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Alameda County
Environmental Health

July 2, 2008

Soil and Groundwater Investigation Report and Workplan

3442 Adeline Street
Oakland, CA 94608

Project No. 274761

Prepared For

Ms. Steffi Zimmerman
6330 Swainland Road
Oakland, CA 94611

Prepared By

AEI Consultants
2500 Camino Diablo, Suite 200
Walnut Creek, CA 94597
(925) 283-6000

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1.0 INTRODUCTION

AEI Consultants (AEI) has prepared this report and work plan on behalf of Ms. Steffi Zimmerman, the owner of the property located at 3442 Adeline Street in the City of Oakland, Alameda County, California. AEI has been retained by Ms. Zimmerman to provide environmental engineering and consulting services relating to the release of fuel products from a former underground storage tank (UST) on the property. The site is currently under the regulatory oversight of the Alameda County Health Care Services Agency (ACHCSA).

Multiple site investigations have identified a significant release of gasoline fuel from the former UST. Based on the severity of the release and discussions with ACHCSA, groundwater monitoring and remedial action will be required. The property is currently under consideration for a sale and possible redevelopment which has necessitated determination of the nature and extent of the release and the implementation of an effective and timely remedial approach. To that end and following a meeting at the site with the ACHCSA on March 19, 2008, a workplan was prepared for further assessment. The field investigation outlined in that document was implemented in May 2008. This report updated the March 19, 2008 with this more recent data and outlines interim removal action and a recommended groundwater monitoring program.

2.0 SITE DESCRIPTION AND HISTORY

The subject site (hereinafter referred to as the "site" or "property") is situated on the northeast corner of 35th Street and Chestnut Street in a mixed commercial, industrial and residential area of Oakland. The front entrance to the property is addressed at 3442 Adeline St.; however, the rear entrance is reported with the City of Oakland with the address of 3433 Chestnut St. The on-site building covers approximately 65% of the property and is currently a warehouse in the process of being vacated. Refer to Figure 2 for an aerial photo of the property.

2.1 UST Excavation

On February 22, 2000, Clearwater supervised the excavation and removal of a single-wall 3,750 gallon UST. Soil samples and a groundwater sample was collected from the excavation pit and analyzed for total petroleum hydrocarbons as diesel (TPH-d), TPH as gasoline (TPH-g), methyl tertiary butyl ether (MTBE) and BTEX (benzene, toluene, ethyl benzene, and total xylenes). Soil sample concentrations of TPH-d and TPH-gwere up to 920 milligrams per kilogram (mg/kg) and 850 mg/kg, respectively. TPH-g and TPH-d were detected in the groundwater sample from the excavation pit at concentrations of 7,400 micrograms per liter (µg/L) and 34,000 µg/L, respectively.

Based on the analytical results from the confirmation samples collected following tank removal, in a letter dated May 15, 2006, the City of Oakland Fire Department requested the site to be further characterized with additional soil and groundwater samples. The location of the former UST and sample locations are presented in Figures 3.

2.2 Clearwater Phase II Investigation

In June, 2006 Clearwater performed a Phase II Environmental Site Investigation. Soil and groundwater samples were collected from four (4) soil borings advanced to approximately 16 feet below ground surface (bgs), immediately surrounding the former tank hold. Approximate locations of these borings are presented on Figure 3. The soil and groundwater samples collected were analyzed for TPH-d, TPH-g, BTEX, 1,2-dichloroethane (1,2-DCA) and 1,2-dibromoethane.

2.3 AEI Consultants Site Investigation

In October and December of 2007, AEI performed additional site investigations to better define the nature and extent of the release. A total of twenty-two soil borings (SB-1 through SB-22) have been advanced to an approximate depth of 16 feet bgs; soil, soil vapor, and groundwater samples were obtained. Locations of these borings are presented in Figure 3. The highest soil concentrations in TPH-g/d and BTEX were detected at 1,200 mg/kg, 450 mg/kg, 6.9 mg/kg, 2.5 mg/kg, 24 mg/kg and 110 mg/kg, respectively. The highest concentrations of groundwater analyzed for TPH-g/d and BTEX were 83,000 µg/L, 12,000 µg/L, 10,000 µg/L, 640 µg/L, 2,700 µg/L and 7,900 µg/L, respectively.

Based on the soil and groundwater sample analytical data, the release of primarily gasoline related petroleum contaminants has spread mostly in a northwesterly direction, beneath the warehouse building on the property. Concentrations of petroleum contaminants decrease with distance from the UST to the north and south along Chestnut Street and to the east across the street. The vertical extent of impacted soil has been generally defined to be between approximately 6 and 12 feet bgs and is likely controlled by soil permeability along with the movement of shallow groundwater. Based on the distribution of dissolved phase petroleum hydrocarbons, groundwater is expected to flow predominately in a northwesterly direction. Soil gas sample analytical data was compared to the RWQCB Environmental Screening Levels (ESLs) as a preliminary evaluation of the potential for vapor intrusion. With the exception of benzene in SV-1, the results were below these screening levels suggesting that vapor intrusion potential may be minimal at the southeastern corner of the building. Detailed results from previous soil and groundwater sample analysis can be found in Tables 1, 2 and 3. Prior boring locations can be found on Figure 3.

3.0 ADDITIONAL SITE INVESTIGATION

Additional soil borings were performed in May 2008 to further map the lateral extent of the release. Prior to initiating drilling activities, a soil boring permit (permit number W2008-0219) was obtained from the Alameda County Public Works Agency (ACPWA). Following permit approval, drilling activities were scheduled and Underground Utility Services (USA North) was notified to locate possible underground utilities in the area.

3.1 Soil Borings and Soil Collection

On May 7, 2008, AEI advanced nine soil borings (SB-23 through SB-31) at the subject property. The borings were advanced with a direct-push drilling rig operated by Precision Sampling (CA C57 License # 636387). The borings were advanced to depths of approximately 16 feet bgs. Soil core borings SB-23 through SB-31 were continuously collected in a 2" diameter acrylic liner and logged by the onsite AEI geologist. Soil samples were described by AEI personnel and logged using the unified soil classification system and screened in the field using a photo ionization detector (PID). Field observations and screening data is presented on the borings logs in Appendix A.

Sampling equipment, including sampling barrels and other equipment used to sample, were decontaminated between samples using a triple rinse system containing Alconox™ or similar detergent.

A six inch sample at select depths was cut from the acrylic liner and sealed with Teflon tape and plastic caps, labeled with a unique identifier, placed in a cooler filled with water ice, and transported under appropriate chain-of-custody documentation for analysis to McCampell Analytical Inc., (DOHS Certification Number 1644) of Pittsburg, California. Select soil samples were analyzed for TPH-d by EPA method 8015, TPH-g, BTEX, and methyl tertiary butyl ether (MTBE) by EPA method 8021B.

Soil cuttings generated during the drilling and well installation activities were stored on-site in sealed and labeled 5-gallon buckets pending disposal.

3.2 Groundwater Sample Collection

In soil borings SB-23 though SB-31, upon encountering saturated sediments, a temporary ¾" diameter factory-slotted poly-vinyl chloride (PVC) casing was inserted into the borings to facilitate the collection of groundwater samples. A groundwater sample was not collected at time of drilling (ATD) from any of the borings due to a lack of sufficient groundwater. The temporary well casings were allowed to recharge with groundwater for 2 to 7 days. The borings were checked on a daily basis and once sufficient water was present, samples were collected with dedicated, disposable bailers into 40-ml volatile organic analysis (VOA) vials and 1 liter bottles. The groundwater samples were capped so that there was no head space or visible air bubbles within the vials, labeled with a unique identifier, placed in a cooler filled with ice, and transported under appropriate chain-of-custody documentation for analysis to McCampbell Analytical Inc., (DOHS Certification Number 1644) of Pittsburg, California. Groundwater samples were analyzed for TPH-d by EPA method 8015, TPH-g, BTEX and MTBE by EPA method 8021B.

3.3 Soil Analytical Results

Select soil samples were analyzed from each of the borings. Petroleum hydrocarbons were detected in the soil as follows:

- TPH-d concentrations ranged from <1.0 mg/kg to 73 mg/kg (SB-23.12).
- Concentrations of TPH-g ranged from <1.0 to 310 mg/kg (SB-23-12).
- MTBE was not detected above the laboratory reporting limit in all soil samples.
- Benzene was detected at concentrations ranging from <0.005 mg/kg to 1.3 mg/kg (SB-23-12).
- Toluene concentrations ranged from <0.005 mg/kg to 0.31 mg/kg (SB-23-12).
- Concentrations of ethyl benzene ranged from <0.005 mg/kg to 4.3mg/kg (SB-23-12).
- Detections of xylenes ranged from <0.005 mg/kg to 0.11 mg/kg (SB-23-12 and SB-25-12).

Soil analytical data is displayed on Table 1 and a copy of the laboratory analytical reports is included in Appendix C.

