<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1409311-002A	B-1-5.5	Soil		1	Wide Stainless Tube	<input type="checkbox"/>	9/6/2014			<input checked="" type="checkbox"/>	
1409311-003A	B-1-9.0	Soil	SW6020 (LUFT)	1	Wide Stainless Tube	<input type="checkbox"/>	9/6/2014	5 days		<input type="checkbox"/>	
			Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1409311-004A	B-2-3.0	Soil	SW6020 (LUFT)	1	Wide Stainless Tube	<input type="checkbox"/>	9/6/2014	5 days		<input type="checkbox"/>	
			Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1409311-005A	B-2-5.5	Soil	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up SW6020 (LUFT)	1	Wide Stainless Tube	<input type="checkbox"/>	9/6/2014	5 days		<input type="checkbox"/>	
						<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1409311-006A	B-3-3.0	Soil	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up SW6020 (CAM 17)	1	Wide Stainless Tube	<input type="checkbox"/>	9/6/2014	5 days		<input type="checkbox"/>	
						<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1409311-007A	B-3-5.0	Soil	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	1	Wide Stainless Tube	<input type="checkbox"/>	9/6/2014	5 days		<input type="checkbox"/>	
1409311-008A	B-3-9.0	Soil		1	Wide Stainless Tube	<input type="checkbox"/>	9/6/2014			<input checked="" type="checkbox"/>	
1409311-009A	B-4-3.0	Soil	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	1	Wide Stainless Tube	<input type="checkbox"/>	9/6/2014	5 days		<input type="checkbox"/>	

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

Bottle Legend:

Wide Stainless Tube =



WORK ORDER SUMMARY

Client Name: TREADWELL & ROLLO

QC Level: LEVEL 2

Work Order: 1409311

Project: #731641601; Valdez & Waverly Streets

Client Contact: Peter Cusack

Date Received: 9/9/2014

Comments: SEND HARD COPY/ Always notify the PM when TAT is not going to bet met! JEL 9-9-14

Contact's Email: pcusack@langan.com

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1409311-009A	B-4-3.0	Soil	SW6020 (CAM 17)	1	Wide Stainless Tube	<input type="checkbox"/>	9/6/2014	5 days		<input type="checkbox"/>	
1409311-010A	B-4-5.5	Soil	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up SW6020 (LUFT)	1	Wide Stainless Tube	<input type="checkbox"/>	9/6/2014	5 days		<input type="checkbox"/>	
1409311-011A	B-4-8.5	Soil		1	Wide Stainless Tube	<input type="checkbox"/>	9/6/2014	5 days		<input checked="" type="checkbox"/>	

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

Bottle Legend:

Wide Stainless Tube =

CHAIN OF CUSTODY RECORD

1409311

555 Montgomery Street, Suite 1300, San Francisco, CA 94111 Ph: 415.955.9040/Fax: 415.955.9041
 501 14th Street, Third Floor, Oakland CA 94612 Ph: 510.874.4500/Fax: 510.874.4507
 777 Campus Commons Rd., Suite 200, Sacramento, CA 95825 Ph: 916.565.7412/Fax: 916.565.7412

Site Name: VALDEZ & WAVERLY STREETS
 Job Number: 731641001
 Project Manager/Contact: PETER CUSACK
 Samplers: KLN
 Recorder (Signature Required): [Signature]

Turnaround Time
STANDARD

Field Sample Identification No.	Date	Time	Lab Sample No.	Matrix & Preservative										Analysis Requested										Silica gel clean-up	Hold	Remarks			
				Soil	Water	Other	HCL	H ₂ SO ₄	HNO ₃	Ice	Other	TPH g/dm ³	VOCs	SVOCs	PESTICIDES	PCBS	CAM17	LUFTS											
B-1-3.0	9/6/14			X							X																		
B-1-5.5				X							X																		
B-1-9.0				X							X																		
B-2-3.0				X							X																		
B-2-5.5				X							X																		
B-3-3.0				X							X																		
B-3-5.0				X							X																		
B-3-9.0				X							X																		
B-4-3.0				X							X																		
B-4-5.5				X							X																		
B-4-8.5	9/6/14			X							X																		

Relinquished by: (Signature) <u>[Signature]</u>	Date <u>9/9/14</u>	Time <u>1610</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>9/9/14</u>	Time <u>1610</u>
Relinquished by: (Signature) <u>[Signature]</u>	Date <u>9/9/14</u>	Time <u>1855</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>9/9/14</u>	Time <u>1855</u>
Relinquished by: (Signature)	Date	Time	Received by Lab: (Signature)	Date	Time

Sent to Laboratory (Name): MCCAMBELL ANALYTICAL
 Laboratory Comments/Notes:

Method of Shipment: Lab courier Fed Ex Airborne UPS
 Hand Carried Private Courier (Co. Name)

White Copy - Original Yellow Copy - Laboratory Pink Copy - Field COC Number: **005763**

ICE 1t: 0.5
 GOOD CONDITION _____ APPROPRIATE
 HEAD SPACE ABSENT _____ CONTAINERS
 DECHLORINATED IN LAB _____ PRESERVED IN LAB _____
 VOAS | O & G | METALS | OTHER

*SGCU Added to All Samples per P.C.



Sample Receipt Checklist

Client Name: **Treadwell & Rollo** Date and Time Received: **9/9/2014 9:21:17 PM**
 Project Name: **#731641601; Valdez & Waverly Streets** Login Reviewed by: **Jena Alfaro**
 WorkOrder No: **1409311** Matrix: Soil Carrier: Daniel (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present? Yes No
 Chain of custody signed when relinquished and received? Yes No
 Chain of custody agrees with sample labels? Yes No
 Sample IDs noted by Client on COC? Yes No
 Date and Time of collection noted by Client on COC? Yes No
 Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
 Shipping container/cooler in good condition? Yes No
 Samples in proper containers/bottles? Yes No
 Sample containers intact? Yes No
 Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Container/Temp Blank temperature Cooler Temp: 0.5°C NA
 Water - VOA vials have zero headspace / no bubbles? Yes No NA
 Sample labels checked for correct preservation? Yes No
 pH acceptable upon receipt (Metal: pH<2; 522: pH<4)? Yes No NA
 Samples Received on Ice? Yes No
 (Ice Type: WET ICE)
 Total Chlorine tested and acceptable upon receipt for EPA 522? Yes No NA

* NOTE: If the "No" box is checked, see comments below.

 Comments:



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1409501

Report Created for: Treadwell & Rollo
555 Montgomery St., Suite 1300
San Francisco, CA 94111

Project Contact: Peter Cusack

Project P.O.:

Project Name: #731641601; Valdez & Waverly Streets

Project Received: 09/15/2014

Analytical Report reviewed & approved for release on 09/17/2014 by:

*Question about
your data?*

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McC Campbell](#)

Angela Rydelius,
Laboratory Manager

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Glossary of Terms & Qualifier Definitions

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
WorkOrder: 1409501

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Matrix interferences, or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix; or sample diluted due to high matrix or analyte content.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence

Analytical Qualifiers

S	spike recovery outside accepted recovery limits
c2	surrogate recovery outside of the control limits due to matrix interference.
d1	weakly modified or unmodified gasoline is significant
e2	diesel range compounds are significant; no recognizable pattern
e4	gasoline range compounds are significant.

Quality Control Qualifiers

F1	MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.
F3	the surrogate standard recovery is outside of acceptance limits.



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
Date Received: 9/15/14 14:29
Date Prepared: 9/16/14-9/17/14

WorkOrder: 1409501
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-2	1409501-001B	Water	09/12/2014 08:50	GC28	95298

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	09/16/2014 18:03
tert-Amyl methyl ether (TAME)	ND	0.50	1	09/16/2014 18:03
Benzene	ND	0.50	1	09/16/2014 18:03
Bromobenzene	ND	0.50	1	09/16/2014 18:03
Bromochloromethane	ND	0.50	1	09/16/2014 18:03
Bromodichloromethane	ND	0.50	1	09/16/2014 18:03
Bromoform	ND	0.50	1	09/16/2014 18:03
Bromomethane	ND	0.50	1	09/16/2014 18:03
2-Butanone (MEK)	ND	2.0	1	09/16/2014 18:03
t-Butyl alcohol (TBA)	ND	2.0	1	09/16/2014 18:03
n-Butyl benzene	ND	0.50	1	09/16/2014 18:03
sec-Butyl benzene	ND	0.50	1	09/16/2014 18:03
tert-Butyl benzene	ND	0.50	1	09/16/2014 18:03
Carbon Disulfide	ND	0.50	1	09/16/2014 18:03
Carbon Tetrachloride	ND	0.50	1	09/16/2014 18:03
Chlorobenzene	ND	0.50	1	09/16/2014 18:03
Chloroethane	ND	0.50	1	09/16/2014 18:03
Chloroform	ND	0.50	1	09/16/2014 18:03
Chloromethane	ND	0.50	1	09/16/2014 18:03
2-Chlorotoluene	ND	0.50	1	09/16/2014 18:03
4-Chlorotoluene	ND	0.50	1	09/16/2014 18:03
Dibromochloromethane	ND	0.50	1	09/16/2014 18:03
1,2-Dibromo-3-chloropropane	ND	0.20	1	09/16/2014 18:03
1,2-Dibromoethane (EDB)	ND	0.50	1	09/16/2014 18:03
Dibromomethane	ND	0.50	1	09/16/2014 18:03
1,2-Dichlorobenzene	ND	0.50	1	09/16/2014 18:03
1,3-Dichlorobenzene	ND	0.50	1	09/16/2014 18:03
1,4-Dichlorobenzene	ND	0.50	1	09/16/2014 18:03
Dichlorodifluoromethane	ND	0.50	1	09/16/2014 18:03
1,1-Dichloroethane	ND	0.50	1	09/16/2014 18:03
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	09/16/2014 18:03
1,1-Dichloroethene	ND	0.50	1	09/16/2014 18:03
cis-1,2-Dichloroethene	ND	0.50	1	09/16/2014 18:03
trans-1,2-Dichloroethene	ND	0.50	1	09/16/2014 18:03
1,2-Dichloropropane	ND	0.50	1	09/16/2014 18:03
1,3-Dichloropropane	ND	0.50	1	09/16/2014 18:03
2,2-Dichloropropane	ND	0.50	1	09/16/2014 18:03
1,1-Dichloropropene	ND	0.50	1	09/16/2014 18:03

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Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-2	1409501-001B	Water	09/12/2014 08:50	GC28	95298

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.50	1	09/16/2014 18:03
trans-1,3-Dichloropropene	ND	0.50	1	09/16/2014 18:03
Diisopropyl ether (DIPE)	ND	0.50	1	09/16/2014 18:03
Ethylbenzene	ND	0.50	1	09/16/2014 18:03
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	09/16/2014 18:03
Freon 113	ND	0.50	1	09/16/2014 18:03
Hexachlorobutadiene	ND	0.50	1	09/16/2014 18:03
Hexachloroethane	ND	0.50	1	09/16/2014 18:03
2-Hexanone	ND	0.50	1	09/16/2014 18:03
Isopropylbenzene	1.1	0.50	1	09/16/2014 18:03
4-Isopropyl toluene	ND	0.50	1	09/16/2014 18:03
Methyl-t-butyl ether (MTBE)	ND	0.50	1	09/16/2014 18:03
Methylene chloride	ND	0.50	1	09/16/2014 18:03
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	09/16/2014 18:03
Naphthalene	ND	0.50	1	09/16/2014 18:03
n-Propyl benzene	1.4	0.50	1	09/16/2014 18:03
Styrene	ND	0.50	1	09/16/2014 18:03
1,1,1,2-Tetrachloroethane	ND	0.50	1	09/16/2014 18:03
1,1,2,2-Tetrachloroethane	ND	0.50	1	09/16/2014 18:03
Tetrachloroethene	ND	0.50	1	09/16/2014 18:03
Toluene	ND	0.50	1	09/16/2014 18:03
1,2,3-Trichlorobenzene	ND	0.50	1	09/16/2014 18:03
1,2,4-Trichlorobenzene	ND	0.50	1	09/16/2014 18:03
1,1,1-Trichloroethane	ND	0.50	1	09/16/2014 18:03
1,1,2-Trichloroethane	ND	0.50	1	09/16/2014 18:03
Trichloroethene	ND	0.50	1	09/16/2014 18:03
Trichlorofluoromethane	ND	0.50	1	09/16/2014 18:03
1,2,3-Trichloropropane	ND	0.50	1	09/16/2014 18:03
1,2,4-Trimethylbenzene	ND	0.50	1	09/16/2014 18:03
1,3,5-Trimethylbenzene	ND	0.50	1	09/16/2014 18:03
Vinyl Chloride	ND	0.50	1	09/16/2014 18:03
Xylenes, Total	ND	0.50	1	09/16/2014 18:03

(Cont.)



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Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-2	1409501-001B	Water	09/12/2014 08:50	GC28	95298

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	104	70-130		09/16/2014 18:03
Toluene-d8	120	70-130		09/16/2014 18:03
4-BFB	90	70-130		09/16/2014 18:03

Analyst(s): KBO



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Extraction Method: SW5030B
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Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-4	1409501-002B	Water	09/12/2014 09:05	GC28	95298

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	09/16/2014 22:09
tert-Amyl methyl ether (TAME)	ND	0.50	1	09/16/2014 22:09
Benzene	ND	0.50	1	09/16/2014 22:09
Bromobenzene	ND	0.50	1	09/16/2014 22:09
Bromochloromethane	ND	0.50	1	09/16/2014 22:09
Bromodichloromethane	ND	0.50	1	09/16/2014 22:09
Bromoform	ND	0.50	1	09/16/2014 22:09
Bromomethane	ND	0.50	1	09/16/2014 22:09
2-Butanone (MEK)	ND	2.0	1	09/16/2014 22:09
t-Butyl alcohol (TBA)	ND	2.0	1	09/16/2014 22:09
n-Butyl benzene	ND	0.50	1	09/16/2014 22:09
sec-Butyl benzene	ND	0.50	1	09/16/2014 22:09
tert-Butyl benzene	ND	0.50	1	09/16/2014 22:09
Carbon Disulfide	ND	0.50	1	09/16/2014 22:09
Carbon Tetrachloride	ND	0.50	1	09/16/2014 22:09
Chlorobenzene	ND	0.50	1	09/16/2014 22:09
Chloroethane	ND	0.50	1	09/16/2014 22:09
Chloroform	ND	0.50	1	09/16/2014 22:09
Chloromethane	ND	0.50	1	09/16/2014 22:09
2-Chlorotoluene	ND	0.50	1	09/16/2014 22:09
4-Chlorotoluene	ND	0.50	1	09/16/2014 22:09
Dibromochloromethane	ND	0.50	1	09/16/2014 22:09
1,2-Dibromo-3-chloropropane	ND	0.20	1	09/16/2014 22:09
1,2-Dibromoethane (EDB)	ND	0.50	1	09/16/2014 22:09
Dibromomethane	ND	0.50	1	09/16/2014 22:09
1,2-Dichlorobenzene	ND	0.50	1	09/16/2014 22:09
1,3-Dichlorobenzene	ND	0.50	1	09/16/2014 22:09
1,4-Dichlorobenzene	ND	0.50	1	09/16/2014 22:09
Dichlorodifluoromethane	ND	0.50	1	09/16/2014 22:09
1,1-Dichloroethane	ND	0.50	1	09/16/2014 22:09
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	09/16/2014 22:09
1,1-Dichloroethene	ND	0.50	1	09/16/2014 22:09
cis-1,2-Dichloroethene	ND	0.50	1	09/16/2014 22:09
trans-1,2-Dichloroethene	ND	0.50	1	09/16/2014 22:09
1,2-Dichloropropane	ND	0.50	1	09/16/2014 22:09
1,3-Dichloropropane	ND	0.50	1	09/16/2014 22:09
2,2-Dichloropropane	ND	0.50	1	09/16/2014 22:09
1,1-Dichloropropene	ND	0.50	1	09/16/2014 22:09

(Cont.)



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Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.50	1	09/16/2014 22:09
trans-1,3-Dichloropropene	ND	0.50	1	09/16/2014 22:09
Diisopropyl ether (DIPE)	ND	0.50	1	09/16/2014 22:09
Ethylbenzene	ND	0.50	1	09/16/2014 22:09
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	09/16/2014 22:09
Freon 113	ND	0.50	1	09/16/2014 22:09
Hexachlorobutadiene	ND	0.50	1	09/16/2014 22:09
Hexachloroethane	ND	0.50	1	09/16/2014 22:09
2-Hexanone	ND	0.50	1	09/16/2014 22:09
Isopropylbenzene	ND	0.50	1	09/16/2014 22:09
4-Isopropyl toluene	ND	0.50	1	09/16/2014 22:09
Methyl-t-butyl ether (MTBE)	ND	0.50	1	09/16/2014 22:09
Methylene chloride	ND	0.50	1	09/16/2014 22:09
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	09/16/2014 22:09
Naphthalene	ND	0.50	1	09/16/2014 22:09
n-Propyl benzene	ND	0.50	1	09/16/2014 22:09
Styrene	ND	0.50	1	09/16/2014 22:09
1,1,1,2-Tetrachloroethane	ND	0.50	1	09/16/2014 22:09
1,1,2,2-Tetrachloroethane	ND	0.50	1	09/16/2014 22:09
Tetrachloroethene	ND	0.50	1	09/16/2014 22:09
Toluene	ND	0.50	1	09/16/2014 22:09
1,2,3-Trichlorobenzene	ND	0.50	1	09/16/2014 22:09
1,2,4-Trichlorobenzene	ND	0.50	1	09/16/2014 22:09
1,1,1-Trichloroethane	ND	0.50	1	09/16/2014 22:09
1,1,2-Trichloroethane	ND	0.50	1	09/16/2014 22:09
Trichloroethene	ND	0.50	1	09/16/2014 22:09
Trichlorofluoromethane	ND	0.50	1	09/16/2014 22:09
1,2,3-Trichloropropane	ND	0.50	1	09/16/2014 22:09
1,2,4-Trimethylbenzene	ND	0.50	1	09/16/2014 22:09
1,3,5-Trimethylbenzene	ND	0.50	1	09/16/2014 22:09
Vinyl Chloride	ND	0.50	1	09/16/2014 22:09
Xylenes, Total	ND	0.50	1	09/16/2014 22:09

(Cont.)



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Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-4	1409501-002B	Water	09/12/2014 09:05	GC28	95298

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	106	70-130		09/16/2014 22:09
Toluene-d8	118	70-130		09/16/2014 22:09
4-BFB	96	70-130		09/16/2014 22:09

Analyst(s): KBO



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Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-7	1409501-003B	Water	09/12/2014 13:12	GC28	95298

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	09/16/2014 22:50
tert-Amyl methyl ether (TAME)	ND	0.50	1	09/16/2014 22:50
Benzene	ND	0.50	1	09/16/2014 22:50
Bromobenzene	ND	0.50	1	09/16/2014 22:50
Bromochloromethane	ND	0.50	1	09/16/2014 22:50
Bromodichloromethane	ND	0.50	1	09/16/2014 22:50
Bromoform	ND	0.50	1	09/16/2014 22:50
Bromomethane	ND	0.50	1	09/16/2014 22:50
2-Butanone (MEK)	ND	2.0	1	09/16/2014 22:50
t-Butyl alcohol (TBA)	ND	2.0	1	09/16/2014 22:50
n-Butyl benzene	ND	0.50	1	09/16/2014 22:50
sec-Butyl benzene	ND	0.50	1	09/16/2014 22:50
tert-Butyl benzene	ND	0.50	1	09/16/2014 22:50
Carbon Disulfide	ND	0.50	1	09/16/2014 22:50
Carbon Tetrachloride	ND	0.50	1	09/16/2014 22:50
Chlorobenzene	ND	0.50	1	09/16/2014 22:50
Chloroethane	ND	0.50	1	09/16/2014 22:50
Chloroform	ND	0.50	1	09/16/2014 22:50
Chloromethane	ND	0.50	1	09/16/2014 22:50
2-Chlorotoluene	ND	0.50	1	09/16/2014 22:50
4-Chlorotoluene	ND	0.50	1	09/16/2014 22:50
Dibromochloromethane	ND	0.50	1	09/16/2014 22:50
1,2-Dibromo-3-chloropropane	ND	0.20	1	09/16/2014 22:50
1,2-Dibromoethane (EDB)	ND	0.50	1	09/16/2014 22:50
Dibromomethane	ND	0.50	1	09/16/2014 22:50
1,2-Dichlorobenzene	ND	0.50	1	09/16/2014 22:50
1,3-Dichlorobenzene	ND	0.50	1	09/16/2014 22:50
1,4-Dichlorobenzene	ND	0.50	1	09/16/2014 22:50
Dichlorodifluoromethane	ND	0.50	1	09/16/2014 22:50
1,1-Dichloroethane	ND	0.50	1	09/16/2014 22:50
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	09/16/2014 22:50
1,1-Dichloroethene	ND	0.50	1	09/16/2014 22:50
cis-1,2-Dichloroethene	ND	0.50	1	09/16/2014 22:50
trans-1,2-Dichloroethene	ND	0.50	1	09/16/2014 22:50
1,2-Dichloropropane	ND	0.50	1	09/16/2014 22:50
1,3-Dichloropropane	ND	0.50	1	09/16/2014 22:50
2,2-Dichloropropane	ND	0.50	1	09/16/2014 22:50
1,1-Dichloropropene	ND	0.50	1	09/16/2014 22:50

(Cont.)



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MW-7	1409501-003B	Water	09/12/2014 13:12	GC28	95298

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.50	1	09/16/2014 22:50
trans-1,3-Dichloropropene	ND	0.50	1	09/16/2014 22:50
Diisopropyl ether (DIPE)	ND	0.50	1	09/16/2014 22:50
Ethylbenzene	ND	0.50	1	09/16/2014 22:50
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	09/16/2014 22:50
Freon 113	ND	0.50	1	09/16/2014 22:50
Hexachlorobutadiene	ND	0.50	1	09/16/2014 22:50
Hexachloroethane	ND	0.50	1	09/16/2014 22:50
2-Hexanone	ND	0.50	1	09/16/2014 22:50
Isopropylbenzene	ND	0.50	1	09/16/2014 22:50
4-Isopropyl toluene	ND	0.50	1	09/16/2014 22:50
Methyl-t-butyl ether (MTBE)	ND	0.50	1	09/16/2014 22:50
Methylene chloride	ND	0.50	1	09/16/2014 22:50
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	09/16/2014 22:50
Naphthalene	ND	0.50	1	09/16/2014 22:50
n-Propyl benzene	ND	0.50	1	09/16/2014 22:50
Styrene	ND	0.50	1	09/16/2014 22:50
1,1,1,2-Tetrachloroethane	ND	0.50	1	09/16/2014 22:50
1,1,2,2-Tetrachloroethane	ND	0.50	1	09/16/2014 22:50
Tetrachloroethene	ND	0.50	1	09/16/2014 22:50
Toluene	ND	0.50	1	09/16/2014 22:50
1,2,3-Trichlorobenzene	ND	0.50	1	09/16/2014 22:50
1,2,4-Trichlorobenzene	ND	0.50	1	09/16/2014 22:50
1,1,1-Trichloroethane	ND	0.50	1	09/16/2014 22:50
1,1,2-Trichloroethane	ND	0.50	1	09/16/2014 22:50
Trichloroethene	ND	0.50	1	09/16/2014 22:50
Trichlorofluoromethane	ND	0.50	1	09/16/2014 22:50
1,2,3-Trichloropropane	ND	0.50	1	09/16/2014 22:50
1,2,4-Trimethylbenzene	ND	0.50	1	09/16/2014 22:50
1,3,5-Trimethylbenzene	ND	0.50	1	09/16/2014 22:50
Vinyl Chloride	ND	0.50	1	09/16/2014 22:50
Xylenes, Total	ND	0.50	1	09/16/2014 22:50

(Cont.)



