A·C·C ENVIRONMENTAL CONSULTANTS
An Employee Owned Company

August 15, 2013

Mr. Jerry Wickham
Senior Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

c/o

Ms. Jan Shipley
Construction Supervisor
Livermore Valley Joint Unified School District
685 East Jack London Boulevard
Livermore, CA 94551

RE: 2900 Ladd Avenue
Livermore, California
ACEH Fuel Leak Case No. RO0000188
GeoTracker Global ID T0600100844
ACC Project Number 3054-103.04

Subject: Groundwater Monitoring Well Destruction, Dual Phase Extraction Pilot Test & Case Closure Request Addendum

Dear Mr. Wickham,

ACC Environmental Consultants, Inc., (ACC) would like to present the details of the groundwater monitoring well destruction, 48-hour dual phase extraction (DPE) pilot test and Case Closure Request Addendum for 2900 Ladd Avenue in Livermore, California. If you have any questions regarding this report or the findings of the work, please contact 510.638.8400 x110 or isutherland@accenv.com.

Sincerely,

Ian Sutherland
Project Geologist

A·C·C ENVIRONMENTAL CONSULTANTS

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GROUNDWATER MONITORING WELL DESTRUCTION, 48-HOUR DUAL PHASE EXTRACTION PILOT TEST, & CASE CLOSURE REQUEST ADDENDUM

2900 Ladd Avenue
Livermore, California
ACEH Fuel Leak Case No. RO0000188
GeoTracker Global ID T0600100844
ACC Project Number 3054-130. 04

Prepared for:

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Senior Hazardous Materials Specialist
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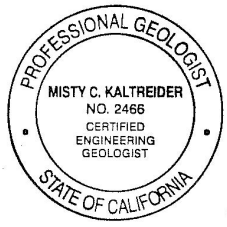
August 15, 2013

Prepared By: _____

Ian Sutherland
Project Geologist

Reviewed By: _____

Misty C. Kaltreider
Licensed Professional Geologist



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GROUNDWATER MONITORING WELL DESTRUCTION, DUAL PHASE EXTRACTION PILOT TEST, & CASE CLOSURE REQUEST ADDENDUM

2900 Ladd Avenue
Livermore, California
ACEH Fuel Leak Case No. RO0000188
GeoTracker Global ID T0600100844
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1.0 INTRODUCTION

ACC Environmental Consultants, Inc. (ACC) would like to present the details of the groundwater monitoring well destruction, 48-hour dual phase extraction (DPE) pilot test, and Case Closure Request Addendum for 2900 Ladd Avenue in Livermore, California (Site). The work was conducted for the Livermore Valley Joint Unified School District in response to Alameda County Environmental Health (ACEH) directives.

The scope of work included the removal of three existing groundwater monitoring wells (MW-2, MW-3 and MW-4); the installation of one groundwater remediation well (MW-6A); a 48-hour dual-phase extraction (DPE) pilot test using; and post DPE groundwater sampling.

ACC previously recommended that the Site be evaluated for Low Risk Closure. At the time, a water supply well (CWS-17) managed by Cal Water Services Company (Cal Water) was located approximately 550 feet southeast of the former USTs and was considered a potential receptor for the petroleum hydrocarbon release at the Site. Due to the elevated concentrations of petroleum hydrocarbons in groundwater at the Site, and the proximity to the water supply well, case closure was not granted. ACEH indicated that there is a potential for the residual groundwater plume at the site to migrate toward CWS-17 if well pumping was initiated.

According to Mr. Frank Vallejo at Cal Water the water supply well CWS-17 was abandoned in February 2013. No replacement well is proposed in the area (CWS, 2013). The nearest existing Cal Water well is over 1,000 feet from the Site. No other water supply wells exist within 1000 feet from the site.

2.0 BACKGROUND

The Site is located at 2900 Ladd Avenue in Oakland, California and is currently occupied by the Livermore Valley Joint and Unified School District (LVJUSD) Maintenance Yard (Figures 1 and 2).

Three underground storage tanks (USTs) formerly existed at the Site and were used to store regular gasoline (6,000 gallons), unleaded gasoline (6,000 gallons) and diesel (10,000 gallons). During 1990 the 6,000-gallon regular gasoline UST reportedly failed tank tightness testing. A subsequent 1990 soil investigation demonstrated that the tank leaked and an unauthorized release had occurred. During 1992 the three on-site USTs and associated piping were removed.

Numerous soil and groundwater investigations were conducted at the site from 1990 through 2012. Based on investigations conducted by ACC it appears that soil impacts from the leaking USTs are currently limited to the immediate down-gradient vicinity of the former UST basin at depths ranging from 18-25 feet below ground surface (ft bgs), and that groundwater impacts are currently limited to the down-gradient vicinity of the former UST basin and extend as far as 90 feet laterally from the source area. The impacts to soil and groundwater were characterized as gasoline-range total petroleum hydrocarbons (TPH-g), including the gasoline constituents benzene, toluene, ethylbenzene and xylenes. Based on available groundwater data (Table 2) groundwater concentrations are steadily decreasing over time.

Based on soil and groundwater sampling ACC additionally concluded that groundwater monitoring wells existing at the site (MW-2, MW-3 and MW-4) had the potential to create vertical conduits between shallow and deeper water-bearing zones due to their depths and extensive screened intervals.

ACC recommended that monitoring wells MW-2 through MW-4 be destroyed and the site be evaluated for Low Risk Closure. Case closure was not granted and ACEH requested that remedial actions be conducted at the site due to the potential risk for residual groundwater constituents at the site to migrate and impact Cal Water well (CWS-17) located approximately 550 feet southeast of the former USTs.

Based on the ACEH approval letter dated August 20, 2012, ACC oversaw the destruction of MW-2, MW-3 and MW-4. A 48-hour dual-phase extraction (DPE) pilot test was additionally conducted in MW-5, located downgradient from the former USTs, to investigate DPE as an appropriate corrective remedial action in the shallow water-bearing zone. MW-6A was constructed similar to MW-5 in order to be used as an observation well during the test.

On June 24, 2013 ACC received a Well Completion Report (WCR) for the destruction of CWS-17 (Appendix I). The well was screened from 135 to 495 feet bgs. Based on the WCR and conversations with Cal Water, CWS-17 was abandoned in accordance with Zone 7 Water Resources Agency regulations due to high nitrate concentrations in

groundwater extracted from the well. Based on correspondence with Mr. Frank Vallejo at Cal Water, ACC understands that CWS-17 was abandoned in February 2013. ACC additionally understands that Cal Water has no intentions of re-installing the well, and that the nearest existing Cal Water well is greater than 1,000 feet from the Site.

2.1 Previous Investigations

1990 BSK & Associates (BSK) - Soil Boring/Sampling and Chemical Testing Report:

In August of 1990 the 6,000-gallon Regular Gasoline UST failed its tank tightness testing. As a result of this failure BSK conducted one angled soil boring (EB-1) to obtain a soil samples from underneath the UST. Two soil samples (EB-1, No. 2 and EB-1, No. 3) indicated elevated levels of Total Petroleum Hydrocarbons as Gasoline (TPH-g) (1,500-2,300 mg/kg), Benzene (7.3-9.8 mg/kg), Toluene (54-79 mg/kg), Ethylbenzene (22-38mg/kg) and Total Xylenes (140-220 mg/kg) (BTEX). These levels exceeded the 1990 State Water Resource Control Board Actions Levels for TPH-g and BTEX.

1990-1991ENGEO Incorporated (ENGEO) Investigations:

In December of 1990 ENGEO conducted a soil and groundwater study in the vicinity of the UST basin on the subject property. ENGEO conducted three borings and converted one of the borings to a permanent monitoring well (MW-1). Both soil and groundwater samples were collected at MW-1. MW-1 was drilled to 67 feet bgs and the well screen was set from 42-67 feet bgs. Only soil sampling was conducted at the other two soil boring locations (B-1 and B-2). Soil samples indicated petroleum hydrocarbon soil impacts at 15 feet bgs. The groundwater sample from MW-1 indicated TPHg at 1,400 ppb (µg/L), Benzene at 63 ppb (µg/L), Ethylbenzene at 8 ppb (µg/L), Toluene at 52 ppb (µg/L), and Xylenes at 590 ppb (µg/L). Groundwater was encountered at 57 feet bgs during drilling and stabilized at 10 feet bgs. During this investigation the 6,000-gallon regular gasoline UST was punctured, however the UST was reportedly empty and no fuel was released.

1992 ENGEO Investigations:

In July and August of 1992 ENGEO conducted a groundwater-sampling event, well destruction, and removed the three (3) USTs. Groundwater sampling conducted on July 1, 1992 from MW-1, which reported elevated concentrations of fuel constituents. Well MW-1 was destroyed on July 9, 1992. In August of 1992 the remaining product and USTs were removed. A fourth UST located adjacent to the LVJUSD property was also removed. At the time of the removal thirteen soil verification samples were collected from beneath the USTs, Product piping and dispensers. TPH-g was detected at levels exceeding the laboratory detection limits under the north end of the Leaded Gasoline UST and under the Unleaded Gasoline Dispenser. Total Petroleum Hydrocarbons as Diesel (TPH-d) was reported at levels exceeding the laboratory detection limits the north end of the Leaded Gasoline UST and under the Diesel Dispenser. Over excavation was

conducted under the unleaded gasoline and diesel dispensers. Approximately 20 cubic yards of soil was removed and disposed of off site.

1993 ENGEO Investigations:

On July 8, 1993 ENGEO published a Soil and Groundwater Investigation Report that summarized results for 6 soil borings and the installation of MW-2, which was completed to 57 feet bgs and screened from 32 to 57 feet bgs. Information obtained from this report indicates that soil and groundwater impacts appear to be confined to the area to the northwest of the former UST Basin. Soil impacts appear to extend from 15 feet bgs to the top of the water table (approximately 35 feet bgs). Groundwater levels during the 1993 investigation were reported 15 feet higher than the 1992 event.

1994 ENGEO Investigations:

In July 1994 ENGEO conducted additional soil, groundwater, and soil gas investigation, which included the installation of monitoring wells MW-3 and MW-4. Both wells were completed to 53 feet bgs. Well MW-3 was screened from 28 to 53 ft bgs and well MW-4 was screened from 26 to 53 feet bgs. The groundwater sample from MW-2 reported 7,000 µg/L TPHg and 520 µg/L benzene. Wells MW-3 and MW-4 were both non-detect for TPHg and BTEX. Hydropunch groundwater samples collected from B10 and "A", indicated levels of TPHg and BTEX up to 70,000 µg/L TPHg and 12,000 µg/L benzene. Soil samples collected during this investigation reported low to below laboratory detection limits for TPHg and BTEX. Based on the investigation, ENGEO indicated that a perched groundwater zone was observed at test holes B-9, B-10 "A", and in MW-4 at 20 feet bgs.

1998 SCA Environmental Inc. Tier 2 Assessment: Based on the Tier 2 assessment the site is not a candidate for closure. Two exposure pathways were identified at the site: 1) Soil leaching to groundwater and, 2) groundwater ingestion.

1999 ENEGO Investigations:

In July and August of 1999 well MW-5 was installed with a screen interval from 15 to 25 feet bgs. Laboratory analysis of one soil sample collected from this boring (21.5 feet) reported non detect for TPH-g and BTEX. Laboratory analysis of groundwater from this well indicated TPH-g and BTEX up to 92,000 µg/L TPH-g and 9,900 µg/L benzene. MTBE was non detect.

Groundwater monitoring: Periodic groundwater monitoring and sampling was conducted from 1995 through 2003. Initial sampling events reported detectable concentrations in well MW-2 and periodically in the other wells. In 2001, sheen was noted on the groundwater collected from MW-5. Depth to groundwater and groundwater flow direction were reported to vary seasonally. Groundwater sample results are summarized in Historical Soil and Groundwater Summary Tables included as Table 1 and Table 2.

November 2010 ACEHS Notice of Violation:

On November 18, 2010 Alameda County Environmental Heath Services (ACEHS) issued a Notice of Violation to LVJUSD pertaining to Fuel Leak Case Number RO0000188/GeoTracker Global ID T0600100844. ACEHS specifically requested a work plan to evaluate if the existing monitoring wells act as conduits for vertical contamination migration; characterize the magnitude in the shallow and deeper groundwater zones through detailed lithologic assessment; conduct a water supply well survey within 2000 feet of the site; and comply with GeoTracker requirements.

2011 ACC Groundwater Monitoring Event:

In March of 2011 three monitoring wells were gauged and sampled. Depth to water in the wells ranged from 22.52 to 23.48 feet below top of well casing. During this event wells MW-2 and MW-3 were non detect for TPH-g and BTEX, MW-4 was not sampled, and MW-5 had detections of TPHg and BTEX. No Free Product was observed. Groundwater flow direction was not calculated.

2012 ACC Soil and Groundwater Characterization Report/Request for Low Risk Closure Report:

ACC conducted eight soil borings to a maximum depth of 65 feet below ground surface (bgs) in an effort to delineate the extent of soil and groundwater impact at the Site. In addition, ACC conducted three (3) CPT borings utilizing Columbia Technologies High Resolution Vertical Profiling Membrane Interface Probe (MIP).

TPH-g and BTEX reported in the soil samples indicate that the impact is limited to the immediate down gradient vicinity of the former UST basin at depths ranging from 18- 25 ft bgs.

TPH-g and BTEX reported in the groundwater samples confirm that the impact is limited to the immediate down gradient vicinity of the former UST basin. The plume extends approximately 90 feet laterally from the source area. The majority of the impact appears to be limited to the shallow perched seasonal water-bearing zone that is separated from the deeper zone by fine-grain soil.

Available data suggest that existing monitoring wells appeared to be providing seasonal vertical conduits between shallow and the deeper water-bearing zones. Therefore, well abandonment was recommended to eliminate potential vertical preferential pathways.

2.2 Groundwater

According to the September 2005 Groundwater Management Plan prepared by the Zone 7 Water Agency, the site is located in the Mocho II Sub-Basin of the Main Livermore-Amadore Valley Groundwater Basin. Zone 7 Water Agency extracts groundwater from

this basin for municipal drinking water. Water supply wells constructed in the basin are screened starting at a minimum of 150 feet bgs. Sediments in this basin are described as recent alluvium consisting of sandy gravel and sandy clayey gravel from the surface to approximately 150 feet below grade (fbg). This alluvium overlies the Livermore Formation.

Two water-bearing zones have been identified at the Site; Zone A (approximately 15-25 feet bgs) and Zone B (approximately 35-55 feet bgs).

Zone A consists of a perched seasonal saturated horizon that does not appear laterally continuous across the site. Only well MW-5 and MW-6A are constructed exclusively in the shallow perched zone. As such groundwater flow direction and gradient have not been calculated. Based on petroleum hydrocarbon impacts detected during soil and groundwater sampling, groundwater in Zone A appears to flow approximately towards the northwest.

Zone B appears to be continuous beyond the Site. Based on groundwater sampling conducted by ENGEO, groundwater in Zone B flows predominantly to the northwest.

2.3 Soil

In general, the Site is situated on clayey/sandy gravels that transition to silty/clayey sand lenses. A silty-clay horizon measuring a minimum of six feet in thickness acts as an aquitard separating Zones A and B. Zone B was noted in boring logs as occurring in gravel/sandy extending from approximately 45 to 67 feet bgs.

The majority of residual soil impacts from the on-Site UST release appear to be limited to the immediate down-gradient vicinity of the former UST basin at depths ranging from 18-25 feet below ground surface (ft bgs) and limited to the shallow groundwater Zone A.

3.0 GROUNDWATER MONITORING WELL DESTRUCTION

On April 9 and 10, 2013, monitoring wells MW-2, MW-3 and MW-4 were destroyed in accordance with Zone 7 Water District regulations. A permit for the well destruction was obtained from Zone 7 and is attached as Appendix A. The former well locations are shown on the attached Figure 2. Gregg Drilling (C57# 485165) was retained to drill out the groundwater monitoring wells using an eight inch-diameter hollow-stem auger rig.

Soil cuttings brought to the surface by the auger flights were placed in 55-gallon steel drums. The drums were sealed, labeled and stored on-site pending analytical results and profiling. Soil samples were collected from the soil cuttings for purposes of waste characterization. Laboratory reports are attached as Appendix E. Manifests for the drum disposal are attached as Appendix F.

The borings were subsequently backfilled to just below surface grade with neat cement slurry (94 pounds of neat cement per 5-6 gallons of potable water). The hollow-stem augurs where used to tremie grout the boring from the bottom to the surface. Upon observing that the slurry used for backfill was stable, the borings were finished to surface grade with concrete.

The DWR Well Completion Reports for MW-2, MW-3 and MW-4 (Appendix C) were signed by Gregg Drilling (C57 # 485165) and submitted to the Zone 7 Water Agency per the well permit.

4.0 REMEDIATION WELL INSTALLATION

On April 9, 2013 monitoring well MW-6A was installed approximately 20 feet southeast from the former USTs and product lines. The purpose of well was to calculate the radius of influence (ROI) for soil vapor and groundwater extraction during the DPE pilot test. The well was additionally used as an extraction well to maximize the removal of impacted groundwater and soil vapor during the DPE pilot test. The location of the well is depicted on the attached Figure 1. A soil boring log/well diagram is attached as Figure 3. A permit was obtained from Zone 7 Water Agency and is attached as Appendix B.

Well MW-6A was installed by Gregg Drilling (C57# 485165) using an eight inch-diameter hollow-stem auger rig. Soil cuttings brought to the surface by the auger flights were placed in 55-gallon steel drums. The drums were sealed, labeled and stored on-site pending analytical results and profiling. Soil samples were collected from the soil cuttings for purposes of waste characterization. Laboratory reports are attached as Appendix E. Waste manifests for the drum disposal are attached as Appendix F.

Well MW-6A was constructed of two inch-diameter PVC casing with 0.010-inch screened casing from 17 to 27 feet bgs. The annular materials consisted of sand from 15 to 27 feet bgs, hydrated bentonite chips from 13 to 15 feet bgs, and concrete from ground surface to 13 feet bgs. The well was completed at the surface with a traffic-rated steel well box and locking well plug.

Soil samples were collected at five-foot intervals during the installation of MW-6A using a split spoon sampler and brass sleeves. The samples were stored on ice and delivered to McCampbell Analytical, Inc. in accordance with standard chain-of-custody protocol. Requested analysis included gasoline, diesel and motor oil-range total petroleum hydrocarbons (TPH-g, TPH-d and TPH-mo), and MBTEX (MTBE, benzene, toluene, ethylbenzene and xylenes). The results are included in the attached Table 1.

TPH-g, TPH-d and MTBE were not detected in soil. TPH-mo was detected at a negligible concentration of 80 mg/kg at 5 feet bgs. BTEX were detected in soil collected from 20 and 25 feet bgs at corresponding concentrations of up to 0.10, 0.019, 0.020 and 0.029 mg/kg.