3.4 Groundwater Analytical Results

Petroleum hydrocarbons were detected in the groundwater samples as follows:

- TPH-d was detected in each of the borings SB-23 through SB-31 (except SB-29 and SB-30 which were non-detectable) at concentrations ranging from 72 µg/L (SB-28) to 4,800 µg/L (SB-23).
- TPH-g concentrations in borings SB-23 through SB-31 (except SB-29 and SB-30 which were non-detectable) ranging from <50 µg/L to 46,000 µg/L (SB-23).
- MTBE was not detected above the reporting limit in all groundwater samples.
- Benzene concentrations in borings SB-23 through SB-31 ranged from <0.5 µg/L to 9,000 µg/L (SB-23).
- Toluene was detected in borings SB-23 through SB-31 at concentrations ranging from <0.5 µg/L to 40 µg/L (SB-23).
- Ethylbenzene was detected in borings SB-23 through SB-31 at concentrations ranging from <0.5 µg/L to 2,300 µg/L (SB-23).
- Xylenes concentrations in borings SB-23 through SB-31 ranged from <0.5 µg/L to 5,200 µg/L (SB-23).

Groundwater analytical results are displayed on Table 2 and Figure 4. A copy of the laboratory analytical report is included in Appendix C.

4.0 GEOLOGY AND HYDROLOGY

Sediments logged during the recent investigation typically consisted of heterogenous, fine grained sediments (a combination of silt, sand, and clay) just below the asphalt surface to depths ranging from approximately 4.5 to 10 feet bgs. The silty/sandy clay is underlain by interbedded layers of silty clay, clayey sand and silty gravel with varying amounts of fine to coarse grained sand to depths ranging from approximately 5 feet bgs to 9 feet bgs. This in turn is underlain by gravelly mixtures of sand, silt and clay up to 5 feet in thickness, the top of which ranged from approximately 9 to 16 feet bgs in SB-6. Silty clay sediments were encountered below the gravelly sediments. A detailed description of the sediments and field measurements are included on boring logs in Appendix A.

Groundwater was present in all borings; although, the borings were slow to produce water in several locations. Groundwater in the remaining borings was present at varying depths of approximately 8 to 14 feet bgs. Fine grained, low transmissivity sediments interbedded with more permeable and transmissive coarse (sand and gravel) soils are not uncommon in this area of the East Bay.

5.0 PRELIMINARY SITE CONCEPTUAL MODEL (SCM)

Previous investigations have identified a release of petroleum hydrocarbon fuel product from the former fuel UST. Soil and groundwater samples have been collected by AEI from thirty-one (31) soil borings from the vicinity of the former UST along with those from the prior limited investigation. The primary contaminants detected in the soil and groundwater consists of gasoline, diesel, and BTEX. Maximum concentrations of these contaminants are summarized in the following table.

Exhibit 1: Identified Contaminant of Concern

Contaminant	Maximum Concentration (Sample ID)	
	Soil in mg/kg	Groundwater in µg/l
TPH-g	1,200 (SB-1-7.5)	120,000 (S-4)
TPH-d	850 (SW)	34,000 (Pit Water)
Benzene	6.9 (SB-10-11.5)	10,000 (SB-11-W)
Toluene	2.5 (SB-1-7.5)	930 (Pit Water)
Ethylbenzene	24 (SB-1-7.5)	3,500 (S-4)
Total Xylenes	110 (SB-1-7.5)	7,900 (SB-11-W)

Qualitative notes in the laboratory analytical reports suggest that although TPH-d has been detected that these detections are indicative of significant gasoline range compounds. The presence of high concentrations of benzene, not typically a component of diesel fuel, suggests that the UST was historically utilized for gasoline. The lower concentrations of TPH-d detected onsite are likely the result of range overlap with the analytical method (EPA Method 8015).

Soil impact has been identified just above the water table, within the capillary fringe soils. As is typical of a gasoline release, the primary mechanism for lateral contaminant movement is the flow of shallow groundwater. A significant portion of contaminated soil is located in the vadose and

saturated zone soils, with the highest concentrations detected between approximately 7.5 feet and 11.5 feet bgs. Soil and groundwater sample analytical data is presented in Tables 1 and 2. Refer to Figure 4 for a site plan showing dissolved phase petroleum concentrations and to Figures 6 and 7 for cross sections through the site.

5.1 Data Gaps

Based on the initial investigations of October and December 2007 and May 2008, the nature, size and extent of the release have been broadly defined. A monitoring program will be required for the site to identify flow directions, gradients, and concentration trends. Additional data that can be gathered from monitoring wells include hydraulic conductivity, effects of various physical or chemical remedial activities (such as during pilot testing) and additional chemical analyses if needed. Information on nearby potentially impacted receptors has not been conducted.

5.2 Proposed Next Steps

In the near future AEI and the property owner plans to proceed with a source removal excavation (see Section 6.0) while beginning a groundwater monitoring program (See Section 7.0). Monitoring data will be utilized to better understand contaminant migration, to monitor improvements to groundwater conditions following source removal, and success of pilot testing and treatment.

6.0 INTERIM SOURCE REMOVAL EXCAVATION

The purpose of this interim remedial action will be to remove the more accessible portion of the petroleum hydrocarbon source material in the soils. This will limit further spread of the dissolved phase plume. However due to the presence of the building and well as the size and distribution of the impact this removal action is not intended to remove all impacted soil.

An outline of proposed excavation limits are presented on Figure 3. The excavation will extend vertically to a depth of approximately 14 feet, the approximate depth of the bottom of the more highly impacted soils. The estimated volume of soil is approximately 995 cubic yards. This area is adjacent to the former UST and where the dispenser was located and contains some of the more impacted soil. As this excavation work inside the building proceeds, possibly excavating soil from around the former UST will be assessed. Complications include structural and stability concerns with the building and adjacent public street and residence, utilities, and permitting issues. The ACHCSA will be notified of specifications if excavation is to proceed in the sidewalk area.

The owner will prepare the site for the excavation, including engineering assessment of the building foundation, removal of the concrete slab, preparation of the staging areas, and removal of un-impacted soils. AEI will perform the excavation and handling of petroleum impacted soil. The target soils will be profiled into a landfill facility and transported under appropriate manifest for disposal. The excavation will be adequately sloped for stability and clean overburden stockpiled separate from impacted soil for possible reuse. As a contingency, groundwater and light non-aqueous phase liquid (LNAPL), if present, would be pumped from the excavation into a 21,000 gallon holding tank for either transportation to an approved treatment / recycling facility or for

onsite treatment and permitted discharge to the sanitary sewer. The excavation progress will be monitored by the Project Geologist and, upon completion, confirmation samples collected at approximately 1 per 20 feet of sidewall. Samples will be analyzed for TPH-g, TPH-d and BTEX.

The resulting excavation cavity will be secured at all times from access while open. Once excavation, sampling, and dewatering are completed the excavation will be backfilled. Depending on the conditions encountered, the excavation may be left open for additional dewatering or in-situ treatment. If overburden from the excavation is to be used for backfilling, it will be stockpiled separate from the impacted soils and sampled at a frequency of 1 sample per 100 cubic yards and analyzed for TPHg/d and BTEX prior to emplacement to ensure that residential land use conditions are met. Data will be provided to ACHCSA for review prior to re-use. Backfill will be emplaced and adequately compacted.

7.0 MONITORING WELL INSTALLATION

Based on the existing site data, seven well locations are proposed. Well installation procedures and a groundwater monitoring program are presented below.

7.1 Well Installation

AEI proposes to install seven groundwater monitoring wells (MW-1 through MW-7). The purpose of groundwater monitoring is to determine flow direction, hydraulic gradient, and monitor stability of dissolved phase contaminant plume. The proposed locations of the wells are presented on Figure 3. A summary of the proposed wells is presented below, along with completion details and purpose of each.

Exhibit 2: Proposed Wells

Well ID	*Location / Purpose*	*Casing Diameter (inches)*	*Screen interval (ft bgs)*
MW-1	Nearest to abandoned tank area to assess source area.	4	7 – 17
MW-2	Northwest of abandoned tank area to assess source area.	4	7 – 17
MW-3	West of abandoned tank area to assess adjacent property	4	7 – 17
MW-4	Northwest of source area to assess northwest (possibly down-gradient) extent of plume	2	7 – 17
MW-5	West of source area to assess adjacent property	2	7 – 17
MW-6	Northwest of source area to assess northwest extent of plume	2	7 – 17
MW-7	Southeast of abandoned tank location to assess alternate position of source area.	2	7 – 17

Well installation work will be performed under ACPW permit by a C57 licensed drilling contractor. The wells will be installed in borings drilled with a limited-access rotary drilling rig, running 8¼ or 10½ diameter hollow stem augers, as needed based on the well

casing size. The boreholes will be advanced to a tentative target depth of 17 feet bgs. The wells will be constructed with 2" to 4" diameter well casings, planned with 10' of factory slotted 0.020 inch well screen set from 7 to 17 feet. If feasible given the access limitation, a drill rig capable of collecting continuous samples will be utilized. Otherwise, samples will be collected with a split spoon sampler every 5 feet to log the boring and for possible chemical analyses.