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Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	106	70-130		09/16/2014 22:50
Toluene-d8	120	70-130		09/16/2014 22:50
4-BFB	92	70-130		09/16/2014 22:50

Analyst(s): KBO



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
Date Received: 9/15/14 14:29
Date Prepared: 9/16/14-9/17/14

WorkOrder: 1409501
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-8	1409501-004B	Water	09/12/2014 10:35	GC28	95298

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	09/16/2014 23:33
tert-Amyl methyl ether (TAME)	ND	0.50	1	09/16/2014 23:33
Benzene	ND	0.50	1	09/16/2014 23:33
Bromobenzene	ND	0.50	1	09/16/2014 23:33
Bromochloromethane	ND	0.50	1	09/16/2014 23:33
Bromodichloromethane	ND	0.50	1	09/16/2014 23:33
Bromoform	ND	0.50	1	09/16/2014 23:33
Bromomethane	ND	0.50	1	09/16/2014 23:33
2-Butanone (MEK)	ND	2.0	1	09/16/2014 23:33
t-Butyl alcohol (TBA)	ND	2.0	1	09/16/2014 23:33
n-Butyl benzene	ND	0.50	1	09/16/2014 23:33
sec-Butyl benzene	ND	0.50	1	09/16/2014 23:33
tert-Butyl benzene	ND	0.50	1	09/16/2014 23:33
Carbon Disulfide	ND	0.50	1	09/16/2014 23:33
Carbon Tetrachloride	ND	0.50	1	09/16/2014 23:33
Chlorobenzene	ND	0.50	1	09/16/2014 23:33
Chloroethane	ND	0.50	1	09/16/2014 23:33
Chloroform	ND	0.50	1	09/16/2014 23:33
Chloromethane	ND	0.50	1	09/16/2014 23:33
2-Chlorotoluene	ND	0.50	1	09/16/2014 23:33
4-Chlorotoluene	ND	0.50	1	09/16/2014 23:33
Dibromochloromethane	ND	0.50	1	09/16/2014 23:33
1,2-Dibromo-3-chloropropane	ND	0.20	1	09/16/2014 23:33
1,2-Dibromoethane (EDB)	ND	0.50	1	09/16/2014 23:33
Dibromomethane	ND	0.50	1	09/16/2014 23:33
1,2-Dichlorobenzene	ND	0.50	1	09/16/2014 23:33
1,3-Dichlorobenzene	ND	0.50	1	09/16/2014 23:33
1,4-Dichlorobenzene	ND	0.50	1	09/16/2014 23:33
Dichlorodifluoromethane	ND	0.50	1	09/16/2014 23:33
1,1-Dichloroethane	ND	0.50	1	09/16/2014 23:33
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	09/16/2014 23:33
1,1-Dichloroethene	ND	0.50	1	09/16/2014 23:33
cis-1,2-Dichloroethene	ND	0.50	1	09/16/2014 23:33
trans-1,2-Dichloroethene	ND	0.50	1	09/16/2014 23:33
1,2-Dichloropropane	ND	0.50	1	09/16/2014 23:33
1,3-Dichloropropane	ND	0.50	1	09/16/2014 23:33
2,2-Dichloropropane	ND	0.50	1	09/16/2014 23:33
1,1-Dichloropropene	ND	0.50	1	09/16/2014 23:33

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Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
Date Received: 9/15/14 14:29
Date Prepared: 9/16/14-9/17/14

WorkOrder: 1409501
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-8	1409501-004B	Water	09/12/2014 10:35	GC28	95298

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.50	1	09/16/2014 23:33
trans-1,3-Dichloropropene	ND	0.50	1	09/16/2014 23:33
Diisopropyl ether (DIPE)	ND	0.50	1	09/16/2014 23:33
Ethylbenzene	ND	0.50	1	09/16/2014 23:33
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	09/16/2014 23:33
Freon 113	ND	0.50	1	09/16/2014 23:33
Hexachlorobutadiene	ND	0.50	1	09/16/2014 23:33
Hexachloroethane	ND	0.50	1	09/16/2014 23:33
2-Hexanone	ND	0.50	1	09/16/2014 23:33
Isopropylbenzene	ND	0.50	1	09/16/2014 23:33
4-Isopropyl toluene	ND	0.50	1	09/16/2014 23:33
Methyl-t-butyl ether (MTBE)	ND	0.50	1	09/16/2014 23:33
Methylene chloride	ND	0.50	1	09/16/2014 23:33
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	09/16/2014 23:33
Naphthalene	ND	0.50	1	09/16/2014 23:33
n-Propyl benzene	ND	0.50	1	09/16/2014 23:33
Styrene	ND	0.50	1	09/16/2014 23:33
1,1,1,2-Tetrachloroethane	ND	0.50	1	09/16/2014 23:33
1,1,2,2-Tetrachloroethane	ND	0.50	1	09/16/2014 23:33
Tetrachloroethene	ND	0.50	1	09/16/2014 23:33
Toluene	ND	0.50	1	09/16/2014 23:33
1,2,3-Trichlorobenzene	ND	0.50	1	09/16/2014 23:33
1,2,4-Trichlorobenzene	ND	0.50	1	09/16/2014 23:33
1,1,1-Trichloroethane	ND	0.50	1	09/16/2014 23:33
1,1,2-Trichloroethane	ND	0.50	1	09/16/2014 23:33
Trichloroethene	ND	0.50	1	09/16/2014 23:33
Trichlorofluoromethane	ND	0.50	1	09/16/2014 23:33
1,2,3-Trichloropropane	ND	0.50	1	09/16/2014 23:33
1,2,4-Trimethylbenzene	ND	0.50	1	09/16/2014 23:33
1,3,5-Trimethylbenzene	ND	0.50	1	09/16/2014 23:33
Vinyl Chloride	ND	0.50	1	09/16/2014 23:33
Xylenes, Total	ND	0.50	1	09/16/2014 23:33

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Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
Date Received: 9/15/14 14:29
Date Prepared: 9/16/14-9/17/14

WorkOrder: 1409501
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-8	1409501-004B	Water	09/12/2014 10:35	GC28	95298

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	106	70-130		09/16/2014 23:33
Toluene-d8	119	70-130		09/16/2014 23:33
4-BFB	94	70-130		09/16/2014 23:33

Analyst(s): KBO



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
Date Received: 9/15/14 14:29
Date Prepared: 9/16/14-9/17/14

WorkOrder: 1409501
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-9	1409501-005B	Water	09/12/2014 10:58	GC28	95298

Analytes	Result	RL	DF	Date Analyzed
Acetone	17	10	1	09/17/2014 00:18
tert-Amyl methyl ether (TAME)	ND	0.50	1	09/17/2014 00:18
Benzene	2.3	0.50	1	09/17/2014 00:18
Bromobenzene	ND	0.50	1	09/17/2014 00:18
Bromochloromethane	ND	0.50	1	09/17/2014 00:18
Bromodichloromethane	ND	0.50	1	09/17/2014 00:18
Bromoform	ND	0.50	1	09/17/2014 00:18
Bromomethane	ND	0.50	1	09/17/2014 00:18
2-Butanone (MEK)	8.3	2.0	1	09/17/2014 00:18
t-Butyl alcohol (TBA)	ND	2.0	1	09/17/2014 00:18
n-Butyl benzene	2.2	0.50	1	09/17/2014 00:18
sec-Butyl benzene	1.7	0.50	1	09/17/2014 00:18
tert-Butyl benzene	ND	0.50	1	09/17/2014 00:18
Carbon Disulfide	ND	0.50	1	09/17/2014 00:18
Carbon Tetrachloride	ND	0.50	1	09/17/2014 00:18
Chlorobenzene	ND	0.50	1	09/17/2014 00:18
Chloroethane	ND	0.50	1	09/17/2014 00:18
Chloroform	ND	0.50	1	09/17/2014 00:18
Chloromethane	ND	0.50	1	09/17/2014 00:18
2-Chlorotoluene	ND	0.50	1	09/17/2014 00:18
4-Chlorotoluene	ND	0.50	1	09/17/2014 00:18
Dibromochloromethane	ND	0.50	1	09/17/2014 00:18
1,2-Dibromo-3-chloropropane	ND	0.20	1	09/17/2014 00:18
1,2-Dibromoethane (EDB)	ND	0.50	1	09/17/2014 00:18
Dibromomethane	ND	0.50	1	09/17/2014 00:18
1,2-Dichlorobenzene	ND	0.50	1	09/17/2014 00:18
1,3-Dichlorobenzene	ND	0.50	1	09/17/2014 00:18
1,4-Dichlorobenzene	ND	0.50	1	09/17/2014 00:18
Dichlorodifluoromethane	ND	0.50	1	09/17/2014 00:18
1,1-Dichloroethane	ND	0.50	1	09/17/2014 00:18
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	09/17/2014 00:18
1,1-Dichloroethene	ND	0.50	1	09/17/2014 00:18
cis-1,2-Dichloroethene	ND	0.50	1	09/17/2014 00:18
trans-1,2-Dichloroethene	ND	0.50	1	09/17/2014 00:18
1,2-Dichloropropane	ND	0.50	1	09/17/2014 00:18
1,3-Dichloropropane	ND	0.50	1	09/17/2014 00:18
2,2-Dichloropropane	ND	0.50	1	09/17/2014 00:18
1,1-Dichloropropene	ND	0.50	1	09/17/2014 00:18

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Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
Date Received: 9/15/14 14:29
Date Prepared: 9/16/14-9/17/14

WorkOrder: 1409501
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-9	1409501-005B	Water	09/12/2014 10:58	GC28	95298

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.50	1	09/17/2014 00:18
trans-1,3-Dichloropropene	ND	0.50	1	09/17/2014 00:18
Diisopropyl ether (DIPE)	ND	0.50	1	09/17/2014 00:18
Ethylbenzene	4.4	0.50	1	09/17/2014 00:18
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	09/17/2014 00:18
Freon 113	ND	0.50	1	09/17/2014 00:18
Hexachlorobutadiene	ND	0.50	1	09/17/2014 00:18
Hexachloroethane	ND	0.50	1	09/17/2014 00:18
2-Hexanone	ND	0.50	1	09/17/2014 00:18
Isopropylbenzene	11	0.50	1	09/17/2014 00:18
4-Isopropyl toluene	0.68	0.50	1	09/17/2014 00:18
Methyl-t-butyl ether (MTBE)	ND	0.50	1	09/17/2014 00:18
Methylene chloride	ND	0.50	1	09/17/2014 00:18
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	09/17/2014 00:18
Naphthalene	6.2	0.50	1	09/17/2014 00:18
n-Propyl benzene	14	0.50	1	09/17/2014 00:18
Styrene	ND	0.50	1	09/17/2014 00:18
1,1,1,2-Tetrachloroethane	ND	0.50	1	09/17/2014 00:18
1,1,2,2-Tetrachloroethane	ND	0.50	1	09/17/2014 00:18
Tetrachloroethene	ND	0.50	1	09/17/2014 00:18
Toluene	2.0	0.50	1	09/17/2014 00:18
1,2,3-Trichlorobenzene	ND	0.50	1	09/17/2014 00:18
1,2,4-Trichlorobenzene	ND	0.50	1	09/17/2014 00:18
1,1,1-Trichloroethane	ND	0.50	1	09/17/2014 00:18
1,1,2-Trichloroethane	ND	0.50	1	09/17/2014 00:18
Trichloroethene	ND	0.50	1	09/17/2014 00:18
Trichlorofluoromethane	ND	0.50	1	09/17/2014 00:18
1,2,3-Trichloropropane	ND	0.50	1	09/17/2014 00:18
1,2,4-Trimethylbenzene	ND	0.50	1	09/17/2014 00:18
1,3,5-Trimethylbenzene	0.73	0.50	1	09/17/2014 00:18
Vinyl Chloride	ND	0.50	1	09/17/2014 00:18
Xylenes, Total	2.7	0.50	1	09/17/2014 00:18

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Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
Date Received: 9/15/14 14:29
Date Prepared: 9/16/14-9/17/14

WorkOrder: 1409501
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-9	1409501-005B	Water	09/12/2014 10:58	GC28	95298

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	109	70-130		09/17/2014 00:18
Toluene-d8	117	70-130		09/17/2014 00:18
4-BFB	95	70-130		09/17/2014 00:18

Analyst(s): KBO



Analytical Report

Client:	Treadwell & Rollo	WorkOrder:	1409501
Project:	#731641601; Valdez & Waverly Streets	Extraction Method:	SW5030B
Date Received:	9/15/14 14:29	Analytical Method:	SW8021B/8015Bm
Date Prepared:	9/15/14-9/16/14	Unit:	µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-2	1409501-001A	Water	09/12/2014 08:50	GC3	95249

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	190	50	1	09/15/2014 21:26
MTBE	---	5.0	1	09/15/2014 21:26
Benzene	---	0.50	1	09/15/2014 21:26
Toluene	---	0.50	1	09/15/2014 21:26
Ethylbenzene	---	0.50	1	09/15/2014 21:26
Xylenes	---	0.50	1	09/15/2014 21:26

Surrogates	REC (%)	Limits	Analytical Comments: d1	Date Analyzed
aaa-TFT_2	122	70-130		09/15/2014 21:26

Analyst(s): HD

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-4	1409501-002A	Water	09/12/2014 09:05	GC3	95249

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	09/15/2014 21:56
MTBE	---	5.0	1	09/15/2014 21:56
Benzene	---	0.50	1	09/15/2014 21:56
Toluene	---	0.50	1	09/15/2014 21:56
Ethylbenzene	---	0.50	1	09/15/2014 21:56
Xylenes	---	0.50	1	09/15/2014 21:56

Surrogates	REC (%)	Limits	Date Analyzed
aaa-TFT_2	97	70-130	09/15/2014 21:56

Analyst(s): HD

(Cont.)



Analytical Report

Client:	Treadwell & Rollo	WorkOrder:	1409501
Project:	#731641601; Valdez & Waverly Streets	Extraction Method:	SW5030B
Date Received:	9/15/14 14:29	Analytical Method:	SW8021B/8015Bm
Date Prepared:	9/15/14-9/16/14	Unit:	µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-7	1409501-003A	Water	09/12/2014 13:12	GC3	95249

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	09/15/2014 22:25
MTBE	---	5.0	1	09/15/2014 22:25
Benzene	---	0.50	1	09/15/2014 22:25
Toluene	---	0.50	1	09/15/2014 22:25
Ethylbenzene	---	0.50	1	09/15/2014 22:25
Xylenes	---	0.50	1	09/15/2014 22:25
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
aaa-TFT_2	99	70-130		09/15/2014 22:25

Analyst(s): HD

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-8	1409501-004A	Water	09/12/2014 10:35	GC3	95249

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	09/15/2014 23:24
MTBE	---	5.0	1	09/15/2014 23:24
Benzene	---	0.50	1	09/15/2014 23:24
Toluene	---	0.50	1	09/15/2014 23:24
Ethylbenzene	---	0.50	1	09/15/2014 23:24
Xylenes	---	0.50	1	09/15/2014 23:24
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
aaa-TFT_2	107	70-130		09/15/2014 23:24

Analyst(s): HD

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
Date Received: 9/15/14 14:29
Date Prepared: 9/15/14-9/16/14

WorkOrder: 1409501
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-9	1409501-005A	Water	09/12/2014 10:58	GC3	95249

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	620	50	1	09/16/2014 00:23
MTBE	---	5.0	1	09/16/2014 00:23
Benzene	---	0.50	1	09/16/2014 00:23
Toluene	---	0.50	1	09/16/2014 00:23
Ethylbenzene	---	0.50	1	09/16/2014 00:23
Xylenes	---	0.50	1	09/16/2014 00:23

Surrogates	REC (%)	Qualifiers	Limits	Analytical Comments: d1,c2
aaa-TFT_2	164	S	70-130	09/16/2014 00:23

Analyst(s): HD



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
Date Received: 9/15/14 14:29
Date Prepared: 9/15/14

WorkOrder: 1409501
Extraction Method: SW3510C
Analytical Method: SW8015B
Unit: µg/L

Total Extractable Petroleum Hydrocarbons

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-2	1409501-001A	Water	09/12/2014 08:50	GC11B	95190

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND	50	1	09/17/2014 09:10
TPH-Motor Oil (C18-C36)	ND	250	1	09/17/2014 09:10

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	<u>Date Analyzed</u>
C9	98	70-130	09/17/2014 09:10

Analyst(s): MAM

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-4	1409501-002A	Water	09/12/2014 09:05	GC11A	95190

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	78	50	1	09/17/2014 00:32
TPH-Motor Oil (C18-C36)	ND	250	1	09/17/2014 00:32

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	<u>Analytical Comments</u>	<u>Date Analyzed</u>
C9	110	70-130	e2	09/17/2014 00:32

Analyst(s): MAM

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-7	1409501-003A	Water	09/12/2014 13:12	GC11B	95190

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND	50	1	09/17/2014 05:06
TPH-Motor Oil (C18-C36)	ND	250	1	09/17/2014 05:06

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	<u>Date Analyzed</u>
C9	101	70-130	09/17/2014 05:06

Analyst(s): MAM

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
Date Received: 9/15/14 14:29
Date Prepared: 9/15/14

WorkOrder: 1409501
Extraction Method: SW3510C
Analytical Method: SW8015B
Unit: µg/L

Total Extractable Petroleum Hydrocarbons

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-8	1409501-004A	Water	09/12/2014 10:35	GC11A	95190

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND	50	1	09/17/2014 01:41
TPH-Motor Oil (C18-C36)	ND	250	1	09/17/2014 01:41

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	<u>Date Analyzed</u>
C9	110	70-130	09/17/2014 01:41

Analyst(s): MAM

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-9	1409501-005A	Water	09/12/2014 10:58	GC11A	95190

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	460	50	1	09/17/2014 02:49
TPH-Motor Oil (C18-C36)	ND	250	1	09/17/2014 02:49

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	<u>Date Analyzed</u>
C9	110	70-130	09/17/2014 02:49

Analyst(s): MAM



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/16/14
Date Analyzed: 9/16/14
Instrument: GC28
Matrix: Water
Project: #731641601; Valdez & Waverly Streets

WorkOrder: 1409501
BatchID: 95298
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-95298
 1409326-011AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	7.38	0.50	10	-	73.8	64-120
Benzene	ND	8.75	0.50	10	-	87.5	73-123
Bromobenzene	ND	-	0.50	-	-	-	-
Bromochloromethane	ND	-	0.50	-	-	-	-
Bromodichloromethane	ND	-	0.50	-	-	-	-
Bromoform	ND	-	0.50	-	-	-	-
Bromomethane	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	2.0	-	-	-	-
t-Butyl alcohol (TBA)	ND	23.3	2.0	40	-	58.1	29-146
n-Butyl benzene	ND	-	0.50	-	-	-	-
sec-Butyl benzene	ND	-	0.50	-	-	-	-
tert-Butyl benzene	ND	-	0.50	-	-	-	-
Carbon Disulfide	ND	-	0.50	-	-	-	-
Carbon Tetrachloride	ND	-	0.50	-	-	-	-
Chlorobenzene	ND	9.70	0.50	10	-	97	77-116
Chloroethane	ND	-	0.50	-	-	-	-
Chloroform	ND	-	0.50	-	-	-	-
Chloromethane	ND	-	0.50	-	-	-	-
2-Chlorotoluene	ND	-	0.50	-	-	-	-
4-Chlorotoluene	ND	-	0.50	-	-	-	-
Dibromochloromethane	ND	-	0.50	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.20	-	-	-	-
1,2-Dibromoethane (EDB)	ND	8.47	0.50	10	-	84.7	68-111
Dibromomethane	ND	-	0.50	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.50	-	-	-	-
Dichlorodifluoromethane	ND	-	0.50	-	-	-	-
1,1-Dichloroethane	ND	-	0.50	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	7.68	0.50	10	-	76.8	37-150
1,1-Dichloroethene	ND	8.78	0.50	10	-	87.8	37-153
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,3-Dichloropropane	ND	-	0.50	-	-	-	-
2,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,1-Dichloropropene	ND	-	0.50	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-

(Cont.)



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/16/14
Date Analyzed: 9/16/14
Instrument: GC28
Matrix: Water
Project: #731641601; Valdez & Waverly Streets

WorkOrder: 1409501
BatchID: 95298
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-95298
 1409326-011AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	8.07	0.50	10	-	80.7	62-125
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	7.42	0.50	10	-	74.2	63-126
Freon 113	ND	-	0.50	-	-	-	-
Hexachlorobutadiene	ND	-	0.50	-	-	-	-
Hexachloroethane	ND	-	0.50	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
Isopropylbenzene	ND	-	0.50	-	-	-	-
4-Isopropyl toluene	ND	-	0.50	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	7.15	0.50	10	-	71.5	56-126
Methylene chloride	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.50	-	-	-	-
Naphthalene	ND	-	0.50	-	-	-	-
n-Propyl benzene	ND	-	0.50	-	-	-	-
Styrene	ND	-	0.50	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
Tetrachloroethene	ND	-	0.50	-	-	-	-
Toluene	ND	9.34	0.50	10	-	93.4	78-114
1,2,3-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.50	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.50	-	-	-	-
Trichloroethene	ND	9.55	0.50	10	-	95.5	67-133
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.50	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	-	0.50	-	-	-	-
Xylenes, Total	ND	-	0.50	-	-	-	-

Surrogate Recovery

Dibromofluoromethane	25.7	25.3		25	103	101	77-120
Toluene-d8	30.2	30.6		25	121	122, F3	78-118
4-BFB	2.34	2.34		2.5	94	94	63-129

(Cont.)