MW-6A was constructed similar to the existing MW-5 and was expected to draw down quickly, similar to MW-5. Subsequent to installation, a groundwater sample was collected on April 12, 2013 using a new disposable polyethylene bailer. Due to limited groundwater observed in the well, minimal purging was conducted prior to collecting the sample. The sample was decanted into preserved 40-ml glass VOAs and 1-liter amber jars. A subsequent attempt to properly purge and sample the well was conducted and is described in section 6.0 of this report.

Groundwater samples were stored on ice and delivered to McCampbell Analytical, Inc. in accordance with standard chain-of-custody protocol. Requested analysis included TPH-g, TPH-d and TPH-mo and MBTEX. The historical and recent groundwater results are included in the attached Table 2.

The DWR Well Completion Report for MW-6 (Appendix B) was signed by Gregg Drilling (C57# 485165) and submitted to the Zone 7 Water Agency per the well permit.

5.0 DPE PILOT TEST SCOPE

On April 15, 2013 through April 17, 2013 a dual phase extraction (DPE) pilot test was conducted by GeoRestoration utilizing a mobile truck unit equipped with a truck-mounted thermal oxidizer. The system utilized a 25-Hp pump capable of producing vacuum pressure up to 29 inches of mercury (in/Hg) and pumping up to 50 gallons of water per minute.

The purpose of the pilot test was to evaluate DPE as a remedial option for impacted soil and shallow groundwater at the Site. Data tracked during the test included system vacuum (inches of Hg), total system flow (scfm), influent vapor concentrations over time (ppmv), effluent vapor concentration (ppmv), hydrocarbon recovery (PID data and laboratory data) in lbs, and Radius of influence (ROI) for soil vapor extraction. Due to slow recharge of the wells, the ROI for groundwater was not calculated.

The mobile unit treated the impacted groundwater and soil vapor prior to discharge. Confirmation vapor and effluent samples were collected prior to discharge under a Bay Area Air Management Quality District (BAAQMD) permit issued to GeoRestoration. GeoRestoration notes for the DPE pilot test are attached as Appendix G. The attached GeoRestoration DPE Pilot Test notes incorrectly refer to MW-6A as MW-6B.

5.1 DPE Soil Vapor Analytical Results

During the 48-hour pilot test, hydrocarbon vapor readings were collected from MW-5 and MW-6A using an in-line vapor meter and analyzed as hexane in parts per million by volume (ppmv). The vapor concentrations were converted to gallons of hydrocarbons in order to estimate the total number of hydrocarbons extracted as vapors during the pilot test. Based on data generated by GeoRestoration, approximately 11.15 gallons of

hydrocarbons were extracted during the 48-hour pilot test.

As a quality control measure, one influent vapor sample (I-1) was collected by GeoRestoration on April 15 at 3:15 PM using a tedlar bag. The vapor sample was delivered to McCampbell Analytical and analyzed for TPH-g and BTEX. TPH-g was detected at 920 ppmv and BTEX were detected at corresponding concentrations of 16, 16, 2.4 and 9 ppmv, respectively. The total hydrocarbon concentrations recorded by the in-line vapor meter on April 15 at 3:00 pm was 960 ppmv, which was consistent with the data recorded by the laboratory.

An effluent vapor sample was additionally collected to confirm that the vapors where properly treated prior to discharge (E-1). The effluent vapor sample was collected using a Tedlar bag and was delivered to McCampbell Analytical and analyzed for TPH-g and BTEX. No detectable concentrations of constituents were reported in the effluent sample.

5.2 DPE Groundwater Discharge

Groundwater levels in the wells MW-5 and MW-6A drew down quickly during the DPE pilot test and the wells were slow to recharge. A total of 90 gallons of water was pumped from the wells during the pilot test. The mass of hydrocarbons extracted from groundwater removal is minimal.

The groundwater was treated via carbon filters and stored in a poly holding tank pending laboratory analysis. Treated water was analyzed for BTEX, cyanide, mercury, arsenic, cadmium, chromium, copper, lead, nickel, silver, zinc and pH, as requested by the City of Livermore Department of Public Works. The analytical results are attached as Appendix E. The treated water was discharged into the wash rack behind the on-site building under permit from the City of Livermore Public Works Department, attached as Appendix D.

5.3 DPE Radius of Influence (ROI)

The ROI is the lateral distance around each well from which vapor was extracted during the pilot test and was estimated by induced vacuum readings collected by GeoRestoration. Based on the readings collected, the ROI was calculated at >47 feet on April 15, 2013 and 38.15 feet on April 17. Due to the slow recharge of the wells the ROI for groundwater could not be measured.

6.0 Groundwater Sampling

On June 13, 2013 Blaine Tech Services was subcontracted to sample groundwater monitoring wells MW-5 and MW-6A using low-flow sampling procedures. The wells were purged at a rate of approximately 100 milliliters per minute. Groundwater parameters stabilized in MW-5 and a groundwater sample was collected. Well MW-6A

de-watered after purging approximately 200 ml and did not recover after 24 hours following initial purging. The lack of recharge in the monitoring well suggests that the Zone A groundwater horizon is seasonal and discontinuous across the site. Field data sheets generated by Blaine Tech Services are attached as Appendix H.

The sample collected from MW-5 was stored on ice and delivered to McCampbell Analytical, Inc. in Pittsburg, CA following standard chain-of-custody protocol. Lab analyses consisted of TPH-g and MBTEX by EPA method 8260B and TPH-d and TPH-mo by method 8015B using silica gel cleanup. The results are included in the Attached Table 1.

Laboratory analysis of the groundwater from MW-5 indicated TPH-g and BTEX was detected at 25,000, 3,100, 480, 2,400 and 4,800 µg/L, respectively. TPH-d was detected at a concentration of 3,200 µg/L. MTBE and TPH-mo were not detected.

Prior to the DPE test, a groundwater sample from well MW-5 indicated 92,000 µg/l TPH-g in July 2000 and 65,000 µg/L on March 2011. The post-DPE test results for TPH-g (25,000 µg/L) in MW-5 show over 60% decrease than the previously detected concentration (March 2011). Similar decrease in benzene concentrations in MW-5 were also observed following the DPE event.

7.0 CONSIDERATION FOR LOW-RISK CASE CLOSURE POLICY

Based on the findings up to date the Site appears to meet the State Water Resources Water Control Board (SWRCB) Low-Threat UST Closure Policy:

- The unauthorized release is located within the service area of a public water system. Public water is provided by Cal Water Services Company via City of Livermore
- The unauthorized release consists only of petroleum. The former LUSTs were used to store gasoline and diesel.
- The unauthorized release has been stopped. The on-site tanks and piping were removed in 1992. No USTs were subsequently installed.
- Free product has been removed to the maximum extent practicable. No evidence of significant volumes of separate-phase hydrocarbons have been observed by ACC or reported in soil and groundwater investigations or tank removal procedures conducted at the Site.
- A conceptual site model that assess the nature, extent, and mobility of the release has been developed (see Section 2.0 and the ACC report *Soil and Groundwater Characterization Report/Request for Low Risk Closure Report - Laidlaw Transit-2900 Ladd Avenue, Livermore, California*, January 6, 2012);
- Secondary source has been removed to the extent practicable. Approximately 250 cubic yards of pea gravel and 20 cubic yards of impacted soil were reportedly removed from the Site subsequent to the tank removal by Engeo during 1992. DPE pilot testing in June 2013 removed over 11 gallons of vapor-phase

hydrocarbons. Post remedial monitoring demonstrated a decrease in residual groundwater impacts in the shallow zone.

- Soil and groundwater have been tested for MTBE and results reported in accordance with Health and Safety Code section 25296.15 (Tables 1 & 2);
- Nuisance as defined by Water Code section 13050 does not exist at the site. Based on investigations conducted up to date it appears that soil impacts from the leaking USTs are currently limited to the immediate down-gradient vicinity of the former UST basin at depths ranging from 18-25 ft bgs and do not present a potential nuisance as defined by Water Code section 13050.

7.1 Groundwater-Specific Criteria

The contamination plume that exceeds water quality objectives is less than 100 feet in length. No free product has been observed. The nearest existing water supply well or surface water body is greater than 250 feet from the defined plume boundary.

7.2 Petroleum Vapor Intrusions to Indoor Air

Based on available data the soil and groundwater impacts do not extend beneath on-site structures and do not appear to present a vapor intrusion to indoor air scenario. No future construction is proposed in the area of the release.

7.3 Direct Contact and Outdoor Air Exposure

Based on investigations conducted up to date it appears that soil impacts from the leaking USTs are currently limited to the immediate down-gradient vicinity of the former UST basin at depths ranging from 18-25 ft bgs, and thus do not appear to present the potential for direct contact and outdoor air exposure.

8.0 CONCLUSIONS

On-site monitoring wells MW-2, MW-3 and MW-4 were properly destroyed and no longer present the potential to act as conduits between the A Zone and B Zone groundwater horizons. No wells currently existing at the site extend into the B Zone.

A 48-hour dual-phase extraction (DPE) pilot test was conducted to evaluate DPE as a remedial option soil and shallow groundwater (A Zone) impacted by gasoline released from former on-site leaking underground storage tanks. Soil vapor and groundwater were simultaneously extracted from monitoring wells MW-5 and MW-6A.

An estimated total of 11.15 gallons of vapor-phase hydrocarbons were extracted during the 48-hour DPE test. Groundwater levels in MW-5 and MW-6A drew down quickly and were slow to recharge. Throughout the duration of the pilot test an estimated 90 gallons of groundwater were pumped from wells MW-5 and MW-6A. The amount of hydrocarbons extracted from groundwater appears minimal.

Based on the readings collected by GeoRestoration, the ROI for soil vapor extraction was calculated at >47 feet on April 15, 2013 and 38.15 feet on April 17. Due to the slow recharge of the wells the ROI for groundwater was not measured.

Based on historical groundwater data (Table 2), TPH-g was detected in MW-5 at concentrations of up to 92,000 µg/L and was detected at a concentration of 65,000 µg/L during the last sampling event prior to the DPE pilot test. The post-DPE pilot test groundwater results reported approximately 61% and 64% decreases, respectively, in TPH-g and benzene concentrations in MW-5 compared to the previous groundwater sampling event in March 2011. TPH-g and benzene concentrations have exhibited a decreasing trend since the well installation in 2011.

On June 24, 2013 ACC received a Well Completion Report (WCR) for CWS-17. Based on correspondence with Mr. Frank Vallejo at Cal Water, CWS-17 was abandoned in February 2013. Cal Water indicated that they have no intentions of re-installing the well, and that the nearest existing Cal Water well is greater than 1,000 feet from the Site.

8.0 RECOMMENDATIONS

Based on the limited concentrations of hydrocarbons and minimal groundwater extracted during the DPE pilot test ACC concludes that additional DPE procedures would not be cost effective.

Due to the limited extent of residual petroleum hydrocarbons remaining at the site and that no water supply wells exist within 1000 feet from the site, the case meets the SWRCB Low Threat Closure Policy criteria and should be considered for no further action.

9.0 LIMITATIONS

The service performed by ACC has been conducted in a manner consistent with the levels of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area. No other warranty, expressed or implied, is made.

The conclusions presented in this report are professional opinions based on the indicated data described in this report and applicable regulations and guidelines currently in place. They are intended only for the purpose, site, and project indicated. Opinions and recommendations presented herein apply to site conditions existing at the time of our study.

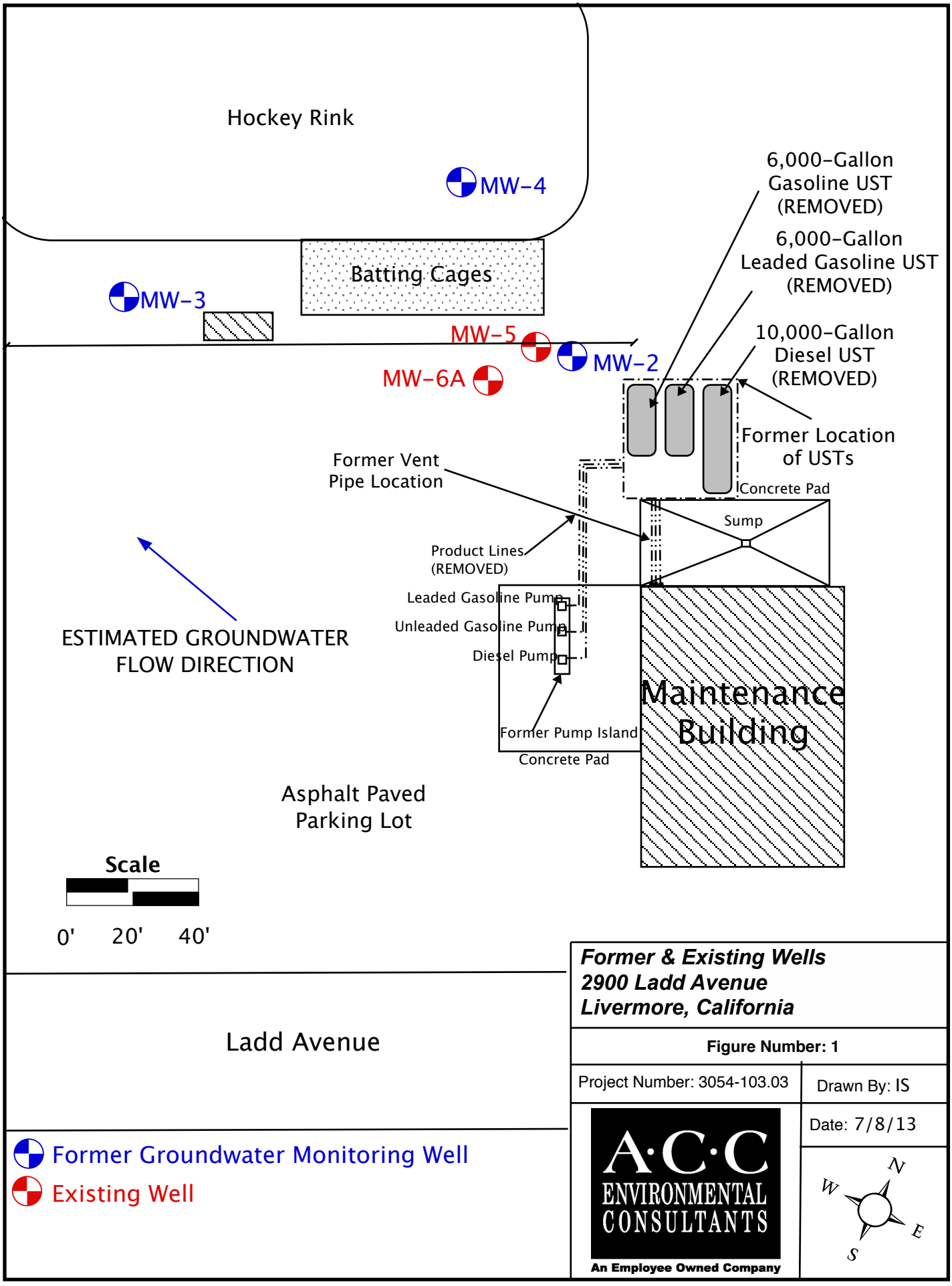
ACC has included analytical results from a state-certified laboratory, which performs analyses according to procedures suggested by the U.S. Environmental Protection

Agency and the State of California. ACC is not responsible for laboratory errors in procedure or result reporting.

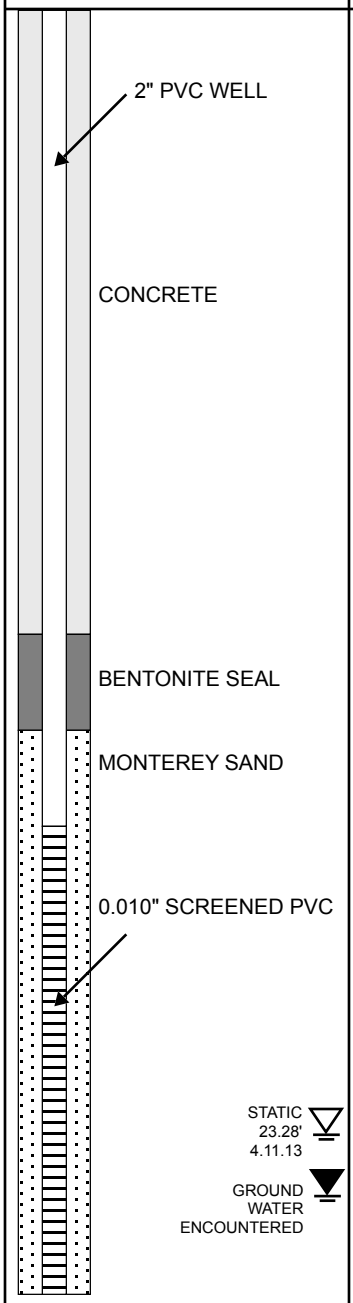
FIGURES 1 - 3

Source: Google Earth, 2011

Title ***Site Location Map 2900 Ladd Avenue Livermore, California***	
Figure Number: 1	Scale: None
Project Number: 3054-103.01	Drawn By: JS
A·C·C ENVIRONMENTAL CONSULTANTS An Employee Owned Company	Date: 4/7/11 N W E S


Hockey Rink
MW-4
6,000-Gallon Gasoline UST (REMOVED)
6,000-Gallon Leaded Gasoline UST (REMOVED)
Batting Cages
MW-3
MW-5
MW-2
10,000-Gallon Diesel UST (REMOVED)
MW-6A
Former Location of USTs
Former Vent Pipe Location
Concrete Pad
Sump
Product Lines (REMOVED)
Leaded Gasoline Pump
Unleaded Gasoline Pump
Diesel Pump
ESTIMATED GROUNDWATER FLOW DIRECTION
Maintenance Building
Former Pump Island
Concrete Pad
Asphalt Paved Parking Lot
Scale
0'
20'
40'
Ladd Avenue
Former Groundwater Monitoring Well
Existing Well
Former & Existing Wells
2900 Ladd Avenue
Livermore, California
Figure Number: 1
Project Number: 3054-103.03
Drawn By: IS
Date: 7/8/13
A·C·C ENVIRONMENTAL CONSULTANTS
An Employee Owned Company
N
W
E
S

EQUIPMENT: 8" HOLLOW STEM AUGER
OPERATED BY: GREGG DRILLING
LOGGED BY: IAN SUTHERLAND
LOCATION: 2900 LADD AVENUE
WORK DATE: 4.11.13
BORING: MW-6A



ADDITIONAL OBSERVATIONS & WELL CONSTRUCTION	PID (ppm)	SAMPLE ID	SAMPLE LOCATION	FEET BELOW GROUND SURFACE		
				0		ASPHALT & BASE MATERIAL
				2	GM	GRAVEL-SAND-SILT MIXTURE, ~85% coarse gravel, very fine grain sand & silt fines, dry, very dark greyish-brown (10YR3/2), unconsolidated, no plasticity.
	0.0	6A-5'		4		
				6		
				8		(INCREASED SILT/CLAY CONTENT)
	0.0	6A-10'		10	CL	SILTY-CLAY WITH GRAVEL, ~40% gravel, dark reddish-brown (5YR3/3), slight moisture, cohesive, low plasticity, gravel content decreases with depth, plasticity increases with depth.
				12		
				14		
	0.0	6A-15'		16		
				18		(INCREASED SAND CONTENT)
	3.8	6A-20'		20	ML	SILT WITH SAND, grayish-brown (2.5Y5/2), moist, slight cohesiveness, low plasticity, moisture increases with depth, slight hydrocarbon odor from 20-25 ft bgs.
				22		
				24		
	2.6	6A-25'		26		
				28		END OF BORING (27 FT BGS)

ACC ENVIRONMENTAL CONSULTANTS, INC.
7977 CAPWELL DRIVE, SUITE 100
OAKLAND, CALIFORNIA 94621
(510) 638-8400 FAX: (510) 638-8404

PROJECT #
3054-103.04

DATE:
4.19.13.