The well casings will be installed through the augers. The casing will be flush threaded PVC and fitted with a bottom sump. An annular sand pack will be installed through the augers, to approximately 1 foot above the top of slotted casing, in 1-foot lifts. A bentonite seal will be placed above the sand and the remainder of the boring will be sealed with cement grout. Each well will be finished with an expanding, lockable inner cap and a flush-mounted well box.

The wells will be developed no sooner than 3 days after setting the well seals by surging, bailing, and purging to stabilize the sand pack and remove accumulated fines from the casing and sand pack. Each well will be surveyed relative to each other and mean sea level by a California licensed land surveyor, with accuracy appropriate for Geotracker uploads

7.2 Quarterly Monitoring Activities

Monitoring and sampling of the resulting network of wells will occur on a quarterly basis tentatively for a period of one year under this work plan, with the first episode to occur within approximately one week of well development.

During each monitoring event, water levels will be measured in each well. Wells will be purged of at least 3 well volumes of water prior to sample collection. During purging the following water quality measurements will be collected using a peristaltic pump.

During purging the pump rate will be maintained at less than 0.5 liter per minute with the draw tube at a depth of approximately 18" below the top of standing water in the well. The standard groundwater parameters of pH, temperature, conductivity, dissolved oxygen (DO) and oxidation-reduction potential (ORP) will be measured. Groundwater samples will be collected when the groundwater parameters stabilize to the extent reasonable. Stabilization will be defined as follows: pH ± 0.1 units, conductivity ± 3% µs/cm, DO ± 0.3 milligrams per liter, and ORP ± 10 millivolts.

Groundwater samples will be collected with new, unused disposable bailers into appropriate laboratory-supplied containers. During the first monitoring event, the groundwater samples will be analyzed for the following:

- TPH-g by EPA Method 8015M
- TPH-d with silica gel cleanup by EPA Method 8015M
- BTEX and MTBE by EPA Method 8021B

Depending on the findings of the initial monitoring event, modifications to the monitoring program or the addition of specific analyses (such as those for natural attenuation assessment or used in evaluating chemical oxidation methods) may be performed or recommended in the assessment report.

7.3 Waste Storage

Drill cuttings will be stockpiled with the excavated soil or stored with other Investigation-Derived Waste (IDW) onsite in sealed 55-gallon drums, pending the results of sample analyses. Equipment rinse water and well purge water will be stored in 55-gallon drums. Upon receipt of necessary analytical results, the waste will be profiled for disposal and transported from the site under appropriate manifest to approved disposal or recycling facility(s).

8.0 SITE SAFETY

Prior to implementing excavation and/or monitoring well installation activities onsite, AEI will prepare a site specific Health and Safety Plan conforming to Part 1910.120 (i) (2) of 29 CFR. Prior to commencement of field activities, a site safety meeting will be held at a designated command post near the working area. The Health and Safety Plan will be reviewed and emergency procedures will be outlined at this meeting, including an explanation of the hazards of the known or suspected chemicals of interest. All site personnel will be in Level D personal protection equipment, which is the anticipated maximum amount of protection needed. A working area will be established with barricades and warning tape to delineate the zone where hard hats, steel-toed shoes and safety glasses must be worn, and where unauthorized personnel will not be allowed. The site Health and Safety Plan will be on site at all times during each phases of the project.

9.0 PRELIMINARY REMEDIAL OPTION EVALUATION

The excavation proposed in Section 6.0 will remove an accessible portion of source contamination, however, excavation as a means to remediate the entire dissolved phase plume area and sorbed phase impact may not be a cost-effective remedial approach. As the remedial excavation is completed and data becomes available from the monitoring events, an evaluation of the extent to which alternative remedial actions are needed and which methods may be most effective. This evaluation will include the following criteria:

- Dissolved phase contaminant concentrations in monitoring wells;
- The presence and thickness of free phase product, if any, within the remedial excavation and/or monitoring wells;
- Possibly complete exposure pathways (drinking water, vapor intrusion, director contact, etc.)
- Groundwater flow direction and gradient;
- Timing of proposed property transaction and tentative redevelopment plans;
- Comments and input from ACHCSA.

Remedial methods to be considered for the site will include in situ chemical oxidation (ozone sparging, persulfate or peroxide injections, etc.), vapor extraction / air sparging and/or high-

vacuum dual phase extraction if free product is present, additional excavation and dewatering, and enhanced aerobic bioremediation. Once remedial excavation is completed and monitoring wells are installed, an area of the plume can be targeted for field feasibility testing of a remedial alternative. In addition to the contaminant analyses outlined in Section 7.0, select soil and groundwater samples will be analyzed for the following properties and characteristics during the well installation and subsequent sampling: Soil Oxidant Demand, Total Inorganic Carbon, Chemical Oxidant Demand EPA 410.4, total and dissolved metals by EPA 6010 and 200.7 including manganese, iron, chromium, alkalinity, and macronutrients. When a field pilot testing is proposed or if an additional remedial investigation is required, a workplan will be prepared for ACHCSA if needed.

10.0 SCHEDULE AND REPORTING

The ACHCSA will be given notification of field work as it is scheduled. It is expected that the removal action and well installation work will be completed in July and August 2008. AEI will prepare and issue a report following receipt of all necessary data from the investigation and source excavation. The report will include logs of borings, data tables, figures of excavation, drilling and sampling locations, copies of laboratory analytical reports and disposal documentation. A written discussion of the history, methods and findings, and recommendations will be included, as warranted by the findings. Site data will be uploaded as necessary into the GeoTracker database, as necessary. The project will be overseen and the report(s) signed by an AEI California registered professional geologist or engineer.

11.0 LIMITATIONS AND SIGNATURES

This plan has been prepared by AEI Consultants on behalf of the Ms. Zimmerman which outlines proposed activities relating to the environmental release at the property located at 3442 Adeline Street, located in the City of Oakland, Alameda County, California. The plan outlined in this report has been based on previous field investigations, laboratory testing of material samples, and evaluations performed by AEI and others. AEI is not responsible for the accuracy or quality of work performed by others, information not available or provided to AEI, and other data or information gaps. This report does not reflect subsurface variations that may exist between sampling points. These variations cannot be anticipated, nor could they be entirely accounted for, in spite of exhaustive additional testing. This document should not be regarded as a guarantee that no further contamination, beyond that which could have been detected within the scope of past investigations is present beneath the property or that all contamination present at the site will be identified, treated, or removed. Undocumented, unauthorized releases of hazardous material(s) and petroleum products, the remains of which are not readily identifiable by visual inspection and/or are of different chemical constituents, are difficult and often impossible to detect within the scope of a chemical specific investigation and may or may not become apparent at a later time. All specified work will be performed in accordance with generally accepted practices in environmental engineering, geology, and hydrogeology and will be performed under the direction of appropriate California registered professional(s).

We look forward to comments and concurrence with the scope of work outlined herein. Should you have any questions or need additional information, please contact us at 925/944-2899.

Sincerely,
AEI Consultants

Harmony TomSun
Staff Geologist

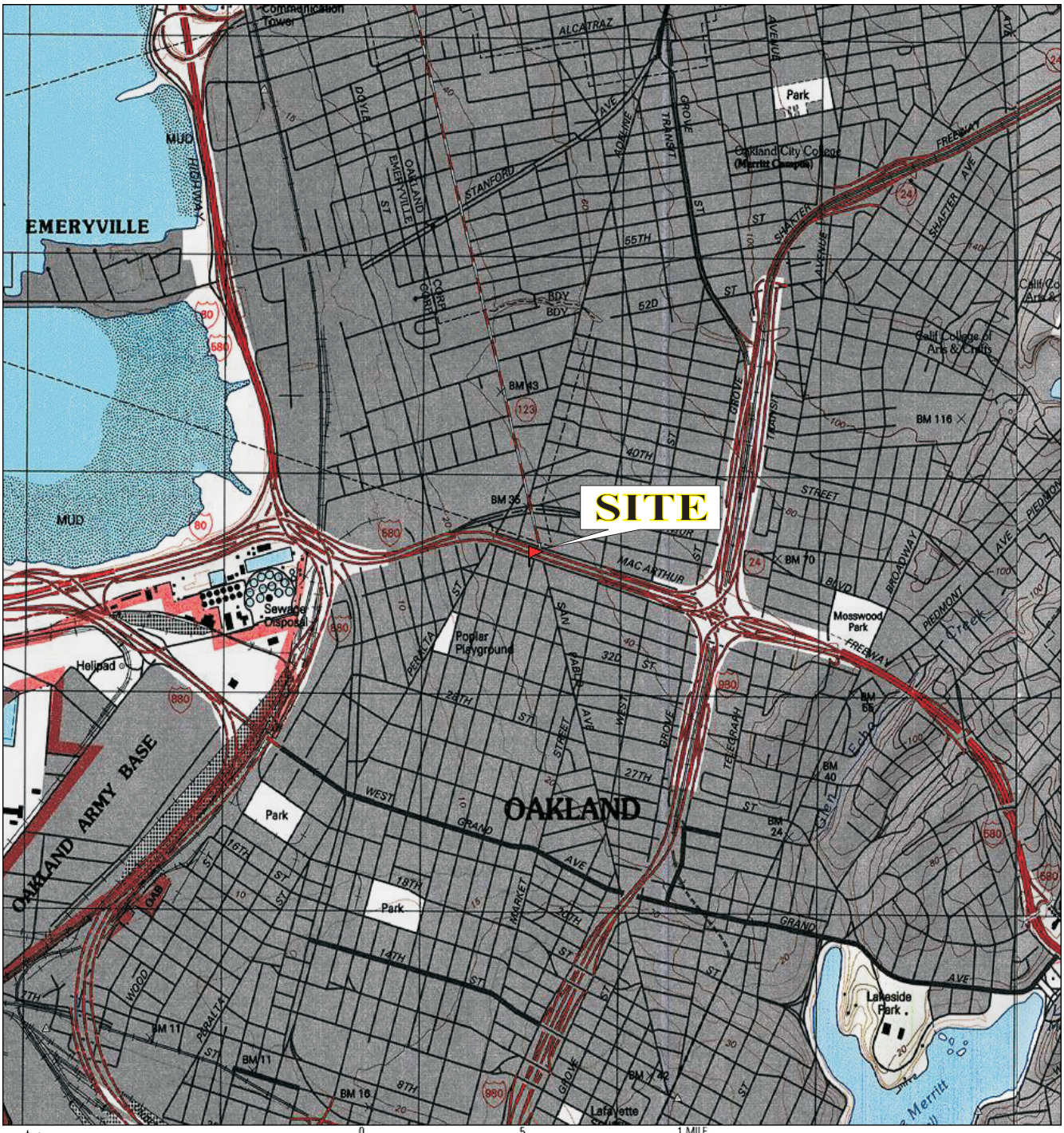
Peter J. McIntyre, PG, REA
Senior Project Manager