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/16/14
Date Analyzed: 9/16/14
Instrument: GC28
Matrix: Water
Project: #731641601; Valdez & Waverly Streets

WorkOrder: 1409501
BatchID: 95298
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-95298
 1409326-011AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	9.10	9.84	10	ND	91	98	70-130	7.80	20
Benzene	8.88	9.23	10	ND	89	92	70-130	3.85	20
t-Butyl alcohol (TBA)	36.2	42.6	40	ND	91	106	70-130	16.2	20
Chlorobenzene	9.66	10.1	10	ND	97	101	70-130	4.53	20
1,2-Dibromoethane (EDB)	10.0	10.6	10	ND	100	106	70-130	5.35	20
1,2-Dichloroethane (1,2-DCA)	9.06	9.50	10	ND	91	95	70-130	4.70	20
1,1-Dichloroethene	10.9	11.4	10	ND	109	113	70-130	4.22	20
Diisopropyl ether (DIPE)	8.83	9.27	10	ND	88	93	70-130	4.90	20
Ethyl tert-butyl ether (ETBE)	8.70	9.28	10	ND	87	93	70-130	6.54	20
Methyl-t-butyl ether (MTBE)	9.10	9.94	10	ND	91	99	70-130	8.81	20
Toluene	9.12	9.46	10	ND	90	93	70-130	3.65	20
Trichloroethene	9.82	10.1	10	ND	98	101	70-130	2.84	20
Surrogate Recovery									
Dibromofluoromethane	26.9	26.9	25		108	107	70-130	0.243	20
Toluene-d8	29.7	29.5	25		119	118	70-130	0.529	20
4-BFB	2.28	2.30	2.5		91	92	70-130	0.855	20



Quality Control Report

Client:	Treadwell & Rollo	WorkOrder:	1409501
Date Prepared:	9/16/14	BatchID:	95249
Date Analyzed:	9/15/14	Extraction Method:	SW5030B
Instrument:	GC3	Analytical Method:	SW8021B/8015Bm
Matrix:	Water	Unit:	µg/L
Project:	#731641601; Valdez & Waverly Streets	Sample ID:	MB/LCS-95249 1409501-004AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	63.8	40	60	-	106	70-130
MTBE	ND	10.1	5.0	10	-	101	70-130
Benzene	ND	10.2	0.50	10	-	102	70-130
Toluene	ND	10.3	0.50	10	-	103	70-130
Ethylbenzene	ND	10.3	0.50	10	-	103	70-130
Xylenes	ND	31.2	0.50	30	-	104	70-130

Surrogate Recovery

aaa-TFT_2	9.91	9.56		10	99	96	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	85.2	83.1	60	ND	142,F1	138,F1	70-130	2.50	20
MTBE	10.4	12.6	10	ND	104	126	70-130	19.2	20
Benzene	9.70	10.7	10	ND	97	107	70-130	9.66	20
Toluene	9.85	11.6	10	ND	98	116	70-130	16.0	20
Ethylbenzene	10.0	10.9	10	ND	100	109	70-130	8.92	20
Xylenes	30.3	33.1	30	ND	101	110	70-130	8.84	20

Surrogate Recovery

aaa-TFT_2	9.42	10.7	10		94	107	70-130	12.5	20
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Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/15/14
Date Analyzed: 9/15/14
Instrument: GC9b
Matrix: Water
Project: #731641601; Valdez & Waverly Streets

WorkOrder: 1409501
BatchID: 95190
Extraction Method: SW3510C
Analytical Method: SW8015B
Unit: µg/L
Sample ID: MB/LCS-95190

QC Summary Report for SW8015B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	1140	50	1000	-	114	70-130
Surrogate Recovery							
C9	658	653		625	105	105	70-130

1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1409501

ClientCode: TWRF

WaterTrax WriteOn EDF Excel EQUIS Email HardCopy ThirdParty J-flag

Report to:

Bill to:

Requested TAT:

3 days

Peter Cusack
 Treadwell & Rollo
 555 Montgomery St., Suite 1300
 San Francisco, CA 94111
 (415) 955-5244 FAX: (415) 955-9041

Email: pcusack@langan.com
 cc/3rd Party:
 PO:
 ProjectNo: #731641601; Valdez & Waverly Streets

Accounts Payable
 Treadwell & Rollo
 555 Montgomery St., Suite 1300
 San Francisco, CA 94111
 Langan_InvoiceCapture@concur.solut

Date Received: 09/15/2014

Date Printed: 09/15/2014

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1409501-001	MW-2	Water	9/12/2014 8:50	<input type="checkbox"/>	B	A											
1409501-002	MW-4	Water	9/12/2014 9:05	<input type="checkbox"/>	B	A											
1409501-003	MW-7	Water	9/12/2014 13:12	<input type="checkbox"/>	B	A											
1409501-004	MW-8	Water	9/12/2014 10:35	<input type="checkbox"/>	B	A											
1409501-005	MW-9	Water	9/12/2014 10:58	<input type="checkbox"/>	B	A											

Test Legend:

1	8260B_W	2	G-MBTEX_W	3		4		5	
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A, 004A, 005A contain testgroup.

Prepared by: Maria Venegas

Comments: SEND HARD COPY/ Always notify the PM when TAT is not going to bet met! JEL 9-9-14

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: TREADWELL & ROLLO

QC Level: LEVEL 2

Work Order: 1409501

Project: #731641601; Valdez & Waverly Streets

Client Contact: Peter Cusack

Date Received: 9/15/2014

Comments: SEND HARD COPY/ Always notify the PM when TAT is not going to bet met! JEL 9-9-14

Contact's Email: pcusack@langan.com

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1409501-001A	MW-2	Water	Multi-Range TPH(g,d,mo)	4	VOA w/ HCl	<input type="checkbox"/>	9/12/2014 8:50	3 days	Present	<input type="checkbox"/>	
1409501-001B	MW-2	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	9/12/2014 8:50	3 days	Present	<input type="checkbox"/>	
1409501-002A	MW-4	Water	Multi-Range TPH(g,d,mo)	4	VOA w/ HCl	<input type="checkbox"/>	9/12/2014 9:05	3 days	Trace	<input type="checkbox"/>	
1409501-002B	MW-4	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	9/12/2014 9:05	3 days	Trace	<input type="checkbox"/>	
1409501-003A	MW-7	Water	Multi-Range TPH(g,d,mo)	4	VOA w/ HCl	<input type="checkbox"/>	9/12/2014 13:12	3 days	Present	<input type="checkbox"/>	
1409501-003B	MW-7	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	9/12/2014 13:12	3 days	Present	<input type="checkbox"/>	
1409501-004A	MW-8	Water	Multi-Range TPH(g,d,mo)	4	VOA w/ HCl	<input type="checkbox"/>	9/12/2014 10:35	3 days	Trace	<input type="checkbox"/>	
1409501-004B	MW-8	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	9/12/2014 10:35	3 days	Trace	<input type="checkbox"/>	
1409501-005A	MW-9	Water	Multi-Range TPH(g,d,mo)	4	VOA w/ HCl	<input type="checkbox"/>	9/12/2014 10:58	3 days	Trace	<input type="checkbox"/>	
1409501-005B	MW-9	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	9/12/2014 10:58	3 days	Trace	<input type="checkbox"/>	

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

Bottle Legend:

VOA w/ HCl = 43mL VOA w/ HCl

CHAIN OF CUSTODY RECORD

RUSH

555 Montgomery Street, Suite 1300, San Francisco, CA 94111 Ph: 415.955.9040/Fax: 415.955.9041
501 14th Street, Third Floor, Oakland CA 94612 Ph: 510.874.4500/Fax: 510.874.4507
777 Campus Commons Rd., Suite 200, Sacramento, CA 95825 Ph: 916.565.7412/Fax: 916.565.7412

Site Name: VALDEZ'S WATERLY STREETS
Job Number: 731641401
Project Manager/Contact: PETER CUSACK
Samplers: KSS
Recorder (Signature Required): [Signature]

Turnaround Time
72-HOUR

Field Sample Identification No.	Date	Time	Lab Sample No.	Matrix			No. Containers & Preservative					Analysis Requested		Silica gel clean-up	Hold	Remarks	
				Soil	Water	Other	HCL	H ₂ SO ₄	HNO ₃	Ice	Other						
MW-2	9/12/14	0850			X		6										
MW-4		0905			X		6										
MW-7		1312			X		6										
MW-8		1035			X		6										
MW-9	9/12/14	1058			X		6										

Handwritten notes in table: PAH g.d.m.s, VOCs

Relinquished by: (Signature) <u>[Signature]</u>	Date <u>9/15/14</u>	Time <u>1230</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>9/15/14</u>	Time <u>1230</u>
Relinquished by: (Signature) <u>[Signature]</u>	Date <u>9/15/14</u>	Time <u>1400</u>	Received by: (Signature) <u>[Signature]</u>	Date	Time
Relinquished by: (Signature)	Date	Time	Received by Lab: (Signature) <u>[Signature]</u>	Date <u>9/15/14</u>	Time <u>1400</u>

Sent to Laboratory (Name): MCCAMBELL ANALYTICAL

Method of Shipment: Lab courier Fed Ex Airborne UPS
 Hand Carried Private Courier (Co. Name)

ICE# 3.8 White Copy - Original Yellow Copy - Laboratory Pink Copy - Field COC Number: **004909**

GOOD CONDITION _____ APPROPRIATE CONTAINERS _____
HEAD SPACE ABSENT _____ PRESERVED IN LAB _____
DECHLORINATED IN LAB _____

PRESERVATION VOAS | O&G | METALS | OTHER



Sample Receipt Checklist

Client Name: **Treadwell & Rollo** Date and Time Received: **9/15/2014 2:29:06 PM**
 Project Name: **#731641601; Valdez & Waverly Streets** LogIn Reviewed by: **Maria Venegas**
 WorkOrder No: **1409501** Matrix: Water Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present? Yes No
 Chain of custody signed when relinquished and received? Yes No
 Chain of custody agrees with sample labels? Yes No
 Sample IDs noted by Client on COC? Yes No
 Date and Time of collection noted by Client on COC? Yes No
 Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
 Shipping container/cooler in good condition? Yes No
 Samples in proper containers/bottles? Yes No
 Sample containers intact? Yes No
 Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Container/Temp Blank temperature Cooler Temp: 3.8°C NA
 Water - VOA vials have zero headspace / no bubbles? Yes No NA
 Sample labels checked for correct preservation? Yes No
 pH acceptable upon receipt (Metal: pH<2; 522: pH<4)? Yes No NA
 Samples Received on Ice? Yes No
 (Ice Type: WET ICE)
 Total Chlorine tested and acceptable upon receipt for EPA 522? Yes No NA

* NOTE: If the "No" box is checked, see comments below.

 Comments:



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 260680
ANALYTICAL REPORT

Langan Treadwell Rollo
555 Montgomery Street
San Francisco, CA 94111

Project : 731641601
Location : Valder & Waverly Streets
Level : II

<u>Sample ID</u>	<u>Lab ID</u>
SSG-1	260680-001
SSG-2	260680-002
SG-1	260680-003
SG-2	260680-004
SG-3	260680-005

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: 
Isabelle Choy
Project Manager
isabelle.choy@ctberk.com

Date: 09/15/2014

CASE NARRATIVE

Laboratory number: 260680
Client: Langan Treadwell Rollo
Project: 731641601
Location: Valder & Waverly Streets
Request Date: 09/08/14
Samples Received: 09/08/14

This data package contains sample and QC results for five air samples, requested for the above referenced project on 09/08/14. The samples were received intact at ambient temperature.

Volatile Organics in Air by MS (EPA TO-15):

High response was observed for vinyl acetate in the CCV analyzed 09/12/14 13:15; affected data was qualified with "b". High recoveries were observed for vinyl acetate in the BS/BSD for batch 215323; the associated RPD was within limits, and this analyte was not detected at or above the RL in the associated samples. No other analytical problems were encountered.

Volatile Organics in Air GC (ASTM D1946):

No analytical problems were encountered.

260680

CHAIN OF CUSTODY RECORD

555 Montgomery Street, Suite 1300, San Francisco, CA 94111 Ph: 415.955.9040/Fax: 415.955.9041
 501 14th Street, Third Floor, Oakland CA 94612 Ph: 510.874.4500/Fax: 510.874.4507
 777 Campus Commons Rd., Suite 200, Sacramento, CA 95825 Ph: 916.565.7412/Fax: 916.565.7412

Site Name: VALDEZ - INAVERLY STREETS
 Job Number: 231641601
 Project Manager/Contact: Peter Guszek
 Samplers: Adam Brown
 Recorder (Signature Required): Adam Brown

Turnaround Time
Standard

Field Sample Identification No.	Date	Time	Lab Sample No.	Matrix					No. Containers & Preservative					Analysis Requested	Hold	Remarks
				Soil	Water	Other	HCL	H2SO4	HNO3	Ice	Other	Final PSI	Initial PSI			
1	09/06/14	0938				X										Can #50/Flow ID A0069
2	09/06/14	1024				X										Can #347/Flow ID A00966
3	09/06/14	1138				X										Can #408/Flow ID A00029
4	09/06/14	1205				X										Can #107/Flow ID A00098
5	09/06/14	1235				X										Can #257/Flow ID A00026
Relinquished by: (Signature) _____ Date <u>9/8/14</u> Time <u>1334</u>																
Relinquished by: (Signature) _____ Date <u>9/8/14</u> Time <u>1720</u>																
Relinquished by: (Signature) _____ Date _____ Time _____																
Sent to Laboratory (Name): <u>C&T</u>																
Laboratory Comments/Notes: _____																

Method of Shipment
 ~~Hand-Carried~~ Private Courier (Co. Name) Fed Ex Airborne UPS

White Copy - Original Yellow Copy - Laboratory Pink Copy - Field COC Number: **004906**

COOLER RECEIPT CHECKLIST



Rev 9-10-11
Curtis & Tompkins, Ltd.

Login # 260680 Date Received 9/8/14 Number of coolers 0
Client Treadwell Project Valley & Waverly Street
Date Opened 9/10/14 By (print) AM (sign) [Signature]
Date Logged in ↓ By (print) ↓ (sign) ↓

1. Did cooler come with a shipping slip (airbill, etc) YES NO
Shipping info _____

2A. Were custody seals present? YES (circle) on cooler on samples NO
How many _____ Name _____ Date _____

2B. Were custody seals intact upon arrival? _____ YES NO N/A

3. Were custody papers dry and intact when received? YES NO

4. Were custody papers filled out properly (ink, signed, etc)? YES NO

5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO

6. Indicate the packing in cooler: (if other, describe) _____

- Bubble Wrap Foam blocks Bags None
- Cloth material Cardboard Styrofoam Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C
Type of ice used: Wet Blue/Gel None Temp(°C) _____

- Samples Received on ice & cold without a temperature blank
- 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 _____ Temp _____ Date: _____

COMMENTS
Received on ice & cold without a temperature blank
Samples received on ice directly from the field. Cooling process had begun
If YES, what time were they transferred to freezer?

Client Sample ID : SG-1

Laboratory Sample ID :

260680-003

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
1,3-Butadiene	2.0		0.92	0.18	ppbv	As Recd	1.840	EPA TO-15	METHOD
Acetone	36		3.7	0.27	ppbv	As Recd	1.840	EPA TO-15	METHOD
Isopropanol	21		3.7	0.18	ppbv	As Recd	1.840	EPA TO-15	METHOD
n-Hexane	6.7		0.92	0.18	ppbv	As Recd	1.840	EPA TO-15	METHOD
2-Butanone	4.8		0.92	0.18	ppbv	As Recd	1.840	EPA TO-15	METHOD
Tetrahydrofuran	2.3		0.92	0.18	ppbv	As Recd	1.840	EPA TO-15	METHOD
Cyclohexane	5.1		0.92	0.18	ppbv	As Recd	1.840	EPA TO-15	METHOD
Benzene	2.7		0.92	0.040	ppbv	As Recd	1.840	EPA TO-15	METHOD
n-Heptane	2.4		0.92	0.18	ppbv	As Recd	1.840	EPA TO-15	METHOD
Toluene	2.5		0.92	0.18	ppbv	As Recd	1.840	EPA TO-15	METHOD
Ethylbenzene	28		0.92	0.18	ppbv	As Recd	1.840	EPA TO-15	METHOD
m,p-Xylenes	100		0.92	0.18	ppbv	As Recd	1.840	EPA TO-15	METHOD
o-Xylene	32		0.92	0.18	ppbv	As Recd	1.840	EPA TO-15	METHOD
1,3-Dichlorobenzene	1.4		0.92	0.18	ppbv	As Recd	1.840	EPA TO-15	METHOD

Client Sample ID : SG-2

Laboratory Sample ID :

260680-004

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
1,3-Butadiene	3.1		0.98	0.20	ppbv	As Recd	1.960	EPA TO-15	METHOD
Acetone	24		3.9	0.29	ppbv	As Recd	1.960	EPA TO-15	METHOD
Carbon Disulfide	1.4		0.98	0.20	ppbv	As Recd	1.960	EPA TO-15	METHOD
Isopropanol	32		3.9	0.20	ppbv	As Recd	1.960	EPA TO-15	METHOD
n-Hexane	14		0.98	0.20	ppbv	As Recd	1.960	EPA TO-15	METHOD
2-Butanone	6.5		0.98	0.20	ppbv	As Recd	1.960	EPA TO-15	METHOD
Cyclohexane	3.1		0.98	0.20	ppbv	As Recd	1.960	EPA TO-15	METHOD
Benzene	6.4		0.98	0.043	ppbv	As Recd	1.960	EPA TO-15	METHOD
n-Heptane	3.8		0.98	0.20	ppbv	As Recd	1.960	EPA TO-15	METHOD
Toluene	5.2		0.98	0.20	ppbv	As Recd	1.960	EPA TO-15	METHOD
Tetrachloroethene	4.8		0.98	0.022	ppbv	As Recd	1.960	EPA TO-15	METHOD
Ethylbenzene	15		0.98	0.20	ppbv	As Recd	1.960	EPA TO-15	METHOD
m,p-Xylenes	56		0.98	0.20	ppbv	As Recd	1.960	EPA TO-15	METHOD
o-Xylene	18		0.98	0.20	ppbv	As Recd	1.960	EPA TO-15	METHOD
1,3-Dichlorobenzene	3.8		0.98	0.20	ppbv	As Recd	1.960	EPA TO-15	METHOD

Client Sample ID : SG-3

Laboratory Sample ID :

260680-005

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
1,3-Butadiene	3.3		0.99	0.20	ppbv	As Recd	1.970	EPA TO-15	METHOD
Acetone	9.2		3.9	0.29	ppbv	As Recd	1.970	EPA TO-15	METHOD
Carbon Disulfide	2.2		0.99	0.20	ppbv	As Recd	1.970	EPA TO-15	METHOD
Isopropanol	25		3.9	0.20	ppbv	As Recd	1.970	EPA TO-15	METHOD
n-Hexane	3.2		0.99	0.20	ppbv	As Recd	1.970	EPA TO-15	METHOD
2-Butanone	3.3		0.99	0.20	ppbv	As Recd	1.970	EPA TO-15	METHOD
Tetrahydrofuran	3.1		0.99	0.20	ppbv	As Recd	1.970	EPA TO-15	METHOD
Cyclohexane	2.4		0.99	0.20	ppbv	As Recd	1.970	EPA TO-15	METHOD
Benzene	5.1		0.99	0.043	ppbv	As Recd	1.970	EPA TO-15	METHOD
n-Heptane	1.8		0.99	0.20	ppbv	As Recd	1.970	EPA TO-15	METHOD
Toluene	5.9		0.99	0.20	ppbv	As Recd	1.970	EPA TO-15	METHOD
Ethylbenzene	17		0.99	0.20	ppbv	As Recd	1.970	EPA TO-15	METHOD
m,p-Xylenes	61		0.99	0.20	ppbv	As Recd	1.970	EPA TO-15	METHOD
o-Xylene	20		0.99	0.20	ppbv	As Recd	1.970	EPA TO-15	METHOD
1,2,4-Trimethylbenzene	1.4		0.99	0.20	ppbv	As Recd	1.970	EPA TO-15	METHOD
1,3-Dichlorobenzene	2.3		0.99	0.20	ppbv	As Recd	1.970	EPA TO-15	METHOD

Volatile Organics in Air

Lab #:	260680	Location:	Valder & Waverly Streets
Client:	Langan Treadwell Rollo	Prep:	METHOD
Project#:	731641601	Analysis:	EPA TO-15
Field ID:	SSG-1	Diln Fac:	1.830
Lab ID:	260680-001	Batch#:	215282
Matrix:	Air	Sampled:	09/06/14
Units (V):	ppbv	Received:	09/08/14
Units (M):	ug/m3	Analyzed:	09/11/14

Analyte	Result (V)	RL	Result (M)	RL
Freon 12	ND	0.92	ND	4.5
Freon 114	ND	0.92	ND	6.4
Chloromethane	ND	0.92	ND	1.9
Vinyl Chloride	ND	0.92	ND	2.3
1,3-Butadiene	ND	0.92	ND	2.0
Bromomethane	ND	0.92	ND	3.6
Chloroethane	ND	0.92	ND	2.4
Trichlorofluoromethane	ND	0.92	ND	5.1
Acrolein	ND	3.7	ND	8.4
1,1-Dichloroethene	ND	0.92	ND	3.6
Freon 113	ND	0.92	ND	7.0
Acetone	15	3.7	35	8.7
Carbon Disulfide	ND	0.92	ND	2.8
Isopropanol	100	3.7	260	9.0
Methylene Chloride	ND	0.92	ND	3.2
trans-1,2-Dichloroethene	ND	0.92	ND	3.6
MTBE	ND	0.92	ND	3.3
n-Hexane	ND	0.92	ND	3.2
1,1-Dichloroethane	ND	0.92	ND	3.7
Vinyl Acetate	ND	0.92	ND	3.2
cis-1,2-Dichloroethene	ND	0.92	ND	3.6
2-Butanone	4.7	0.92	14	2.7
Ethyl Acetate	ND	0.92	ND	3.3
Tetrahydrofuran	ND	0.92	ND	2.7
Chloroform	ND	0.92	ND	4.5
1,1,1-Trichloroethane	ND	0.92	ND	5.0
Cyclohexane	ND	0.92	ND	3.1
Carbon Tetrachloride	ND	0.92	ND	5.8
Benzene	ND	0.92	ND	2.9
1,2-Dichloroethane	ND	0.92	ND	3.7
n-Heptane	ND	0.92	ND	3.7
Trichloroethene	ND	0.92	ND	4.9
1,2-Dichloropropane	ND	0.92	ND	4.2
Bromodichloromethane	ND	0.92	ND	6.1
cis-1,3-Dichloropropene	ND	0.92	ND	4.2

ND= Not Detected

RL= Reporting Limit

Result M= Result in mass units

Result V= Result in volume units

Volatile Organics in Air

Lab #:	260680	Location:	Valder & Waverly Streets
Client:	Langan Treadwell Rollo	Prep:	METHOD
Project#:	731641601	Analysis:	EPA TO-15
Field ID:	SSG-1	Diln Fac:	1.830
Lab ID:	260680-001	Batch#:	215282
Matrix:	Air	Sampled:	09/06/14
Units (V):	ppbv	Received:	09/08/14
Units (M):	ug/m3	Analyzed:	09/11/14

Analyte	Result (V)	RL	Result (M)	RL
4-Methyl-2-Pentanone	ND	0.92	ND	3.7
Toluene	2.1	0.92	7.8	3.4
trans-1,3-Dichloropropene	ND	0.92	ND	4.2
1,1,2-Trichloroethane	ND	0.92	ND	5.0
Tetrachloroethene	ND	0.92	ND	6.2
2-Hexanone	ND	0.92	ND	3.7
Dibromochloromethane	ND	0.92	ND	7.8
1,2-Dibromoethane	ND	0.92	ND	7.0
Chlorobenzene	ND	0.92	ND	4.2
Ethylbenzene	ND	0.92	ND	4.0
m,p-Xylenes	3.0	0.92	13	4.0
o-Xylene	1.1	0.92	4.9	4.0
Styrene	ND	0.92	ND	3.9
Bromoform	ND	0.92	ND	9.5
1,1,2,2-Tetrachloroethane	ND	0.92	ND	6.3
4-Ethyltoluene	ND	0.92	ND	4.5
1,3,5-Trimethylbenzene	ND	0.92	ND	4.5
1,2,4-Trimethylbenzene	ND	0.92	ND	4.5
1,3-Dichlorobenzene	1.6	0.92	9.7	5.5
1,4-Dichlorobenzene	ND	0.92	ND	5.5
Benzyl chloride	ND	0.92	ND	4.7
1,2-Dichlorobenzene	ND	0.92	ND	5.5
1,2,4-Trichlorobenzene	ND	0.92	ND	6.8
Hexachlorobutadiene	ND	0.92	ND	9.8
Naphthalene	ND	3.7	ND	19