NOTES: FREE GROUNDWATER ENCOUNTRED AT APPROXIMATELY 25 FT BGS. BORING LOG BASED ON DRILL CUTTINGS AND SAMPLES COLLECTED IN SPLIT SPOON SAMPLER

TABLES 1 & 2

TABLE 1
Soil Analytical Summary Table
2900 Ladd Avenue
Livermore, California
ACC Project Number: 3054-103.01

Boring / Sample ID	Sampling Depth / Interval - Feet Below Ground Surface (bgs)	Sampling Date	Matrix	Constituents & Concentrations mg/kg							
				TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Lead
6A-5'	5	4.11.13	soil	ND<1.0	ND<10	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.05	--
6A-10'	10	4.11.13	soil	ND<1.0	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.05	--
6A-15'	15	4.11.13	soil	ND<1.0	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.05	--
6A-20'	20	4.11.13	soil	ND<1.0	ND<2.5	0.018	0.0053	0.014	0.013	ND<0.05	--
6A-25'	25	4.11.13	soil	ND<1.0	ND<1.0	0.10	0.020	0.020	0.029	ND<0.05	--
ACC1 (13.5-15')	13.5-15	12-Sep-11	Soil (mg/kg)	<0.240	NT	<0.0049	<0.0049	<0.0049	<0.0098	<0.0049	NT
ACC1 (33.5-35')	33.5-35	12-Sep-11	Soil (mg/kg)	<0.130	NT	<0.0027	<0.0027	<0.0027	<0.0053	<0.0027	NT
ACC2 (18.5-20')	18.5-20	13-Sep-11	Soil (mg/kg)	<0.120	NT	<0.0024	<0.0024	<0.0024	<0.0048	<0.0024	NT
ACC2 (38.5-40')	38.5-40	13-Sep-11	Soil (mg/kg)	<0.120	NT	<0.0024	<0.0024	<0.0024	<0.0048	<0.0024	NT
ACC3 (8.5-10')	8.5-10	14-Sep-11	Soil (mg/kg)	<0.120	NT	<0.0023	<0.0023	<0.0023	<0.0046	<0.0023	NT
ACC3 (18.5-20')	18.5-20	14-Sep-11	Soil (mg/kg)	0.52	NT	**0.046**	0.0047	0.027	0.097	<0.0021	NT
ACC3 (23.5-25')	23.5-25	14-Sep-11	Soil (mg/kg)	**270**	NT	**<2**	2.7	<2	**31**	**<2**	NT
ACC3 (33.5-35')	33.5-35	14-Sep-11	Soil (mg/kg)	<0.110	NT	<0.0023	0.0024	<0.0023	0.0074	<0.0023	NT
ACC4 (8.5-10')	8.5-10	14-Sep-11	Soil (mg/kg)	<0.110	NT	<0.0022	<0.0022	<0.0022	<0.0045	<0.0022	NT
ACC4 (23.5-25')	23.5-25	14-Sep-11	Soil (mg/kg)	**240**	NT	**2.3**	**12**	**2.8**	**24**	**<2.3**	NT
ACC4 (43.5-45')	43.5-45	14-Sep-11	Soil (mg/kg)	0.58	NT	0.02	0.051	0.001	0.058	<0.0047	NT
ACC5 (18.5-20')	18.5-20	15-Sep-11	Soil (mg/kg)	**300**	NT	**1.2**	**8.7**	**4.8**	**30**	**<1.1**	NT
ACC5 (38.5-40')	38.5-40	15-Sep-11	Soil (mg/kg)	<0.098	NT	<0.002	<0.002	<0.002	<0.0039	<0.002	NT
ACC6 (33.5-35')	33.5-35	15-Sep-11	Soil (mg/kg)	<0.094	NT	<0.0019	<0.0019	<0.0019	<0.0038	<0.0019	NT
ACC7 (13.5-15')	13.5-15	16-Sep-11	Soil (mg/kg)	<0.110	NT	<0.0023	<0.0023	<0.0023	<0.0045	<0.0023	NT
ACC7 (38.5-40')	38.5-40	16-Sep-11	Soil (mg/kg)	<0.120	NT	<0.0024	<0.0024	<0.0024	<0.0048	<0.0024	NT
ACC8 (5-6.5')	5-6.5	16-Sep-11	Soil (mg/kg)	<0.110	NT	<0.0022	<0.0022	<0.0022	<0.0044	<0.0022	NT
ACC8 (43.5-45')	43.5-45	16-Sep-11	Soil (mg/kg)	<0.120	NT	<0.0023	<0.0023	<0.0023	<0.0047	<0.0023	NT
B1-2	16	13-Dec-90	Soil (mg/kg)	1.1	NT	**0.18**	0.036	0.0053	0.032	NT	NT
B1-3	21	13-Dec-90	Soil (mg/kg)	1.5	NT	**0.16**	0.071	0.0081	0.051	NT	NT
B1-5	31	13-Dec-90	Soil (mg/kg)	ND	NT	0.013	ND	ND	ND	NT	NT
B1-11	44	13-Dec-90	Soil (mg/kg)	ND	NT	0.004	ND	ND	ND	NT	NT
B2-2	16	13-Dec-90	Soil (mg/kg)	ND	NT	0.016	0.0026	ND	ND	NT	NT
MW1-2	16	13-Dec-90	Soil (mg/kg)	**970**	NT	**8.1**	**27**	**13**	**27**	NT	NT
MW1-4	26	13-Dec-90	Soil (mg/kg)	**1,000**	NT	ND	**27**	**10**	**53**	NT	NT
MW1-6	36	13-Dec-90	Soil (mg/kg)	**2,700**	NT	ND	**27**	**10**	**53**	NT	NT
MW1-8	46	13-Dec-90	Soil (mg/kg)	ND	NT	0.001	0.004	ND	0.0099	NT	NT
EB-1, No. 2	14	25-Jul-90	Soil (mg/kg)	**2,300**	NT	**9.8**	**79**	**38**	**220**	NT	NT
EB-1, No. 3	17	25-Jul-90	Soil (mg/kg)	**1,500**	NT	**7.3**	**54**	**22**	**140**	NT	NT
T2-1N	11.5	6-Aug-92	Soil (mg/kg)	ND	37	ND	ND	ND	ND	NT	NT
T2-1S	12	6-Aug-92	Soil (mg/kg)	NT	ND	ND	ND	ND	ND	NT	NT
T3-1N	11.5	6-Aug-92	Soil (mg/kg)	ND	Nt	ND	ND	ND	ND	NT	NT
T3-1S	12	6-Aug-92	Soil (mg/kg)	ND	NT	ND	ND	ND	ND	NT	NT
T4-1N	11.5	6-Aug-92	Soil (mg/kg)	**1,200**	NT	**2.1**	**4.2**	**2.4**	**160**	NT	12
T4-1S	12	6-Aug-92	Soil (mg/kg)	ND	NT	ND	ND	ND	ND	NT	8.2
PL-1	4	6-Aug-92	Soil (mg/kg)	ND	ND	ND	ND	ND	ND	NT	NT
PL-2	4	6-Aug-92	Soil (mg/kg)	ND	ND	ND	ND	ND	ND	NT	NT
DP-1	3.75	6-Aug-92	Soil (mg/kg)	NT	46	ND	ND	ND	ND	NT	NT
RULP-1	3.5	6-Aug-92	Soil (mg/kg)	3	NT	ND	ND	0.0074	0.013	NT	12
RLP-1	3.75	6-Aug-92	Soil (mg/kg)	ND	NT	ND	ND	ND	ND	NT	NT
****ESLs - Groundwater is a current source of drinking water**	**Residential Land Use**	**Shallow Soil (≤ 3 m)**	**Soil (mg/kg)**	**83**	**83**	**0.044**	**2.9**	**2.30**	**2.26**	**0.023**	**200**
		Deep Soil (>3 m)	**Soil (mg/kg)**	**83**	**83**	**0.044**	**2.9**	**3.27**	**2.26**	**0.023**	**750**
	Commercial / Industrial Land Use	**Shallow Soil (≤ 3 m)**	**Soil (mg/kg)**	**83**	**83**	**0.044**	**2.9**	**3.27**	**2.26**	**0.023**	**750**
		Deep Soil (>3 m)	**Soil (mg/kg)**	**83**	**83**	**0.044**	**2.9**	**3.27**	**2.26**	**0.023**	**750**
PRG's		**Residential**	**Soil (mg/kg)**	**NA**	**NA**	**1.1**	**5,000**	**5.4**	**630**	**43**	**400**
		Commercial	**Soil (mg/kg)**	**NA**	**NA**	**5.4**	**46,000**	**27**	**2,700**	**220**	**800**
California Human Health Screening Levels (CHHSLS)		**Residential**	**Soil (mg/kg)**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**80**
		Commercial	**Soil (mg/kg)**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**320**

TABLE 1
Soil Analytical Summary Table
2900 Ladd Avenue
Livermore, California
ACC Project Number: 3054-103.01

Boring / Sample ID	Sampling Depth / Interval - Feet Below Ground Surface (bgs)	Sampling Date	Matrix	Constituents & Concentrations mg/kg							
				TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Lead
B4-2	21	9-Apr-93	Soil (mg/kg)	**800**	9.1	**1.9**	**22**	**8.1**	**56**	NT	NT
B4-3	26	9-Apr-93	Soil (mg/kg)	**2,300**	ND	**7.7**	**88**	**35**	**210**	NT	NT
B4-4	30.5	9-Apr-93	Soil (mg/kg)	31	ND	**0.051**	0.64	**3.5**	**2.4**	NT	NT
B5-2	20.5	9-Apr-93	Soil (mg/kg)	**790**	ND	**2.8**	**21**	**6.7**	**4.1**	NT	NT
B5-3	25.5	9-Apr-93	Soil (mg/kg)	24	ND	**0.052**	0.62	**3.3**	2.2	NT	NT
B5-4	36	9-Apr-93	Soil (mg/kg)	1.1	ND	**0.23**	0.0083	ND	0.13	NT	NT
B5-5	41	9-Apr-93	Soil (mg/kg)	ND	ND	ND	ND	ND	ND	NT	NT
B6-1	15.5	9-Apr-93	Soil (mg/kg)	**860**	46	ND	**13**	**83**	**55**	NT	NT
B6-2	21	9-Apr-93	Soil (mg/kg)	**530**	**120**	**1.9**	**17**	**73**	**44**	NT	NT
B6-3	26	9-Apr-93	Soil (mg/kg)	**1,200**	ND	**4.1**	**39**	**150**	**100**	NT	NT
B6-4	31	9-Apr-93	Soil (mg/kg)	**410**	ND	ND	**4.5**	**35**	**22**	NT	NT
B7-1	16	9-Apr-93	Soil (mg/kg)	**670**	ND	**1.2**	**16**	**97**	**58**	NT	NT
B7-2	21	9-Apr-93	Soil (mg/kg)	46	ND	**0.19**	1.3	**6**	**3.6**	NT	NT
B7-3	26	9-Apr-93	Soil (mg/kg)	**480**	ND	ND	**6.7**	**40**	**25**	NT	NT
B7-4	31	9-Apr-93	Soil (mg/kg)	65	ND	**8.4**	1.3	**7.5**	**4.8**	NT	NT
B8-2	21	9-Apr-93	Soil (mg/kg)	18	ND	**1.6**	**3.1**	**3.3**	2.2	NT	NT
B8-3	26	9-Apr-93	Soil (mg/kg)	ND	ND	**0.08**	0.77	0.11	0.73	NT	NT
B8-4	30.5	9-Apr-93	Soil (mg/kg)	ND	ND	**0.05**	0.20	0.005	0.37	NT	NT
MW3-1	10	1-Jul-94	Soil (mg/kg)	ND	NT	ND	ND	ND	ND	NT	NT
MW3-2	15	1-Jul-94	Soil (mg/kg)	ND	NT	ND	ND	ND	ND	NT	NT
MW3-3	20	1-Jul-94	Soil (mg/kg)	ND	NT	ND	ND	ND	ND	NT	NT
MW3-4	25	1-Jul-94	Soil (mg/kg)	ND	NT	ND	ND	ND	ND	NT	NT
MW3-5	30	1-Jul-94	Soil (mg/kg)	ND	NT	ND	ND	ND	ND	NT	NT
MW3-6	35	1-Jul-94	Soil (mg/kg)	ND	NT	ND	ND	ND	ND	NT	NT
MW3-7	40	1-Jul-94	Soil (mg/kg)	ND	NT	ND	ND	ND	ND	NT	NT
MW4-1	10	1-Jul-94	Soil (mg/kg)	ND	NT	ND	ND	ND	ND	NT	NT
MW4-2	15	1-Jul-94	Soil (mg/kg)	26	NT	**0.21**	0.75	0.21	1.4	NT	NT
MW4-3	20	1-Jul-94	Soil (mg/kg)	44	NT	**0.25**	0.70	0.28	**2.3**	NT	NT
MW4-4	25	1-Jul-94	Soil (mg/kg)	ND	NT	ND	ND	ND	ND	NT	NT
MW4-5	30	1-Jul-94	Soil (mg/kg)	ND	NT	ND	ND	ND	ND	NT	NT
MW4-6	35	1-Jul-94	Soil (mg/kg)	ND	NT	ND	ND	ND	ND	NT	NT
MW4-7	40	1-Jul-94	Soil (mg/kg)	ND	NT	ND	ND	ND	ND	NT	NT
MW4-8	45	1-Jul-94	Soil (mg/kg)	ND	NT	ND	ND	ND	ND	NT	NT
B9-1	15	1-Jul-94	Soil (mg/kg)	ND	NT	**0.074**	0.008	0.011	0.059	NT	NT
B9-2	20	1-Jul-94	Soil (mg/kg)	**640**	NT	**4.2**	**23**	10	**70**	NT	NT
B9-3	25	1-Jul-94	Soil (mg/kg)	ND	NT	**0.12**	0.013	ND	0.02	NT	NT
B10-1	14	1-Jul-94	Soil (mg/kg)	3	NT	**0.5**	0.57	0.11	0.62	NT	NT
B10-2	18	1-Jul-94	Soil (mg/kg)	ND	NT	ND	ND	ND	ND	NT	NT
MW5-4	22	28-Jun-00	Soil (mg/kg)	ND	NT	ND	ND	ND	ND	ND	NT
****ESLs - Groundwater is a current source of drinking water**	**Residential Land Use**	**Shallow Soil (≤ 3 m)**	**Soil (mg/kg)**	**83**	**83**	**0.044**	**2.9**	**2.30**	**2.26**	**0.023**	**200**
		Deep Soil (>3 m)	**Soil (mg/kg)**	**83**	**83**	**0.044**	**2.9**	**3.27**	**2.26**	**0.023**	**750**
	Commercial / Industrial Land Use	**Shallow Soil (≤ 3 m)**	**Soil (mg/kg)**	**83**	**83**	**0.044**	**2.9**	**3.27**	**2.26**	**0.023**	**750**
		Deep Soil (>3 m)	**Soil (mg/kg)**	**83**	**83**	**0.044**	**2.9**	**3.27**	**2.26**	**0.023**	**750**
PRG's		**Residential**	**Soil (mg/kg)**	**NA**	**NA**	**1.1**	**5,000**	**5.4**	**630**	**43**	**400**
		Commercial	**Soil (mg/kg)**	**NA**	**NA**	**5.4**	**46,000**	**27**	**2,700**	**220**	**800**
California Human Health Screening Levels (CHHSLS)		**Residential**	**Soil (mg/kg)**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**80**
		Commercial	**Soil (mg/kg)**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**320**

Notes

***ESLs = Bay Area Regional Water Quality Control Board Environmental Screening Levels (Interim Final May 2008), where Groundwater IS a Current Source of Drinking Water*

PRGs=EPA Region 9 Preliminary Remediation Goal (April 2009)

CHHSLs = California Human Health Screening Levels for Soil, Cal EPA (January 2005) (Lead Revision September 2009)

NT: Not Tested; NM: Not Measured; NS: Not Sampled

**-- No Data*

Shadeded/Bolded Values Exceed Their Respective Criteria

TABLE 2
Groundwater Analytical Summary Table
2900 Ladd Ave
Livermore, CA
ACC Project Number: 3054-103.01