REGISTERED GEOLOGIST
PETER J. MCINTYRE
Exp. 5/31/10
No. 7702
STATE OF CALIFORNIA

Adrian M. Angel
Project Geologist

Distribution:
Ms. Steffi Zimmerman, 6330 Swainland Road, Oakland, CA 94611
Mr. Stephen Plunkett, ACHCSA, 1131 Harbor Bay Parkway, Alameda, CA 94502

FIGURES



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AEI CONSULTANTS
2500 Camino Diablo, Suite 200, Walnut Creek, CA 94597

Site Location

3433 Chestnut Street
Oakland, CA 94608

FIGURE 1
Job No: 274761

Property Boundary

Former UST Area

Approximate Scale:
1 inch = 55 feet

0’ 55’

N

AEI Consultants

2500 Camino Diablo, Suite 200, Walnut Creek, CA 94597

Site Plan

3433 Chestnut St.
Oakland, CA 94608

FIGURE 2
Job No: 274761

34th Street

B

SB-19

SB-18

SB-7

VB-3

SB-8

SB-1

VB-1

SB-2

VB-2

SB-3

SB-23

A'

S4

S3

S1

S2

SB-17

SB-9

SB-4

SB-5

SB-12

SB-21

SB-24

SB-31

A

SB-10

SB-22

SB-20

SB-13

SB-11

SB-15

SB-14

SB-16

SB-25

SB-26

SB-30

SB-6

B'

SB-27

SB-28

SB-29

Hotel California

Chestnut Street

Adeline Street

35th Street

580 Freeway

LEGEND

- Soil Boring
- Former UST
- Proposed Excavation Area
- Fence Diagram A-A'
- Fence Diagram B-B'

DRAFTED BY
REVISED BY

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AEI CONSULTANTS
2500 CAMINO DIABLO, SUITE 200, WALNUT CREEK

Site Plan

3442 Adeline Street
Oakland, CA 94608

FIGURE 3
PROJECT NO. 274761

34th Street

Hotel California

Chestnut Street

Adeline Street

35th Street

580 Freeway

G-<50
D-280
B-<0.5
SB-19

G-2,000
D-1,000
B-30
SB-7

G-<50
D-1,800
B-<0.5
SB-18

G-6,700
D-1,600
B-110
SB-8

G-28,000
D-6,100
B-2,000
SB-1

MW-1

G-640
D-300
B-1.8
SB-2

G-84
D-<50
B-2.4
SB-3

MW-3

G-46,000
D-4,800
B-9,000
SB-23

MW-5

G-1,100
D-320
B-<0.5
SB-17

MW-7

S4
S1
S3
S2

G-20,000
D-2,200
B-6,600
SB-4

G-22,000
D-7,400
B-1,900
SB-5

G-35,000
D-4,900
B-5,200
SB-12

G-8,100
D-1,200
B-1,600
SB-21

G-11,000
D-5,700
B-440
SB-9

G-17,000
D-4,300
B-3,800
SB-10

G-83,000
D-4,300
B-10,000
SB-11

MW-2

G-28,000
D-3,900
B-3,400
SB-20

G-29,000
D-5,100
B-5,300
SB-13

G-2,600
D-620
B-110
SB-22

MW-4

G-11,000
D-2,900
B-80
SB-24

MW-6

G-5,100
D-770
B-270
SB-31

G-88
D-480
B-0.60
SB-16

G-36,000
D-3,000
B-7,700
SB-15

G-23,000
D-12,000
B-2,600
SB-14

G-3,600
D-1,300
B-42
SB-25

G-2,300
D-770
B-22
SB-26

G-<50
D-<50
B-<0.5
SB-30

G-440
D-NA
B-17
SB-6

G-290
D-72
B-1.3
SB-28

G-740
D-180
B-7.4
SB-27

G-<50
D-<50
B-<0.5
SB-29

LEGEND

- Soil Boring
- Proposed Monitoring Well
- Former UST
- Surrounding Property Boundaries

G - Total Petroleum Hydrocarbons as Gasoline (µg/L)
D - Total Petroleum Hydrocarbons as Diesel (µg/L)
B - Benzene (µg/L)

DRAFTED BY
REVISED BY

S W E N

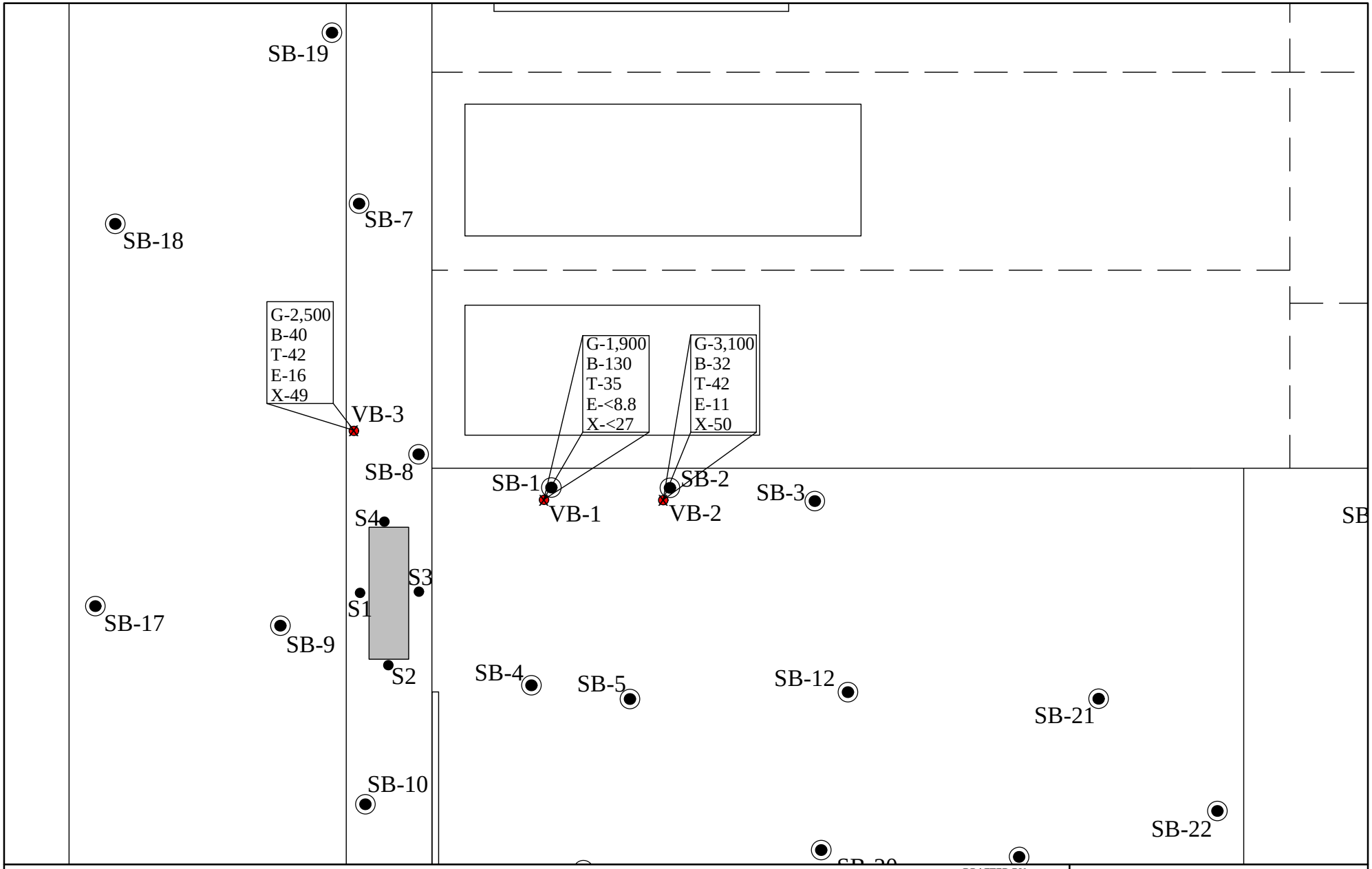
0 20 40

AEI CONSULTANTS
2500 CAMINO DIABLO, SUITE 200, WALNUT CREEK

Groundwater Analytical Data

3442 Adeline Street
Oakland, CA 94608

FIGURE 4
PROJECT NO. 274761



LEGEND

- Soil Vapor Boring
- Soil Boring
- Former UST
- Surrounding Property Boundaries

G - Total Petroleum Hydrocarbons as Gasoline
B - Benzene
T - Toluene
E - Etheylbenzene
X - Xylenes