Surrogate	%REC	Limits
Bromofluorobenzene	93	70-130

ND= Not Detected

RL= Reporting Limit

Result M= Result in mass units

Result V= Result in volume units

Volatile Organics in Air

Lab #:	260680	Location:	Valder & Waverly Streets
Client:	Langan Treadwell Rollo	Prep:	METHOD
Project#:	731641601	Analysis:	EPA TO-15
Field ID:	SSG-2	Diln Fac:	1.780
Lab ID:	260680-002	Batch#:	215282
Matrix:	Air	Sampled:	09/06/14
Units (V):	ppbv	Received:	09/08/14
Units (M):	ug/m3	Analyzed:	09/11/14

Analyte	Result (V)	RL	Result (M)	RL
Freon 12	ND	0.89	ND	4.4
Freon 114	ND	0.89	ND	6.2
Chloromethane	ND	0.89	ND	1.8
Vinyl Chloride	ND	0.89	ND	2.3
1,3-Butadiene	1.5	0.89	3.4	2.0
Bromomethane	ND	0.89	ND	3.5
Chloroethane	ND	0.89	ND	2.3
Trichlorofluoromethane	ND	0.89	ND	5.0
Acrolein	ND	3.6	ND	8.2
1,1-Dichloroethene	ND	0.89	ND	3.5
Freon 113	ND	0.89	ND	6.8
Acetone	150	3.6	350	8.5
Carbon Disulfide	1.4	0.89	4.3	2.8
Isopropanol	170	3.6	420	8.8
Methylene Chloride	ND	0.89	ND	3.1
trans-1,2-Dichloroethene	ND	0.89	ND	3.5
MTBE	ND	0.89	ND	3.2
n-Hexane	2.3	0.89	8.1	3.1
1,1-Dichloroethane	ND	0.89	ND	3.6
Vinyl Acetate	ND	0.89	ND	3.1
cis-1,2-Dichloroethene	ND	0.89	ND	3.5
2-Butanone	14	0.89	40	2.6
Ethyl Acetate	1.1	0.89	4.1	3.2
Tetrahydrofuran	ND	0.89	ND	2.6
Chloroform	ND	0.89	ND	4.3
1,1,1-Trichloroethane	ND	0.89	ND	4.9
Cyclohexane	3.6	0.89	12	3.1
Carbon Tetrachloride	ND	0.89	ND	5.6
Benzene	1.9	0.89	5.9	2.8
1,2-Dichloroethane	ND	0.89	ND	3.6
n-Heptane	2.2	0.89	9.0	3.6
Trichloroethene	ND	0.89	ND	4.8
1,2-Dichloropropane	ND	0.89	ND	4.1
Bromodichloromethane	ND	0.89	ND	6.0
cis-1,3-Dichloropropene	ND	0.89	ND	4.0

ND= Not Detected

RL= Reporting Limit

Result M= Result in mass units

Result V= Result in volume units

Volatile Organics in Air			
Lab #:	260680	Location:	Valder & Waverly Streets
Client:	Langan Treadwell Rollo	Prep:	METHOD
Project#:	731641601	Analysis:	EPA TO-15
Field ID:	SSG-2	Diln Fac:	1.780
Lab ID:	260680-002	Batch#:	215282
Matrix:	Air	Sampled:	09/06/14
Units (V):	ppbv	Received:	09/08/14
Units (M):	ug/m3	Analyzed:	09/11/14

Analyte	Result (V)	RL	Result (M)	RL
4-Methyl-2-Pentanone	ND	0.89	ND	3.6
Toluene	3.4	0.89	13	3.4
trans-1,3-Dichloropropene	ND	0.89	ND	4.0
1,1,2-Trichloroethane	ND	0.89	ND	4.9
Tetrachloroethene	ND	0.89	ND	6.0
2-Hexanone	ND	0.89	ND	3.6
Dibromochloromethane	ND	0.89	ND	7.6
1,2-Dibromoethane	ND	0.89	ND	6.8
Chlorobenzene	ND	0.89	ND	4.1
Ethylbenzene	ND	0.89	ND	3.9
m,p-Xylenes	2.5	0.89	11	3.9
o-Xylene	1.1	0.89	4.8	3.9
Styrene	ND	0.89	ND	3.8
Bromoform	ND	0.89	ND	9.2
1,1,2,2-Tetrachloroethane	ND	0.89	ND	6.1
4-Ethyltoluene	ND	0.89	ND	4.4
1,3,5-Trimethylbenzene	ND	0.89	ND	4.4
1,2,4-Trimethylbenzene	ND	0.89	ND	4.4
1,3-Dichlorobenzene	4.2	0.89	25	5.4
1,4-Dichlorobenzene	ND	0.89	ND	5.4
Benzyl chloride	ND	0.89	ND	4.6
1,2-Dichlorobenzene	ND	0.89	ND	5.4
1,2,4-Trichlorobenzene	ND	0.89	ND	6.6
Hexachlorobutadiene	ND	0.89	ND	9.5
Naphthalene	ND	3.6	ND	19

Surrogate	%REC	Limits
Bromofluorobenzene	93	70-130

ND= Not Detected

RL= Reporting Limit

Result M= Result in mass units

Result V= Result in volume units

Volatile Organics in Air

Lab #:	260680	Location:	Valder & Waverly Streets
Client:	Langan Treadwell Rollo	Prep:	METHOD
Project#:	731641601	Analysis:	EPA TO-15
Field ID:	SG-1	Diln Fac:	1.840
Lab ID:	260680-003	Batch#:	215323
Matrix:	Air	Sampled:	09/06/14
Units (V):	ppbv	Received:	09/08/14
Units (M):	ug/m3	Analyzed:	09/12/14

Analyte	Result (V)	RL	Result (M)	RL
Freon 12	ND	0.92	ND	4.5
Freon 114	ND	0.92	ND	6.4
Chloromethane	ND	0.92	ND	1.9
Vinyl Chloride	ND	0.92	ND	2.4
1,3-Butadiene	2.0	0.92	4.5	2.0
Bromomethane	ND	0.92	ND	3.6
Chloroethane	ND	0.92	ND	2.4
Trichlorofluoromethane	ND	0.92	ND	5.2
Acrolein	ND	3.7	ND	8.4
1,1-Dichloroethene	ND	0.92	ND	3.6
Freon 113	ND	0.92	ND	7.1
Acetone	36	3.7	86	8.7
Carbon Disulfide	ND	0.92	ND	2.9
Isopropanol	21	3.7	51	9.0
Methylene Chloride	ND	0.92	ND	3.2
trans-1,2-Dichloroethene	ND	0.92	ND	3.6
MTBE	ND	0.92	ND	3.3
n-Hexane	6.7	0.92	24	3.2
1,1-Dichloroethane	ND	0.92	ND	3.7
Vinyl Acetate	ND	0.92	ND	3.2
cis-1,2-Dichloroethene	ND	0.92	ND	3.6
2-Butanone	4.8	0.92	14	2.7
Ethyl Acetate	ND	0.92	ND	3.3
Tetrahydrofuran	2.3	0.92	6.8	2.7
Chloroform	ND	0.92	ND	4.5
1,1,1-Trichloroethane	ND	0.92	ND	5.0
Cyclohexane	5.1	0.92	17	3.2
Carbon Tetrachloride	ND	0.92	ND	5.8
Benzene	2.7	0.92	8.8	2.9
1,2-Dichloroethane	ND	0.92	ND	3.7
n-Heptane	2.4	0.92	10	3.8
Trichloroethene	ND	0.92	ND	4.9
1,2-Dichloropropane	ND	0.92	ND	4.3
Bromodichloromethane	ND	0.92	ND	6.2
cis-1,3-Dichloropropene	ND	0.92	ND	4.2

ND= Not Detected

RL= Reporting Limit

Result M= Result in mass units

Result V= Result in volume units

Volatile Organics in Air

Lab #:	260680	Location:	Valder & Waverly Streets
Client:	Langan Treadwell Rollo	Prep:	METHOD
Project#:	731641601	Analysis:	EPA TO-15
Field ID:	SG-1	Diln Fac:	1.840
Lab ID:	260680-003	Batch#:	215323
Matrix:	Air	Sampled:	09/06/14
Units (V):	ppbv	Received:	09/08/14
Units (M):	ug/m3	Analyzed:	09/12/14

Analyte	Result (V)	RL	Result (M)	RL
4-Methyl-2-Pentanone	ND	0.92	ND	3.8
Toluene	2.5	0.92	9.4	3.5
trans-1,3-Dichloropropene	ND	0.92	ND	4.2
1,1,2-Trichloroethane	ND	0.92	ND	5.0
Tetrachloroethene	ND	0.92	ND	6.2
2-Hexanone	ND	0.92	ND	3.8
Dibromochloromethane	ND	0.92	ND	7.8
1,2-Dibromoethane	ND	0.92	ND	7.1
Chlorobenzene	ND	0.92	ND	4.2
Ethylbenzene	28	0.92	120	4.0
m,p-Xylenes	100	0.92	450	4.0
o-Xylene	32	0.92	140	4.0
Styrene	ND	0.92	ND	3.9
Bromoform	ND	0.92	ND	9.5
1,1,2,2-Tetrachloroethane	ND	0.92	ND	6.3
4-Ethyltoluene	ND	0.92	ND	4.5
1,3,5-Trimethylbenzene	ND	0.92	ND	4.5
1,2,4-Trimethylbenzene	ND	0.92	ND	4.5
1,3-Dichlorobenzene	1.4	0.92	8.6	5.5
1,4-Dichlorobenzene	ND	0.92	ND	5.5
Benzyl chloride	ND	0.92	ND	4.8
1,2-Dichlorobenzene	ND	0.92	ND	5.5
1,2,4-Trichlorobenzene	ND	0.92	ND	6.8
Hexachlorobutadiene	ND	0.92	ND	9.8
Naphthalene	ND	3.7	ND	19

Surrogate	%REC	Limits
Bromofluorobenzene	107	70-130

ND= Not Detected

RL= Reporting Limit

Result M= Result in mass units

Result V= Result in volume units

Volatile Organics in Air

Lab #:	260680	Location:	Valder & Waverly Streets
Client:	Langan Treadwell Rollo	Prep:	METHOD
Project#:	731641601	Analysis:	EPA TO-15
Field ID:	SG-2	Diln Fac:	1.960
Lab ID:	260680-004	Batch#:	215323
Matrix:	Air	Sampled:	09/06/14
Units (V):	ppbv	Received:	09/08/14
Units (M):	ug/m3	Analyzed:	09/12/14

Analyte	Result (V)	RL	Result (M)	RL
Freon 12	ND	0.98	ND	4.8
Freon 114	ND	0.98	ND	6.9
Chloromethane	ND	0.98	ND	2.0
Vinyl Chloride	ND	0.98	ND	2.5
1,3-Butadiene	3.1	0.98	6.8	2.2
Bromomethane	ND	0.98	ND	3.8
Chloroethane	ND	0.98	ND	2.6
Trichlorofluoromethane	ND	0.98	ND	5.5
Acrolein	ND	3.9	ND	9.0
1,1-Dichloroethene	ND	0.98	ND	3.9
Freon 113	ND	0.98	ND	7.5
Acetone	24	3.9	57	9.3
Carbon Disulfide	1.4	0.98	4.4	3.1
Isopropanol	32	3.9	78	9.6
Methylene Chloride	ND	0.98	ND	3.4
trans-1,2-Dichloroethene	ND	0.98	ND	3.9
MTBE	ND	0.98	ND	3.5
n-Hexane	14	0.98	48	3.5
1,1-Dichloroethane	ND	0.98	ND	4.0
Vinyl Acetate	ND	0.98	ND	3.5
cis-1,2-Dichloroethene	ND	0.98	ND	3.9
2-Butanone	6.5	0.98	19	2.9
Ethyl Acetate	ND	0.98	ND	3.5
Tetrahydrofuran	ND	0.98	ND	2.9
Chloroform	ND	0.98	ND	4.8
1,1,1-Trichloroethane	ND	0.98	ND	5.3
Cyclohexane	3.1	0.98	11	3.4
Carbon Tetrachloride	ND	0.98	ND	6.2
Benzene	6.4	0.98	20	3.1
1,2-Dichloroethane	ND	0.98	ND	4.0
n-Heptane	3.8	0.98	15	4.0
Trichloroethene	ND	0.98	ND	5.3
1,2-Dichloropropane	ND	0.98	ND	4.5
Bromodichloromethane	ND	0.98	ND	6.6
cis-1,3-Dichloropropene	ND	0.98	ND	4.4

ND= Not Detected

RL= Reporting Limit

Result M= Result in mass units

Result V= Result in volume units

Volatile Organics in Air

Lab #:	260680	Location:	Valder & Waverly Streets
Client:	Langan Treadwell Rollo	Prep:	METHOD
Project#:	731641601	Analysis:	EPA TO-15
Field ID:	SG-2	Diln Fac:	1.960
Lab ID:	260680-004	Batch#:	215323
Matrix:	Air	Sampled:	09/06/14
Units (V):	ppbv	Received:	09/08/14
Units (M):	ug/m3	Analyzed:	09/12/14

Analyte	Result (V)	RL	Result (M)	RL
4-Methyl-2-Pentanone	ND	0.98	ND	4.0
Toluene	5.2	0.98	19	3.7
trans-1,3-Dichloropropene	ND	0.98	ND	4.4
1,1,2-Trichloroethane	ND	0.98	ND	5.3
Tetrachloroethene	4.8	0.98	33	6.6
2-Hexanone	ND	0.98	ND	4.0
Dibromochloromethane	ND	0.98	ND	8.3
1,2-Dibromoethane	ND	0.98	ND	7.5
Chlorobenzene	ND	0.98	ND	4.5
Ethylbenzene	15	0.98	64	4.3
m,p-Xylenes	56	0.98	240	4.3
o-Xylene	18	0.98	78	4.3
Styrene	ND	0.98	ND	4.2
Bromoform	ND	0.98	ND	10
1,1,2,2-Tetrachloroethane	ND	0.98	ND	6.7
4-Ethyltoluene	ND	0.98	ND	4.8
1,3,5-Trimethylbenzene	ND	0.98	ND	4.8
1,2,4-Trimethylbenzene	ND	0.98	ND	4.8
1,3-Dichlorobenzene	3.8	0.98	23	5.9
1,4-Dichlorobenzene	ND	0.98	ND	5.9
Benzyl chloride	ND	0.98	ND	5.1
1,2-Dichlorobenzene	ND	0.98	ND	5.9
1,2,4-Trichlorobenzene	ND	0.98	ND	7.3
Hexachlorobutadiene	ND	0.98	ND	10
Naphthalene	ND	3.9	ND	21

Surrogate	%REC	Limits
Bromofluorobenzene	100	70-130

ND= Not Detected

RL= Reporting Limit

Result M= Result in mass units

Result V= Result in volume units

Volatile Organics in Air

Lab #:	260680	Location:	Valder & Waverly Streets
Client:	Langan Treadwell Rollo	Prep:	METHOD
Project#:	731641601	Analysis:	EPA TO-15
Field ID:	SG-3	Diln Fac:	1.970
Lab ID:	260680-005	Batch#:	215323
Matrix:	Air	Sampled:	09/06/14
Units (V):	ppbv	Received:	09/08/14
Units (M):	ug/m3	Analyzed:	09/12/14

Analyte	Result (V)	RL	Result (M)	RL
Freon 12	ND	0.99	ND	4.9
Freon 114	ND	0.99	ND	6.9
Chloromethane	ND	0.99	ND	2.0
Vinyl Chloride	ND	0.99	ND	2.5
1,3-Butadiene	3.3	0.99	7.3	2.2
Bromomethane	ND	0.99	ND	3.8
Chloroethane	ND	0.99	ND	2.6
Trichlorofluoromethane	ND	0.99	ND	5.5
Acrolein	ND	3.9	ND	9.0
1,1-Dichloroethene	ND	0.99	ND	3.9
Freon 113	ND	0.99	ND	7.5
Acetone	9.2	3.9	22	9.4
Carbon Disulfide	2.2	0.99	6.8	3.1
Isopropanol	25	3.9	60	9.7
Methylene Chloride	ND	0.99	ND	3.4
trans-1,2-Dichloroethene	ND	0.99	ND	3.9
MTBE	ND	0.99	ND	3.6
n-Hexane	3.2	0.99	11	3.5
1,1-Dichloroethane	ND	0.99	ND	4.0
Vinyl Acetate	ND	0.99	ND	3.5
cis-1,2-Dichloroethene	ND	0.99	ND	3.9
2-Butanone	3.3	0.99	9.8	2.9
Ethyl Acetate	ND	0.99	ND	3.5
Tetrahydrofuran	3.1	0.99	9.2	2.9
Chloroform	ND	0.99	ND	4.8
1,1,1-Trichloroethane	ND	0.99	ND	5.4
Cyclohexane	2.4	0.99	8.4	3.4
Carbon Tetrachloride	ND	0.99	ND	6.2
Benzene	5.1	0.99	16	3.1
1,2-Dichloroethane	ND	0.99	ND	4.0
n-Heptane	1.8	0.99	7.4	4.0
Trichloroethene	ND	0.99	ND	5.3
1,2-Dichloropropane	ND	0.99	ND	4.6
Bromodichloromethane	ND	0.99	ND	6.6
cis-1,3-Dichloropropene	ND	0.99	ND	4.5

ND= Not Detected

RL= Reporting Limit

Result M= Result in mass units

Result V= Result in volume units

Volatile Organics in Air

Lab #:	260680	Location:	Valder & Waverly Streets
Client:	Langan Treadwell Rollo	Prep:	METHOD
Project#:	731641601	Analysis:	EPA TO-15
Field ID:	SG-3	Diln Fac:	1.970
Lab ID:	260680-005	Batch#:	215323
Matrix:	Air	Sampled:	09/06/14
Units (V):	ppbv	Received:	09/08/14
Units (M):	ug/m3	Analyzed:	09/12/14

Analyte	Result (V)	RL	Result (M)	RL
4-Methyl-2-Pentanone	ND	0.99	ND	4.0
Toluene	5.9	0.99	22	3.7
trans-1,3-Dichloropropene	ND	0.99	ND	4.5
1,1,2-Trichloroethane	ND	0.99	ND	5.4
Tetrachloroethene	ND	0.99	ND	6.7
2-Hexanone	ND	0.99	ND	4.0
Dibromochloromethane	ND	0.99	ND	8.4
1,2-Dibromoethane	ND	0.99	ND	7.6
Chlorobenzene	ND	0.99	ND	4.5
Ethylbenzene	17	0.99	72	4.3
m,p-Xylenes	61	0.99	270	4.3
o-Xylene	20	0.99	88	4.3
Styrene	ND	0.99	ND	4.2
Bromoform	ND	0.99	ND	10
1,1,2,2-Tetrachloroethane	ND	0.99	ND	6.8
4-Ethyltoluene	ND	0.99	ND	4.8
1,3,5-Trimethylbenzene	ND	0.99	ND	4.8
1,2,4-Trimethylbenzene	1.4	0.99	7.1	4.8
1,3-Dichlorobenzene	2.3	0.99	14	5.9
1,4-Dichlorobenzene	ND	0.99	ND	5.9
Benzyl chloride	ND	0.99	ND	5.1
1,2-Dichlorobenzene	ND	0.99	ND	5.9
1,2,4-Trichlorobenzene	ND	0.99	ND	7.3
Hexachlorobutadiene	ND	0.99	ND	11
Naphthalene	ND	3.9	ND	21

Surrogate	%REC	Limits
Bromofluorobenzene	95	70-130

ND= Not Detected

RL= Reporting Limit

Result M= Result in mass units

Result V= Result in volume units

Batch QC Report

Volatile Organics in Air			
Lab #:	260680	Location:	Valder & Waverly Streets
Client:	Langan Treadwell Rollo	Prep:	METHOD
Project#:	731641601	Analysis:	EPA TO-15
Matrix:	Air	Batch#:	215282
Units (V):	ppbv	Analyzed:	09/11/14
Diln Fac:	1.000		

Analyte	Spiked	Result (V)	%REC	Limits
cis-1,3-Dichloropropene	10.00	9.944	99	70-130
4-Methyl-2-Pentanone	10.00	10.39	104	70-130
Toluene	10.00	9.244	92	70-130
trans-1,3-Dichloropropene	10.00	10.13	101	70-130
1,1,2-Trichloroethane	10.00	10.51	105	70-130
Tetrachloroethene	10.00	9.900	99	70-130
2-Hexanone	10.00	10.08	101	70-130
Dibromochloromethane	10.00	9.699	97	70-130
1,2-Dibromoethane	10.00	10.35	104	70-130
Chlorobenzene	10.00	8.096	81	70-130
Ethylbenzene	10.00	7.869	79	70-130
m,p-Xylenes	20.00	17.22	86	70-130
o-Xylene	10.00	8.759	88	70-130
Styrene	10.00	7.459	75	70-130
Bromoform	10.00	9.154	92	70-130
1,1,2,2-Tetrachloroethane	10.00	10.15	102	70-130
4-Ethyltoluene	10.00	10.48	105	70-130
1,3,5-Trimethylbenzene	10.00	10.29	103	70-130
1,2,4-Trimethylbenzene	10.00	11.07	111	70-130
1,3-Dichlorobenzene	10.00	9.354	94	70-130
1,4-Dichlorobenzene	10.00	9.521	95	70-130
Benzyl chloride	10.00	8.438	84	70-130
1,2-Dichlorobenzene	10.00	9.631	96	70-130
1,2,4-Trichlorobenzene	10.00	9.267	93	62-130
Hexachlorobutadiene	10.00	7.464	75	68-130
Naphthalene	10.00	12.07	121	54-136

Surrogate	%REC	Limits
Bromofluorobenzene	102	70-130

RPD= Relative Percent Difference

Result V= Result in volume units

Batch QC Report

Volatile Organics in Air			
Lab #:	260680	Location:	Valder & Waverly Streets
Client:	Langan Treadwell Rollo	Prep:	METHOD
Project#:	731641601	Analysis:	EPA TO-15
Matrix:	Air	Batch#:	215282
Units (V):	ppbv	Analyzed:	09/11/14
Diln Fac:	1.000		