Boring / Well ID	Sampling Date	Matrix	DTW (in feet)	Constituents and Concentrations (µg/L)					
				TEPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
ACC-1	12-Sep-11	Water	39.5	<50	<0.50	<0.50	<0.50	<1.0	<0.50
ACC-2	13-Sep-11	Water	48.5	<50	<0.50	<0.50	<0.50	<1.0	<0.50
ACC-3	14-Sep-11	Water	39	**4,100**	**170**	**260**	**100**	**1,000**	**20**
ACC-4	14-Sep-11	Water	41.15	**14,000**	**1,500**	**1,900**	**500**	**2,500**	**4.5**
ACC-5	15-Sep-11	Water	43.5	**100**	**1.7**	8.9	4.4	19	<0.50
ACC-6	15-Sep-11	Water	43.5	<50	<0.50	<0.50	<0.50	<1.0	<0.50
ACC-7	16-Sep-11	Water	42.6	<50	<0.50	<0.50	<0.50	<1.0	<0.50
ACC-8	16-Sep-11	Water	46.8	<50	<0.50	<0.50	<0.50	<1.0	<0.50
MW-2	20-Apr-93	Water	30.81	**4,500**	**340**	**110**	8	**630**	NT
	12-May-94	Water	31.12	**7,000**	**520**	**220**	**35**	**410**	NT
	8-Feb-95	Water	28.04	**170**	**8.9**	4.5	2.1	17	NT
	23-May-95	Water	17.77	<50	<0.5	<0.5	<0.5	<0.5	NT
	20-Sep-95	Water	25.55	**8,400**	**2,500**	**1,200**	**180**	**940**	NT
	29-Dec-95	Water	20.91	**640**	0.7	<0.5	1.9	4.7	NT
	1-Nov-96	Water	22.63	**1,600**	**390**	**140**	25	**120**	NT
	29-Apr-97	Water	20.39	**4,900**	**640**	**240**	**83**	**200**	<250
	5-Aug-99	Water	26.18	**3,000**	**1,100**	**370**	**97**	**240**	<25
	1-Aug-00	Water	23.96	**2,200**	**850**	**240**	**74**	**240**	<50
	18-Jan-02	Water	30.85	**350**	**62**	0.85	0.82	2.5	<5
	2-Jul-02	Water	33.45	--	--	--	--	--	--
	4-Dec-02	Water	36.21	--	--	--	--	--	--
	31-Mar-11	Water	--	<50	<0.5	<0.5	<0.5	<1	<0.5
MW-3	12-Jul-94	Water	38.76	<50	<0.5	<0.5	<0.5	<0.5	NT
	8-Feb-95	Water	27.08	<50	<0.5	<0.5	<0.5	<0.5	NT
	23-May-95	Water	17.28	<50	<0.5	<0.5	<0.5	<0.5	NT
	20-Sep-95	Water	25.06	<50	**1.4**	<0.5	<0.5	<0.5	NT
	29-Dec-95	Water	20.25	50	**1.8**	<0.5	<0.5	<0.5	NT
	1-Nov-96	Water	22.22	<50	<0.5	<0.5	<0.5	<0.5	NT
	29-Apr-97	Water	20.05	<50	**1.7**	<0.5	<0.5	<0.5	<5
	5-Aug-99	Water	26.07	<50	<0.5	<0.5	<0.5	<0.5	<5
	20-Jul-00	Water	23.35	<50	**1.4**	3.6	<0.5	3.9	<5
	18-Jan-02	Water	30.5	<50	<.5	<0.5	<0.5	<0.5	<5
	2-Jul-02	Water	33.53	--	--	--	--	--	--
****ESLs**	**Groundwater is a Current or Potential Source of Drinking Water**	**Water**		**100**	**1**	**40**	**30**	**20**	**5**
PRG's	**MCLs**	**Water**		**NA**	**5**	**1,000**	**7,000**	**10,000**	**NA**

TABLE 2
Groundwater Analytical Summary Table
2900 Ladd Ave
Livermore, CA
ACC Project Number: 3054-103.01

Boring / Well ID	Sampling Date	Matrix	DTW (in feet)	Constituents and Concentrations (µg/L)					
				TEPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MW-3	4-Dec-02	Water	36.35	--	--	--	--	--	--
	31-Mar-11	Water	--	<50	<0.5	<0.5	<0.5	<1	<0.5
MW-4	12-Jul-94	Water	39.5	<50	<0.5	<0.5	<0.5	<0.5	NT
	8-Feb-95	Water	27.66	<50	<0.5	<0.5	<0.5	<0.5	NT
	23-May-95	Water	17.68	60	<0.5	<0.5	<0.5	<0.5	NT
	20-Sep-95	Water	25.81	<50	<0.5	<0.5	<0.5	<0.5	NT
	29-Dec-95	Water	20.9	<50	<0.5	<0.5	<0.5	<0.5	NT
	1-Nov-96	Water	22.84	<50	**2.7**	<0.5	<0.5	<0.5	NT
	29-Apr-97	Water	20.57	<50	**2.6**	<0.5	<0.5	<0.5	**9.2**
	5-Aug-99	Water	26.64	**120**	**59.0**	<0.5	<0.5	<0.5	**19.0**
	20-Jul-00	Water	23.91	97	**21.0**	6.8	0.66	4.6	**11.0**
	18-Jan-02	Water	NM	NS	NS	NS	NS	NS	NS
	2-Jul-02	Water	--	--	--	--	--	--	--
MW-5	21-Jul-00	Water	20.19	**92,000**	**9,900**	**15,000**	**540**	**17,000**	<1,300
	18-Jan-02	Water	23.61	**63,000**	**5,900**	**10,000**	**1,900**	**15,000**	<1,300
	2-Jul-02	Water	24.29	**86,000**	**10,000**	**14,000**	**2,100**	**15,000**	<1,300
	4-Dec-02	Water	24.35	**72,000**	**8,500**	**11,000**	**1,600**	**10,000**	<1,300
	31-Mar-11	Water	--	**65,000**	**8,700**	**8,700**	**2,800**	**16,000**	<500
	6.13.13	water	23.31	**25,000**	**3,100**	**480**	**2,400**	**4,800**	ND<50
MW-6A	4.12.13	water	23.28	**1,800**	**230**	**66**	**81**	**140**	ND<30
	6.13.13	water	26.35	PURGED DRY (APPROX 200 ml), NO RECHARGE AFTER 24 HRS					
****ESLs**	**Groundwater is a Current or Potential Source of Drinking Water**	**Water**		**100**	**1**	**40**	**30**	**20**	**5**
PRG's	**MCLs**	**Water**		**NA**	**5**	**1,000**	**7,000**	**10,000**	**NA**

Notes

***ESLs = Bay Area Regional Water Quality Control Board Environmental Screening Levels (Interim Final May 2008) where Groundwater IS a Current or Potential Source of Drinking Water*

PRGs=EPA Region 9 Preliminary Remediation Goal November 2009)

[1]Metals analysis for these samples was run on unfiltered groundwater.

DTW: ;Depth to water (ft.) measured from top of casing (TOC).

NT: Not Tested; NM: Not Measured; NS: Not Sampled

**-- No Data*

Shaded/Bolded Values Exceed Their Respective Criteria

APPENDIX A

WELL DESTRUCTION PERMIT

ZONE 7 WATER AGENCY

100 NORTH CANYONS PARKWAY, LIVERMORE, CALIFORNIA 94551 VOICE (925) 454-5000 FAX (925) 245-9306
E-MAIL whong@zone7water.com

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 2900 Ladd Ave.
Livermore, CA 94550

Coordinates Source _____ ft. Accuracy _____ ft.
LAT: _____ ft. LONG: _____ ft.
APN 98-264-1-16

CLIENT
Name Livermore Valley Unified School District
Address 685 E. Jack London Blvd Phone 925.766.2111
City Livermore, CA Zip 94551

APPLICANT
Name Ian Sutherland
Email isutherland@ecology.com Fax 510.638.8404
Address 7977 Capwell Dr #100 Phone 510.638.8400 x110
City Oakland, CA Zip 94621

TYPE OF PROJECT:

Well Construction		Geotechnical Investigation	
Well Destruction	X	Contamination Investigation	
Cathodic Protection		Other	

PROPOSED WELL USE:

Domestic		Irrigation	
Municipal		Remediation	
Industrial		Groundwater Monitoring	
Dewatering		Other	

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Hollow Stem Auger X
Cable Tool ___ Direct Push ___ Other ___

DRILLING COMPANY Gregg Drilling
DRILLER'S LICENSE NO. 485165 C-57

WELL SPECIFICATIONS:
Drill Hole Diameter ___ in. Maximum Depth 53 ft.
Casing Diameter 2 in. Depth ___ ft.
Surface Seal Depth ___ ft. Number 3
MW-2, MW-3, MW-4

SOIL BORINGS:
Number of Borings 0
Hole Diameter ___ in. Maximum Depth ___ ft.

ESTIMATED STARTING DATE April 11
ESTIMATED COMPLETION DATE April 12

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE _____ Date 3.28.13

ATTACH SITE PLAN OR SKETCH

FOR OFFICE USE

PERMIT NUMBER 2013040
WELL NUMBER 3S/2E-9L14, 9L7, 9L8 (MW-2 to MW-4)
APN 098-0264-001-17

PERMIT CONDITIONS
(Circled Permit Requirements Apply)

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to your proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report (DWR Form 188), signed by the driller.
3. Permit is void if project not begun within 90 days of approval date.
4. Notify Zone 7 at least 24 hours before the start of work.

B. WATER SUPPLY WELLS
1. Minimum surface seal diameter is four inches greater than the well casing diameter.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
3. Grout placed by tremie.
4. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.
5. A sample port is required on the discharge pipe near the wellhead.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal diameter is four inches greater than the well or piezometer casing diameter.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
3. Grout placed by tremie.

D. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

E. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

(F.) WELL DESTRUCTION. See attached.

G. SPECIAL CONDITIONS. Submit to Zone 7 within 60 days after completion of permitted work the well installation report including all soil and water laboratory analysis results.

Approved Wyman Hong Date 4/5/13
Wyman Hong

Revised: January 4, 2010

April 5, 2013

Zone 7
Water Resources Engineering
Groundwater Protection Ordinance

Livermore Valley Unified School District
2900 Ladd Avenue
Livermore
Wells 3S/2E-9L7 (MW-3), 3S/2E-9L8 (MW-4) & 3S/2E-9L14 (MW-2)
Permit 2013040

Destruction Requirements:

1. Sound the well as deeply as practicable and record for your report.

2. Drill out the well so that the casing, seal, and gravel pack are removed to the bottom of the well.

3. Fill the remaining hole to 2 feet below grade with neat cement or 11 sack sand/cement slurry with up to 6% bentonite using a tremie pipe. The end of the tremie pipe shall remain submerged in the sealing material at all times during the placement of the grout.

4. After seal has set, backfill the remaining hole with compacted material.

APPENDIX B

WELL INSTALLATION PERMIT

ZONE 7 WATER AGENCY

100 NORTH CANYONS PARKWAY, LIVERMORE, CALIFORNIA 94551 VOICE (925) 454-5000 FAX (925) 245-9306
E-MAIL whong@zone7water.com

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 2900 Ladd Ave.
Livermore, CA 94550

Coordinates Source _____ ft. Accuracy _____ ft.
LAT: _____ ft. LONG: _____ ft.
APN 98-264-1-16

CLIENT
Name Livermore Valley Unified School District
Address 685 E. Jack London Blvd Phone 925.766.2111
City Livermore, CA Zip 94551

APPLICANT
Name Ian Sutherland
Email isutherland@accenv.com Fax 510.638.8404
Address 7977 Cowell Dr #100 Phone 510.638.8400 x110
City Oakland, CA Zip 94621

TYPE OF PROJECT:

Well Construction	X	Geotechnical Investigation	__
Well Destruction	__	Contamination Investigation	__
Cathodic Protection	__	Other _____	__

PROPOSED WELL USE:

Domestic	__	Irrigation	
Municipal	__	Remediation	X
Industrial	__	Groundwater Monitoring	__
Dewatering	__	Other _____	__

DRILLING METHOD:
Mud Rotary __ Air Rotary __ Hollow Stem Auger X
Cable Tool __ Direct Push __ Other _____ __

DRILLING COMPANY Gregg Drilling
DRILLER'S LICENSE NO. 485165 C-57

WELL SPECIFICATIONS:
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 27 ft.
Surface Seal Depth 5 ft. Number 1

SOIL BORINGS:
Number of Borings 0 Maximum
Hole Diameter _____ in. Depth _____ ft.

ESTIMATED STARTING DATE April 11
ESTIMATED COMPLETION DATE April 12

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE _____ Date 3.28.13

ATTACH SITE PLAN OR SKETCH

FOR OFFICE USE

PERMIT NUMBER 2013042
WELL NUMBER 3S/2E-9L15 (MW-6)
APN 098-0264-001-16

PERMIT CONDITIONS
(Circled Permit Requirements Apply)

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to your proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original **Department of Water Resources Water Well Drillers Report (DWR Form 188), signed by the driller.**
3. Permit is void if project not begun within 90 days of approval date.
4. **Notify Zone 7 at least 24 hours before the start of work.**

B. WATER SUPPLY WELLS
1. Minimum surface seal diameter is four inches greater than the well casing diameter.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
3. Grout placed by tremie.
4. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.
5. A sample port is required on the discharge pipe near the wellhead.

(C.) GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal diameter is four inches greater than the well or piezometer casing diameter.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
3. Grout placed by tremie.

D. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

E. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

F. WELL DESTRUCTION. See attached.

G. SPECIAL CONDITIONS. Submit to Zone 7 within 60 days after completion of permitted work the well installation report **including all soil and water laboratory analysis results.**

Approved Wyman Hong Date 4/9/13
Wyman Hong

Revised: January 4, 2010

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

APPENDIX D

GROUNDWATER DISCHARGE PERMIT

LIVERMORE
CALIFORNIA

TEMPORARY DISCHARGE PERMIT

AUTHORIZATION: The permittee is hereby authorized to discharge potable water generated from dewatering activities to the City of Livermore community sewer, and is subject to compliance with the City of Livermore Municipal Code and the conditions set forth in this permit.

PERMIT #: **LVJUSD Temporary Discharge Permit 4/15/13 – 4/17/13**

PERMITEE: **Livermore Valley Joint Unified School District**

ADDRESS: **2900 Ladd Avenue, Livermore, CA 94551**

MAILING ADDRESS: **685 East Jack London Boulevard**
Livermore, CA 94551

- PERMIT CONDITIONS -

☐ **NONE** ☒ **SEE ATTACHED**

The above named shall report to the City of Livermore Water Reclamation Plant any change, (permanent or temporary) to the premise or operation that significantly change the quality or volume of the wastewater discharge or deviate from the terms and conditions under which this permit is granted.

EFFECTIVE DATE: **April 15, 2013** **EXPIRATION DATE:** **April 18, 2013**

DATED: **April 10, 2013** **APPROVED BY:** _____

POST PERMIT IN PLAIN VIEW
PERSONNEL MUST HAVE A COPY OF PERMIT PRESENT DURING TIME OF DISCHARGE

APPENDIX E

LABORATORY REPORTS

MW-6 INSTALLATION

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

ACC Environmental Consultants, Inc.	Client Project ID: #3054-103.04; Bus Barn	Date Sampled: 04/11/13-04/12/13
7977 Capwell Drive , Suite 100		Date Received: 04/12/13
	Client Contact: Ian Sutherland	Date Reported: 04/17/13
Oakland, CA 94621	Client P.O.:	Date Completed: 04/16/13

WorkOrder: 1304430

May 21, 2013

Dear Ian:

Enclosed within are:

1) The results of the **6** analyzed samples from your project: **#3054-103.04; Bus Barn,**
2) QC data for the above samples, and
3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

The analytical results relate only to the items tested.

McCampbell Analytical, Inc.

1534 Willow Pass Rd. / Pittsburg, Ca. 94565-1701
www.mccampbell.com / main@mccampbell.com
Telephone: (877) 252-9262 / Fax: (925) 252-9269

1304430

CHAIN OF CUSTODY RECORD

TURN AROUND TIME: RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAY ☒ 10 DAY ☐

GeoTracker EDF ☒ PDF ☐ EDD ☐ Write On (DW) ☐ EQuIS ☐

Effluent Sample Requiring "J" flag ☐ UST Clean Up Fund Project ☐; Claim #_____

Report To: JAN SUTHERLAND	**Bill To:** ACC
Company: ACC	
7977 Capwell Dr. #100 Oakland	**E-Mail:** jsutherland@accenv.com
Tele: (510) 773-0752	**Fax:** (510) 638-8404
Project #: 3054-103.04	**Project Name:** Bus Barn
Project Location: 2900 Ladd	**Purchase Order#**
Sampler Signature:	

Analysis Request

SAMPLE ID	Location/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	MATRIX: Ground Water	Waste Water	Drinking Water	Sea \ Water	Soil	Air	Sludge	Other	METHOD PRESERVED: HCL	HNO_3	Other ICE	BTEX & TPH as Gas (8021/ 8015 or 8260) / MTBE	TPH as Diesel (8015) +MO w/SG Cleanup	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	MTBE / BTEX ONLY (EPA 8260/ 8021)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Metals (200.7 / 200.8 / 6010 / 6020)	Filter sample for DISSOLVED metals analysis
GA-5'		10.11.13	9:37	1					X						X	X	X															
GA-10'		↓	9:44	1					X						X	X	X															
GA-15'			9:48	1					X						X	X	X															
GA-20'			9:54	1					X						X	X	X															
GA-25'		↓	10:05	1					X						X	X	X															
MW-GA		10.11.13	3:45	3/4	X								X			X	X															

**MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

Relinquished By:	Date:	Time:	Received By:
	4/10/13	2:00	
Relinquished By:	Date:	Time:	Received By:
	4/12/13	5:52	
Relinquished By:	Date:	Time:	Received By:

ICE/t° 3.2
GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS
PRESERVED IN LAB

COMMENTS:

PRESERVATION VOAS O&G METALS OTHER HAZARDOUS: pH<2

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1304430 **ClientCode: ACCE**

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Ian Sutherland
ACC Environmental Consultants, Inc.
7977 Capwell Drive , Suite 100
Oakland, CA 94621
510-638-8400 FAX: 510-638-8404

Email: isutherland@accenv.com
cc:
PO:
ProjectNo: #3054-103.04; Bus Barn

Bill to:
Accounts Payable
ACC Environmental Consultants, Inc.
7977 Capwell Drive , Suite 100
Oakland, CA 94621

Requested TAT: 5 days

Date Received: **04/12/2013**
Date Printed: **05/21/2013**

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
1304430-001	6A-5'	Soil	4/12/2013	☐	A		A	A								
1304430-002	6A-10'	Soil	4/11/2013	☐	A			A								
1304430-003	6A-15'	Soil	4/11/2013	☐	A			A								
1304430-004	6A-20'	Soil	4/11/2013	☐	A			A								
1304430-005	6A-25'	Soil	4/11/2013	☐	A			A								
1304430-006	MW-6A	Water	4/11/2013 15:45	☐		A			B							

Test Legend:

1	G-MBTEX_S	2	G-MBTEX_W	3	PREDF REPORT	4	TPH(DMO)WSG_S	5	TPH(DMO)WSG_W
6		7		8		9		10	
11		12							

Prepared by: Zoraida Cortez

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.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name: **ACC Environmental Consultants, Inc.**
Date and Time Received: **4/12/2013 7:33:48 PM**

Project Name: **#3054-103.04; Bus Barn**
LogIn Reviewed by: Zoraida Cortez

WorkOrder N°: **1304430** Matrix: Soil/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: 3.2°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

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

Comments:

McCampbell Analytical, Inc.
"When Quality Counts"

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Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

ACC Environmental Consultants,	Client Project ID: #3054-103.04; Bus Barn	Date Sampled: 04/11/13
7977 Capwell Drive , Suite 100		Date Received: 04/12/13
Oakland, CA 94621	Client Contact: Ian Sutherland	Date Reported: 04/17/13
	Client P.O.:	Date Completed: 04/16/13

Work Order: 1304430

April 17, 2013

CASE NARRATIVE for TPH-diesel for soil samples in Batch #76375:

The Method Blank was observed to be above the reporting limit; however, the diesel results for samples #1304430-002A, -003A & -005A were ND, and samples #1304430-001A and -004A were <10X higher than the background so their TPH-d reporting limits were raised; therefore, the TPH-d results are considered to be valid.