0 10 20

S W E N

DRAFTED BY
REVISED BY

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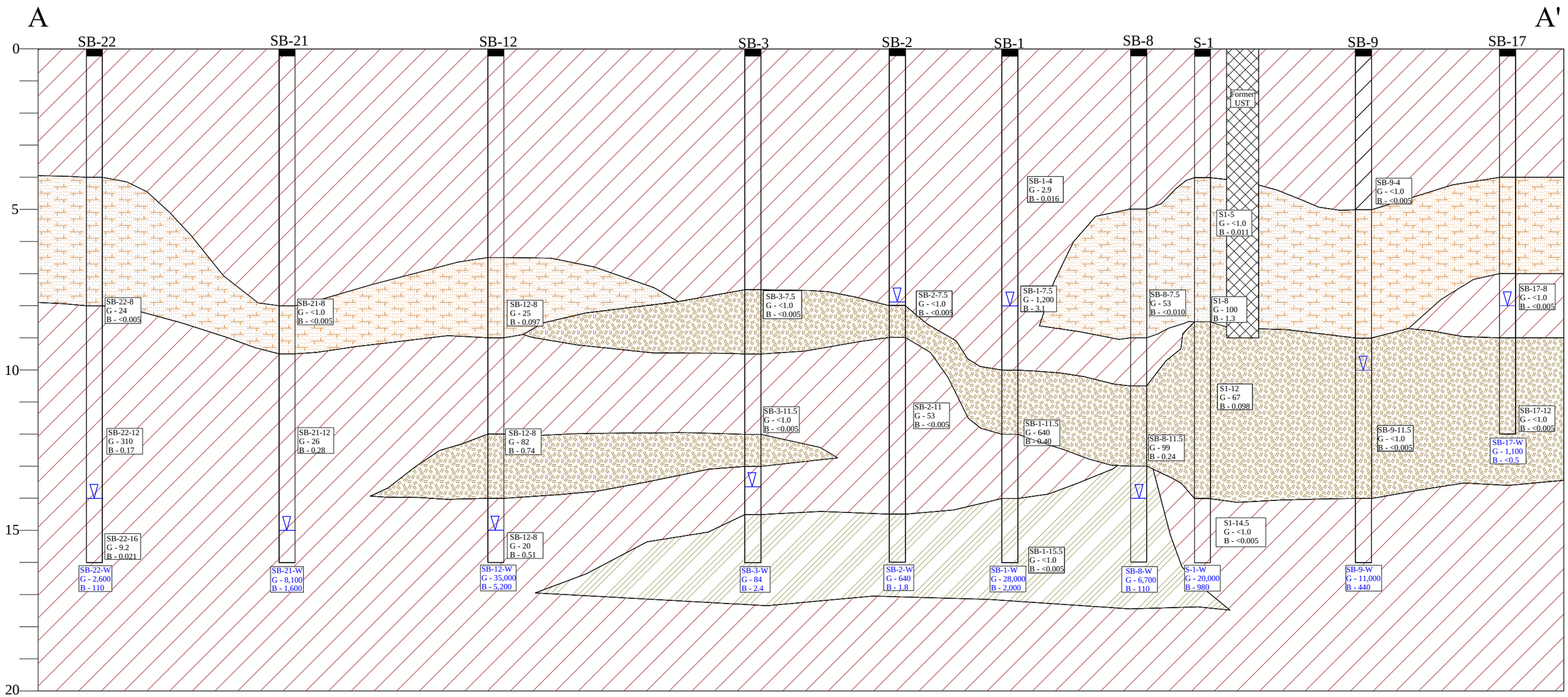
2500 CAMINO DIABLO, SUITE 200, WALNUT CREEK

Soil Vapor Analytical Data

3442 Adeline Street
Oakland, CA 94608

FIGURE 5
PROJECT NO. 274761



Silty Clay

Fat Silty Clay

Clayey Sand

Gravelly Clay

G - Total Petroleum Hydrocarbons as Gasoline

B - Benzene

Groundwater Level (ATD)

SB-12-8
G - 20
B - 0.51
Soil Analyses (mg/kg)

SB-12-W
G - 35,000
B - 5,200
Water Analyses (µg/L)

0 10 20 Horizontal Scale (feet)

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2500 CAMINO DIABLO, STE. 100, WALNUT CREEK, CA

Fence Diagram A-A'

3433 Chestnut St.
Oakland, CA 94608

FIGURE 6
PROJECT NO. 274761

B

B'

SB-19

SB-7

SB-8

SB-10

SB-16

SB-6

0

5

10

15

20

Former UST Excavation

SB-19-8
G - <1.0
B - <0.005

SB-19-12
G - 6.7
B - <0.005

SB-19-W
G - <50
B - <0.5

SB-7-7.5
G - 310
B - <0.10

SB-7-11.5
G - 120
B - 0.21

SB-7-W
G - 2,000
B - 30

SB-8-7.5
G - 53
B - <0.010

SB-8-11.5
G - 99
B - 0.24

SB-8-W
G - 6,700
B - 110

SB-10-7.5
G - 35
B - 0.72

SB-10-11.5
G - 750
B - 6.9

SB-10-15.5
G - <1.0
B - 0.012

SB-10-W
G - 17,000
B - 3,800

SB-16-8
G - <1.0
B - <0.005

SB-16-W
G - 88
B - 0.60

SB-6-7.5
G - <1.0
B - <0.005

SB-6-11.5
G - <1.0
B - <0.005

SB-6-W
G - 440
B - 17

Silty Clay

Fat Silty Clay

Gravelly Silt/Clay

Gravelly Sand/Silt

G - Total Petroleum Hydrocarbons as Gasoline

B - Benzene

Groundwater Level (ATD)

SB-12-8
G - 20
B - 0.51
Soil Analyses (mg/kg)

SB-12-W
G - 35,000
B - 5,200
Water Analyses (µg/L)

0 10 20

Horizontal Scale (feet)

AEI CONSULTANTS
2500 CAMINO DIABLO, STE. 100, WALNUT CREEK, CA

Fence Diagram B-B'

3442 Adeline Street
Oakland, CA 94608

FIGURE 7
PROJECT NO. 274761

TABLES

Table 1: Soil Sample Analytical Data
3433 Chestnut St. Oakland, CA 94608
AEI Project #274761