Analyte	Spiked	Result (V)	%REC	Limits	RPD	Lim
cis-1,3-Dichloropropene	10.00	9.789	98	70-130	2	20
4-Methyl-2-Pentanone	10.00	10.16	102	70-130	2	20
Toluene	10.00	9.023	90	70-130	2	23
trans-1,3-Dichloropropene	10.00	9.927	99	70-130	2	20
1,1,2-Trichloroethane	10.00	10.03	100	70-130	5	20
Tetrachloroethene	10.00	9.433	94	70-130	5	20
2-Hexanone	10.00	9.885	99	70-130	2	21
Dibromochloromethane	10.00	9.018	90	70-130	7	20
1,2-Dibromoethane	10.00	9.929	99	70-130	4	20
Chlorobenzene	10.00	8.030	80	70-130	1	21
Ethylbenzene	10.00	8.027	80	70-130	2	20
m,p-Xylenes	20.00	17.28	86	70-130	0	20
o-Xylene	10.00	8.603	86	70-130	2	20
Styrene	10.00	7.463	75	70-130	0	21
Bromoform	10.00	8.562	86	70-130	7	20
1,1,2,2-Tetrachloroethane	10.00	9.410	94	70-130	8	24
4-Ethyltoluene	10.00	10.10	101	70-130	4	22
1,3,5-Trimethylbenzene	10.00	9.779	98	70-130	5	23
1,2,4-Trimethylbenzene	10.00	10.69	107	70-130	4	24
1,3-Dichlorobenzene	10.00	9.080	91	70-130	3	22
1,4-Dichlorobenzene	10.00	9.498	95	70-130	0	22
Benzyl chloride	10.00	8.472	85	70-130	0	21
1,2-Dichlorobenzene	10.00	9.482	95	70-130	2	22
1,2,4-Trichlorobenzene	10.00	8.748	87	62-130	6	28
Hexachlorobutadiene	10.00	7.199	72	68-130	4	27
Naphthalene	10.00	11.59	116	54-136	4	29

Surrogate	%REC	Limits
Bromofluorobenzene	101	70-130

RPD= Relative Percent Difference

Result V= Result in volume units

Batch QC Report

Volatile Organics in Air			
Lab #:	260680	Location:	Valder & Waverly Streets
Client:	Langan Treadwell Rollo	Prep:	METHOD
Project#:	731641601	Analysis:	EPA TO-15
Type:	BLANK	Units (M):	ug/m3
Lab ID:	QC757112	Diln Fac:	1.000
Matrix:	Air	Batch#:	215282
Units (V):	ppbv	Analyzed:	09/11/14

Analyte	Result (V)	RL	Result (M)	RL
Freon 12	ND	0.50	ND	2.5
Freon 114	ND	0.50	ND	3.5
Chloromethane	ND	0.50	ND	1.0
Vinyl Chloride	ND	0.50	ND	1.3
1,3-Butadiene	ND	0.50	ND	1.1
Bromomethane	ND	0.50	ND	1.9
Chloroethane	ND	0.50	ND	1.3
Trichlorofluoromethane	ND	0.50	ND	2.8
Acrolein	ND	2.0	ND	4.6
1,1-Dichloroethene	ND	0.50	ND	2.0
Freon 113	ND	0.50	ND	3.8
Acetone	ND	2.0	ND	4.8
Carbon Disulfide	ND	0.50	ND	1.6
Isopropanol	ND	2.0	ND	4.9
Methylene Chloride	ND	0.50	ND	1.7
trans-1,2-Dichloroethene	ND	0.50	ND	2.0
MTBE	ND	0.50	ND	1.8
n-Hexane	ND	0.50	ND	1.8
1,1-Dichloroethane	ND	0.50	ND	2.0
Vinyl Acetate	ND	0.50	ND	1.8
cis-1,2-Dichloroethene	ND	0.50	ND	2.0
2-Butanone	ND	0.50	ND	1.5
Ethyl Acetate	ND	0.50	ND	1.8
Tetrahydrofuran	ND	0.50	ND	1.5
Chloroform	ND	0.50	ND	2.4
1,1,1-Trichloroethane	ND	0.50	ND	2.7
Cyclohexane	ND	0.50	ND	1.7
Carbon Tetrachloride	ND	0.50	ND	3.1
Benzene	ND	0.50	ND	1.6
1,2-Dichloroethane	ND	0.50	ND	2.0
n-Heptane	ND	0.50	ND	2.0
Trichloroethene	ND	0.50	ND	2.7
1,2-Dichloropropane	ND	0.50	ND	2.3
Bromodichloromethane	ND	0.50	ND	3.4
cis-1,3-Dichloropropene	ND	0.50	ND	2.3

ND= Not Detected

RL= Reporting Limit

Result M= Result in mass units

Result V= Result in volume units

Batch QC Report

Volatile Organics in Air			
Lab #:	260680	Location:	Valder & Waverly Streets
Client:	Langan Treadwell Rollo	Prep:	METHOD
Project#:	731641601	Analysis:	EPA TO-15
Type:	BLANK	Units (M):	ug/m3
Lab ID:	QC757112	Diln Fac:	1.000
Matrix:	Air	Batch#:	215282
Units (V):	ppbv	Analyzed:	09/11/14

Analyte	Result (V)	RL	Result (M)	RL
4-Methyl-2-Pentanone	ND	0.50	ND	2.0
Toluene	ND	0.50	ND	1.9
trans-1,3-Dichloropropene	ND	0.50	ND	2.3
1,1,2-Trichloroethane	ND	0.50	ND	2.7
Tetrachloroethene	ND	0.50	ND	3.4
2-Hexanone	ND	0.50	ND	2.0
Dibromochloromethane	ND	0.50	ND	4.3
1,2-Dibromoethane	ND	0.50	ND	3.8
Chlorobenzene	ND	0.50	ND	2.3
Ethylbenzene	ND	0.50	ND	2.2
m,p-Xylenes	ND	0.50	ND	2.2
o-Xylene	ND	0.50	ND	2.2
Styrene	ND	0.50	ND	2.1
Bromoform	ND	0.50	ND	5.2
1,1,2,2-Tetrachloroethane	ND	0.50	ND	3.4
4-Ethyltoluene	ND	0.50	ND	2.5
1,3,5-Trimethylbenzene	ND	0.50	ND	2.5
1,2,4-Trimethylbenzene	ND	0.50	ND	2.5
1,3-Dichlorobenzene	ND	0.50	ND	3.0
1,4-Dichlorobenzene	ND	0.50	ND	3.0
Benzyl chloride	ND	0.50	ND	2.6
1,2-Dichlorobenzene	ND	0.50	ND	3.0
1,2,4-Trichlorobenzene	ND	0.50	ND	3.7
Hexachlorobutadiene	ND	0.50	ND	5.3
Naphthalene	ND	2.0	ND	10

Surrogate	%REC	Limits
Bromofluorobenzene	94	70-130

ND= Not Detected

RL= Reporting Limit

Result M= Result in mass units

Result V= Result in volume units

Batch QC Report

Volatile Organics in Air			
Lab #:	260680	Location:	Valder & Waverly Streets
Client:	Langan Treadwell Rollo	Prep:	METHOD
Project#:	731641601	Analysis:	EPA TO-15
Matrix:	Air	Batch#:	215323
Units (V):	ppbv	Analyzed:	09/12/14
Diln Fac:	1.000		

Type: BS Lab ID: QC757288

Analyte	Spiked	Result (V)	%REC	Limits
Freon 12	10.00	10.81	108	70-130
Freon 114	10.00	9.441	94	70-130
Chloromethane	10.00	11.07	111	70-130
Vinyl Chloride	10.00	11.04	110	70-130
1,3-Butadiene	10.00	9.103	91	70-130
Bromomethane	10.00	11.89	119	70-130
Chloroethane	10.00	11.74	117	70-130
Trichlorofluoromethane	10.00	11.22	112	70-130
Acrolein	10.00	11.53	115	62-130
1,1-Dichloroethene	10.00	10.38	104	70-130
Freon 113	10.00	11.20	112	70-130
Acetone	10.00	8.638	86	67-130
Carbon Disulfide	10.00	9.380	94	70-130
Isopropanol	10.00	7.939	79	60-130
Methylene Chloride	10.00	9.513	95	68-130
trans-1,2-Dichloroethene	10.00	10.18	102	70-130
MTBE	10.00	10.18	102	70-130
n-Hexane	10.00	10.59	106	70-130
1,1-Dichloroethane	10.00	10.54	105	70-130
Vinyl Acetate	10.00	13.40 b	134 *	70-130
cis-1,2-Dichloroethene	10.00	9.835	98	70-130
2-Butanone	10.00	9.518	95	70-130
Ethyl Acetate	10.00	10.11	101	70-130
Tetrahydrofuran	10.00	9.856	99	70-130
Chloroform	10.00	10.58	106	70-130
1,1,1-Trichloroethane	10.00	10.80	108	70-130
Cyclohexane	10.00	10.26	103	70-130
Carbon Tetrachloride	10.00	9.904	99	70-130
Benzene	10.00	9.935	99	70-130
1,2-Dichloroethane	10.00	10.01	100	70-130
n-Heptane	10.00	9.696	97	70-130
Trichloroethene	10.00	9.642	96	70-130

*= Value outside of QC limits; see narrative

b= See narrative

RPD= Relative Percent Difference

Result V= Result in volume units

Batch QC Report

Volatile Organics in Air			
Lab #:	260680	Location:	Valder & Waverly Streets
Client:	Langan Treadwell Rollo	Prep:	METHOD
Project#:	731641601	Analysis:	EPA TO-15
Matrix:	Air	Batch#:	215323
Units (V):	ppbv	Analyzed:	09/12/14
Diln Fac:	1.000		

Analyte	Spiked	Result (V)	%REC	Limits
1,2-Dichloropropane	10.00	10.13	101	70-130
Bromodichloromethane	10.00	10.12	101	70-130
cis-1,3-Dichloropropene	10.00	10.71	107	70-130
4-Methyl-2-Pentanone	10.00	11.12	111	70-130
Toluene	10.00	9.912	99	70-130
trans-1,3-Dichloropropene	10.00	10.84	108	70-130
1,1,2-Trichloroethane	10.00	10.42	104	70-130
Tetrachloroethene	10.00	10.11	101	70-130
2-Hexanone	10.00	10.84	108	70-130
Dibromochloromethane	10.00	9.232	92	70-130
1,2-Dibromoethane	10.00	10.49	105	70-130
Chlorobenzene	10.00	9.210	92	70-130
Ethylbenzene	10.00	9.453	95	70-130
m,p-Xylenes	20.00	19.11	96	70-130
o-Xylene	10.00	9.585	96	70-130
Styrene	10.00	8.380	84	70-130
Bromoform	10.00	8.428	84	70-130
1,1,2,2-Tetrachloroethane	10.00	10.38	104	70-130
4-Ethyltoluene	10.00	10.67	107	70-130
1,3,5-Trimethylbenzene	10.00	10.05	100	70-130
1,2,4-Trimethylbenzene	10.00	10.94	109	70-130
1,3-Dichlorobenzene	10.00	9.724	97	70-130
1,4-Dichlorobenzene	10.00	9.842	98	70-130
Benzyl chloride	10.00	9.772	98	70-130
1,2-Dichlorobenzene	10.00	9.989	100	70-130
1,2,4-Trichlorobenzene	10.00	9.097	91	62-130
Hexachlorobutadiene	10.00	7.664	77	68-130
Naphthalene	10.00	11.52	115	54-136

Surrogate	%REC	Limits
Bromofluorobenzene	91	70-130

*= Value outside of QC limits; see narrative

b= See narrative

RPD= Relative Percent Difference

Result V= Result in volume units

Batch QC Report

Volatile Organics in Air			
Lab #:	260680	Location:	Valder & Waverly Streets
Client:	Langan Treadwell Rollo	Prep:	METHOD
Project#:	731641601	Analysis:	EPA TO-15
Matrix:	Air	Batch#:	215323
Units (V):	ppbv	Analyzed:	09/12/14
Diln Fac:	1.000		

Analyte	Spiked	Result (V)	%REC	Limits	RPD	Lim
1,2-Dichloropropane	10.00	9.902	99	70-130	2	20
Bromodichloromethane	10.00	9.829	98	70-130	3	20
cis-1,3-Dichloropropene	10.00	10.27	103	70-130	4	20
4-Methyl-2-Pentanone	10.00	10.91	109	70-130	2	20
Toluene	10.00	9.279	93	70-130	7	23
trans-1,3-Dichloropropene	10.00	10.39	104	70-130	4	20
1,1,2-Trichloroethane	10.00	9.852	99	70-130	6	20
Tetrachloroethene	10.00	9.343	93	70-130	8	20
2-Hexanone	10.00	10.11	101	70-130	7	21
Dibromochloromethane	10.00	8.747	87	70-130	5	20
1,2-Dibromoethane	10.00	9.787	98	70-130	7	20
Chlorobenzene	10.00	8.378	84	70-130	9	21
Ethylbenzene	10.00	8.608	86	70-130	9	20
m,p-Xylenes	20.00	17.96	90	70-130	6	20
o-Xylene	10.00	8.927	89	70-130	7	20
Styrene	10.00	7.741	77	70-130	8	21
Bromoform	10.00	7.781	78	70-130	8	20
1,1,2,2-Tetrachloroethane	10.00	9.721	97	70-130	7	24
4-Ethyltoluene	10.00	10.33	103	70-130	3	22
1,3,5-Trimethylbenzene	10.00	9.806	98	70-130	2	23
1,2,4-Trimethylbenzene	10.00	10.71	107	70-130	2	24
1,3-Dichlorobenzene	10.00	9.220	92	70-130	5	22
1,4-Dichlorobenzene	10.00	9.370	94	70-130	5	22
Benzyl chloride	10.00	9.009	90	70-130	8	21
1,2-Dichlorobenzene	10.00	9.600	96	70-130	4	22
1,2,4-Trichlorobenzene	10.00	8.569	86	62-130	6	28
Hexachlorobutadiene	10.00	7.194	72	68-130	6	27
Naphthalene	10.00	11.80	118	54-136	2	29

Surrogate	%REC	Limits
Bromofluorobenzene	95	70-130

*= Value outside of QC limits; see narrative

b= See narrative

RPD= Relative Percent Difference

Result V= Result in volume units

Batch QC Report

Volatile Organics in Air			
Lab #:	260680	Location:	Valder & Waverly Streets
Client:	Langan Treadwell Rollo	Prep:	METHOD
Project#:	731641601	Analysis:	EPA TO-15
Type:	BLANK	Units (M):	ug/m3
Lab ID:	QC757290	Diln Fac:	1.000
Matrix:	Air	Batch#:	215323
Units (V):	ppbv	Analyzed:	09/12/14

Analyte	Result (V)	RL	Result (M)	RL
Freon 12	ND	0.50	ND	2.5
Freon 114	ND	0.50	ND	3.5
Chloromethane	ND	0.50	ND	1.0
Vinyl Chloride	ND	0.50	ND	1.3
1,3-Butadiene	ND	0.50	ND	1.1
Bromomethane	ND	0.50	ND	1.9
Chloroethane	ND	0.50	ND	1.3
Trichlorofluoromethane	ND	0.50	ND	2.8
Acrolein	ND	2.0	ND	4.6
1,1-Dichloroethene	ND	0.50	ND	2.0
Freon 113	ND	0.50	ND	3.8
Acetone	ND	2.0	ND	4.8
Carbon Disulfide	ND	0.50	ND	1.6
Isopropanol	ND	2.0	ND	4.9
Methylene Chloride	ND	0.50	ND	1.7
trans-1,2-Dichloroethene	ND	0.50	ND	2.0
MTBE	ND	0.50	ND	1.8
n-Hexane	ND	0.50	ND	1.8
1,1-Dichloroethane	ND	0.50	ND	2.0
Vinyl Acetate	ND	0.50	ND	1.8
cis-1,2-Dichloroethene	ND	0.50	ND	2.0
2-Butanone	ND	0.50	ND	1.5
Ethyl Acetate	ND	0.50	ND	1.8
Tetrahydrofuran	ND	0.50	ND	1.5
Chloroform	ND	0.50	ND	2.4
1,1,1-Trichloroethane	ND	0.50	ND	2.7
Cyclohexane	ND	0.50	ND	1.7
Carbon Tetrachloride	ND	0.50	ND	3.1
Benzene	ND	0.50	ND	1.6
1,2-Dichloroethane	ND	0.50	ND	2.0
n-Heptane	ND	0.50	ND	2.0
Trichloroethene	ND	0.50	ND	2.7
1,2-Dichloropropane	ND	0.50	ND	2.3
Bromodichloromethane	ND	0.50	ND	3.4
cis-1,3-Dichloropropene	ND	0.50	ND	2.3

ND= Not Detected

RL= Reporting Limit

Result M= Result in mass units

Result V= Result in volume units

Batch QC Report

Volatile Organics in Air			
Lab #:	260680	Location:	Valder & Waverly Streets
Client:	Langan Treadwell Rollo	Prep:	METHOD
Project#:	731641601	Analysis:	EPA TO-15
Type:	BLANK	Units (M):	ug/m3
Lab ID:	QC757290	Diln Fac:	1.000
Matrix:	Air	Batch#:	215323
Units (V):	ppbv	Analyzed:	09/12/14

Analyte	Result (V)	RL	Result (M)	RL
4-Methyl-2-Pentanone	ND	0.50	ND	2.0
Toluene	ND	0.50	ND	1.9
trans-1,3-Dichloropropene	ND	0.50	ND	2.3
1,1,2-Trichloroethane	ND	0.50	ND	2.7
Tetrachloroethene	ND	0.50	ND	3.4
2-Hexanone	ND	0.50	ND	2.0
Dibromochloromethane	ND	0.50	ND	4.3
1,2-Dibromoethane	ND	0.50	ND	3.8
Chlorobenzene	ND	0.50	ND	2.3
Ethylbenzene	ND	0.50	ND	2.2
m,p-Xylenes	ND	0.50	ND	2.2
o-Xylene	ND	0.50	ND	2.2
Styrene	ND	0.50	ND	2.1
Bromoform	ND	0.50	ND	5.2
1,1,2,2-Tetrachloroethane	ND	0.50	ND	3.4
4-Ethyltoluene	ND	0.50	ND	2.5
1,3,5-Trimethylbenzene	ND	0.50	ND	2.5
1,2,4-Trimethylbenzene	ND	0.50	ND	2.5
1,3-Dichlorobenzene	ND	0.50	ND	3.0
1,4-Dichlorobenzene	ND	0.50	ND	3.0
Benzyl chloride	ND	0.50	ND	2.6
1,2-Dichlorobenzene	ND	0.50	ND	3.0
1,2,4-Trichlorobenzene	ND	0.50	ND	3.7
Hexachlorobutadiene	ND	0.50	ND	5.3
Naphthalene	ND	2.0	ND	10

Surrogate	%REC	Limits
Bromofluorobenzene	89	70-130

ND= Not Detected

RL= Reporting Limit

Result M= Result in mass units

Result V= Result in volume units

Curtis & Tompkins Laboratories Analytical Report

Lab #:	260680	Location:	Valder & Waverly Streets
Client:	Langan Treadwell Rollo	Prep:	METHOD
Project#:	731641601	Analysis:	ASTM D1946
Analyte:	Helium	Batch#:	215260
Matrix:	Air	Sampled:	09/06/14
Units:	ppmv	Received:	09/08/14
Units (Mol %):	MOL %	Analyzed:	09/10/14

Field ID	Type	Lab ID	Result	RL	Result (Mol %)	RL	Diln Fac
SSG-1	SAMPLE	260680-001	ND	1,800	ND	0.18	1.830
SSG-2	SAMPLE	260680-002	ND	1,800	ND	0.18	1.780
SG-1	SAMPLE	260680-003	ND	1,800	ND	0.18	1.840
SG-2	SAMPLE	260680-004	ND	2,000	ND	0.20	1.960
SG-3	SAMPLE	260680-005	ND	2,000	ND	0.20	1.970
	BLANK	QC757046	ND	1,000	ND	0.10	1.000

ND= Not Detected

RL= Reporting Limit

Result Mol %= Result in Mole Percent

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	260680	Location:	Valder & Waverly Streets
Client:	Langan Treadwell Rollo	Prep:	METHOD
Project#:	731641601	Analysis:	ASTM D1946
Analyte:	Helium	Diln Fac:	1.000
Matrix:	Air	Batch#:	215260
Units:	ppmv	Analyzed:	09/10/14

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC757044	100,000	94,750	95	70-130		
BSD	QC757045	100,000	94,740	95	70-130	0	20

RPD= Relative Percent Difference



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"When Quality Counts"

Analytical Report

WorkOrder: 1409239 A

Report Created for: Treadwell & Rollo
555 Montgomery St., Suite 1300
San Francisco, CA 94111

Project Contact: Peter Cusack

Project P.O.:

Project Name: #731641601; Valdez & Waverly Street

Project Received: 09/08/2014

Analytical Report reviewed & approved for release on 09/23/2014 by:

*Question about
your data?*

[Click here to email
McC Campbell](#)

Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
WorkOrder: 1409239

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Matrix interferences, or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix; or sample diluted due to high matrix or analyte content.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence

Analytical Qualifiers

S	spike recovery outside accepted recovery limits
a3	sample diluted due to high organic content.
c1	surrogate recovery outside of the control limits due to the dilution of the sample.
d7	strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
e2	diesel range compounds are significant; no recognizable pattern
e7	oil range compounds are significant

Quality Control Qualifiers

F1	MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.
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Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/17/14

WorkOrder: 1409239
Extraction Method: CA Title 22
Analytical Method: SW6010B
Unit: mg/L

Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-1-1.5	1409239-001A	Soil/WET	09/06/2014 10:15	ICP-JY	95321

Analytes	Result	RL	DF	Date Analyzed
Chromium	ND	0.050	1	09/22/2014 13:17

Analyst(s): DVH

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-1-8.0	1409239-004A	Soil/WET	09/06/2014 10:30	ICP-JY	95321

Analytes	Result	RL	DF	Date Analyzed
Chromium	ND	0.050	1	09/22/2014 13:29

Analyst(s): DVH

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-2-8.0	1409239-008A	Soil/WET	09/06/2014 11:35	ICP-JY	95321

Analytes	Result	RL	DF	Date Analyzed
Chromium	0.077	0.050	1	09/22/2014 13:31

Analyst(s): DVH

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-6-1.5	1409239-021A	Soil/WET	09/06/2014 12:10	ICP-JY	95321

Analytes	Result	RL	DF	Date Analyzed
Chromium	ND	0.050	1	09/22/2014 13:48

Analyst(s): DVH

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/17/14

WorkOrder: 1409239
Extraction Method: CA Title 22
Analytical Method: SW6010B
Unit: mg/L

Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-6-3.0	1409239-022A	Soil/WET	09/06/2014 12:15	ICP-JY	95321

Analytes	Result	RL	DF	Date Analyzed
Chromium	ND	0.050	1	09/22/2014 13:50

Analyst(s): DVH



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/17/14

WorkOrder: 1409239
Extraction Method: CA Title 22
Analytical Method: SW6010B
Unit: mg/L

Lead

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-3-1.5	1409239-009A	Soil/WET	09/06/2014 09:35	ICP-JY	95321

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead	24	0.20	1	09/22/2014 13:34

Analyst(s): DVH

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-4-1.5	1409239-013A	Soil/WET	09/06/2014 09:05	ICP-JY	95321

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead	8.5	0.20	1	09/22/2014 13:36