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"
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Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

ACC Environmental Consultants, Inc.	Client Project ID: #3054-103.04; Bus Barn	Date Sampled: 04/11/13-04/12/13
7977 Capwell Drive , Suite 100		Date Received: 04/12/13
	Client Contact: Ian Sutherland	Date Extracted: 04/12/13-04/16/13
Oakland, CA 94621	Client P.O.:	Date Analyzed: 04/13/13-04/16/13

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1304430

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	6A-5'	S	ND	ND	ND	ND	ND	ND	1	110	
002A	6A-10'	S	ND	ND	ND	ND	ND	ND	1	102	
003A	6A-15'	S	ND	ND	ND	ND	ND	ND	1	102	
004A	6A-20'	S	ND	ND	0.018	0.0053	0.014	0.013	1	104	
005A	6A-25'	S	ND	ND	0.10	0.019	0.020	0.029	1	103	
006A	MW-6A	W	1800	ND<30	230	66	81	140	1	109	d1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:
d1) weakly modified or unmodified gasoline is significant

DHS ELAP Certification 1644 IA Analyst's Initial CC for Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

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Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
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ACC Environmental Consultants, Inc.	Client Project ID: #3054-103.04; Bus Barn	Date Sampled: 04/11/13-04/12/13
7977 Capwell Drive , Suite 100		Date Received: 04/12/13
	Client Contact: Ian Sutherland	Date Extracted: 04/12/13
Oakland, CA 94621	Client P.O.:	Date Analyzed: 04/15/13-04/16/13

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up*

Extraction method: SW3510C/3630C/SW3550B/3630C Analytical methods: SW8015B Work Order: 1304430

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
1304430-001A	6A-5'	S	ND<10	80	1	101	e7,e2, j1
1304430-002A	6A-10'	S	ND	ND	1	90	j1
1304430-003A	6A-15'	S	ND	ND	1	90	j1
1304430-004A	6A-20'	S	ND<2.5	ND	1	96	e2, j1
1304430-005A	6A-25'	S	ND	ND	1	91	j1
1304430-006B	MW-6A	W	490	ND<750	1	113	e4

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	250	µg/L
	S	1.0	5.0	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

%SS = Percent Recovery of Surrogate Standard. DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:
e2) diesel range compounds are significant; no recognizable pattern
e4) gasoline range compounds are significant.
e7) oil range compounds are significant
j1) see attached narrative

DHS ELAP Certification 1644 MAM Analyst's Initial CC for Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Soil | QC Matrix: Soil | BatchID: 76365 | WorkOrder: 1304430

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1304393-002A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH(btex)£	ND	0.60	107	105	2.07	113	70 - 130	20	70 - 130
MTBE	ND	0.10	95.6	96.8	1.19	116	70 - 130	20	70 - 130
Benzene	ND	0.10	113	107	5.52	119	70 - 130	20	70 - 130
Toluene	ND	0.10	114	109	4.87	117	70 - 130	20	70 - 130
Ethylbenzene	ND	0.10	115	109	5.35	117	70 - 130	20	70 - 130
Xylenes	ND	0.30	122	116	4.80	125	70 - 130	20	70 - 130
%SS:	105	0.10	106	101	5.01	110	70 - 130	20	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 76365 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1304430-001A	04/12/13	04/12/13	04/13/13 6:35 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/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.

DHS ELAP Certification 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Soil | QC Matrix: Soil | BatchID: 76387 | WorkOrder: 1304430

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1304430-003A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH(btex)£	ND	0.60	110	110	0	106	70 - 130	20	70 - 130
MTBE	ND	0.10	106	100	5.16	99.3	70 - 130	20	70 - 130
Benzene	ND	0.10	112	111	0.855	106	70 - 130	20	70 - 130
Toluene	ND	0.10	108	107	0.426	105	70 - 130	20	70 - 130
Ethylbenzene	ND	0.10	112	111	0.961	107	70 - 130	20	70 - 130
Xylenes	ND	0.30	119	118	0.316	114	70 - 130	20	70 - 130
%SS:	102	0.10	94	111	16.9	98	70 - 130	20	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 76387 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1304430-002A	04/11/13	04/12/13	04/13/13 7:47 AM	1304430-003A	04/11/13	04/12/13	04/13/13 7:05 AM
1304430-004A	04/11/13	04/12/13	04/15/13 10:55 PM	1304430-005A	04/11/13	04/12/13	04/15/13 11:25 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/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.

DHS ELAP Certification 1644

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 76433 | WorkOrder: 1304430

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1304470-001A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH(btex)£	ND	60	104	103	1.44	107	70 - 130	20	70 - 130
MTBE	ND	10	90.7	83.9	7.45	118	70 - 130	20	70 - 130
Benzene	ND	10	95.1	88.5	7.15	111	70 - 130	20	70 - 130
Toluene	ND	10	98.5	88	11.3	112	70 - 130	20	70 - 130
Ethylbenzene	ND	10	95.6	89.5	6.57	107	70 - 130	20	70 - 130
Xylenes	ND	30	99.6	99.3	0.363	108	70 - 130	20	70 - 130
%SS:	99	10	92	86	7.59	98	70 - 130	20	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 76433 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1304430-006A	04/11/13 3:45 PM	04/16/13	04/16/13 12:38 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/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, or inconsistency in sample containers.

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QA/QC Officer

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QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Soil | QC Matrix: Soil | BatchID: 76375 | WorkOrder: 1304430

EPA Method: SW8015B **Extraction: SW3550B/3630C** **Spiked Sample ID: 1304410-011A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH-Diesel (C10-C23)	14	40	NR	NR	NR	105	N/A	N/A	70 - 130
%SS:	113	25	NR	NR	NR	91	N/A	N/A	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
TPH-Diesel (C10-C23)

MBLK was greater than RL.

BATCH 76375 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1304430-001A	04/12/13	04/12/13	04/16/13 8:00 AM	1304430-002A	04/11/13	04/12/13	04/16/13 4:55 AM
1304430-003A	04/11/13	04/12/13	04/16/13 3:45 AM	1304430-004A	04/11/13	04/12/13	04/15/13 9:55 PM
1304430-005A	04/11/13	04/12/13	04/15/13 7:44 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = 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.

DHS ELAP Certification 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 76306 | WorkOrder: 1304430

EPA Method: SW8015B **Extraction: SW3510C/3630C** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	118	N/A	N/A	70 - 130
%SS:	N/A	625	N/A	N/A	N/A	109	N/A	N/A	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 76306 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1304430-006B	04/11/13 3:45 PM	04/12/13	04/16/13 1:55 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = 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.

DHS ELAP Certification 1644

QA/QC Officer

SOIL CUTTINGS

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Analytical Report

ACC Environmental Consultants, Inc.	Client Project ID: #3054-103.04; Bus Barn	Date Sampled: 04/11/13-04/12/13
		Date Received: 04/17/13
7977 Capwell Drive , Suite 100	Client Contact: Ian Sutherland	Date Reported: 04/23/13
Oakland, CA 94621	Client P.O.:	Date Completed: 04/29/13

WorkOrder: 1304526 A

April 30, 2013

Dear Ian:

Enclosed within are:

1) The results of the **2** analyzed samples from your project: **#3054-103.04; Bus Barn,**
2) QC data for the above samples, and
3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

The analytical results relate only to the items tested.

McCampbell Analytical, Inc.

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1304520

CHAIN OF CUSTODY RECORD

TURN AROUND TIME: RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAY ☒ 10 DAY ☐

GeoTracker EDF ☐ PDF ☐ EDD ☐ Write On (DW) ☐ EQuIS ☐

Effluent Sample Requiring "J" flag ☐ UST Clean Up Fund Project ☐; Claim #_____

Report To: IAN SUTHERLAND **Bill To:** ACC

Company: ACC
7977 Capwell Dr
Oakland, CA

E-Mail: isutherland@gcccnv.com

Tele: (510) 773-0752 **Fax:** (510) 638-8404

Project #: 3054-103.04 **Project Name:** Bus Barn

Project Location: Livermore **Purchase Order#**

Sampler Signature:

SAMPLE ID	Location/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	MATRIX: Ground Water	Waste Water	Drinking Water	Sea \ Water	Soil	Air	Sludge	Other	METHOD PRESERVED: HCL	HNO_3	Other ICE
D-1		4.11.13	9:48	1					X						X
D-2		"	10:34	1					X						X
D-3		"	1:30	1					X						X
D-4		"	2:02	1					X						X
D-5		4.11.13	2:55	1					X						X
D-6		4.12.13	8:30	1					X						X
D-7		"	9:30	1					X						X
D-8		"	10:00	1					X						X
D-9		"	11:00	1					X						X

Analysis Request

BTEX & TPH as Gas (8021/ 8015 or 8260) / MTBE	TPH as Diesel (8015)+MO w/S.G. +TPH-G	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	MTBE / BTEX ONLY (EPA 8260/ 8021)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Metals (200.7 / 200.8 / 6010 / 6020)	Filter sample for DISSOLVED metals analysis	STLC Cr added 4/22/13 salay
	X								X			X				X
	X								X			X				X
	X								X			X				X
	X								X			X				
	X								X			X				
	X								X			X				
	X								X			X				X
	X								X			X				X
	X								X			X				X

**MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

Relinquished By:	Date:	Time:	Received By:
	4/17/13	19:35	
	4/17/13	15:45	

ICE/t° 4.0

GOOD CONDITION_____

HEAD SPACE ABSENT_____

DECHLORINATED IN LAB_____

APPROPRIATE CONTAINERS_____

PRESERVED IN LAB_____

COMMENTS:

VOAS O&G METALS OTHER HAZARDOUS:

PRESERVATION_____ pH<2_____

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1304526 A **ClientCode: ACCE**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Ian Sutherland
ACC Environmental Consultants, Inc.
7977 Capwell Drive , Suite 100
Oakland, CA 94621
510-638-8400 FAX: 510-638-8404

Email: isutherland@accenv.com
cc:
PO:
ProjectNo: #3054-103.04; Bus Barn

Bill to:
Accounts Payable
ACC Environmental Consultants, Inc.
7977 Capwell Drive , Suite 100
Oakland, CA 94621

Requested TAT: 5 days
Date Received: **04/17/2013**
Date Add-On: **04/24/2013**
Date Printed: **04/24/2013**

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
1304526-001	D-1,2,3	Soil	4/11/2013 9:48	☐	A											
1304526-003	D-7,8,9	Soil	4/12/2013 9:30	☐	A											

Test Legend:

1	STLC_METALS_S	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Jena Alfaro

Comments: STLC Cr added 4/24/13 5day per email.

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.

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ACC Environmental Consultants, Inc.	Client Project ID: #3054-103.04; Bus Barn	Date Sampled: 04/11/13-04/12/13
		Date Received: 04/17/13
7977 Capwell Drive , Suite 100	Client Contact: Ian Sutherland	Date Extracted: 04/24/13-04/26/13
Oakland, CA 94621	Client P.O.:	Date Analyzed: 04/29/13

ICP Metals*

Extraction method: CA Title 22 Analytical methods: SW6010B Work Order: 1304526

Lab ID	Client ID	Matrix	Extraction Type	Chromium	DF	% SS	Comments
1304526-001A	D-1,2,3	S	WET	0.89	1	N/A	
1304526-003A	D-7,8,9	S	WET	0.49	1	N/A	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TOTAL	NA	µg/L
	S	WET	0.05	mg/L

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument.

WET = Waste Extraction Test, i.e., STLC (Soluble Threshold Limit Concentration).
DI WET = Waste Extraction Test using DI water (DI STLC).

%SS = Percent Recovery of Surrogate Standard
DF = Dilution Factor

DHS ELAP Certification 1644 PR Analyst's Initial Angela Rydelius, Lab Manager

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http://www.mccampbell.com / E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW6010B

W.O. Sample Matrix: Soil | QC Matrix: Soil | BatchID: 76671 | WorkOrder: 1304526

EPA Method: SW6010B | **Extraction: CA Title 22** | **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Chromium	N/A	1	N/A	N/A	N/A	109	N/A	N/A	75 - 125

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 76671 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1304526-001A	04/11/13 9:48 AM	04/24/13	04/29/13 9:21 AM	1304526-003A	04/12/13 9:30 AM	04/24/13	04/29/13 9:24 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = 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.

DHS ELAP Certification 1644

QA/QC Officer

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

ACC Environmental Consultants, Inc.	Client Project ID: #3054-103.04; Bus Barn	Date Sampled: 04/11/13-04/12/13
		Date Received: 04/17/13
7977 Capwell Drive , Suite 100	Client Contact: Ian Sutherland	Date Reported: 04/23/13
Oakland, CA 94621	Client P.O.:	Date Completed: 04/22/13

WorkOrder: 1304526

April 23, 2013

Dear Ian:

Enclosed within are:

1) The results of the **3** analyzed samples from your project: **#3054-103.04; Bus Barn,**
2) QC data for the above samples, and
3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

The analytical results relate only to the items tested.

McCampbell Analytical, Inc.

1534 Willow Pass Rd. / Pittsburg, Ca. 94565-1701
www.mccampbell.com / main@mccampbell.com
Telephone: (877) 252-9262 / Fax: (925) 252-9269

130452

CHAIN OF CUSTODY RECORD

TURN AROUND TIME: RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAY ☒ 10 DAY ☐

GeoTracker EDF ☐ PDF ☐ EDD ☐ Write On (DW) ☐ EQuIS ☐

Effluent Sample Requiring "J" flag ☐ **UST Clean Up Fund Project** ☐ ; **Claim #**_____

Report To: IAN SUTHERLAND	**Bill To:** ACC
Company: ACC	
7977 Capwell Dr	
Oakland, CA	**E-Mail:** isutherland@gcccnv.com
Tele: (510) 773-0752	**Fax:** (510) 638-8404
Project #: 3054-103.04	**Project Name:** Bus Barn
Project Location: Livermore	**Purchase Order#**
Sampler Signature:	

Analysis Request

SAMPLE ID	Location/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	MATRIX: Ground Water	Waste Water	Drinking Water	Sea \ Water	Soil	Air	Sludge	Other	METHOD PRESERVED: HCL	HNO_3	Other ICE	BTEX & TPH as Gas (8021/ 8015 or 8260) / MTBE	TPH as Diesel (8015) w/ S.G. + TPH-G	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	MTBE / BTEX ONLY (EPA 8260/ 8021)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Metals (200.7 / 200.8 / 6010 / 6020)	Filter sample for DISSOLVED metals analysis
D-1		4.11.13	9:48	1					X						X	X	X								X			X				
D-2		"	10:34	1					X						X																	
D-3		"	1:30	1					X						X																	
D-4		↓	2:02	1					X						X																	
D-5		4.11.13	2:55	1					X						X																	
D-6		4.12.13	8:30	1					X						X																	
D-7		"	9:30	1					X						X																	
D-8		"	10:00	1					X						X																	
D-9		↓	11:00	1					X						X																	

**MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

Relinquished By:	Date:	Time:	Received By:
	4/17/13	14:35	
Relinquished By:	Date:	Time:	Received By:
	4/17/13	1545	
Relinquished By:	Date:	Time:	Received By:

ICE/t° 4.0
GOOD CONDITION_____
HEAD SPACE ABSENT_____
DECHLORINATED IN LAB_____
APPROPRIATE CONTAINERS_____
PRESERVED IN LAB_____

COMMENTS:

VOAS O&G METALS OTHER HAZARDOUS:
PRESERVATION_____ pH<2_____

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1304526 **ClientCode: ACCE**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Ian Sutherland
ACC Environmental Consultants, Inc.
7977 Capwell Drive , Suite 100
Oakland, CA 94621
510-638-8400 FAX: 510-638-8404

Email: isutherland@accenv.com
cc:
PO:
ProjectNo: #3054-103.04; Bus Barn

Bill to:
Accounts Payable
ACC Environmental Consultants, Inc.
7977 Capwell Drive , Suite 100
Oakland, CA 94621

Requested TAT: 5 days

Date Received: **04/17/2013**
Date Printed: **04/17/2013**

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
1304526-001	D-1,2,3	Soil	4/11/2013 9:48	☐	A	A	A									
1304526-002	D-4,5,6	Soil	4/11/2013 14:02	☐	A	A	A									
1304526-003	D-7,8,9	Soil	4/12/2013 9:30	☐	A	A	A									

Test Legend:

1	8260B_S	2	CAM17MS_S	3	TPH(DMO)WSG_S	4		5	
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A contain testgroup.

Prepared by: Jena Alfaro

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.