Sample ID	Depth	Date	TPH-d	TPH-g	MTBE	Benzene	Toluene	E-Benzene	Xylenes	TAME	TBA	DIPE	ETBE	MTBE
			Method 8015C			*Method 8021B*				*Method 8260B*				
	ft		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NW	*6.5*	2/22/2000	130	130	---	0.16	0.26	0.73	6.3	---	---	---	---	---
SW	*6.5*	2/22/2000	850	920	---	0.3	0.37	5.3	22	---	---	---	---	---
S-1	*5*	6/23/2006	5.6	<1.0	---	0.011	<0.0050	<0.0050	<0.0050	---	---	---	---	---
	8		26	100	---	1.3	0.22	2.0	7.2	---	---	---	---	---
	12		45	67	---	0.098	<0.025	0.73	0.39	---	---	---	---	---
	14.5		1.2	<1.0	---	<0.0050	<0.0050	<0.0050	0.01	---	---	---	---	---
S-2	*4*	6/23/2006	4.7	<1.0	---	0.016	<0.0050	<0.0050	<0.0050	---	---	---	---	---
	7.5		84	460	---	1.2	0.36	9.4	24	---	---	---	---	---
	12		49	61	---	0.33	0.055	0.84	2.4	---	---	---	---	---
	14		<1.0	<1.0	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
S-3	*3.5*	6/23/2006	3.1	<1.0	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
	7.5		250	1,200	---	0.47	0.52	18	100	---	---	---	---	---
	10		76	220	---	0.26	<0.040	6.2	7.2	---	---	---	---	---
	14.5		1.3	<1.0	---	<0.0050	<0.0050	0.0056	0.016	---	---	---	---	---
S-4	*3.5*	6/23/2006	3.5	<1.0	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
	7.5		240	820	---	<0.20	<0.20	6.7	4.4	---	---	---	---	---
	11.5		120	500	---	0.079	<0.040	3.5	4.8	---	---	---	---	---
	14.5		1.3	<1.0	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
SB-1	4	10/1/2007	---	2.9	<0.05	0.016	0.0079	<0.005	0.0094	---	---	---	---	---
	7.5		450	1,200	<5.0	3.1	2.5	24	110	---	---	---	---	---
	11.5		90	640	<2.5	0.40	1.5	9.3	23	<0.33	<3.3	<0.33	<0.33	<0.33
	15.5		---	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
SB-2	7.5	10/1/2007	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	11		6.1	53	<0.05	<0.005	0.24	0.0084	0.19	<0.005	<0.05	<0.005	<0.005	<0.005
SB-3	7.5	10/1/2007	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	11.5		<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005
SB-4	3.5	10/1/2007	---	1.2	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	7.5		170	430	<1.0	1.2	0.99	3.6	1.2	---	---	---	---	---
	11.5		25	340	<1.0	2.4	0.92	7.1	9.7	<0.005	<0.05	<0.005	<0.005	<0.005
	15.5		---	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
SB-5	3.5	10/1/2007	---	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	7.5		54	420	<1.5	4.0	1.1	9.5	18	---	---	---	---	---
	11.5		22	130	<1.0	0.43	0.10	1.2	0.77	<0.005	<0.05	<0.005	<0.005	<0.005
	15.5		---	<1.0	<0.05	0.017	<0.005	<0.005	<0.005	---	---	---	---	---

Table 1: Soil Sample Analytical Data
3433 Chestnut St. Oakland, CA 94608
AEI Project #274761

Sample ID	Depth	Date	TPH-d	TPH-g	MTBE	Benzene	Toluene	E-Benzene	Xylenes	TAME	TBA	DIPE	ETBE	MTBE
			Method 8015C			*Method 8021B*				*Method 8260B*				
	ft		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
SB-6	7.5	10/1/2007	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	11.5		<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005
SB-7	7.5	10/3/2007	90	310	<1.0	<0.10	0.48	0.28	0.38	---	---	---	---	---
	11.5		37	120	<0.50	0.21	0.069	0.39	0.22	<0.020	<0.20	<0.020	<0.020	<0.020
SB-8	7.5	10/3/2007	23	53	<0.10	<0.010	0.030	0.034	0.13	---	---	---	---	---
	11.5		13	99	<0.17	0.24	0.070	0.66	0.46	<0.010	<0.10	<0.010	<0.010	<0.010
SB-9	4	10/3/2007	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	11.5		<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005
SB-10	7.5	10/3/2007	5.1	35	<0.10	0.72	0.024	0.47	0.079	---	---	---	---	---
	11.5		74	750	<10	6.9	1.6	13	33	<0.10	<1.0	<0.10	<0.10	<0.10
	15.5		---	<1.0	<0.05	0.012	<0.005	<0.005	0.0052	---	---	---	---	---
SB-11	11.5	10/3/2007	13	39	<0.3	0.68	0.086	0.76	2.3	---	---	---	---	---
	15.5		10	41	0.14	1.1	0.071	0.55	1.5	---	---	---	---	---
SB-12	8	12/20/2007	1.8	25	<0.10	0.097	0.024	0.81	1.3	---	---	---	---	---
	12		23	82	<0.50	0.74	0.14	1.5	2.9	---	---	---	---	---
	16		---	20	<0.25	0.51	0.083	0.48	1.8	---	---	---	---	---
SB-13	8	12/20/2007	66	180	<0.50	0.46	0.10	2.5	2.7	---	---	---	---	---
	12		74	170	<0.50	1.1	0.21	2.4	6.7	---	---	---	---	---
	16		<50	5.7	<0.05	0.87	0.017	0.12	0.10	---	---	---	---	---
SB-14	8	12/20/2007	<1.0	<1.0	<0.05	0.0092	<0.005	<0.005	<0.005	---	---	---	---	---
	12		83	910	<2.5	3.3	0.43	10	16	---	---	---	---	---
	16		---	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
SB-15	8	12/20/2007	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	12		61	390	<2.5	2.7	0.47	6.7	13	---	---	---	---	---
	16		---	40	<0.1	0.26	0.047	0.37	1.3	---	---	---	---	---
SB-16	8	12/20/2007	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
SB-17	8	12/20/2007	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	12		<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
SB-18	8	12/20/2007	18	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
SB-19	8	12/20/2007	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	12		<1.0	6.7	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---

Table 1: Soil Sample Analytical Data
3433 Chestnut St. Oakland, CA 94608
AEI Project #274761

Sample ID	Depth	Date	TPH-d	TPH-g	MTBE	Benzene	Toluene	E-Benzene	Xylenes	TAME	TBA	DIPE	ETBE	MTBE
			Method 8015C			*Method 8021B*				*Method 8260B*				
	ft		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
SB-20	8	12/20/2007	9.7	89	<0.25	0.070	0.14	0.050	0.14	---	---	---	---	---
	12		32	99	<0.17	0.61	0.061	1.6	1.4	---	---	---	---	---
	16		---	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
SB-21	8	12/21/2007	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	12		5.8	26	<0.05	0.28	0.048	0.31	0.30	---	---	---	---	---
SB-22	8	12/21/2007	<1.0	24	<0.05	<0.005	0.070	0.016	0.059	---	---	---	---	---
	12		150	310	<1.7	0.17	<0.17	4.1	3.2	---	---	---	---	---
	16		---	9.2	<0.05	0.021	0.032	0.0052	0.0083	---	---	---	---	---
SB-23	8	5/7/2008	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	12		73	310	<3.0	1.3	0.31	4.3	0.11	---	---	---	---	---
SB-24	8	5/7/2008	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	12		3.4	15	<0.15	0.011	0.023	0.020	0.044	---	---	---	---	---
	16		<1.0	41	<0.50	<0.050	<0.050	0.11	0.11	---	---	---	---	---
SB-25	8	5/7/2008	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	12		12	48	<0.50	0.027	0.079	0.029	0.11	---	---	---	---	---
SB-26	8	5/7/2008	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	12		<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
SB-27	8	5/7/2008	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	12		4.2	27	<0.05	<0.005	0.10	<0.005	0.061	---	---	---	---	---
	16		1.5	4.8	<0.05	0.0053	0.020	<0.005	0.0074	---	---	---	---	---
SB-28	8	5/7/2008	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	12		1.6	19	<0.05	0.24	0.034	0.031	0.036	---	---	---	---	---
SB-29	8	5/7/2008	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	12		<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
SB-30	8	5/7/2008	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	12		<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
SB-31	8	5/7/2008	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	12		<1.0	1.9	<0.05	<0.005	0.016	<0.005	<0.005	---	---	---	---	---
ESL			83	83	0.023	0.044	2.9	3.3	2.3	---		---	---	---

Notes:

mg/kg = milligrams per kilogram
ESL = Environmental Screening Level
NW = Soil Sample Collected from northwest sidewall during excavation
SW = Soil Sample Collected from southwest sidewall during excavation
TPH-g = total petroleum hydrocarbons as gasoline
TPH-d = total petroleum hydrocarbons as diesel
E-Benzene = ethyl benzene
TAME = tert-amyl methyl ether
ETBE = ethyl tert-butyl ether
TBA = tertiary butyl alcohol
DIPE = Di-isopropyl Ether
MTBE = methyl tert-butyl ether

Table 2: Groundwater Sample Analytical Data
3433 Chestnut St. Oakland, CA 94608
AEI Project #274761