Analyst(s): DVH

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-4-3.0	1409239-014A	Soil/WET	09/06/2014 09:10	ICP-JY	95321

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead	26	0.20	1	09/22/2014 13:39

Analyst(s): DVH

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-5-1.5	1409239-017A	Soil/WET	09/06/2014 12:45	ICP-JY	95321

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Lead	11	0.20	1	09/22/2014 13:41

Analyst(s): DVH

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/17/14

WorkOrder: 1409239
Extraction Method: CA Title 22
Analytical Method: SW6010B
Unit: mg/L

Lead

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-5-3.0	1409239-018A	Soil/WET	09/06/2014 12:50	ICP-JY	95321

Analytes	Result	RL	DF	Date Analyzed
Lead	27	0.20	1	09/22/2014 13:43

Analyst(s): DVH

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-5-5.0	1409239-019A	Soil/WET	09/06/2014 12:55	ICP-JY	95321

Analytes	Result	RL	DF	Date Analyzed
Lead	19	0.20	1	09/22/2014 13:46

Analyst(s): DVH



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/17/14

WorkOrder: 1409239
Extraction Method: SW1311/SW3050B
Analytical Method: SW6010B
Unit: mg/L

Lead

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-3-1.5	1409239-009A	Soil/TCLP	09/06/2014 09:35	ICP-JY	95322

Analytes	Result	RL	DF	Date Analyzed
Lead	1.1	0.20	1	09/19/2014 08:55

Analyst(s): DB

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-4-1.5	1409239-013A	Soil/TCLP	09/06/2014 09:05	ICP-JY	95322

Analytes	Result	RL	DF	Date Analyzed
Lead	ND	0.20	1	09/19/2014 09:03

Analyst(s): DB

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-4-3.0	1409239-014A	Soil/TCLP	09/06/2014 09:10	ICP-JY	95322

Analytes	Result	RL	DF	Date Analyzed
Lead	ND	0.20	1	09/19/2014 09:05

Analyst(s): DB

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-5-1.5	1409239-017A	Soil/TCLP	09/06/2014 12:45	ICP-JY	95322

Analytes	Result	RL	DF	Date Analyzed
Lead	ND	0.20	1	09/19/2014 09:08

Analyst(s): DB

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/17/14

WorkOrder: 1409239
Extraction Method: SW1311/SW3050B
Analytical Method: SW6010B
Unit: mg/L

Lead

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-5-3.0	1409239-018A	Soil/TCLP	09/06/2014 12:50	ICP-JY	95322

Analytes	Result	RL	DF	Date Analyzed
Lead	0.36	0.20	1	09/19/2014 09:16

Analyst(s): DB

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-5-5.0	1409239-019A	Soil/TCLP	09/06/2014 12:55	ICP-JY	95322

Analytes	Result	RL	DF	Date Analyzed
Lead	ND	0.20	1	09/19/2014 09:19

Analyst(s): DB



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/17/14
Date Analyzed: 9/22/14
Instrument: ICP-JY
Matrix: Soil
Project: #731641601; Valdez & Waverly Street

WorkOrder: 1409239
BatchID: 95321
Extraction Method: CA Title 22
Analytical Method: SW6010B
Unit: mg/L
Sample ID: MB/LCS-95321
 1409239-001AMS/MSD

QC Summary Report for SW6010B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Chromium	ND	1.01	0.050	1	-	101	75-125
Lead	ND	0.823	0.20	1	-	82.3	75-125

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Chromium	1.09	1.08	1	ND	109	108	70-130	0	30
Lead	1.15	1.21	1	ND	115	121	70-130	0	30



Quality Control Report

Client: Treadwell & Rollo	WorkOrder: 1409239
Date Prepared: 9/17/14	BatchID: 95322
Date Analyzed: 9/19/14	Extraction Method: SW1311/SW3050B
Instrument: ICP-JY	Analytical Method: SW6010B
Matrix: Soil	Unit: mg/L
Project: #731641601; Valdez & Waverly Street	Sample ID: MB/LCS-95322 1409239-009AMS/MSD

QC Summary Report for SW6010B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	0.918	0.20	1	-	92	75-125

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	2.19	1.97	1	1.082	111	89	70-130	10.2	30



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1409239 **A** ClientCode: TWRF

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to:

Peter Cusack
Treadwell & Rollo
555 Montgomery St., Suite 1300
San Francisco, CA 94111
(415) 955-5244 FAX: (415) 955-9041

Email: pcusack@langan.com
cc/3rd Party:
PO:
ProjectNo: #731641601; Valdez & Waverly Street

Bill to:

Accounts Payable
Treadwell & Rollo
555 Montgomery St., Suite 1300
San Francisco, CA 94111
Langan_InvoiceCapture@concur.solut

Requested TAT:

5 days

Date Received: 09/08/2014

Date Add-On: 09/17/2014

Date Printed: 09/17/2014

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1409239-001	EB-1-1.5	Soil	9/6/2014 10:15	<input type="checkbox"/>	A												
1409239-004	EB-1-8.0	Soil	9/6/2014 10:30	<input type="checkbox"/>	A												
1409239-008	EB-2-8.0	Soil	9/6/2014 11:35	<input type="checkbox"/>	A												
1409239-009	EB-3-1.5	Soil	9/6/2014 9:35	<input type="checkbox"/>		A	A										
1409239-013	EB-4-1.5	Soil	9/6/2014 9:05	<input type="checkbox"/>		A	A										
1409239-014	EB-4-3.0	Soil	9/6/2014 9:10	<input type="checkbox"/>		A	A										
1409239-017	EB-5-1.5	Soil	9/6/2014 12:45	<input type="checkbox"/>		A	A										
1409239-018	EB-5-3.0	Soil	9/6/2014 12:50	<input type="checkbox"/>		A	A										
1409239-019	EB-5-5.0	Soil	9/6/2014 12:55	<input type="checkbox"/>		A	A										
1409239-021	EB-6-1.5	Soil	9/6/2014 12:10	<input type="checkbox"/>	A												
1409239-022	EB-6-3.0	Soil	9/6/2014 12:15	<input type="checkbox"/>	A												

Test Legend:

1	STLC_METALS_S	2	STLC_PB_S	3	TCLP_PB_S	4		5	
6		7		8		9		10	
11		12							

Prepared by: Maria Venegas

Add-On Prepared By: Jena Alfaro

Comments: SEND HARD COPY. STLC and TCLPs added 9/17/14 5D TAT

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: TREADWELL & ROLLO	QC Level: LEVEL 2	Work Order: 1409239
Project: #731641601; Valdez & Waverly Street	Client Contact: Peter Cusack	Date Received: 9/8/2014
Comments: SEND HARD COPY. STLC and TCLPs added 9/17/14 5D TAT	Contact's Email: pcusack@langan.com	Date Add-On: 9/17/2014

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1409239-001A	EB-1-1.5	Soil	SW6010B (Metals) (STLC) <Chromium>	1	Acetate Liner	9/6/2014 10:15	5 days*		<input type="checkbox"/>	
1409239-004A	EB-1-8.0	Soil	SW6010B (Metals) (STLC) <Chromium>	1	Acetate Liner	9/6/2014 10:30	5 days*		<input type="checkbox"/>	
1409239-008A	EB-2-8.0	Soil	SW6010B (Metals) (STLC) <Chromium>	1	Acetate Liner	9/6/2014 11:35	5 days*		<input type="checkbox"/>	
1409239-009A	EB-3-1.5	Soil	SW6010B (Lead) (TCLP)	1	Acetate Liner	9/6/2014 9:35	5 days*		<input type="checkbox"/>	
			SW6010B (Lead) (STLC)				5 days*		<input type="checkbox"/>	
1409239-013A	EB-4-1.5	Soil	SW6010B (Lead) (TCLP)	1	Acetate Liner	9/6/2014 9:05	5 days*		<input type="checkbox"/>	
			SW6010B (Lead) (STLC)				5 days*		<input type="checkbox"/>	
1409239-014A	EB-4-3.0	Soil	SW6010B (Lead) (TCLP)	1	Acetate Liner	9/6/2014 9:10	5 days*		<input type="checkbox"/>	
			SW6010B (Lead) (STLC)				5 days*		<input type="checkbox"/>	
1409239-017A	EB-5-1.5	Soil	SW6010B (Lead) (TCLP)	1	Acetate Liner	9/6/2014 12:45	5 days*		<input type="checkbox"/>	
			SW6010B (Lead) (STLC)				5 days*		<input type="checkbox"/>	
1409239-018A	EB-5-3.0	Soil	SW6010B (Lead) (TCLP)	1	Acetate Liner	9/6/2014 12:50	5 days*		<input type="checkbox"/>	
			SW6010B (Lead) (STLC)				5 days*		<input type="checkbox"/>	
1409239-019A	EB-5-5.0	Soil	SW6010B (Lead) (TCLP)	1	Acetate Liner	9/6/2014 12:55	5 days*		<input type="checkbox"/>	
			SW6010B (Lead) (STLC)				5 days*		<input type="checkbox"/>	
1409239-021A	EB-6-1.5	Soil	SW6010B (Metals) (STLC) <Chromium>	1	Acetate Liner	9/6/2014 12:10	5 days*		<input type="checkbox"/>	
1409239-022A	EB-6-3.0	Soil	SW6010B (Metals) (STLC) <Chromium>	1	Acetate Liner	9/6/2014 12:15	5 days*		<input type="checkbox"/>	

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

Bottle Legend:

Acetate Liner = Acetate Liner



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1409311 A

Report Created for: Treadwell & Rollo
555 Montgomery St., Suite 1300
San Francisco, CA 94111

Project Contact: Peter Cusack

Project P.O.:

Project Name: #731641601; Valdez & Waverly Streets

Project Received: 09/09/2014

Analytical Report reviewed & approved for release on 09/23/2014 by:

Question about
your data?

[Click here to email
McC Campbell](#)

Angela Rydelius,
Laboratory Manager

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Glossary of Terms & Qualifier Definitions

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
WorkOrder: 1409311

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Matrix interferences, or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix; or sample diluted due to high matrix or analyte content.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence

Analytical Qualifiers

e2	diesel range compounds are significant; no recognizable pattern
e7	oil range compounds are significant

Quality Control Qualifiers

F1	MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.
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Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
Date Received: 9/9/14 21:21
Date Prepared: 9/20/14

WorkOrder: 1409311
Extraction Method: CA Title 22
Analytical Method: SW6010B
Unit: mg/L

Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-1-3.0	1409311-001A	Soil/WET	09/06/2014	ICP-JY	95321

Analytes	Result	RL	DF	Date Analyzed
Chromium	ND	0.050	1	09/23/2014 10:41

Analyst(s): DB

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-1-9.0	1409311-003A	Soil/WET	09/06/2014	ICP-JY	95321

Analytes	Result	RL	DF	Date Analyzed
Chromium	ND	0.050	1	09/23/2014 10:48

Analyst(s): DB

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-2-5.5	1409311-005A	Soil/WET	09/06/2014	ICP-JY	95321

Analytes	Result	RL	DF	Date Analyzed
Chromium	ND	0.050	1	09/23/2014 10:51

Analyst(s): DB



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
Date Received: 9/9/14 21:21
Date Prepared: 9/20/14

WorkOrder: 1409311
Extraction Method: CA Title 22
Analytical Method: SW6010B
Unit: mg/L

Lead

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-4-3.0	1409311-009A	Soil/WET	09/06/2014	ICP-JY	95321

Analytes	Result	RL	DF	Date Analyzed
Lead	1.2	0.20	1	09/23/2014 10:53

Analyst(s): DB



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Streets
Date Received: 9/9/14 21:21
Date Prepared: 9/21/14

WorkOrder: 1409311
Extraction Method: SW1311/SW3050B
Analytical Method: SW6010B
Unit: mg/L

Lead

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B-4-3.0	1409311-009A	Soil/TCLP	09/06/2014	ICP-JY	95322

Analytes	Result	RL	DF	Date Analyzed
Lead	ND	0.20	1	09/22/2014 21:18

Analyst(s): DB



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/17/14
Date Analyzed: 9/22/14
Instrument: ICP-JY
Matrix: Soil
Project: #731641601; Valdez & Waverly Streets

WorkOrder: 1409311
BatchID: 95321
Extraction Method: CA Title 22
Analytical Method: SW6010B
Unit: mg/L
Sample ID: MB/LCS-95321
 1409239-001AMS/MSD

QC Summary Report for SW6010B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Chromium	ND	1.01	0.050	1	-	101	75-125
Lead	ND	0.823	0.20	1	-	82.3	75-125

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Chromium	1.09	1.08	1	ND	109	108	70-130	0	30
Lead	1.15	1.21	1	ND	115	121	70-130	0	30



Quality Control Report

Client:	Treadwell & Rollo	WorkOrder:	1409311
Date Prepared:	9/17/14	BatchID:	95322
Date Analyzed:	9/19/14	Extraction Method:	SW1311/SW3050B
Instrument:	ICP-JY	Analytical Method:	SW6010B
Matrix:	Soil	Unit:	mg/L
Project:	#731641601; Valdez & Waverly Streets	Sample ID:	MB/LCS-95322 1409239-009AMS/MSD

QC Summary Report for SW6010B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	0.918	0.20	1	-	92	75-125

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	2.19	1.97	1	1.082	111	89	70-130	10.2	30

1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1409311 **A** ClientCode: TWRF

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to:

Peter Cusack
Treadwell & Rollo
555 Montgomery St., Suite 1300
San Francisco, CA 94111
(415) 955-5200 FAX: (415) 955-9041

Email: pcusack@langan.com
cc/3rd Party:
PO:
ProjectNo: #731641601; Valdez & Waverly Streets

Bill to:

Accounts Payable
Treadwell & Rollo
555 Montgomery St., Suite 1300
San Francisco, CA 94111
Langan_InvoiceCapture@concur.solut

Requested TAT:

5 days

Date Received: 09/09/2014

Date Add-On: 09/17/2014

Date Printed: 09/18/2014

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1409311-001	B-1-3.0	Soil	9/6/2014	<input type="checkbox"/>	A												
1409311-003	B-1-9.0	Soil	9/6/2014	<input type="checkbox"/>	A												
1409311-005	B-2-5.5	Soil	9/6/2014	<input type="checkbox"/>	A												
1409311-009	B-4-3.0	Soil	9/6/2014	<input type="checkbox"/>		A	A										

Test Legend:

1	STLC_METALS_S	2	STLC_PB_S	3	TCLP_PB_S	4		5	
6		7		8		9		10	
11		12							

Prepared by: Jena Alfaro

Add-On Prepared By: Maria Venegas

Comments: SEND HARD COPY/ Always notify the PM when TAT is not going to bet met! JEL 9-9-14. STLC's & TCLP's added 9/17/14 STAT.

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: TREADWELL & ROLLO

QC Level: LEVEL 2

Work Order: 1409311

Project: #731641601; Valdez & Waverly Streets

Client Contact: Peter Cusack

Date Received: 9/9/2014

Comments: SEND HARD COPY/ Always notify the PM when TAT is not going to bet met! JEL 9-9-14. STLC's & TCLP's added 9/17/14

Contact's Email: pcusack@langan.com

Date Add-On: 9/17/2014

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1409311-001A	B-1-3.0	Soil	SW6010B (Metals) (STLC) <Chromium>	1	Wide Stainless Tube	9/6/2014	5 days*		<input type="checkbox"/>	
1409311-003A	B-1-9.0	Soil	SW6010B (Metals) (STLC) <Chromium>	1	Wide Stainless Tube	9/6/2014	5 days*		<input type="checkbox"/>	
1409311-005A	B-2-5.5	Soil	SW6010B (Metals) (STLC) <Chromium>	1	Wide Stainless Tube	9/6/2014	5 days*		<input type="checkbox"/>	
1409311-009A	B-4-3.0	Soil	SW6010B (Lead) (TCLP)	1	Wide Stainless Tube	9/6/2014	5 days*		<input type="checkbox"/>	
			SW6010B (Lead) (STLC)				5 days*		<input type="checkbox"/>	

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

Bottle Legend:

Wide Stainless Tube =

CHAIN OF CUSTODY RECORD

555 Montgomery Street, Suite 1300, San Francisco, CA 94111 Ph: 415.955.9040/Fax: 415.955.9041
 501 14th Street, Third Floor, Oakland CA 94612 Ph: 510.874.4500/Fax: 510.874.4507
 777 Campus Commons Rd., Suite 200, Sacramento, CA 95825 Ph: 916.565.7412/Fax: 916.565.7412

Site Name: VALDEZ & WAVERLY STREETS
 Job Number: 731641601
 Project Manager/Contact: PETER CUSACK
 Samplers: KUN
 Recorder (Signature Required): [Signature]

Turnaround
Time
STANDARD

Field Sample Identification No.	Date	Time	Lab Sample No.	Matrix			No. Containers & Preservative					Analysis Requested										Silica gel clean-up	Hold	Remarks				
				Soil	Water	Other	HCL	H ₂ SO ₄	HNO ₃	Ice	Other	PH/dyne	VOCs	SVOCs	PESTICIDES	PCBs	CAM17	LUFTS	STL Cr	STL Pb	TAP Pb							
B-1-3.0	9/6/14			X																								
B-1-5.5				X																								
B-1-9.0				X																								
B-2-3.0				X																								
B-2-5.5				X																								
B-3-3.0				X																								
B-3-5.0				X																								
B-3-9.0				X																								
B-4-3.0				X																								
B-4-5.5				X																								
B-4-8.5	9/6/14			X																								

Relinquished by: (Signature) <u>[Signature]</u>	Date <u>9/9/14</u>	Time <u>1610</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>9/9/14</u>	Time <u>1610</u>
Relinquished by: (Signature) <u>[Signature]</u>	Date <u>9/9/14</u>	Time <u>1855</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>9/9/14</u>	Time <u>1855</u>
Relinquished by: (Signature)	Date	Time	Received by Lab: (Signature)	Date	Time

Sent to Laboratory (Name): MCCAMBELL ANALYTICAL
 Laboratory Comments/Notes: added 9/17/14 STAT

Method of Shipment: Lab courier Fed Ex Airborne UPS
 Hand Carried Private Courier (Co. Name)

White Copy - Original

Yellow Copy - Laboratory

Pink Copy - Field

COC Number: **005763**

ICE / t° 0.5
 GOOD CONDITION _____ APPROPRIATE CONTAINERS _____
 HEAD SPACE ABSENT _____ PRESERVED IN LAB _____
 DECHLORINATED IN LAB _____
 VOAS | O & G | METALS | OTHER |

★ SGCU Added to All Samples per P.C.



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1409874

Report Created for: Treadwell & Rollo
501 14th Street, 3rd Floor
Oakland, CA 94612

Project Contact: Peter Cusack
Project P.O.:
Project Name: #73164160; Wavery and Valdez

Project Received: 09/24/2014

Analytical Report reviewed & approved for release on 09/25/2014 by:

Question about
your data?

[Click here to email
McC Campbell](#)

Angela Rydelius,
Laboratory Manager

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Glossary of Terms & Qualifier Definitions

Client: Treadwell & Rollo
Project: #73164160; Wavery and Valdez
WorkOrder: 1409874

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Matrix interferences, or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix; or sample diluted due to high matrix or analyte content.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence

Analytical Qualifiers

d1	weakly modified or unmodified gasoline is significant
e11	stoddard solvent/mineral spirit (?)



Analytical Report

Client: Treadwell & Rollo
Project: #73164160; Wavery and Valdez
Date Received: 9/24/14 17:34
Date Prepared: 9/25/14

WorkOrder: 1409874
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW04 092414	1409874-001B	Water	09/24/2014 08:15	GC28	95624

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	09/25/2014 01:13
tert-Amyl methyl ether (TAME)	ND	0.50	1	09/25/2014 01:13
Benzene	ND	0.50	1	09/25/2014 01:13
Bromobenzene	ND	0.50	1	09/25/2014 01:13
Bromochloromethane	ND	0.50	1	09/25/2014 01:13
Bromodichloromethane	ND	0.50	1	09/25/2014 01:13
Bromoform	ND	0.50	1	09/25/2014 01:13
Bromomethane	ND	0.50	1	09/25/2014 01:13
2-Butanone (MEK)	ND	2.0	1	09/25/2014 01:13
t-Butyl alcohol (TBA)	ND	2.0	1	09/25/2014 01:13
n-Butyl benzene	ND	0.50	1	09/25/2014 01:13
sec-Butyl benzene	ND	0.50	1	09/25/2014 01:13
tert-Butyl benzene	ND	0.50	1	09/25/2014 01:13
Carbon Disulfide	ND	0.50	1	09/25/2014 01:13
Carbon Tetrachloride	ND	0.50	1	09/25/2014 01:13
Chlorobenzene	ND	0.50	1	09/25/2014 01:13
Chloroethane	ND	0.50	1	09/25/2014 01:13
Chloroform	ND	0.50	1	09/25/2014 01:13
Chloromethane	ND	0.50	1	09/25/2014 01:13
2-Chlorotoluene	ND	0.50	1	09/25/2014 01:13
4-Chlorotoluene	ND	0.50	1	09/25/2014 01:13
Dibromochloromethane	ND	0.50	1	09/25/2014 01:13
1,2-Dibromo-3-chloropropane	ND	0.20	1	09/25/2014 01:13
1,2-Dibromoethane (EDB)	ND	0.50	1	09/25/2014 01:13
Dibromomethane	ND	0.50	1	09/25/2014 01:13
1,2-Dichlorobenzene	ND	0.50	1	09/25/2014 01:13
1,3-Dichlorobenzene	ND	0.50	1	09/25/2014 01:13
1,4-Dichlorobenzene	ND	0.50	1	09/25/2014 01:13
Dichlorodifluoromethane	ND	0.50	1	09/25/2014 01:13
1,1-Dichloroethane	ND	0.50	1	09/25/2014 01:13
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	09/25/2014 01:13
1,1-Dichloroethene	ND	0.50	1	09/25/2014 01:13
cis-1,2-Dichloroethene	ND	0.50	1	09/25/2014 01:13
trans-1,2-Dichloroethene	ND	0.50	1	09/25/2014 01:13
1,2-Dichloropropane	ND	0.50	1	09/25/2014 01:13
1,3-Dichloropropane	ND	0.50	1	09/25/2014 01:13
2,2-Dichloropropane	ND	0.50	1	09/25/2014 01:13
1,1-Dichloropropene	ND	0.50	1	09/25/2014 01:13

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #73164160; Wavery and Valdez
Date Received: 9/24/14 17:34
Date Prepared: 9/25/14

WorkOrder: 1409874
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW04 092414	1409874-001B	Water	09/24/2014 08:15	GC28	95624