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"When Quality Counts"

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Sample Receipt Checklist

Client Name: **ACC Environmental Consultants, Inc.**
Date and Time Received: **4/17/2013 6:14:13 PM**

Project Name: **#3054-103.04; Bus Barn**
LogIn Reviewed by: Jena Alfaro

WorkOrder N°: **1304526** Matrix: Soil
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: 4.8°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☐	No ☐	No VOA vials submitted ☑
Sample labels checked for correct preservation?	Yes ☑	No ☐	
Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

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

Comments:

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ACC Environmental Consultants, Inc.	Client Project ID: #3054-103.04; Bus Barn	Date Sampled: 04/11/13
		Date Received: 04/17/13
7977 Capwell Drive , Suite 100	Client Contact: Ian Sutherland	Date Extracted: 04/17/13
Oakland, CA 94621	Client P.O.:	Date Analyzed: 04/22/13

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

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 1304526

Lab ID	1304526-001A
Client ID	D-1,2,3
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	0.080	1.0	0.05	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromochloromethane	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	Chloroform	ND	1.0	0.005
Chloromethane	ND	1.0	0.005	2-Chlorotoluene	ND	1.0	0.005
4-Chlorotoluene	ND	1.0	0.005	Dibromochloromethane	ND	1.0	0.005
1,2-Dibromo-3-chloropropane	ND	1.0	0.004	1,2-Dibromoethane (EDB)	ND	1.0	0.004
Dibromomethane	ND	1.0	0.005	1,2-Dichlorobenzene	ND	1.0	0.005
1,3-Dichlorobenzene	ND	1.0	0.005	1,4-Dichlorobenzene	ND	1.0	0.005
Dichlorodifluoromethane	ND	1.0	0.005	1,1-Dichloroethane	ND	1.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.004	1,1-Dichloroethene	ND	1.0	0.005
cis-1,2-Dichloroethene	ND	1.0	0.005	trans-1,2-Dichloroethene	ND	1.0	0.005
1,2-Dichloropropane	ND	1.0	0.005	1,3-Dichloropropane	ND	1.0	0.005
2,2-Dichloropropane	ND	1.0	0.005	1,1-Dichloropropene	ND	1.0	0.005
cis-1,3-Dichloropropene	ND	1.0	0.005	trans-1,3-Dichloropropene	ND	1.0	0.005
Diisopropyl ether (DIPE)	ND	1.0	0.005	Ethylbenzene	ND	1.0	0.005
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005	Freon 113	ND	1.0	0.1
Hexachlorobutadiene	ND	1.0	0.005	Hexachloroethane	ND	1.0	0.005
2-Hexanone	ND	1.0	0.005	Isopropylbenzene	ND	1.0	0.005
4-Isopropyl toluene	ND	1.0	0.005	Methyl-t-butyl ether (MTBE)	ND	1.0	0.005
Methylene chloride	ND	1.0	0.005	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005
Naphthalene	ND	1.0	0.005	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes, Total	ND	1.0	0.005

Surrogate Recoveries (%)

%SS1:	109	%SS2:	120
%SS3:	94		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

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ACC Environmental Consultants, Inc.	Client Project ID: #3054-103.04; Bus Barn	Date Sampled: 04/11/13
		Date Received: 04/17/13
7977 Capwell Drive , Suite 100	Client Contact: Ian Sutherland	Date Extracted: 04/17/13
Oakland, CA 94621	Client P.O.:	Date Analyzed: 04/22/13

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

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 1304526

Lab ID	1304526-002A
Client ID	D-4,5,6
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	0.078	1.0	0.05	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromochloromethane	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	Chloroform	ND	1.0	0.005
Chloromethane	ND	1.0	0.005	2-Chlorotoluene	ND	1.0	0.005
4-Chlorotoluene	ND	1.0	0.005	Dibromochloromethane	ND	1.0	0.005
1,2-Dibromo-3-chloropropane	ND	1.0	0.004	1,2-Dibromoethane (EDB)	ND	1.0	0.004
Dibromomethane	ND	1.0	0.005	1,2-Dichlorobenzene	ND	1.0	0.005
1,3-Dichlorobenzene	ND	1.0	0.005	1,4-Dichlorobenzene	ND	1.0	0.005
Dichlorodifluoromethane	ND	1.0	0.005	1,1-Dichloroethane	ND	1.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.004	1,1-Dichloroethene	ND	1.0	0.005
cis-1,2-Dichloroethene	ND	1.0	0.005	trans-1,2-Dichloroethene	ND	1.0	0.005
1,2-Dichloropropane	ND	1.0	0.005	1,3-Dichloropropane	ND	1.0	0.005
2,2-Dichloropropane	ND	1.0	0.005	1,1-Dichloropropene	ND	1.0	0.005
cis-1,3-Dichloropropene	ND	1.0	0.005	trans-1,3-Dichloropropene	ND	1.0	0.005
Diisopropyl ether (DIPE)	ND	1.0	0.005	Ethylbenzene	ND	1.0	0.005
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005	Freon 113	ND	1.0	0.1
Hexachlorobutadiene	ND	1.0	0.005	Hexachloroethane	ND	1.0	0.005
2-Hexanone	ND	1.0	0.005	Isopropylbenzene	ND	1.0	0.005
4-Isopropyl toluene	ND	1.0	0.005	Methyl-t-butyl ether (MTBE)	ND	1.0	0.005
Methylene chloride	ND	1.0	0.005	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005
Naphthalene	ND	1.0	0.005	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes, Total	ND	1.0	0.005

Surrogate Recoveries (%)

%SS1:	105	%SS2:	119
%SS3:	96		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

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ACC Environmental Consultants, Inc.	Client Project ID: #3054-103.04; Bus Barn	Date Sampled: 04/12/13
		Date Received: 04/17/13
7977 Capwell Drive , Suite 100	Client Contact: Ian Sutherland	Date Extracted: 04/17/13
Oakland, CA 94621	Client P.O.:	Date Analyzed: 04/18/13

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

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 1304526

Lab ID	1304526-003A
Client ID	D-7,8,9
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<0.50	10	0.05	tert-Amyl methyl ether (TAME)	ND<0.050	10	0.005
Benzene	ND<0.050	10	0.005	Bromobenzene	ND<0.050	10	0.005
Bromochloromethane	ND<0.050	10	0.005	Bromodichloromethane	ND<0.050	10	0.005
Bromoform	ND<0.050	10	0.005	Bromomethane	ND<0.050	10	0.005
2-Butanone (MEK)	ND<0.20	10	0.02	t-Butyl alcohol (TBA)	ND<0.50	10	0.05
n-Butyl benzene	0.16	10	0.005	sec-Butyl benzene	ND<0.050	10	0.005
tert-Butyl benzene	ND<0.050	10	0.005	Carbon Disulfide	ND<0.050	10	0.005
Carbon Tetrachloride	ND<0.050	10	0.005	Chlorobenzene	ND<0.050	10	0.005
Chloroethane	ND<0.050	10	0.005	Chloroform	ND<0.050	10	0.005
Chloromethane	ND<0.050	10	0.005	2-Chlorotoluene	ND<0.050	10	0.005
4-Chlorotoluene	ND<0.050	10	0.005	Dibromochloromethane	ND<0.050	10	0.005
1,2-Dibromo-3-chloropropane	ND<0.040	10	0.004	1,2-Dibromoethane (EDB)	ND<0.040	10	0.004
Dibromomethane	ND<0.050	10	0.005	1,2-Dichlorobenzene	ND<0.050	10	0.005
1,3-Dichlorobenzene	ND<0.050	10	0.005	1,4-Dichlorobenzene	ND<0.050	10	0.005
Dichlorodifluoromethane	ND<0.050	10	0.005	1,1-Dichloroethane	ND<0.050	10	0.005
1,2-Dichloroethane (1,2-DCA)	ND<0.040	10	0.004	1,1-Dichloroethene	ND<0.050	10	0.005
cis-1,2-Dichloroethene	ND<0.050	10	0.005	trans-1,2-Dichloroethene	ND<0.050	10	0.005
1,2-Dichloropropane	ND<0.050	10	0.005	1,3-Dichloropropane	ND<0.050	10	0.005
2,2-Dichloropropane	ND<0.050	10	0.005	1,1-Dichloropropene	ND<0.050	10	0.005
cis-1,3-Dichloropropene	ND<0.050	10	0.005	trans-1,3-Dichloropropene	ND<0.050	10	0.005
Diisopropyl ether (DIPE)	ND<0.050	10	0.005	Ethylbenzene	0.14	10	0.005
Ethyl tert-butyl ether (ETBE)	ND<0.050	10	0.005	Freon 113	ND<1.0	10	0.1
Hexachlorobutadiene	ND<0.050	10	0.005	Hexachloroethane	ND<0.050	10	0.005
2-Hexanone	ND<0.050	10	0.005	Isopropylbenzene	ND<0.050	10	0.005
4-Isopropyl toluene	ND<0.050	10	0.005	Methyl-t-butyl ether (MTBE)	ND<0.050	10	0.005
Methylene chloride	ND<0.050	10	0.005	4-Methyl-2-pentanone (MIBK)	ND<0.050	10	0.005
Naphthalene	0.29	10	0.005	n-Propyl benzene	0.12	10	0.005
Styrene	ND<0.050	10	0.005	1,1,1,2-Tetrachloroethane	ND<0.050	10	0.005
1,1,2,2-Tetrachloroethane	ND<0.050	10	0.005	Tetrachloroethene	ND<0.050	10	0.005
Toluene	0.17	10	0.005	1,2,3-Trichlorobenzene	ND<0.050	10	0.005
1,2,4-Trichlorobenzene	ND<0.050	10	0.005	1,1,1-Trichloroethane	ND<0.050	10	0.005
1,1,2-Trichloroethane	ND<0.050	10	0.005	Trichloroethene	ND<0.050	10	0.005
Trichlorofluoromethane	ND<0.050	10	0.005	1,2,3-Trichloropropane	ND<0.050	10	0.005
1,2,4-Trimethylbenzene	1.2	10	0.005	1,3,5-Trimethylbenzene	0.34	10	0.005
Vinyl Chloride	ND<0.050	10	0.005	Xylenes, Total	1.1	10	0.005

Surrogate Recoveries (%)

%SS1:	108	%SS2:	109
%SS3:	102		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

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ACC Environmental Consultants, Inc.	Client Project ID: #3054-103.04; Bus Barn	Date Sampled: 04/11/13-04/12/13
		Date Received 04/17/13
7977 Capwell Drive , Suite 100	Client Contact: Ian Sutherland	Date Extracted 04/17/13
Oakland, CA 94621	Client P.O.:	Date Analyzed 04/19/13

CAM / CCR 17 Metals*

Lab ID	1304526-001A	1304526-002A	1304526-003A		Reporting Limit for DF =1; ND means not detected above the reporting limit	
Client ID	D-1,2,3	D-4,5,6	D-7,8,9			
Matrix	S	S	S		S	W
Extraction Type	TOTAL	TOTAL	TOTAL		mg/Kg	mg/L

ICP Metals, Concentration*

Analytical Method: SW6020 Extraction Method: SW3050B Work Order: 1304526

Dilution Factor	1	1	1		1	1
Antimony	0.77	0.53	0.59		0.5	NA
Arsenic	5.3	4.3	4.3		0.5	NA
Barium	160	90	140		5.0	NA
Beryllium	ND	ND	ND		0.5	NA
Cadmium	ND	ND	ND		0.25	NA
Chromium	83	42	55		0.5	NA
Cobalt	12	4.5	8.3		0.5	NA
Copper	24	17	19		0.5	NA
Lead	4.4	2.9	5.2		0.5	NA
Mercury	0.19	0.060	0.061		0.05	NA
Molybdenum	1.3	0.77	1.1		0.5	NA
Nickel	100	38	77		0.5	NA
Selenium	ND	ND	ND		0.5	NA
Silver	ND	ND	ND		0.5	NA
Thallium	ND	ND	ND		0.5	NA
Vanadium	43	24	33		0.5	NA
Zinc	42	29	41		5.0	NA
%SS:	102	110	107			

Comments

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument.

TOTAL = Hot acid digestion of a representative sample aliquot.
TRM = Total recoverable metals is the "direct analysis" of a sample aliquot taken from its acid-preserved container.
DISS = Dissolved metals by direct analysis of 0.45 µm filtered and acidified sample.
%SS = Percent Recovery of Surrogate Standard
DF = Dilution Factor

DHS ELAP Certification 1644 PR Analyst's Initial Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
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Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

ACC Environmental Consultants, Inc.	Client Project ID: #3054-103.04; Bus Barn	Date Sampled: 04/11/13-04/12/13
7977 Capwell Drive , Suite 100		Date Received: 04/17/13
	Client Contact: Ian Sutherland	Date Extracted 04/17/13
Oakland, CA 94621	Client P.O.:	Date Analyzed 04/19/13

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline *

Extraction method: SW5030B Analytical methods: SW8015Bm Work Order: 1304526

Lab ID	Client ID	Matrix	TPH(g)	DF	% SS	Comments
001A	D-1,2,3	S	2.9	1	100	
002A	D-4,5,6	S	ND	1	94	
003A	D-7,8,9	S	25	3.3	107	d1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA
	S	1.0	mg/Kg

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:
d1) weakly modified or unmodified gasoline is significant

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ACC Environmental Consultants, Inc.	Client Project ID: #3054-103.04; Bus Barn	Date Sampled: 04/11/13-04/12/13
7977 Capwell Drive , Suite 100		Date Received: 04/17/13
	Client Contact: Ian Sutherland	Date Extracted: 04/17/13
Oakland, CA 94621	Client P.O.:	Date Analyzed: 04/18/13

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up*

Extraction method: SW3550B/3630C Analytical methods: SW8015B Work Order: 1304526

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
1304526-001A	D-1,2,3	S	2.0	7.8	1	102	e7,e2
1304526-002A	D-4,5,6	S	3.3	7.3	1	107	e7,e2
1304526-003A	D-7,8,9	S	18	20	1	106	e7,e4,e2

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA	ug/L
	S	1.0	5.0	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

%SS = Percent Recovery of Surrogate Standard. DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:
e2) diesel range compounds are significant; no recognizable pattern
e4) gasoline range compounds are significant.
e7) oil range compounds are significant

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil | QC Matrix: Soil | BatchID: 76477 | WorkOrder: 1304526

EPA Method: SW8260B **Extraction: SW5030B** **Spiked Sample ID: 1304116-019D**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
tert-Amyl methyl ether (TAME)	ND	0.050	74	74.1	0.153	76.1	56 - 94	30	70 - 130
Benzene	ND	0.050	81.5	79.8	2.06	88.6	60 - 106	30	70 - 130
t-Butyl alcohol (TBA)	ND	0.20	80.4	81.6	1.47	76.8	56 - 140	30	70 - 130
Chlorobenzene	ND	0.050	82.4	82.5	0.0660	89	61 - 108	30	70 - 130
1,2-Dibromoethane (EDB)	ND	0.050	81.5	82.3	0.969	83.2	54 - 119	30	70 - 130
1,2-Dichloroethane (1,2-DCA)	ND	0.050	82.1	75.3	8.65	74	48 - 115	30	70 - 130
1,1-Dichloroethene	ND	0.050	70.5	71.1	0.866	85.3	46 - 111	30	70 - 130
Diisopropyl ether (DIPE)	ND	0.050	81.6	77.3	5.36	80.5	53 - 111	30	70 - 130
Ethyl tert-butyl ether (ETBE)	ND	0.050	80	77.9	2.69	80.9	61 - 104	30	70 - 130
Methyl-t-butyl ether (MTBE)	ND	0.050	81.8	79.9	2.42	80.5	58 - 107	30	70 - 130
Toluene	ND	0.050	85	85	0	95	64 - 114	30	70 - 130
Trichloroethene	ND	0.050	92.8	95.9	3.29	97.1	60 - 116	30	70 - 130
%SS1:	100	0.12	108	105	3.05	103	70 - 130	30	70 - 130
%SS2:	111	0.12	109	110	0.576	111	70 - 130	30	70 - 130
%SS3:	94	0.012	99	98	0.799	95	70 - 130	30	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 76477 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1304526-001A	04/11/13 9:48 AM	04/17/13	04/22/13 10:24 PM	1304526-002A	04/11/13 2:02 PM	04/17/13	04/22/13 11:06 PM
1304526-003A	04/12/13 9:30 AM	04/17/13	04/18/13 1:26 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = 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.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

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QA/QC Officer

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Soil | QC Matrix: Soil | BatchID: 76476 | WorkOrder: 1304526

EPA Method: SW8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1304116-019B**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH(btex)£	ND	0.60	92.1	96	4.18	96.1	70 - 130	20	70 - 130
MTBE	ND	0.10	97.4	94.6	3.00	94.8	70 - 130	20	70 - 130
Benzene	ND	0.10	100	97.4	2.60	97.4	70 - 130	20	70 - 130
Toluene	ND	0.10	96.3	94.4	1.93	96.2	70 - 130	20	70 - 130
Ethylbenzene	ND	0.10	98.5	97.1	1.39	96.8	70 - 130	20	70 - 130
Xylenes	ND	0.30	98.5	97.5	1.04	97.8	70 - 130	20	70 - 130
%SS:	92	0.10	99	88	11.8	88	70 - 130	20	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 76476 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1304526-001A	04/11/13 9:48 AM	04/17/13	04/19/13 9:00 AM	1304526-002A	04/11/13 2:02 PM	04/17/13	04/19/13 10:06 PM
1304526-003A	04/12/13 9:30 AM	04/17/13	04/19/13 6:29 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/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.

DHS ELAP Certification 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW6020

W.O. Sample Matrix: Soil | QC Matrix: Soil | BatchID: 76478 | WorkOrder: 1304526

EPA Method: SW6020 **Extraction: SW3050B** **Spiked Sample ID: 1304525-004A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Antimony	0.82	50	99.6	108	7.73	107	75 - 125	20	75 - 125
Arsenic	11	50	96	109	10.6	106	75 - 125	20	75 - 125
Barium	290	500	102	114	7.46	114	75 - 125	20	75 - 125
Beryllium	0.65	50	91	98.6	7.93	111	75 - 125	20	75 - 125
Cadmium	ND	50	98.8	107	8.32	110	75 - 125	20	75 - 125
Chromium	64	50	79.1	98.5	8.95	102	75 - 125	20	75 - 125
Cobalt	17	50	91.4	99.7	6.36	111	75 - 125	20	75 - 125
Copper	48	50	85.7	101	8.23	101	75 - 125	20	75 - 125
Lead	10	50	98	107	7.24	108	75 - 125	20	75 - 125
Mercury	0.065	1.25	95	104	9.00	105	75 - 125	20	75 - 125
Molybdenum	0.62	50	97.6	107	8.65	108	75 - 125	20	75 - 125
Nickel	68	50	84.4	105	9.04	101	75 - 125	20	75 - 125
Selenium	ND	50	97	100	3.08	98.8	75 - 125	20	75 - 125
Silver	ND	50	98.9	107	7.77	110	75 - 125	20	75 - 125
Thallium	ND	50	99.2	111	10.8	112	75 - 125	20	75 - 125
Vanadium	85	50	78.6	100	8.43	102	75 - 125	20	75 - 125
Zinc	90	500	93.6	105	10.1	106	75 - 125	20	75 - 125
%SS:	115	500	112	119	5.47	117	70 - 130	20	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 76478 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1304526-001A	04/11/13 9:48 AM	04/17/13	04/19/13 6:51 PM	1304526-002A	04/11/13 2:02 PM	04/17/13	04/19/13 7:22 PM
1304526-003A	04/12/13 9:30 AM	04/17/13	04/19/13 7:30 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = 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.

DHS ELAP Certification 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Soil | QC Matrix: Soil | BatchID: 76484 | WorkOrder: 1304526

EPA Method: SW8015B | **Extraction: SW3550B/3630C** | **Spiked Sample ID: 1304526-001A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH-Diesel (C10-C23)	2.0	40	99.2	113	12.4	95.9	70 - 130	30	70 - 130
%SS:	102	25	87	98	11.5	90	70 - 130	30	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 76484 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1304526-001A	04/11/13 9:48 AM	04/17/13	04/18/13 7:39 PM	1304526-002A	04/11/13 2:02 PM	04/17/13	04/18/13 8:54 PM
1304526-003A	04/12/13 9:30 AM	04/17/13	04/18/13 9:57 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = 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.

DHS ELAP Certification 1644

QA/QC Officer

GROUND WATER DISCHARGE

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Analytical Report

GeoRestoration, Inc. 15940 Concord Circle Morgan Hill, CA 95037	Client Project ID: #1159-2; Junction Avenue K-8 School	Date Sampled: 04/16/13
		Date Received: 04/16/13
	Client Contact: Roger Dockter	Date Reported: 04/22/13
	Client P.O.:	Date Completed: 04/22/13

WorkOrder: 1304499

April 22, 2013

Dear Roger:

Enclosed within are:

1) The results of the **1** analyzed sample from your project: **#1159-2; Junction Avenue K-8 School,**
2) QC data for the above sample, and
3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

The analytical results relate only to the items tested.

1304499

GeoRestoration, Inc.