Sample ID	Date	TPH-d *Method 8015C* µg/L	TPH-g µg/L	MTBE µg/L	Benzene *Method 8021B* µg/L	Toluene µg/L	E-Benzene µg/L	Xylenes µg/L	TAME µg/L	ETBE µg/L	TBA *Method 8260B* µg/L	DIPE µg/L	MTBE µg/L
Pit Water	2/22/2000	34,000	7,400	---	3,300	930	400	6,200	---	---	---	---	---
S-1	6/23/06	<10,000	20,000	---	980	70	1,500	1,100	---	---	---	---	---
S-2	6/23/06	<4,000	31,000	---	7,000	260	920	2,800	---	---	---	---	---
S-3	6/23/06	<1,500	23,000	---	490	67	1,200	3,300	---	---	---	---	---
S-4	6/23/06	<40,000	120,000	---	200	<15	3,500	2,900	---	---	---	---	---
SB-1	10/1/2007	6,100	28,000	<170	2,000	77	1,600	4,100	<25	<25	<250	<25	<25
SB-2	10/1/2007	300	640	<5.0	1.8	2.2	1.1	4.9	<0.5	<0.5.	<5.0	<0.5	<0.5
SB-3	10/1/2007	<50	84	<5.0	2.4	<0.5	4.2	11	<0.5	<0.5.	<5.0	<0.5	<0.5
SB-4	10/1/2007	2,200	20,000	<600	6,600	110	390	430	<17	<17	430	<17	<17
SB-5	10/1/2007	7,400	22,000	<250	1,900	86	1,200	2,100	<5.0	<5.0	120	<5.0	<5.0
SB-6	10/1/2007	---	440	---	17	<0.5	0.99	2.2	<0.5	<0.5	18	<0.5	2.0
SB-7	10/3/2007	1,000	2,000	<25	30	5.1	56	82	<0.5	<0.5.	<5.0	<0.5	6.1
SB-8	10/3/2007	1,600	6,700	---	110	6.3	160	140	<0.5	<0.5	12	<0.5	<0.5
SB-9	10/3/2007	5,700	11,000	<50	440	14	720	1,000	<1.7	<1.7	37	<1.7	<1.7
SB-10	10/3/2007	1,700	17,000	<100	3,800	55	420	830	<10	<10	510	11	<10
SB-11	10/3/2007	4,300	83,000	---	10,000	640	2,700	7,900	<25	<25	840	<25	<25
SB-12	12/20/2007	4,900	35,000	<450	5,200	110	1,000	1,800	---	---	---	---	---
SB-13	12/20/2007	5,100	29,000	<250	5,300	80	1,400	3,900	---	---	---	---	---
SB-14	12/20/2007	12,000	23,000	<240	2,600	15	1,500	1,800	---	---	---	---	---
SB-15	12/20/2007	3,000	36,000	<350	7,700	190	1,600	4,700	---	---	---	---	---
SB-16	12/20/2007	480	88	<5.0	0.60	<0.5	<0.5	0.83	---	---	---	---	---

Table 2: Groundwater Sample Analytical Data
3433 Chestnut St. Oakland, CA 94608
AEI Project #274761

Sample ID	Date	TPH-d *Method 8015C* µg/L	TPH-g µg/L	MTBE µg/L	Benzene *Method 8021B* µg/L	Toluene µg/L	E-Benzene µg/L	Xylenes µg/L	TAME µg/L	ETBE µg/L	TBA *Method 8260B* µg/L	DIPE µg/L	MTBE µg/L
SB-17	12/20/2007	320	1,100	<5.0	<0.5	6.2	<0.5	4.2	---	---	---	---	---
SB-18	12/20/2007	1,800	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
SB-19	12/20/2007	280	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
SB-20	12/20/2007	3,900	28,000	<160	3,400	22	1,200	930	---	---	---	---	---
SB-21	12/21/2007	1,200	8,100	<50	1,600	<5.0	160	84	---	---	---	---	---
SB-22	12/21/2007	620	2,600	<10	110	0.90	150	55	---	---	---	---	---
SB-23	5/14/2008	4,800	46,000	<450	9,000	40	2,300	5,200	---	---	---	---	---
SB-24	5/14/2008	2,900	11,000	<50	80	<5.0	440	290	---	---	---	---	---
SB-25	5/9/2008	1,300	3,600	<5.0	42	1.90	65	36	---	---	---	---	---
SB-26	5/14/2008	770	2,300	<10	22	2.1	<1.0	2.4	---	---	---	---	---
SB-27	5/14/2008	180	740	<5.0	7.4	3.70	<0.5	1.0	---	---	---	---	---
SB-28	5/16/2008	72	290	<5.0	1.3	0.93	2.7	4.0	---	---	---	---	---
SB-29	5/16/2008	<50	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
SB-30	5/14/2008	<50	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
SB-31	5/14/2008	770	5,100	<110	270	6.3	79	7	---	---	---	---	---
ESL	---	100	100	5.0	1.0	40	30	20	---	---	50,000	---	---

Notes:
µg/L = micrograms per liter
ESL = Environmental Screening Level
TPH-g = total petroleum hydrocarbons as gasoline
TPH-d = total petroleum hydrocarbons as diesel
MTBE = methyl tert-butyl ether
E-Benzene = ethyl benzene
TAME = tert-amyl methyl ether
ETBE = ethyl tert-butyl ether
TBA = tertiary butyl alcohol
DIPE = Di-isopropyl Ether

Table 3: Soil Vapor Sample Analytical Data
3433 Chestnut St. Oakland, CA 94608
AEI Project #274761

Boring	Date	Isopropyl Alcohol	TPH-g	MTBE	Benzene	Toluene	Ethyl Benzene	Xylenes
					Method TO15			
		µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
VB-1	10/1/2007	<25	1,900	<48	130	35	<8.8	<27
VB-2	10/1/2007	<25	3,100	<48	32	42	11	50
VB-3	10/1/2007	<25	2,500	<48	40	42	16	49
ESL		---	26,000	9,400	85	63,000	420,000	150,000

µg/m^3 = micrograms per cubic meter

ESL = Environmental Screening Level

TPH-g = total petroleum hydrocarbons as gasoline

MTBE = methyl tert-butyl ether

APPENDIX A

BORING LOGS

Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-1

Sheet 1 of 1

Date(s) Drilled **October 1, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **8 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Other		Concrety/Top Soil - Gravelly Sand		
				CL		Silty Clay, Black, Poorly Graded, Low Plasticity, Roots, 5% Fine Grained Gravel, Stiff		
		X	SB-1-4				5.4	
	5			CL		Stiff Clay, Greenish Gray/Yellowish Brown, Low Plasticity, Poorly Graded		
		X	SB-1-7.5			(ATD)	35.7	
	10			GC		Gravelly Silty Clay, Coarse, Multi-Colored (green, gray, orange, yellowish-brown), Stiff, Low Plasticity		
		X	SB-1-11.5				350.1	
				CL		Silty Sandy Clay, Olive Greenish Gray, Soft, Moist		
				CH		Fat Clay, Light Yellowish Brown with Orange Veins, Poorly Graded, High Plasticity		
	15	X	SB-1-15.5				12.5	
						Bottom of Boring at 16 feet bgs		
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-2

Sheet 1 of 1

Date(s) Drilled **October 1, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **8 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Other		Top Soil/Fill Material		
				CL		Silty Clay, Black, Low Plasticity, Poorly Graded, Roots, 5% Fine Grained Gravel		
		☒	SB-2-3.5				5.5	
	5			CL		Gravelly Silty Clay, Dark Gray, Low Plasticity, Poorly Graded, 10% Fine Grained Gravel		
				CL		Silty Clay, Greenish Gray, Moderate Plasticity, 5% Fine Grained Gravel		
		☒	SB-2-7.5			(ATD) ▽	7.5	
				GC		Gravelly Sandy Clay, Multi-Colored (green, blue, orange, brown), Soft, Fine Grained Gravel		
				CL		Lean Silty Clay, Lean, Light Yellowish Brown and Greenish Gray, Moderate Plasticity		
	10	☒	SB-2-11				235.4	
				CL		Silty Clay, Light Yellowish Brown, 10% Fine Grained Gravel		
				CH		Fat Clay, Light Yellowish Brown with Orange Veins, High Plasticity, Moist		
	15	☒	SB-2-15.5				14.8	
						Bottom of Boring at 16 feet bgs		
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-3

Sheet 1 of 1

Date(s) Drilled **October 1, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **14 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Other		Top Soil/Fill Material		
				CL		Silty Clay, Black, Stiff, Low Plasticity, Poorly Graded, Fine Grained Gravel		
		X	SB-3-3.5				11.1	
	5			CL		Sandy Clay, Coarse Grained, Hard, Dark Reddish/Yellowish Brown, Tight, Dry		
		X	SB-3-7.5	GC		Gravelly Sandy Clay, Soft, Multicolored (yellow, orange, green, brown), Coarse Grained Sand, 15% Gravel	8.1	
	10			CL		Silty Clay, Stiff, Dry, Shells, Dark Brown/Black		
		X	SB-3-11.5				5.8	
				GC		Gravelly Sandy Clay, Soft, Dark Yellowish Brown, Coarse Grained Sand, 15% Gravel		
				CL		Sandy Clay, Coarse Grained Sand, Poorly Graded, Wet, High Plasticity (ATD) ▽		
	15			CH		Fat Clay, High Water Content, High Plasticity, Reddish/Yellowish Brown		
		X	SB-3-15.5				13.4	
						Bottom of Boring at 16 feet bgs		
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-4

Sheet 1 of 1

Date(s) Drilled **October 1, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Other		Fill Material/Top Soil		
				CL		Silty Clay, Black, Stiff, Low Plasticity, Poorly Graded, 5% Fine Grained Gravel		
		X	SB-4-3.5				12.9	
	5			ML		Silty Clay, Very Fine Grained, Stiff, Greenish Gray/Yellowish Brown, Low Plasticity, 5% Fine Grained Gravel		
		X	SB-4-7.5				225	
				GC		Gravelly Sandy Clay, Coarse Grained, Multicolored (green, gray, yellow, brown), Soft		
	10			CL		Silty Clay, Stiff, Dry, Greenish Gray, Low Plasticity		
				GC		Gravelly Sandy Clay, Greenish Grayish Brown, Soft, Moist, High Plasticity, Coarse Grained Sand, 10% Fine Grained Gravel		
		X	SB-4-11.5				411	
				CH		Fat Clay, Light Yellowish Brown with Orange Veins, High Plasticity, High Water Content		
	15	X	SB-4-15.5				9.1	
						Bottom of Boring at 16 feet bgs		
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-5