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.50	1	09/25/2014 01:13
trans-1,3-Dichloropropene	ND	0.50	1	09/25/2014 01:13
Diisopropyl ether (DIPE)	ND	0.50	1	09/25/2014 01:13
Ethylbenzene	ND	0.50	1	09/25/2014 01:13
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	09/25/2014 01:13
Freon 113	ND	0.50	1	09/25/2014 01:13
Hexachlorobutadiene	ND	0.50	1	09/25/2014 01:13
Hexachloroethane	ND	0.50	1	09/25/2014 01:13
2-Hexanone	ND	0.50	1	09/25/2014 01:13
Isopropylbenzene	ND	0.50	1	09/25/2014 01:13
4-Isopropyl toluene	ND	0.50	1	09/25/2014 01:13
Methyl-t-butyl ether (MTBE)	ND	0.50	1	09/25/2014 01:13
Methylene chloride	ND	0.50	1	09/25/2014 01:13
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	09/25/2014 01:13
Naphthalene	ND	0.50	1	09/25/2014 01:13
n-Propyl benzene	ND	0.50	1	09/25/2014 01:13
Styrene	ND	0.50	1	09/25/2014 01:13
1,1,1,2-Tetrachloroethane	ND	0.50	1	09/25/2014 01:13
1,1,2,2-Tetrachloroethane	ND	0.50	1	09/25/2014 01:13
Tetrachloroethene	ND	0.50	1	09/25/2014 01:13
Toluene	ND	0.50	1	09/25/2014 01:13
1,2,3-Trichlorobenzene	ND	0.50	1	09/25/2014 01:13
1,2,4-Trichlorobenzene	ND	0.50	1	09/25/2014 01:13
1,1,1-Trichloroethane	ND	0.50	1	09/25/2014 01:13
1,1,2-Trichloroethane	ND	0.50	1	09/25/2014 01:13
Trichloroethene	ND	0.50	1	09/25/2014 01:13
Trichlorofluoromethane	ND	0.50	1	09/25/2014 01:13
1,2,3-Trichloropropane	ND	0.50	1	09/25/2014 01:13
1,2,4-Trimethylbenzene	ND	0.50	1	09/25/2014 01:13
1,3,5-Trimethylbenzene	ND	0.50	1	09/25/2014 01:13
Vinyl Chloride	ND	0.50	1	09/25/2014 01:13
Xylenes, Total	ND	0.50	1	09/25/2014 01:13

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #73164160; Wavery and Valdez
Date Received: 9/24/14 17:34
Date Prepared: 9/25/14

WorkOrder: 1409874
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW04 092414	1409874-001B	Water	09/24/2014 08:15	GC28	95624

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	97	70-130		09/25/2014 01:13
Toluene-d8	95	70-130		09/25/2014 01:13
4-BFB	81	70-130		09/25/2014 01:13

Analyst(s): KBO



Analytical Report

Client: Treadwell & Rollo
Project: #73164160; Wavery and Valdez
Date Received: 9/24/14 17:34
Date Prepared: 9/25/14

WorkOrder: 1409874
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW06 092414	1409874-002B	Water	09/24/2014 09:30	GC28	95624

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	09/25/2014 01:52
tert-Amyl methyl ether (TAME)	ND	0.50	1	09/25/2014 01:52
Benzene	ND	0.50	1	09/25/2014 01:52
Bromobenzene	ND	0.50	1	09/25/2014 01:52
Bromochloromethane	ND	0.50	1	09/25/2014 01:52
Bromodichloromethane	ND	0.50	1	09/25/2014 01:52
Bromoform	ND	0.50	1	09/25/2014 01:52
Bromomethane	ND	0.50	1	09/25/2014 01:52
2-Butanone (MEK)	ND	2.0	1	09/25/2014 01:52
t-Butyl alcohol (TBA)	ND	2.0	1	09/25/2014 01:52
n-Butyl benzene	ND	0.50	1	09/25/2014 01:52
sec-Butyl benzene	ND	0.50	1	09/25/2014 01:52
tert-Butyl benzene	ND	0.50	1	09/25/2014 01:52
Carbon Disulfide	ND	0.50	1	09/25/2014 01:52
Carbon Tetrachloride	ND	0.50	1	09/25/2014 01:52
Chlorobenzene	ND	0.50	1	09/25/2014 01:52
Chloroethane	ND	0.50	1	09/25/2014 01:52
Chloroform	ND	0.50	1	09/25/2014 01:52
Chloromethane	ND	0.50	1	09/25/2014 01:52
2-Chlorotoluene	ND	0.50	1	09/25/2014 01:52
4-Chlorotoluene	ND	0.50	1	09/25/2014 01:52
Dibromochloromethane	ND	0.50	1	09/25/2014 01:52
1,2-Dibromo-3-chloropropane	ND	0.20	1	09/25/2014 01:52
1,2-Dibromoethane (EDB)	ND	0.50	1	09/25/2014 01:52
Dibromomethane	ND	0.50	1	09/25/2014 01:52
1,2-Dichlorobenzene	ND	0.50	1	09/25/2014 01:52
1,3-Dichlorobenzene	ND	0.50	1	09/25/2014 01:52
1,4-Dichlorobenzene	ND	0.50	1	09/25/2014 01:52
Dichlorodifluoromethane	ND	0.50	1	09/25/2014 01:52
1,1-Dichloroethane	ND	0.50	1	09/25/2014 01:52
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	09/25/2014 01:52
1,1-Dichloroethene	ND	0.50	1	09/25/2014 01:52
cis-1,2-Dichloroethene	ND	0.50	1	09/25/2014 01:52
trans-1,2-Dichloroethene	ND	0.50	1	09/25/2014 01:52
1,2-Dichloropropane	ND	0.50	1	09/25/2014 01:52
1,3-Dichloropropane	ND	0.50	1	09/25/2014 01:52
2,2-Dichloropropane	ND	0.50	1	09/25/2014 01:52
1,1-Dichloropropene	ND	0.50	1	09/25/2014 01:52

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #73164160; Wavery and Valdez
Date Received: 9/24/14 17:34
Date Prepared: 9/25/14

WorkOrder: 1409874
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW06 092414	1409874-002B	Water	09/24/2014 09:30	GC28	95624

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.50	1	09/25/2014 01:52
trans-1,3-Dichloropropene	ND	0.50	1	09/25/2014 01:52
Diisopropyl ether (DIPE)	ND	0.50	1	09/25/2014 01:52
Ethylbenzene	ND	0.50	1	09/25/2014 01:52
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	09/25/2014 01:52
Freon 113	ND	0.50	1	09/25/2014 01:52
Hexachlorobutadiene	ND	0.50	1	09/25/2014 01:52
Hexachloroethane	ND	0.50	1	09/25/2014 01:52
2-Hexanone	ND	0.50	1	09/25/2014 01:52
Isopropylbenzene	ND	0.50	1	09/25/2014 01:52
4-Isopropyl toluene	ND	0.50	1	09/25/2014 01:52
Methyl-t-butyl ether (MTBE)	ND	0.50	1	09/25/2014 01:52
Methylene chloride	ND	0.50	1	09/25/2014 01:52
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	09/25/2014 01:52
Naphthalene	ND	0.50	1	09/25/2014 01:52
n-Propyl benzene	ND	0.50	1	09/25/2014 01:52
Styrene	ND	0.50	1	09/25/2014 01:52
1,1,1,2-Tetrachloroethane	ND	0.50	1	09/25/2014 01:52
1,1,2,2-Tetrachloroethane	ND	0.50	1	09/25/2014 01:52
Tetrachloroethene	ND	0.50	1	09/25/2014 01:52
Toluene	ND	0.50	1	09/25/2014 01:52
1,2,3-Trichlorobenzene	ND	0.50	1	09/25/2014 01:52
1,2,4-Trichlorobenzene	ND	0.50	1	09/25/2014 01:52
1,1,1-Trichloroethane	ND	0.50	1	09/25/2014 01:52
1,1,2-Trichloroethane	ND	0.50	1	09/25/2014 01:52
Trichloroethene	ND	0.50	1	09/25/2014 01:52
Trichlorofluoromethane	ND	0.50	1	09/25/2014 01:52
1,2,3-Trichloropropane	ND	0.50	1	09/25/2014 01:52
1,2,4-Trimethylbenzene	ND	0.50	1	09/25/2014 01:52
1,3,5-Trimethylbenzene	ND	0.50	1	09/25/2014 01:52
Vinyl Chloride	ND	0.50	1	09/25/2014 01:52
Xylenes, Total	ND	0.50	1	09/25/2014 01:52

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #73164160; Wavery and Valdez
Date Received: 9/24/14 17:34
Date Prepared: 9/25/14

WorkOrder: 1409874
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW06 092414	1409874-002B	Water	09/24/2014 09:30	GC28	95624

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	99	70-130		09/25/2014 01:52
Toluene-d8	96	70-130		09/25/2014 01:52
4-BFB	83	70-130		09/25/2014 01:52

Analyst(s): KBO



Analytical Report

Client: Treadwell & Rollo
Project: #73164160; Wavery and Valdez
Date Received: 9/24/14 17:34
Date Prepared: 9/25/14

WorkOrder: 1409874
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW02 092414	1409874-003B	Water	09/24/2014 10:10	GC28	95624

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	09/25/2014 02:31
tert-Amyl methyl ether (TAME)	ND	0.50	1	09/25/2014 02:31
Benzene	ND	0.50	1	09/25/2014 02:31
Bromobenzene	ND	0.50	1	09/25/2014 02:31
Bromochloromethane	ND	0.50	1	09/25/2014 02:31
Bromodichloromethane	ND	0.50	1	09/25/2014 02:31
Bromoform	ND	0.50	1	09/25/2014 02:31
Bromomethane	ND	0.50	1	09/25/2014 02:31
2-Butanone (MEK)	ND	2.0	1	09/25/2014 02:31
t-Butyl alcohol (TBA)	ND	2.0	1	09/25/2014 02:31
n-Butyl benzene	ND	0.50	1	09/25/2014 02:31
sec-Butyl benzene	ND	0.50	1	09/25/2014 02:31
tert-Butyl benzene	ND	0.50	1	09/25/2014 02:31
Carbon Disulfide	ND	0.50	1	09/25/2014 02:31
Carbon Tetrachloride	ND	0.50	1	09/25/2014 02:31
Chlorobenzene	ND	0.50	1	09/25/2014 02:31
Chloroethane	ND	0.50	1	09/25/2014 02:31
Chloroform	ND	0.50	1	09/25/2014 02:31
Chloromethane	ND	0.50	1	09/25/2014 02:31
2-Chlorotoluene	ND	0.50	1	09/25/2014 02:31
4-Chlorotoluene	ND	0.50	1	09/25/2014 02:31
Dibromochloromethane	ND	0.50	1	09/25/2014 02:31
1,2-Dibromo-3-chloropropane	ND	0.20	1	09/25/2014 02:31
1,2-Dibromoethane (EDB)	ND	0.50	1	09/25/2014 02:31
Dibromomethane	ND	0.50	1	09/25/2014 02:31
1,2-Dichlorobenzene	ND	0.50	1	09/25/2014 02:31
1,3-Dichlorobenzene	ND	0.50	1	09/25/2014 02:31
1,4-Dichlorobenzene	ND	0.50	1	09/25/2014 02:31
Dichlorodifluoromethane	ND	0.50	1	09/25/2014 02:31
1,1-Dichloroethane	ND	0.50	1	09/25/2014 02:31
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	09/25/2014 02:31
1,1-Dichloroethene	ND	0.50	1	09/25/2014 02:31
cis-1,2-Dichloroethene	ND	0.50	1	09/25/2014 02:31
trans-1,2-Dichloroethene	ND	0.50	1	09/25/2014 02:31
1,2-Dichloropropane	ND	0.50	1	09/25/2014 02:31
1,3-Dichloropropane	ND	0.50	1	09/25/2014 02:31
2,2-Dichloropropane	ND	0.50	1	09/25/2014 02:31
1,1-Dichloropropene	ND	0.50	1	09/25/2014 02:31

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Analytical Report

Client: Treadwell & Rollo
Project: #73164160; Wavery and Valdez
Date Received: 9/24/14 17:34
Date Prepared: 9/25/14

WorkOrder: 1409874
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW02 092414	1409874-003B	Water	09/24/2014 10:10	GC28	95624

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.50	1	09/25/2014 02:31
trans-1,3-Dichloropropene	ND	0.50	1	09/25/2014 02:31
Diisopropyl ether (DIPE)	ND	0.50	1	09/25/2014 02:31
Ethylbenzene	ND	0.50	1	09/25/2014 02:31
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	09/25/2014 02:31
Freon 113	ND	0.50	1	09/25/2014 02:31
Hexachlorobutadiene	ND	0.50	1	09/25/2014 02:31
Hexachloroethane	ND	0.50	1	09/25/2014 02:31
2-Hexanone	ND	0.50	1	09/25/2014 02:31
Isopropylbenzene	ND	0.50	1	09/25/2014 02:31
4-Isopropyl toluene	ND	0.50	1	09/25/2014 02:31
Methyl-t-butyl ether (MTBE)	ND	0.50	1	09/25/2014 02:31
Methylene chloride	ND	0.50	1	09/25/2014 02:31
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	09/25/2014 02:31
Naphthalene	ND	0.50	1	09/25/2014 02:31
n-Propyl benzene	ND	0.50	1	09/25/2014 02:31
Styrene	ND	0.50	1	09/25/2014 02:31
1,1,1,2-Tetrachloroethane	ND	0.50	1	09/25/2014 02:31
1,1,2,2-Tetrachloroethane	ND	0.50	1	09/25/2014 02:31
Tetrachloroethene	ND	0.50	1	09/25/2014 02:31
Toluene	ND	0.50	1	09/25/2014 02:31
1,2,3-Trichlorobenzene	ND	0.50	1	09/25/2014 02:31
1,2,4-Trichlorobenzene	ND	0.50	1	09/25/2014 02:31
1,1,1-Trichloroethane	ND	0.50	1	09/25/2014 02:31
1,1,2-Trichloroethane	ND	0.50	1	09/25/2014 02:31
Trichloroethene	ND	0.50	1	09/25/2014 02:31
Trichlorofluoromethane	ND	0.50	1	09/25/2014 02:31
1,2,3-Trichloropropane	ND	0.50	1	09/25/2014 02:31
1,2,4-Trimethylbenzene	ND	0.50	1	09/25/2014 02:31
1,3,5-Trimethylbenzene	ND	0.50	1	09/25/2014 02:31
Vinyl Chloride	ND	0.50	1	09/25/2014 02:31
Xylenes, Total	ND	0.50	1	09/25/2014 02:31

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Analytical Report

Client: Treadwell & Rollo
Project: #73164160; Wavery and Valdez
Date Received: 9/24/14 17:34
Date Prepared: 9/25/14

WorkOrder: 1409874
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW02 092414	1409874-003B	Water	09/24/2014 10:10	GC28	95624

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	98	70-130		09/25/2014 02:31
Toluene-d8	95	70-130		09/25/2014 02:31
4-BFB	86	70-130		09/25/2014 02:31

Analyst(s): KBO



Analytical Report

Client: Treadwell & Rollo
Project: #73164160; Wavery and Valdez
Date Received: 9/24/14 17:34
Date Prepared: 9/25/14

WorkOrder: 1409874
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW09 092414	1409874-004B	Water	09/24/2014 11:05	GC28	95624

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	09/25/2014 03:10
tert-Amyl methyl ether (TAME)	ND	0.50	1	09/25/2014 03:10
Benzene	ND	0.50	1	09/25/2014 03:10
Bromobenzene	ND	0.50	1	09/25/2014 03:10
Bromochloromethane	ND	0.50	1	09/25/2014 03:10
Bromodichloromethane	ND	0.50	1	09/25/2014 03:10
Bromoform	ND	0.50	1	09/25/2014 03:10
Bromomethane	ND	0.50	1	09/25/2014 03:10
2-Butanone (MEK)	ND	2.0	1	09/25/2014 03:10
t-Butyl alcohol (TBA)	ND	2.0	1	09/25/2014 03:10
n-Butyl benzene	ND	0.50	1	09/25/2014 03:10
sec-Butyl benzene	ND	0.50	1	09/25/2014 03:10
tert-Butyl benzene	ND	0.50	1	09/25/2014 03:10
Carbon Disulfide	ND	0.50	1	09/25/2014 03:10
Carbon Tetrachloride	ND	0.50	1	09/25/2014 03:10
Chlorobenzene	ND	0.50	1	09/25/2014 03:10
Chloroethane	ND	0.50	1	09/25/2014 03:10
Chloroform	ND	0.50	1	09/25/2014 03:10
Chloromethane	ND	0.50	1	09/25/2014 03:10
2-Chlorotoluene	ND	0.50	1	09/25/2014 03:10
4-Chlorotoluene	ND	0.50	1	09/25/2014 03:10
Dibromochloromethane	ND	0.50	1	09/25/2014 03:10
1,2-Dibromo-3-chloropropane	ND	0.20	1	09/25/2014 03:10
1,2-Dibromoethane (EDB)	ND	0.50	1	09/25/2014 03:10
Dibromomethane	ND	0.50	1	09/25/2014 03:10
1,2-Dichlorobenzene	ND	0.50	1	09/25/2014 03:10
1,3-Dichlorobenzene	ND	0.50	1	09/25/2014 03:10
1,4-Dichlorobenzene	ND	0.50	1	09/25/2014 03:10
Dichlorodifluoromethane	ND	0.50	1	09/25/2014 03:10
1,1-Dichloroethane	ND	0.50	1	09/25/2014 03:10
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	09/25/2014 03:10
1,1-Dichloroethene	ND	0.50	1	09/25/2014 03:10
cis-1,2-Dichloroethene	ND	0.50	1	09/25/2014 03:10
trans-1,2-Dichloroethene	ND	0.50	1	09/25/2014 03:10
1,2-Dichloropropane	ND	0.50	1	09/25/2014 03:10
1,3-Dichloropropane	ND	0.50	1	09/25/2014 03:10
2,2-Dichloropropane	ND	0.50	1	09/25/2014 03:10
1,1-Dichloropropene	ND	0.50	1	09/25/2014 03:10

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Analytical Report

Client: Treadwell & Rollo
Project: #73164160; Wavery and Valdez
Date Received: 9/24/14 17:34
Date Prepared: 9/25/14

WorkOrder: 1409874
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW09 092414	1409874-004B	Water	09/24/2014 11:05	GC28	95624

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.50	1	09/25/2014 03:10
trans-1,3-Dichloropropene	ND	0.50	1	09/25/2014 03:10
Diisopropyl ether (DIPE)	ND	0.50	1	09/25/2014 03:10
Ethylbenzene	ND	0.50	1	09/25/2014 03:10
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	09/25/2014 03:10
Freon 113	ND	0.50	1	09/25/2014 03:10
Hexachlorobutadiene	ND	0.50	1	09/25/2014 03:10
Hexachloroethane	ND	0.50	1	09/25/2014 03:10
2-Hexanone	ND	0.50	1	09/25/2014 03:10
Isopropylbenzene	0.55	0.50	1	09/25/2014 03:10
4-Isopropyl toluene	0.73	0.50	1	09/25/2014 03:10
Methyl-t-butyl ether (MTBE)	ND	0.50	1	09/25/2014 03:10
Methylene chloride	ND	0.50	1	09/25/2014 03:10
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	09/25/2014 03:10
Naphthalene	1.5	0.50	1	09/25/2014 03:10
n-Propyl benzene	ND	0.50	1	09/25/2014 03:10
Styrene	ND	0.50	1	09/25/2014 03:10
1,1,1,2-Tetrachloroethane	ND	0.50	1	09/25/2014 03:10
1,1,2,2-Tetrachloroethane	ND	0.50	1	09/25/2014 03:10
Tetrachloroethene	ND	0.50	1	09/25/2014 03:10
Toluene	ND	0.50	1	09/25/2014 03:10
1,2,3-Trichlorobenzene	ND	0.50	1	09/25/2014 03:10
1,2,4-Trichlorobenzene	ND	0.50	1	09/25/2014 03:10
1,1,1-Trichloroethane	ND	0.50	1	09/25/2014 03:10
1,1,2-Trichloroethane	ND	0.50	1	09/25/2014 03:10
Trichloroethene	ND	0.50	1	09/25/2014 03:10
Trichlorofluoromethane	ND	0.50	1	09/25/2014 03:10
1,2,3-Trichloropropane	ND	0.50	1	09/25/2014 03:10
1,2,4-Trimethylbenzene	ND	0.50	1	09/25/2014 03:10
1,3,5-Trimethylbenzene	ND	0.50	1	09/25/2014 03:10
Vinyl Chloride	ND	0.50	1	09/25/2014 03:10
Xylenes, Total	ND	0.50	1	09/25/2014 03:10

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Analytical Report

Client: Treadwell & Rollo
Project: #73164160; Wavery and Valdez
Date Received: 9/24/14 17:34
Date Prepared: 9/25/14

WorkOrder: 1409874
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW09 092414	1409874-004B	Water	09/24/2014 11:05	GC28	95624

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	97	70-130		09/25/2014 03:10
Toluene-d8	93	70-130		09/25/2014 03:10
4-BFB	89	70-130		09/25/2014 03:10

Analyst(s): KBO



Analytical Report

Client: Treadwell & Rollo
Project: #73164160; Wavery and Valdez
Date Received: 9/24/14 17:34
Date Prepared: 9/25/14

WorkOrder: 1409874
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW04 092414	1409874-001A	Water	09/24/2014 08:15	GC3	95678

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	09/25/2014 11:47
MTBE	---	5.0	1	09/25/2014 11:47
Benzene	---	0.50	1	09/25/2014 11:47
Toluene	---	0.50	1	09/25/2014 11:47
Ethylbenzene	---	0.50	1	09/25/2014 11:47
Xylenes	---	0.50	1	09/25/2014 11:47

Surrogates	REC (%)	Limits	Date Analyzed
aaa-TFT_2	109	70-130	09/25/2014 11:47

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW06 092414	1409874-002A	Water	09/24/2014 09:30	GC3	95678

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	09/25/2014 12:17
MTBE	---	5.0	1	09/25/2014 12:17
Benzene	---	0.50	1	09/25/2014 12:17
Toluene	---	0.50	1	09/25/2014 12:17
Ethylbenzene	---	0.50	1	09/25/2014 12:17
Xylenes	---	0.50	1	09/25/2014 12:17

Surrogates	REC (%)	Limits	Date Analyzed
aaa-TFT_2	113	70-130	09/25/2014 12:17

Analyst(s): IA



Analytical Report

Client: Treadwell & Rollo
Project: #73164160; Wavery and Valdez
Date Received: 9/24/14 17:34
Date Prepared: 9/25/14

WorkOrder: 1409874
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW02 092414	1409874-003A	Water	09/24/2014 10:10	GC3	95678

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	09/25/2014 12:46
MTBE	---	5.0	1	09/25/2014 12:46
Benzene	---	0.50	1	09/25/2014 12:46
Toluene	---	0.50	1	09/25/2014 12:46
Ethylbenzene	---	0.50	1	09/25/2014 12:46
Xylenes	---	0.50	1	09/25/2014 12:46
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
aaa-TFT_2	108	70-130		09/25/2014 12:46

Analyst(s): IA

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW09 092414	1409874-004A	Water	09/24/2014 11:05	GC3	95678

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	520	50	1	09/25/2014 13:16
MTBE	---	5.0	1	09/25/2014 13:16
Benzene	---	0.50	1	09/25/2014 13:16
Toluene	---	0.50	1	09/25/2014 13:16
Ethylbenzene	---	0.50	1	09/25/2014 13:16
Xylenes	---	0.50	1	09/25/2014 13:16
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: d1	
aaa-TFT_2	129	70-130		09/25/2014 13:16