15940 Concord Circle
Morgan Hill, CA 95037
Main Line: (408) 779-5533
Facsimile: (408) 779-5530

RUSH

CHAIN OF CUSTODY FORM

Turnaround Time: (working days) __ 10 day __ 7 day (X) 5 day __ 3 day __ 2 day X 24 hr __ 2-8 hr __ other (____)

24 hr. TAT changed to 5 day per RD

Project Name: Junction Avenue K–8 School
Project Number: 1159-2 Task: POTW
Global I.D.:
Project Address: 2900 Ladd Avenue, Livermore, CA
Laboratory: McCampbell Analytical
Lab Address/Phone: 1535 Willow Pass Road, Pittsburg, CA (877) 252-9262
GRI Project Manager: Roger Dockter
GRI PM Ph. No.: (408) 857-0648 Email: main@georestoration.com
GRI Sampler: Jen Phone: (408) 779-5533

Sample Information						Container Information			Comments	Analyses Requested																
Sample ID	Date	Time	Matrix: Soil	Water	Vapor	No.	Type	Preservative		BTEX as TTO (8260B)	pH (EPA 150.1)	Cyanide (EPA 4500-E)	Metals (see noter) EPA 200.7	Mercury (EPA 245.1)												
E-1	4/16/13	1320		✓		3	V	HCl, 4°C		✓																
E-1	↓	↓		✓		1	500 ml	4°C			✓															
E-1				✓		2	250 ml	NaOH,4°C				✓														
E-1				✓		1	250 ml	HNO3,4°C					✓													
E-1				✓		1	250 ml	HNO3,4°C						✓												

ICE / t°: 4.8
GOOD CONDITION ___ APPROPRIATE CONTAINERS ___
HEAD SPACE ABSENT ___ PRESERVED IN LAB ___
DECHLORINATED IN LAB ___
PRESERVATION: VOAS | O & G | METALS | OTHER

Additional Comments: Invoice to GeoRestoration, Inc. and send report to GRI at main@georestoration.com
Note: Metals requested by 200.7 are Arsenic, Cadmium, Chromium, Copper, Lead, Nickel, Silver , and Zinc.

EDF Format ☐

Relinquished By:	Date/Time: 4/16/13 1430	Received By:	Date/Time: 4/16 1430
Relinquished By:	Date/Time: 4/16 1550	Received By:	Date/Time: 4/16 1550
Relinquished By:	Date/Time:	Received By:	Date/Time:

Sample Condition. Good? Yes ___ No ___ On Ice? Yes ___ No ___ Cooler Temp ____ Transportation Method:

Page 1 of 1

Container Type: V = 40 ml vial, L = 1 liter amber bottle, 500 ml = 500 milliliter bottle, T = tube (B - brass, S - stailess steel, P - plastic)

Preservative: HCL = Hydrochloric acid, N = Nitric acid, C = 4o C

FORM 1a

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1304499 **ClientCode: GEOS**

☐ WaterTrax ☐ WriteOn ☐ EDF ☑ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Roger Dockter
GeoRestoration, Inc.
15940 Concord Circle
Morgan Hill, CA 95037
408-292-8450 FAX: 408-295-8451

Email: main@georestoration.com
cc:
PO:
ProjectNo: #1159-2; Junction Avenue K-8 School

Bill to:
Accounts Payable
GeoRestoration, Inc.
15940 Concord Circle
Morgan Hill, CA 95037

Requested TAT: 5 days

Date Received: **04/16/2013**
Date Printed: **04/16/2013**

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
1304499-001	E-1	Water	4/16/2013 13:20	☐	A	C	D	D	B							

Test Legend:

1	BTEX_8260B_W	2	CN_TOTAL_W	3	HG_W	4	METALSMS_W	5	PH_W
6		7		8		9		10	
11		12							

Prepared by: Jena Alfaro

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.

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Sample Receipt Checklist

Client Name: **GeoRestoration, Inc.**
Date and Time Received: **4/16/2013 4:24:21 PM**

Project Name: **#1159-2; Junction Avenue K-8 School**
LogIn Reviewed by: Jena Alfaro

WorkOrder N°: **1304499** Matrix: Water
Carrier: Benjamin Yslas (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: 4.8°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
Metal - pH acceptable upon receipt (pH<2)?	Yes ☑	No ☐	NA ☐
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

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

Comments:

McCampbell Analytical, Inc.
"When Quality Counts"
1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

GeoRestoration, Inc. 15940 Concord Circle Morgan Hill, CA 95037	Client Project ID: #1159-2; Junction Avenue K-8 School	Date Sampled: 04/16/13
		Date Received: 04/16/13
	Client Contact: Roger Dockter	Date Extracted: 04/16/13
	Client P.O.:	Date Analyzed: 04/16/13

Oxygenated Volatile Organics by P&T and GC/MS*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 1304499

Lab ID	1304499-001A				Reporting Limit for DF =1		
Client ID	E-1						
Matrix	W						
DF	1				S	W	
Compound	**Concentration**				ug/kg	µg/L	
Benzene	1.2				NA	0.5	
Ethylbenzene	ND				NA	0.5	
Toluene	0.76				NA	0.5	
Xylenes, Total	1.0				NA	0.5	
Surrogate Recoveries (%)							
%SS1:	109						
Comments							

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or surrogate coelutes with another peak.

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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GeoRestoration, Inc. 15940 Concord Circle Morgan Hill, CA 95037	Client Project ID: #1159-2; Junction Avenue K-8 School	Date Sampled: 04/16/13
		Date Received: 04/16/13
	Client Contact: Roger Dockter	Date Extracted: 04/18/13
	Client P.O.:	Date Analyzed: 04/18/13

Cyanide, Total

Analytical Method: Kelada-01 Work Order: 1304499

Lab ID	Client ID	Matrix	Total Cyanide	DF	Comments
1304499-001C	E-1	W	42	1	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	1.0 µg/L	
	S	NA	

* water samples are reported in µg/L; soil/sludge/solid samples in mg/kg; wipe samples in µg/wipe.

All soil & water samples are treated to remove sulfide, nitrate and nitrite interference prior to analysis.

DF = Dilution Factor

DHS ELAP Certification 1644

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GeoRestoration, Inc. 15940 Concord Circle Morgan Hill, CA 95037	Client Project ID: #1159-2; Junction Avenue K-8 School	Date Sampled: 04/16/13
		Date Received: 04/16/13
	Client Contact: Roger Dockter	Date Extracted: 04/16/13
	Client P.O.:	Date Analyzed: 04/17/13

Cold Vapor Metals*

Extraction method: E245.2 Analytical methods: E245.2 Work Order: 1304499

Lab ID	Client ID	Matrix	Extraction Type	Mercury	DF	% SS	Comments
1304499-001D	E-1	W	TOTAL	ND	1	N/A	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TOTAL	0.2	µg/L
	S	TOTAL	NA	mg/Kg

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument.

TOTAL = Hot acid digestion of a representative sample aliquot.
TRM = Total recoverable metals is the "direct analysis" of a sample aliquot taken from its acid-preserved container.
DISS = Dissolved metals by direct analysis of 0.45 µm filtered and acidified sample.
%SS = Percent Recovery of Surrogate Standard
DF = Dilution Factor

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GeoRestoration, Inc. 15940 Concord Circle Morgan Hill, CA 95037	Client Project ID: #1159-2; Junction Avenue K-8 School	Date Sampled: 04/16/13
		Date Received: 04/16/13
	Client Contact: Roger Dockter	Date Extracted: 04/16/13
	Client P.O.:	Date Analyzed: 04/18/13

Metals*

Extraction Method: E200.8 | Analytical Method: E200.8 | Work Order: 1304499

Lab ID	1304499-001D				Reporting Limit for DF =1		
Client ID	E-1						
Matrix	Water						
DF	1						
Extraction Type	TOTAL					S	W
Compound	**Concentration**					µg/kg	µg/L
Arsenic	3.1					NA	0.5
Cadmium	ND					NA	0.25
Chromium	ND					NA	0.5
Copper	ND					NA	0.5
Lead	ND					NA	0.5
Nickel	9.8					NA	0.5
Silver	ND					NA	0.19
Zinc	200					NA	5.0
Surrogate Recoveries (%)							
%SS:	80						
Comments							

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / WET / DI WET / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument.

TOTAL = Hot acid digestion of a representative sample aliquot.
TRM = Total recoverable metals is the "direct analysis" of a sample aliquot taken from its acid-preserved container.
DISS = Dissolved metals by direct analysis of 0.45 µm filtered and acidified sample.

%SS = Percent Recovery of Surrogate Standard
DF = Dilution Factor

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GeoRestoration, Inc. 15940 Concord Circle Morgan Hill, CA 95037	Client Project ID: #1159-2; Junction Avenue K-8 School	Date Sampled: 04/16/13
		Date Received: 04/16/13
	Client Contact: Roger Dockter	Date Extracted: 04/16/13
	Client P.O.:	Date Analyzed: 04/16/13

pH*

Analytical Method: SM4500H+B | Work Order: 1304499

Lab ID	Client ID	Matrix	pH	DF	Comments
1304499-001B	E-1	W	6.87 @ 21.2°C	1	

Method Accuracy and Reporting Units	W	±0.05, pH units @ °C	
	S	NA	

* According the formal method, this is "field test" with a 15 minute Hold Time. However, as this is unrealistically short for commercial environmental analysis, MAI has designated a 24 hour hold time for aqueous samples.

DF = Dilution Factor

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 76461 | WorkOrder: 1304499

EPA Method: SW8260B **Extraction: SW5030B** **Spiked Sample ID: 1304391-001A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Benzene	ND	10	108	108	0	112	70 - 130	20	70 - 130
Toluene	ND	10	99.1	99.2	0.0870	104	70 - 130	20	70 - 130
%SS1:	102	25	111	111	0	103	70 - 130	20	70 - 130
%SS2:	110	25	106	107	1.09	110	70 - 130	20	70 - 130
%SS3:	91	2.5	89	88	1.81	90	70 - 130	20	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 76461 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1304499-001A	04/16/13 1:20 PM	04/16/13	04/16/13 10:22 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = 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.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

DHS ELAP Certification 1644

QA/QC Officer

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QC SUMMARY REPORT FOR Kelada-01

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 76497 | WorkOrder: 1304499

EPA Method: Kelada-01 **Extraction: Kelada-01** **Spiked Sample ID: 1304499-001C**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Total Cyanide	42	40	97.3	99.8	1.22	106	80 - 120	20	90 - 110

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 76497 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1304499-001C	04/16/13 1:20 PM	04/18/13	04/18/13 1:46 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = 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.

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QC SUMMARY REPORT FOR E245.2

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 76343 | WorkOrder: 1304499

EPA Method: E245.2 **Extraction: E245.2** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Mercury	N/A	1	N/A	N/A	N/A	86.6	N/A	N/A	80 - 120

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 76343 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1304499-001D	04/16/13 1:20 PM	04/16/13	04/17/13 12:52 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = 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.

DHS ELAP Certification 1644

QA/QC Officer

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QC SUMMARY REPORT FOR E200.8

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 76453 | WorkOrder: 1304499

EPA Method: E200.8 **Extraction: E200.8** **Spiked Sample ID: 1304499-001D**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Arsenic	3.1	50	111	110	0.991	107	70 - 130	20	85 - 115
Cadmium	ND	50	109	108	0.646	112	70 - 130	20	85 - 115
Chromium	ND	50	102	102	0	107	70 - 130	20	85 - 115
Copper	ND	50	99.4	100	0.956	106	70 - 130	20	85 - 115
Lead	ND	50	109	108	0.680	109	70 - 130	20	85 - 115
Nickel	9.8	50	101	101	0	106	70 - 130	20	85 - 115
Silver	ND	50	111	110	0.470	111	70 - 130	20	85 - 115
Zinc	200	500	105	105	0	110	70 - 130	20	85 - 115
%SS:	80	750	78	77	1.75	72	70 - 130	20	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 76453 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1304499-001D	04/16/13 1:20 PM	04/16/13	04/18/13 2:54 PM	1304499-001D	04/16/13 1:20 PM	04/16/13	04/18/13 2:54 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = matrix interference and/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.

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QA/QC Officer

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QC SUMMARY REPORT FOR WET CHEMISTRY TESTS

Test Method: SM4500H+B (pH) **Matrix:** W **WorkOrder:** 1304499

Method Name: SM4500H+B | Units: ±, pH units @ °C | BatchID: 76351

Lab ID	Sample	DF	Dup / Ser. Dil.	DF	Precision	Acceptance Criteria
1304499-001B	6.87 @ 21.2°C	1	6.87 @ 21.3°C	1	0	0.05

BATCH 76351 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1304499-001B	04/16/13 1:20 PM	04/16/13	04/16/13 9:28 PM				

Dup = Duplicate; Ser. Dil. = Serial Dilution; MS = Matrix Spike; RD = Relative Difference; RPD = Relative Percent Deviation.

Precision = Absolute Value (Sample - Duplicate)

RPD = 100 * (Sample - Duplicate) / [(Sample + Duplicate) / 2]

%RPD is calculated using results of up to 10 significant figures, however the reported results are rounded to 2 or 3 significant figures. Therefore there may be a slight discrepancy between the %RPD displayed above and %RPD calculated using the reported results. MAI considers %RPD based upon more significant figures to be more accurate.

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QA/QC Officer

POST DPE GROUNDWATER SAMPLING

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Analytical Report

ACC Environmental Consultants, Inc. 7977 Capwell Drive , Suite 100 Oakland, CA 94621	Client Project ID: 2900 Ladd Ave.	Date Sampled: 06/13/13
		Date Received: 06/14/13
	Client Contact: Ian Sutherland	Date Reported: 06/20/13
	Client P.O.:	Date Completed: 06/19/13

WorkOrder: 1306404

June 20, 2013

Dear Ian:

Enclosed within are:

1) The results of the **1** analyzed sample from your project: **2900 Ladd Ave.,**
2) QC data for the above sample, and
3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

The analytical results relate only to the items tested.

1306404

BLAINE
TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY BTS # 130613-PC2

CLIENT: ACC Environmental

SITE: 2900 Ladd Ave.
Livermore, CA

LAB: McCampbell

DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
☐ EPA ☐ RWQCB REGION
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS

Invoice & Report to ACC Environmental
Attn: Ian Sutherland
isutherland@accenv.com

CONDUCT ANALYSIS TO DETECT

SAMPLE I.D.	DATE	TIME	MATRIX S=SOIL W=H_2O	CONTAINERS TOTAL		C = COMPOSITE ALL CONTAINERS	TPH-g, BTEX (8260B)	TPH-d, TPH-mo w/SGC (8015M)	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-5	6/13/13	1454	W	5	HCl VOA's		X	X				

ICE/t° 4.5
GOOD CONDITION ____ APPROPRIATE
HEAD SPACE ABSENT ____ CONTAINERS
DECHLORINATED IN LAB ____ PRESERVED IN LAB ____
PRESERVATION: VOAS | O&G | METALS | OTHER

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY
	6/13/13		Pete Lamish

RESULTS NEEDED NO LATER THAN: **Standard TAT**

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	6/13/13	1740		6/13/13	1730
(Sample Custodian)	6/14/13	1315		6/14/13	1315
	6/14	1745		6/14/13	1745

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1306404 **ClientCode: ACCE**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Ian Sutherland
ACC Environmental Consultants, Inc.
7977 Capwell Drive , Suite 100
Oakland, CA 94621
(510) 773-7303 FAX: (510) 638-8404

Email: isutherland@accenv.com
cc:
PO:
ProjectNo: 2900 Ladd Ave.

Bill to:
Accounts Payable
ACC Environmental Consultants, Inc.
7977 Capwell Drive , Suite 100
Oakland, CA 94621

Requested TAT: 5 days

Date Received: 06/14/2013
Date Printed: 06/14/2013

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
1306404-001	MW-5	Water	6/13/2013 14:54	☐	A	B										

Test Legend:

1	GAS8260_W	2	TPH(DMO)WSG_W	3		4		5	
6		7		8		9		10	
11		12							

The following SampID: 001A contains testgroup.

Prepared by: Zoraida Cortez

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.

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Sample Receipt Checklist

Client Name: **ACC Environmental Consultants, Inc.**
Date and Time Received: **6/14/2013 8:08:15 PM**

Project Name: **2900 Ladd Ave.**
LogIn Reviewed by: Zoraida Cortez

WorkOrder N°: **1306404** Matrix: Water
Carrier: Benjamin Yslas (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: 4.5°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

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

Comments:

McCampbell Analytical, Inc.
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ACC Environmental Consultants, Inc.	Client Project ID: 2900 Ladd Ave.	Date Sampled: 06/13/13
		Date Received: 06/14/13
7977 Capwell Drive , Suite 100	Client Contact: Ian Sutherland	Date Extracted 06/19/13
Oakland, CA 94621	Client P.O.:	Date Analyzed 06/19/13

TPH(g) by Purge & Trap and GC/MS*

Extraction method: SW5030B Analytical methods: SW8260B Work Order: 1306404

Lab ID	Client ID	Matrix	TPH(g)	DF	% SS	Comments
001A	MW-5	W	25,000	100	95	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	NA	NA

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

DHS ELAP Certification 1644 BB Analyst's Initial Angela Rydelius, Lab Manager

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ACC Environmental Consultants, Inc.	Client Project ID: 2900 Ladd Ave.	Date Sampled: 06/13/13
7977 Capwell Drive , Suite 100		Date Received: 06/14/13
	Client Contact: Ian Sutherland	Date Extracted: 06/19/13
Oakland, CA 94621	Client P.O.:	Date Analyzed: 06/19/13

MTBE and BTEX by GC/MS*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 1306404

Lab ID	1306404-001A				Reporting Limit for DF =1		
Client ID	MW-5						
Matrix	W						
DF	100				S	W	
Compound	**Concentration**				ug/kg	µg/L	
Benzene	3100				NA	0.5	
Ethylbenzene	480				NA	0.5	
Methyl-t-butyl ether (MTBE)	ND<50				NA	0.5	
Toluene	2400				NA	0.5	
Xylenes, Total	4800				NA	0.5	
Surrogate Recoveries (%)							
%SS1:	99						
%SS2:	100						
Comments							

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

%SS = Percent Recovery of Surrogate Standard
DF = Dilution Factor

DHS ELAP Certification 1644 KF Analyst's Initial Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

ACC Environmental Consultants, Inc.	Client Project ID: 2900 Ladd Ave.	Date Sampled: 06/13/13
		Date Received: 06/14/13
7977 Capwell Drive , Suite 100	Client Contact: Ian Sutherland	Date Extracted: 06/14/13
Oakland, CA 94621	Client P.O.:	Date Analyzed: 06/19/13

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up*

Extraction method: SW3510C/3630C Analytical methods: SW8015B Work Order: 1306404

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
1306404-001B	MW-5	W	3200	ND	1	93	e4

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	250	µg/L
	S	NA	NA	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

#) cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract; &) low or no surrogate due to matrix interference.

%SS = Percent Recovery of Surrogate Standard. DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:
e4) gasoline range compounds are significant.

DHS ELAP Certification 1644 MAM Analyst's Initial Angela Rydelius, Lab Manager

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QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 78370 | WorkOrder: 1306404

EPA Method: SW8015B **Extraction: SW3510C/3630C** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	114	N/A	N/A	70 - 130
%SS:	N/A	625	N/A	N/A	N/A	101	N/A	N/A	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 78370 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1306404-001B	06/13/13 2:54 PM	06/14/13	06/19/13 1:03 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = 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.