Analyst(s): IA



Analytical Report

Client: Treadwell & Rollo
Project: #73164160; Wavery and Valdez
Date Received: 9/24/14 17:34
Date Prepared: 9/24/14

WorkOrder: 1409874
Extraction Method: SW3510C/3630C
Analytical Method: SW8015B
Unit: µg/L

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW04 092414	1409874-001A	Water	09/24/2014 08:15	GC6A	95575

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	09/25/2014 10:32
TPH-Motor Oil (C18-C36)	ND	250	1	09/25/2014 10:32

Surrogates	REC (%)	Limits	Date Analyzed
C9	103	70-130	09/25/2014 10:32

Analyst(s): TK

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW06 092414	1409874-002A	Water	09/24/2014 09:30	GC6A	95575

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	09/25/2014 00:42
TPH-Motor Oil (C18-C36)	ND	250	1	09/25/2014 00:42

Surrogates	REC (%)	Limits	Date Analyzed
C9	94	70-130	09/25/2014 00:42

Analyst(s): HD

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW02 092414	1409874-003A	Water	09/24/2014 10:10	GC6A	95634

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	09/25/2014 01:54
TPH-Motor Oil (C18-C36)	ND	250	1	09/25/2014 01:54

Surrogates	REC (%)	Limits	Date Analyzed
C9	88	70-130	09/25/2014 01:54

Analyst(s): HD

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #73164160; Wavery and Valdez
Date Received: 9/24/14 17:34
Date Prepared: 9/24/14

WorkOrder: 1409874
Extraction Method: SW3510C/3630C
Analytical Method: SW8015B
Unit: µg/L

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW09 092414	1409874-004A	Water	09/24/2014 11:05	GC6B	95634

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	220	50	1	09/25/2014 13:04
TPH-Motor Oil (C18-C36)	ND	250	1	09/25/2014 13:04

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: e11
C9	106	70-130	09/25/2014 13:04

Analyst(s): HD



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/24/14
Date Analyzed: 9/24/14
Instrument: GC28
Matrix: Water
Project: #73164160; Wavery and Valdez

WorkOrder: 1409874
BatchID: 95624
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-95624
 1409830-003CMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	9.36	0.50	10	-	94	64-120
Benzene	ND	10.1	0.50	10	-	101	73-123
Bromobenzene	ND	-	0.50	-	-	-	-
Bromochloromethane	ND	-	0.50	-	-	-	-
Bromodichloromethane	ND	-	0.50	-	-	-	-
Bromoform	ND	-	0.50	-	-	-	-
Bromomethane	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	2.0	-	-	-	-
t-Butyl alcohol (TBA)	ND	30.8	2.0	40	-	77	29-146
n-Butyl benzene	ND	-	0.50	-	-	-	-
sec-Butyl benzene	ND	-	0.50	-	-	-	-
tert-Butyl benzene	ND	-	0.50	-	-	-	-
Carbon Disulfide	ND	-	0.50	-	-	-	-
Carbon Tetrachloride	ND	-	0.50	-	-	-	-
Chlorobenzene	ND	10.2	0.50	10	-	102	77-116
Chloroethane	ND	-	0.50	-	-	-	-
Chloroform	ND	-	0.50	-	-	-	-
Chloromethane	ND	-	0.50	-	-	-	-
2-Chlorotoluene	ND	-	0.50	-	-	-	-
4-Chlorotoluene	ND	-	0.50	-	-	-	-
Dibromochloromethane	ND	-	0.50	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.20	-	-	-	-
1,2-Dibromoethane (EDB)	ND	9.54	0.50	10	-	95	68-111
Dibromomethane	ND	-	0.50	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.50	-	-	-	-
Dichlorodifluoromethane	ND	-	0.50	-	-	-	-
1,1-Dichloroethane	ND	-	0.50	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	9.29	0.50	10	-	93	37-150
1,1-Dichloroethene	ND	9.94	0.50	10	-	99	37-153
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,3-Dichloropropane	ND	-	0.50	-	-	-	-
2,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,1-Dichloropropene	ND	-	0.50	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-

(Cont.)



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/24/14
Date Analyzed: 9/24/14
Instrument: GC28
Matrix: Water
Project: #73164160; Wavery and Valdez

WorkOrder: 1409874
BatchID: 95624
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-95624
 1409830-003CMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	9.41	0.50	10	-	94	62-125
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	9.35	0.50	10	-	94	63-126
Freon 113	ND	-	0.50	-	-	-	-
Hexachlorobutadiene	ND	-	0.50	-	-	-	-
Hexachloroethane	ND	-	0.50	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
Isopropylbenzene	ND	-	0.50	-	-	-	-
4-Isopropyl toluene	ND	-	0.50	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	9.28	0.50	10	-	93	56-126
Methylene chloride	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.50	-	-	-	-
Naphthalene	ND	-	0.50	-	-	-	-
n-Propyl benzene	ND	-	0.50	-	-	-	-
Styrene	ND	-	0.50	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
Tetrachloroethene	ND	-	0.50	-	-	-	-
Toluene	ND	9.74	0.50	10	-	96	78-114
1,2,3-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.50	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.50	-	-	-	-
Trichloroethene	ND	9.59	0.50	10	-	96	67-133
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.50	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	-	0.50	-	-	-	-
Xylenes, Total	ND	-	0.50	-	-	-	-

Surrogate Recovery

Dibromofluoromethane	23.8	24.0		25	95	96	77-120
Toluene-d8	24.1	24.1		25	97	96	78-118
4-BFB	2.12	2.12		2.5	85	85	63-129

(Cont.)



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/24/14
Date Analyzed: 9/24/14
Instrument: GC28
Matrix: Water
Project: #73164160; Wavery and Valdez

WorkOrder: 1409874
BatchID: 95624
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-95624
 1409830-003CMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	9.50	10.0	10	ND	95	100	70-130	5.12	20
Benzene	10.6	10.4	10	ND	104	102	70-130	2.29	20
t-Butyl alcohol (TBA)	32.5	36.4	40	ND	81	91	70-130	11.4	20
Chlorobenzene	10.2	10.1	10	0.6191	96	95	70-130	0.954	20
1,2-Dibromoethane (EDB)	9.62	9.91	10	ND	96	99	70-130	2.97	20
1,2-Dichloroethane (1,2-DCA)	9.57	9.81	10	ND	96	98	70-130	2.49	20
1,1-Dichloroethene	9.97	9.80	10	ND	100	98	70-130	1.67	20
Diisopropyl ether (DIPE)	9.47	9.62	10	ND	94	95	70-130	1.63	20
Ethyl tert-butyl ether (ETBE)	9.42	9.82	10	ND	94	98	70-130	4.18	20
Methyl-t-butyl ether (MTBE)	9.42	10.0	10	ND	93	99	70-130	5.99	20
Toluene	9.66	9.56	10	ND	95	94	70-130	0.982	20
Trichloroethene	10.0	9.78	10	ND	98	95	70-130	2.31	20
Surrogate Recovery									
Dibromofluoromethane	24.7	24.5	25		99	98	70-130	0.971	20
Toluene-d8	23.6	23.2	25		94	93	70-130	1.43	20
4-BFB	2.05	2.05	2.5		82	82	70-130	0	20



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/25/14
Date Analyzed: 9/25/14
Instrument: GC3
Matrix: Water
Project: #73164160; Wavery and Valdez

WorkOrder: 1409874
BatchID: 95678
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L
Sample ID: MB/LCS-95678

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	68.1	40	60	-	114	70-130
MTBE	ND	9.68	5.0	10	-	97	70-130
Benzene	ND	10.4	0.50	10	-	104	70-130
Toluene	ND	10.3	0.50	10	-	103	70-130
Ethylbenzene	ND	10.2	0.50	10	-	102	70-130
Xylenes	ND	31.0	0.50	30	-	103	70-130
Surrogate Recovery							
aaa-TFT_2	10.9	10.1		10	109	101	70-130



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/23/14
Date Analyzed: 9/24/14
Instrument: GC2A
Matrix: Water
Project: #73164160; Wavery and Valdez

WorkOrder: 1409874
BatchID: 95575
Extraction Method: SW3510C/3630C
Analytical Method: SW8015B
Unit: µg/L
Sample ID: MB/LCS-95575

QC Summary Report for SW8015B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	671	50	1000	-	63	59-151
Surrogate Recovery							
C9	617	599		625	99	96	77-130



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/24/14
Date Analyzed: 9/25/14
Instrument: GC2A, GC6B
Matrix: Water
Project: #73164160; Wavery and Valdez

WorkOrder: 1409874
BatchID: 95634
Extraction Method: SW3510C/3630C
Analytical Method: SW8015B
Unit: µg/L
Sample ID: MB/LCS-95634

QC Summary Report for SW8015B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	1130	50	1000	-	113	59-151
Surrogate Recovery							
C9	651	624		625	104	100	77-130



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1409874

ClientCode: TWRK

WaterTrax
 WriteOn
 EDF
 Excel
 EQulS
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:

Peter Cusack
Treadwell & Rollo
501 14th Street, 3rd Floor
Oakland, CA 94612
(415) 955-9040 FAX: (415) 955-9041

Email: pjcusack@treadwellrollo.com
cc/3rd Party:
PO:
ProjectNo: #73164160; Wavery and Valdez

Bill to:

Accounts Payable
Treadwell & Rollo
501 14th Street, 3rd Floor
Oakland, CA 94612
Langan_InvoiceCapture@conkursolut

Requested TAT:

1 day

Date Received: **09/24/2014**

Date Printed: **09/24/2014**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1409874-001	MW04 092414	Water	9/24/2014 8:15	<input type="checkbox"/>	B	A											
1409874-002	MW06 092414	Water	9/24/2014 9:30	<input type="checkbox"/>	B	A											
1409874-003	MW02 092414	Water	9/24/2014 10:10	<input type="checkbox"/>	B	A											
1409874-004	MW09 092414	Water	9/24/2014 11:05	<input type="checkbox"/>	B	A											

Test Legend:

1	8260B_W	2	G-MBTEX_W	3		4		5	
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A, 004A contain testgroup.

Prepared by: Elisa Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: TREADWELL & ROLLO
Project: #73164160; Wavery and Valdez
Comments:

QC Level: LEVEL 2
Client Contact: Peter Cusack
Contact's Email: pjcusack@treadwellrollo.com

Work Order: 1409874
Date Received: 9/24/2014

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1409874-001A	MW04 092414	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	2	Voa w/hcl	<input type="checkbox"/>	9/24/2014 8:15	1 day	Trace	<input type="checkbox"/>	
1409874-001B	MW04 092414	Water	SW8260B (VOCs)	2	Voa w/hcl	<input type="checkbox"/>	9/24/2014 8:15	1 day	Trace	<input type="checkbox"/>	
1409874-002A	MW06 092414	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	2	Voa w/hcl	<input type="checkbox"/>	9/24/2014 9:30	1 day	None	<input type="checkbox"/>	
1409874-002B	MW06 092414	Water	SW8260B (VOCs)	2	Voa w/hcl	<input type="checkbox"/>	9/24/2014 9:30	1 day	None	<input type="checkbox"/>	
1409874-003A	MW02 092414	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	2	Voa w/hcl	<input type="checkbox"/>	9/24/2014 10:10	1 day	Trace	<input type="checkbox"/>	
1409874-003B	MW02 092414	Water	SW8260B (VOCs)	2	Voa w/hcl	<input type="checkbox"/>	9/24/2014 10:10	1 day	Trace	<input type="checkbox"/>	
1409874-004A	MW09 092414	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	2	Voa w/hcl	<input type="checkbox"/>	9/24/2014 11:05	1 day	None	<input type="checkbox"/>	
1409874-004B	MW09 092414	Water	SW8260B (VOCs)	2	Voa w/hcl	<input type="checkbox"/>	9/24/2014 11:05	1 day	None	<input type="checkbox"/>	

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

Bottle Legend:

Voa w/hcl =

1409874

008660



CHAIN OF CUSTODY RECORD

RUSH

- 555 Montgomery Street, Suite 1300, San Francisco, CA 94111 Ph: 415.955.9040/Fax: 415.955.9041
- 501 14th Street, Third Floor, Oakland CA 94612 Ph: 510.874.4500/Fax: 510.874.4507
- 777 Campus Commons Road, Suite 200, Sacramento, CA 95825 Ph: 916.565.7412/Fax: 916.565.7413
- 50 Airport Parkway, Suite 175, San Jose, CA 95110 Ph: 408.437.7708/Fax: 408.437.7709

Site Name: Waverly and Valdez
 Job Number: 73164160
 Project Manager/Contact: Peter Cusack (415-955-5244)
 Samplers: Noel Limer & Liz Kimbrel
 Recorder (Signature Required): Elyen Kumm

Analysis Requested

Turnaround Time
RUSH-24hr turn around

Field Sample Identification No.	Date	Time	Lab Sample No.	Matrix				No. Containers & Preservative				TPH-d, g, mo	VOCs	Silica gel clean-up	Hold	Remarks
				Soil	Water	Air	Other	HCL	H ₂ SO ₄	HNO ₃	Ice					
MW04 092414	9/24/14	0815			X			X				X	X			
MW06 092414	9/24/14	0930			X			X				X	X			
MW02 092414	9/24/14	1010			X			X				X	X			
MW09 092414	9/24/14	1105			X			X				X	X			

Handwritten blue checkmarks and arrows on the left side of the table.

Relinquished by: (Signature) <u>Elyen Kumm</u>	Date <u>9/24/2014</u>	Time <u>1230</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>9/24/14</u>	Time <u>1622</u>
Relinquished by: (Signature) <u>[Signature]</u>	Date <u>9/24/14</u>	Time <u>1740</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>9/24/14</u>	Time <u>17:40</u>
Relinquished by: (Signature) <u>[Signature]</u>	Date <u>9/24/14</u>	Time <u>17:40</u>	Received by Lab: (Signature) <u>[Signature]</u>	Date <u>9/24/14</u>	Time <u>17:40</u>

Sent to Laboratory (Name): McCampbell Analytical
 Laboratory Comments/Notes: _____
 Method of Shipment: Lab courier Fed Ex Airborne UPS
 Hand Carried Private Courier (Co. Name)

White Copy - Original Yellow Copy - Laboratory

Pink Copy - Field
 3.5 WET ICE
 GOOD CONDITION
 HEAD SPACE ABSENT
 DECHLORINATED IN LAB
 PRESERVATION
 CONTAINERS
 PRESERVED IN LAB
 COC Number: [Signature]
 VOCS OPG METALS OTHER



Sample Receipt Checklist

Client Name: **Treadwell & Rollo** Date and Time Received: **9/24/2014 5:34:55 PM**
 Project Name: **#73164160; Wavery and Valdez** LogIn Reviewed by: **Elisa Venegas**
 WorkOrder No: **1409874** Matrix: Water Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present? Yes No
 Chain of custody signed when relinquished and received? Yes No
 Chain of custody agrees with sample labels? Yes No
 Sample IDs noted by Client on COC? Yes No
 Date and Time of collection noted by Client on COC? Yes No
 Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
 Shipping container/cooler in good condition? Yes No
 Samples in proper containers/bottles? Yes No
 Sample containers intact? Yes No
 Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Container/Temp Blank temperature Cooler Temp: 3.5°C NA
 Water - VOA vials have zero headspace / no bubbles? Yes No NA
 Sample labels checked for correct preservation? Yes No
 pH acceptable upon receipt (Metal: pH<2; 522: pH<4)? Yes No NA
 Samples Received on Ice? Yes No
 Total Chlorine tested and acceptable upon receipt for EPA 522? Yes No NA

* NOTE: If the "No" box is checked, see comments below.

 Comments:



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1409239 B

Report Created for: Treadwell & Rollo
555 Montgomery St., Suite 1300
San Francisco, CA 94111

Project Contact: Peter Cusack
Project P.O.:
Project Name: #731641601; Valdez & Waverly Street

Project Received: 09/08/2014

Analytical Report reviewed & approved for release on 09/25/2014 by:

Question about
your data?

[Click here to email
McC Campbell](#)

Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
WorkOrder: 1409239

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Matrix interferences, or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix; or sample diluted due to high matrix or analyte content.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence

Analytical Qualifiers

H	samples were analyzed out of holding time
S	spike recovery outside accepted recovery limits
a3	sample diluted due to high organic content.
c1	surrogate recovery outside of the control limits due to the dilution of the sample.
d7	strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
e2	diesel range compounds are significant; no recognizable pattern
e7	oil range compounds are significant

Quality Control Qualifiers

F1	MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.
----	--



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/24/14

WorkOrder: 1409239
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-5-8.0	1409239-020A	Soil	09/06/2014 13:00	GC7	95615

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
TPH(g)	ND	H	1.0	1	09/25/2014 08:26
MTBE	---		0.050	1	09/25/2014 08:26
Benzene	---		0.0050	1	09/25/2014 08:26
Toluene	---		0.0050	1	09/25/2014 08:26
Ethylbenzene	---		0.0050	1	09/25/2014 08:26
Xylenes	---		0.0050	1	09/25/2014 08:26

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
2-Fluorotoluene	105	H	70-130	09/25/2014 08:26

Analyst(s): IA



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/24/14

WorkOrder: 1409239
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

LUFT 5 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-5-8.0	1409239-020A	Soil/TOTAL	09/06/2014 13:00	ICP-MS2	95562

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	09/25/2014 12:22
Chromium	60	0.50	1	09/25/2014 12:22
Lead	7.8	0.50	1	09/25/2014 12:22
Nickel	55	0.50	1	09/25/2014 12:22
Zinc	28	5.0	1	09/25/2014 12:22
Surrogates	REC (%)	Limits		
Tb 350.917	104	70-130		09/25/2014 12:22

Analyst(s): DVH



Analytical Report

Client: Treadwell & Rollo
Project: #731641601; Valdez & Waverly Street
Date Received: 9/8/14 15:06
Date Prepared: 9/24/14

WorkOrder: 1409239
Extraction Method: SW3550B/3630C
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB-5-8.0	1409239-020A	Soil	09/06/2014 13:00	GC6A	95603

<u>Analytes</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND	H	1.0	1	09/25/2014 13:04
TPH-Motor Oil (C18-C36)	ND	H	5.0	1	09/25/2014 13:04

<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	<u>Date Analyzed</u>
C9	101	H	70-130	09/25/2014 13:04

Analyst(s): HD



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/24/14
Date Analyzed: 9/25/14
Instrument: GC7
Matrix: Soil
Project: #731641601; Valdez & Waverly Street

WorkOrder: 1409239
BatchID: 95615
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg
Sample ID: MB/LCS-95615
 1409239-020AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.652	0.40	0.60	-	109	70-130
MTBE	ND	0.0918	0.050	0.10	-	91.8	70-130
Benzene	ND	0.110	0.0050	0.10	-	110	70-130
Toluene	ND	0.111	0.0050	0.10	-	111	70-130
Ethylbenzene	ND	0.115	0.0050	0.10	-	115	70-130
Xylenes	ND	0.356	0.0050	0.30	-	119	70-130

Surrogate Recovery

2-Fluorotoluene	0.110	0.109		0.10	110	109	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.619	0.608	0.60	ND	103	101	70-130	1.75	20
MTBE	0.0866	0.0845	0.10	ND	86.6	84.5	70-130	2.44	20
Benzene	0.101	0.102	0.10	ND	101	101	70-130	0	20
Toluene	0.104	0.103	0.10	ND	103	103	70-130	0	20
Ethylbenzene	0.107	0.107	0.10	ND	107	107	70-130	0	20
Xylenes	0.334	0.333	0.30	ND	111	111	70-130	0	20

Surrogate Recovery

2-Fluorotoluene	0.102	0.102	0.10		102	102	70-130	0	20
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Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/23/14
Date Analyzed: 9/24/14
Instrument: ICP-MS1
Matrix: Soil
Project: #731641601; Valdez & Waverly Street

WorkOrder: 1409239
BatchID: 95562
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg
Sample ID: MB/LCS-95562
 1409807-001AMS/MSD

QC Summary Report for SW6020

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Cadmium	ND	48.0	0.25	50	-	96	75-125
Chromium	ND	51.9	0.50	50	-	104	75-125
Lead	ND	48.4	0.50	50	-	97	75-125
Nickel	ND	50.0	0.50	50	-	100	75-125
Zinc	ND	507	5.0	500	-	101	75-125

Surrogate Recovery

Tb 350.917	535	511		500	107	102	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Cadmium	48.7	66.6	50	3.097	91	127,F1	75-125	31,F1	20
Chromium	NR	NR	50	410	NR	NR	75-125	NR	20
Lead	NR	NR	50	3200	NR	NR	75-125	NR	20
Nickel	78.9	105	50	33.05	92	144,F1	75-125	28.7,F1	20
Zinc	NR	NR	500	3300	NR	NR	75-125	NR	20

Surrogate Recovery

Tb 350.917	507	696	500		101	139	70-130	31.3,F1	20
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Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 9/24/14
Date Analyzed: 9/26/14
Instrument: GC2B, GC6A
Matrix: Soil
Project: #731641601; Valdez & Waverly Street

WorkOrder: 1409239
BatchID: 95603
Extraction Method: SW3550B/3630C
Analytical Method: SW8015B
Unit: mg/Kg
Sample ID: MB/LCS-95603

QC Summary Report for SW8015B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	42.0	1.0	40	-	105	70-130
Surrogate Recovery							
C9	27.1	24.0		25	109	96	70-130



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1409239 **B** ClientCode: TWRF

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:

Peter Cusack
Treadwell & Rollo
555 Montgomery St., Suite 1300
San Francisco, CA 94111
(415) 955-5200 FAX: (415) 955-9041

Email: pcusack@langan.com
cc/3rd Party:
PO:
ProjectNo: #731641601; Valdez & Waverly Street

Bill to:

Accounts Payable
Treadwell & Rollo
555 Montgomery St., Suite 1300
San Francisco, CA 94111
Langan_InvoiceCapture@concursoft

Requested TAT:

5 days

Date Received: 09/08/2014

Date Add-On: 09/24/2014

Date Printed: 09/24/2014

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1409239-020	EB-5-8.0	Soil	9/6/2014 13:00	<input type="checkbox"/>	A	A	A										

Test Legend:

1	G-MBTEX_S	2	LUFTMS_S	3	TPH(DMO)WSG_S	4		5	
6		7		8		9		10	
11		12							

Prepared by: Maria Venegas

Add-On Prepared By: Jena Alfaro

Comments: SEND HARD COPY. STLC and TCLPs added 9/17/14 5D TAT. GDMOWSG,Luft added 9/24/14 001D TAT

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: TREADWELL & ROLLO	QC Level: LEVEL 2	Work Order: 1409239
Project: #731641601; Valdez & Waverly Street	Client Contact: Peter Cusack	Date Received: 9/8/2014
Comments: SEND HARD COPY. STLC and TCLPs added 9/17/14 5D TAT. GDMOWSG, Luft added 9/24/14 001D TAT	Contact's Email: pcusack@langan.com	Date Add-On: 9/24/2014

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1409239-020A	EB-5-8.0	Soil	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up SW6020 (LUFT)	1	Acetate Liner	9/6/2014 13:00	1 day		<input type="checkbox"/>	
							1 day		<input type="checkbox"/>	

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

Bottle Legend:

Acetate Liner = Acetate Liner