DHS ELAP Certification 1644


QA/QC Officer

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"When Quality Counts"
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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 78471 | WorkOrder: 1306404

EPA Method: SW8260B **Extraction: SW5030B** **Spiked Sample ID: 1306397-007A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Benzene	ND	10	96.2	97.9	1.72	93.8	70 - 130	20	70 - 130
Methyl-t-butyl ether (MTBE)	ND	10	113	114	1.10	104	70 - 130	20	70 - 130
Toluene	ND	10	88.2	91.2	3.33	88.9	70 - 130	20	70 - 130
%SS1:	106	25	107	107	0	103	70 - 130	20	70 - 130
%SS2:	101	25	101	101	0	101	70 - 130	20	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 78471 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1306404-001A	06/13/13 2:54 PM	06/19/13	06/19/13 1:19 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = 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.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

DHS ELAP Certification 1644

QA/QC Officer

APPENDIX F

WASTE MANIFESTS

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
NOT REQUIRED	1	888-423-6060	0702241

GENERATOR

5. Generator's Name and Mailing Address
Livermore Joint Unified School District
685 East Jack London Blvd., Livermore, CA 94551
Generator's Phone:

Generator's Site Address (if different than mailing address)
2900 Ladd Avenue
Livermore, CA 94551

6. Transporter 1 Company Name: American Integrated Services, Inc.
U.S. EPA ID Number: CAR000148338

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

8. Designated Facility Name and Site Address
Potrero Hills Landfill
3675 Potrero Hills Lane
Suisun, CA 94585
Facility's Phone:
U.S. EPA ID Number: NOT REQUIRED

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-Hazardous Waste Solid (Soil)	009	DM	4500	P	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear protective equipment while handling. Weights or volumes are approximate. 24 hour emergency number (888) 423-6060
Profile#: PHLF11058 9x55
Project #: 73006-17-2

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Adrian Butterfield
Signature: Adrian Butterfield
Month: 5 Day: 17 Year: 13

INT'L

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

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Marco Martinez
Signature: Marco Martinez
Month: 5 Day: 17 Year: 13

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name:
Signature:
Month: Day: Year:

169-BLC-O 5 11977 (Rev. 9/09)

TRANSPORTER #1

APPENDIX G

DPE NOTES

Junction Avenue K–8 School
2900 Ladd Avenue, Livermore, CA

Extraction Point(s)	Date	Time	Meter In PPMv	CFM	Avg PPMV	HC lbs/day	HC gal/day	Days	HC gals	Hr Meter	Water meter	"Hg	Stack Temp.
MW-6B	04/15/13	1010	1470	230		108.19	17.31			14514.0	1958550	3.0	888
MW-6B	04/15/13	1015	1330	220	1400	93.63	14.98	0.0042	0.062	14514.1		4.0	777
MW-6B	04/15/13	1025	1162	215	1246	79.95	12.79	0.0083	0.107	14514.3		4.25	824
MW-6B	04/15/13	1035	935	212	1048.5	63.43	10.15	0.0083	0.085	14514.5		4.25	775
MW-6B	04/15/13	1045	799	215	867	54.97	8.80	0.0083	0.073	14514.7		4.25	741
MW-6B	04/15/13	1055	701	215	750	48.23	7.72	0.0083	0.064	14514.9		4.25	720
MW-6B	04/15/13	1105	636	212	668.5	43.15	6.90	0.0042	0.029	14515.0		4.25	703
MW-6B	04/15/13	1115	587	210	611.5	39.45	6.31	0.0083	0.053	14515.2		4.25	692
MW-6B	04/15/13	1130	539	212	563	36.57	5.85	0.0083	0.049	14515.4		4.25	672
MW-6B	04/15/13	1145	487	210	513	32.73	5.24	0.0125	0.065	14515.7		4.25	666
MW-5, MW-6B	04/15/13	1200	1316	225	901.5	94.75	15.16	0.0083	0.126	14515.9		8.00	867
MW-5, MW-6B	04/15/13	1210	932	215	1124	64.12	10.26	0.0083	0.085	14516.1		8.5	659
MW-5, MW-6B	04/15/13	1245	675	245	803.5	52.92	8.47	0.0250	0.212	14516.7		8.5	713
MW-5, MW-6B	04/15/13	1248	1430	205	1052.5	93.81	15.01	0.0000	0.000	14516.7		9.8	707
MW-5, MW-6B	04/15/13	1300	1260	205	1345	82.66	13.22	0.0083	0.110	14516.9		9.8	840
MW-5, MW-6B	04/15/13	1315	1152	205	1206	75.57	12.09	0.0125	0.151	14517.2		9.8	816
MW-5, MW-6B	04/15/13	1330	1090	205	1121	71.50	11.44	0.0104	0.119	14517.5		9.8	804
MW-5, MW-6B	04/15/13	1345	994	205	1042	65.21	10.43	0.0104	0.109	14517.7		9.8	782
MW-5, MW-6B	04/15/13	1400	953	205	973.5	62.52	10.00	0.0125	0.125	14518.0		9.8	774
MW-5, MW-6B	04/15/13	1415	883	205	918	57.92	9.27	0.0104	0.097	14518.3		9.6	768
MW-5, MW-6B	04/15/13	1430	1000	205	941.5	65.60	10.50	0.0104	0.109	14518.5		9.8	782
MW-5, MW-6B	04/15/13	1445	1004	200	1002	64.26	10.28	0.0125	0.129	14518.8		9.8	775
MW-5, MW-6B	04/15/13	1500	960	200	982	61.44	9.83	0.0083	0.082	14519.0		9.8	779
MW-5, MW-6B	04/16/13	1120	630	200	795	40.32	6.45	0.9208	5.940	14541.1		9.0	719
MW-5, MW-6B	04/17/13	220	400	200	515	25.60	4.10	0.6250	2.560	14556.1		0	0
MW-5, MW-6B	04/17/13	1030											
MW-5, MW-6B	04/17/13	1030	937	200	668.5	59.97	9.59	0.0125	0.120	14556.4		9.0	674
MW-5, MW-6B	04/17/13	1045	1096	200	1016.5	70.14	11.22	0.0125	0.140	14556.7		9.0	798
MW-5, MW-6B	04/17/13	1100	1003	200	1049.5	64.19	10.27	0.0125	0.128	14557.0		9.0	781
MW-5, MW-6B	04/17/13	1140	903	190	953	54.90	8.78	0.0250	0.220	14557.6	1958573	9.0	771
							Totals	1.82	11.15		23		

ppmv * CFM * 1440 min/day * $1X10^{-6}$ *86 g/mole * 1lb-mole/386 ft^3 = lbs/day

Note: 90 gals collected in tote for disposal

Junction Avenue K–8 School
2900 Ladd Avenue, Livermore, CA

Extraction Point(s)	Date	Time	Throughput Cu ft	Percent Dilution
MW-6B	04/15/13	1010		40%
MW-6B	04/15/13	1015	1320	40%
MW-6B	04/15/13	1025	2580	40%
MW-6B	04/15/13	1035	2544	40%
MW-6B	04/15/13	1045	2580	40%
MW-6B	04/15/13	1055	2580	40%
MW-6B	04/15/13	1105	1272	40%
MW-6B	04/15/13	1115	2520	40%
MW-6B	04/15/13	1130	2544	40%
MW-6B	04/15/13	1145	3780	40%
MW-5, MW-6B	04/15/13	1200	2700	20%
MW-5, MW-6B	04/15/13	1210	2580	20%
MW-5, MW-6B	04/15/13	1245	8820	20%
MW-5, MW-6B	04/15/13	1248	0	10%
MW-5, MW-6B	04/15/13	1300	2460	10%
MW-5, MW-6B	04/15/13	1315	3690	10%
MW-5, MW-6B	04/15/13	1330	3075	10%
MW-5, MW-6B	04/15/13	1345	3075	10%
MW-5, MW-6B	04/15/13	1400	3690	10%
MW-5, MW-6B	04/15/13	1415	3075	10%
MW-5, MW-6B	04/15/13	1430	3075	10%
MW-5, MW-6B	04/15/13	1445	3600	10%
MW-5, MW-6B	04/15/13	1500	2400	10%
MW-5, MW-6B	04/16/13	1120	265200	10%
MW-5, MW-6B	04/17/13	220	180000	10%
MW-5, MW-6B	04/17/13	1030	0	0%
MW-5, MW-6B	04/17/13	1030	3600	10%
MW-5, MW-6B	04/17/13	1045	3600	10%
MW-5, MW-6B	04/17/13	1100	3600	10%
MW-5, MW-6B	04/17/13	1140	6840	10%
			526,800.00	

Junction Avenue K–8 School
2900 Ladd Avenue, Livermore, CA

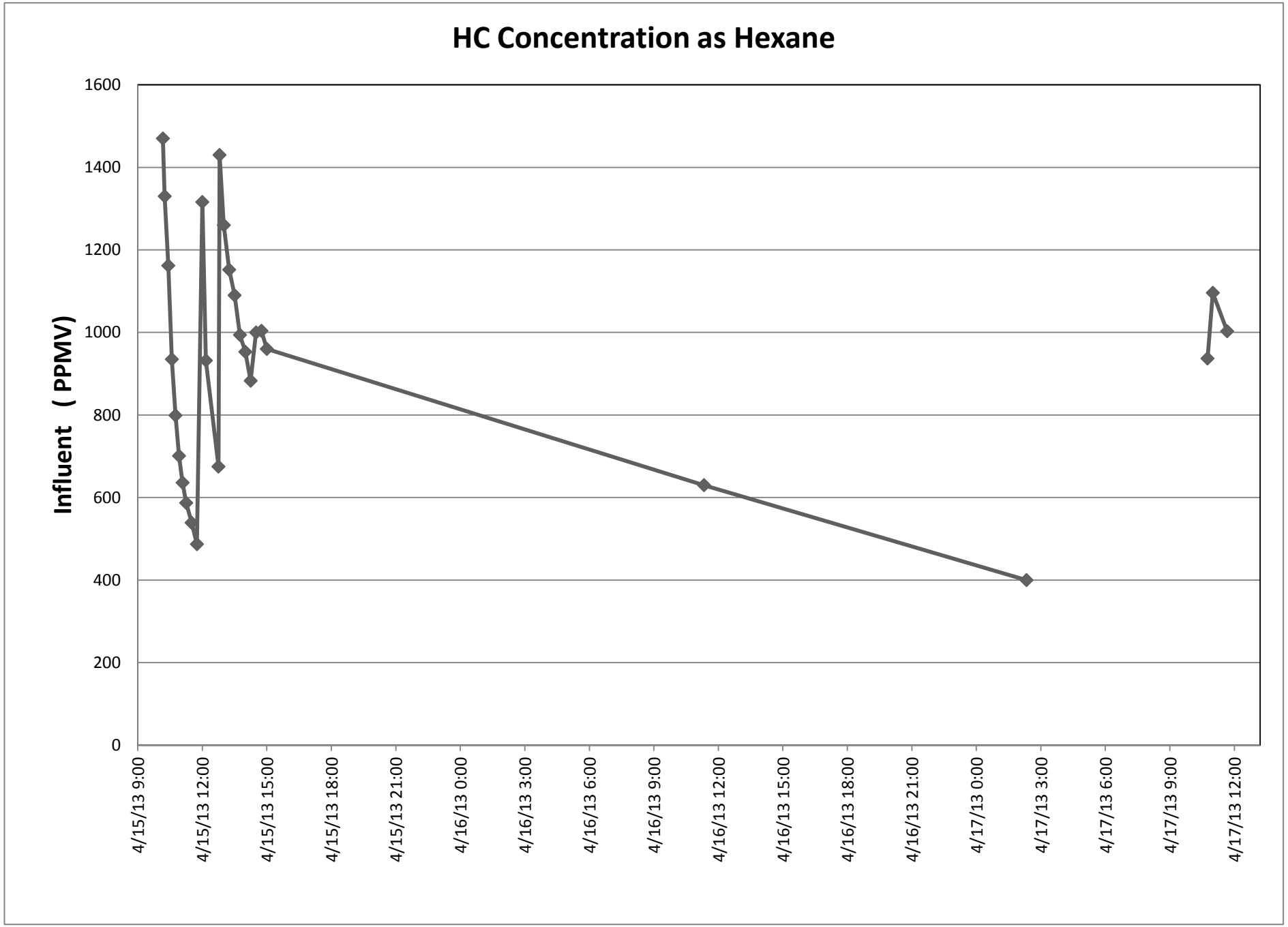

Table A2 Radius of Influence Measurements

2900 Ladd Avenue, Livermore, CA

Date	Extraction Well(s)	Well Diameter (inches)	Applied Vacuum (in. Hg)	Observation Well(s)	Measured Vacuum (in. H2O)	Distance (feet)	Calculated ROI (feet)	Notes
4/15/13	MW-6B	2	4.25	MW-5	>5.0	26	>47	
4/17/13	MW-6B	2	9.0	MW-5	6.4	26	38.15	

Table A3. Depth to Groundwater
2900 Ladd Avenue, Livermore, CA

Well #	Screen Interval (feet)	Date	DTW (feet)	Stinger Depth (feet)	Notes
MW-6B		4/15/13	23.13	26.0	
MW-5		4/15/13	23.51	25.5	

Treatment System Vapor Samples (Total influent = I-1, Total effluent - E-1)

Field Meter PPMv	Day	Sample #	Date	Time	Lab Report Number	Results (uL/L or PPM)						
						TPHg	M	B	T	E	X	
888	1	I-1	4/15/13	1515	1304505	920	NA	16	16	2.4	9	
9	1	E-1	4/15/13	1510	1304505	<7.0	NA	<0.077	<0.065	<0.057	<0.057	

Notes: I-1 or In represents combined influent into system post any dilution. E-1 or Eff represented treated effluent
Field readings as Hexane

Discharge Water Samples for Permit Complince					Results (ug/L)							Lab
Day	Date	Time	Sample #	H2O Meter	TPHg	M	B	T	E	X	TPHd	Report #
2	4/16/13	1320	E-1		NA	NA	1.20	0.76	<0.5	1.00	NA	1304499

NA = not analyzed

APPENDIX H

GROUNDWATER SAMPLING FIELD NOTES

WELL GAUGING DATA

Project # 130613-PCR Date 6/13/13 Client ACC

Site 2900 Ladd Ave., Livermore

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or (TOC)	Notes
MW-5	1352	2					23.31	25.22	↓	
MW-6A	1350	2					26.35	26.69		

WELLHEAD INSPECTION CHECKLIST

Client ACC Date 6/13/13

Site Address 2900 Ladd Ave., Livermore

Job Number 130613-PC2 Technician PC

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
MW-5	X							
MW-6A	X							

NOTES:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 130613-PC2	Client: ACC
Sampler: PC	Start Date: 6/13/13
Well I.D.: MW-64	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 26.69	Depth to Water Pre: 26.35 Post:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: _____

Purge Method: 2" Grundfos Pump | Watterra | X Peristaltic Pump | Bladder Pump | Other _____

Sampling Method: Dedicated Tubing | Disp Bailer | X New Tubing | Other _____

Flow Rate: 100 ml/min Pump Depth: 26.68

Time	Temp. (°C or °F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Observations
1430	27.3	6.59	2021	59	2.29	-302.6	1000	DTW(ft) if req'd
1431	well dewatered @ 200ml				DTW: 'Dry'		200	
1545	return to well DTW: 'Dry'							
		No sample						

Did well dewater? Yes No Amount actually evacuated: gals. or ml

Sampling Time: Sampling Date:

Sample I.D.: Laboratory: Kiff TA-SF McCampbell C&T Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

Equipment Blank I.D.: @ Time Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 130613-DC2	Client: ACC
Sampler: DC	Start Date: 6/13/13
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 25.22	Depth to Water Pre: 23.31 Post: 24.12
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI ProPlus

Purge Method: 2" Grundfos Pump | Watterra | X Peristaltic Pump | Bladder Pump | Other ____

Sampling Method: Dedicated Tubing | Disp Bailer | X New Tubing | Other ____

Flow Rate: 100 ml/min Pump Depth: 25.15'

Time	Temp. (°C or °F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Observations
1440	27.2	6.43	1070	15	1.05	-369.3	300	DTW(ft) if req'd 23.68
1443	27.7	6.42	1081	10	1.04	-357.0	600	23.79
1446	28.1	6.42	1076	15	0.88	-348.1	900	23.95
1449	28.2	6.44	1078	14	0.91	-357.9	1200	24.04
1452	sample well						~~1500~~	

Did well dewater? Yes (No) Amount actually evacuated: gals. or (mL)

Sampling Time: 1454 Sampling Date: 6/13/13

Sample I.D.: MW-5 Laboratory: Kiff TA-SF (McCampbell) C&T Other ____

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

Equipment Blank I.D.: @ Time Duplicate I.D.:

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME 2900 Ladd Ave, Livermore				PROJECT NUMBER 130613-PC2			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP. °C	INITIALS
YSI Pro Plus	12H102222	6/13/13 0615	DO→100% 4/7/10 pH	101.4 4.0/7.0/10.0	Y Y	21.4 20.9	RE
			~~3~~5400 µS	3902	Y	21.0	
			2365 mV @ 20°C	2369	Y	20.0	↓

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

February 7, 2013

Zone 7
Water Resources Engineering
Groundwater Protection Ordinance

Cal Water Service
3175 Old First Street
Livermore
Well 3S/2E-9L1 (#17-01)
Permit: 2013012

Destruction Requirements:

1. Well destruction shall be performed by a C-57 Licensed Contractor.

2. Provide a well video log.

3. Remove from the well any appurtenances, debris or other materials and clean out casing to total depth or deepest practical depth. Sound the depth of the well casing and document on your well destruction report.

4. Perforate or puncture the well casing from 85 to 95 feet, 110 to 130 feet and 220 to 240 feet below grade. There must be four perforations or cuts per foot at 90 degree angles to each other.

5. Fill the well casing up to 5 feet below grade with a 10-sack sand cement grout sealing mixture using a tremie pipe. The end of the tremie pipe shall remain submerged in the sealing material at all times during placement of the grout. The cement grout mixture must be delivered from a cement batch plant. Mixing of the cement grout mixure on site will not be allowed.

6. After the grout seal has set, cut and remove the casing at approximately 5 feet below grade.

7. Fill the remaining open casing and the hole to ground surface with clean fill material.

APPENDIX J

PERJURY STATEMENT

Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

PERJURY STATEMENT

Name of Document or Report: Groundwater Monitoring Well Destruction, Dual Phase Extraction Pilot Test & Case Closure Addendum

RO#0000188

I declare, under penalty and perjury, that the information and/or recommendations contained in the above stated document or report is true and correct to the best of my knowledge.

Signature

Susan Kinder
Company Officer or Legal Representative Name

Chief Business Official
Title

August 19, 2013
Date