Sheet 1 of 1

Date(s) Drilled **October 1, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **11 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Other		Top Soil/Fill Material		
				CL		Silty Clay, Black, Stiff, Low Plasticity, Poorly Graded, Roots, 5% Fine Grained Gravel		
		X	SB-5-3.5				12.1	
	5			ML		Silty Clay, Light Yellowish Brown and Bluish Gray, Stiff, Dry, Shells, Low Plasticity		
		X	SB-5-7.5				339	
				GC		Gravelly Sandy Clay, Dark Olive Green, Soft, Coarse Sand, Fine Grained Gravel		
	10					(ATD) ▽		
		X	SB-5-11.5				167	
				CL		Silty Clay, Lean, Light Olive Greenish Gray with Orange Veins, Moderate Plasticity		
	15	X	SB-5-15.5				20.5	
	20					Bottom of Boring at 16 feet bgs		

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-6

Sheet 1 of 1

Date(s) Drilled **October 1, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Other		Top Soil/Fill Material		
				CL		Silty Clay, Black, Stiff, Dry, <5% Fine Grained Gravel		
		X	SB-6-3.5				7.8	
	5			CL		Gravelly Silty Clay, Light Yellowish Brown and Grayish Blue, Tight, 5% Fine Grained Gravel		
				GM		Gravelly Silty Sand, Light Yellow Reddish Brown, Well Graded, Wet, Very Fine Grained Gravel		
				CL				
		X	SB-6-7.5			Silty Clay, Light Yellowish Brown, Tight, Lean, Increasing Plasticity with Depth	13.2	
	10			SM		Silty Sand, Light Grayish White, Dry		
				GC		Gravelly Silty Clay, Dark Brown, Moderate Plasticity, 15% Fine Grained Gravel		
		X	SB-6-11.5				19.1	
				GC		Gravelly Silty Clay, Light Olive Green, Tight, Slight Plasticity, 10% Fine Grained Gravel		
	15	X	SB-6-15				11.3	
						Bottom of Boring at 16 feet bgs		
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-7

Sheet 1 of 1

Date(s) Drilled **October 3, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **8 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Concrete		
				SP		Coarse Sand, Dark Yellowish Brown, Loose, Wet		
				CL		Silty Clay, Black, Moderate Plasticity Decreasing with Depth, Gravel Quantity Increasing with Depth		
		☒	SB-7-3.5				57	
	5			GM		Gravelly Sandy Silt, Dark Gray, Dry, Fine Grained Gravel		
		☒	SB-7-7.5	CL		Silty Clay, Lean, Dark Greenish Gray, Moist, Moderate Plasticity (ATD) ▽	92	
				SM		Sandy Silt, Olive Green, Strong Hydrocarbon Odor, 5% Fine to Medium Grained Gravel		
	10	☒	SB-7-11.5	CL		Silty Clay, Greenish Gray, Tight, Lean, Moderate Plasticity	390	
				CL		Sandy Clay, High Water Content, Greenish Gray, High Plasticity, Coarse Grained Sand		
	15	☒	SB-7-15.5				52	
						Bottom of Boring at 16 feet bgs		
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-8

Sheet 1 of 1

Date(s) Drilled **October 3, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **14 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Concrete		
				CL		Silty Clay, Black, Low Plasticity, Increasing Gravel Content with Depth, Roots, <5% Fine Grained Gravel		
		X	SB-8-3.5				5.2	
	5			GM		Gravelly Silt, Dark Gray/Black, 20% Fine Grained Gravel		
		X	SB-8-7.5				44.1	
				CL		Silty Clay, Green Bluish Gray, Stiff, Low Plasticity		
	10			GC		Gravelly Silt, Dark Greenish Gray, 10% Coarse Grained Gravel, Strong Hydrocarbon Odor, Moist		
		X	SB-8-11.5				369	
				CH		Silty Clay, Dark Greenish Gray, Fat Clay, High Plasticity Decreasing with Depth		
						(ATD) ▽		
	15	X	SB-8-15.5				1.2	
						Bottom of Boring at 16 feet bgs		
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-9

Sheet 1 of 1

Date(s) Drilled **October 3, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **10.5 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Asphalt		
				CL		Silty Sandy Clay, Light Olive Brown with Orange Veins, Stiff, Moist		
		X	SB-9-4				439	
	5			GM		Gravelly Silty Sand, Dark Greenish Gray, Increasing Silt with Depth, Low Plasticity, Moist		
		X	SB-9-7.5				104	
		X	SB-9-9	GC		Gravelly Silty Clay, Olive, Stiff, Low Plasticity	353	
	10					(ATD) ▽		
				GC		Gravelly Silty Clay, Dark Greenish Gray, Moderate Plasticity, Moist		
		X	SB-9-11.5				373	
				GC		Gravelly Silty Clay, Very Dark Greenish Gray, Soft, Moist, 10% Fine Grained Gravel		
				CL		Silty Clay, Light Olive Green with Orange Veins, High Water Content, Moderate Plasticity		
	15	X	SB-9-15.5				<1	
						Bottom of Boring at 16 feet bgs		
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-10

Sheet 1 of 1

Date(s) Drilled **October 3, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **12 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Concrete		
				CL		Silty Clay, Black, Low Plasticity, Increasing Gravel Content with Depth, Roots, <5% Fine Grained Gravel		
		X	SB-10-3.5				23	
	5			GM		Gravelly Sandy Silt, Dark Greenish Gray, Coarse Grained Gravel		
				CL		Silty Clay, Olive Green, Stiff, Low Plasticity		
		X	SB-10-7.5				81	
				GM		Gravelly Sandy Clay, Dark Reddish Brown, Well Graded, Very Coarse Sand, Moist		
				CL		Silty Clay, Dark Greenish Gray, Tight, Poorly Graded		
	10			GM		Gravelly Silty Clayl, Dark Greenish Gray, Stiff, Well Graded, Moist		
		X	SB-10-11.5			(ATD) ▽	424	
				CL		Silty Clay, Dark Greenish Gray, Moderate Plasticity, Poorly Graded, Stiff, Moist		
				GC		Silty Gravelly Clay, Dark Greenish Gray, Well Graded, Stiff		
	15			CL		Silty Clay, Dark Green/Bluish Gray, Soft, Poorly Graded, Wet		
		X	SB-10-15.5				35	
						Bottom of Boring at 16 feet bgs		
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-11

Sheet 1 of 1

Date(s) Drilled **October 3, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **16 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Concrete		
				CL		Silty Clay, Black, Low Plasticity, Increasing Gravel Content with Depth, <5% Fine Grained Gravel		
		X	SB-11-3.5				2.5	
	5			GM		Gravelly Sandy Silt, Dark Greenish Gray, 10% Coarse Grained Gravel, Soft		
		X	SB-11-7.5				4.1	
				CL		Silty Clay, Light Yellowish Brown, Tight, Gravel Content Increasing with Depth, Strong Hydrocarbon Odor		
	10	X	SB-11-11.5				24.2	
				GC		Gravelly Sand, Light Yellowish Brown, Soft, Moist		
				CH		Gravelly Clay, High Plasticity, <5% Fine Grained Gravel, Moist		
				CH		Silty Clay, Greenish Gray with Orange Veins, Medium Plasticity, High Water Content		
	15	X	SB-11-15.5			(ATD) ▽	367	
						Bottom of Boring at 16 feet bgs		
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-12

Sheet 1 of 1

Date(s) Drilled **December 20, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **15 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Concrete		
				CL		Silty Clay, Black, Low Plasticity, <5% Fine Grained Gravel		
		X	SB-12-4	CL		Silty Clay, Light Grayish Green, Slightly Mottled Orange, Very Fine Grained, Slight Plasticity	16.4	
	5			GM		Gravelly Silty Sand, Dark Greenish Gray, Soft, Loose, 10% Fine Grained Gravel, 50% Medium Grained Sand		
		X	SB-12-8				1079	
				CL		Gravelly Silty Clay, Light Yellowish Brown, Mottled Orange/Light Yellow, Tight/Stiff, 5% Fine Grained Gravel Content Increasing with Depth		
	10	X	SB-12-12	GC		Gravelly Sand, Light Yellowish Brown, Fine Grained Sand, 5% Fine to Medium Grained Gravel, Moist	849	
				CL		Silty Clay, Light Yellowish Brown, Mottled Orange, Tight, <5% Fine Grained Gravel, Moist		
	15					(ATD) ▽		
		X	SB-12-16			Bottom of Boring at 16 feet bgs	8.3	
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-13

Sheet 1 of 1

Date(s) Drilled **December 20, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **15 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Concrete		
				CL		Silty Clay, Black, Stiff, Dry, Slight Orange Mottling		
		X	SB-13-4	SM		Sandy Silt, Light Grayish Green, Stiff, Low Plasticity, Very Fine Grained, Poorly Graded		
	5							
				GM		Gravelly Silty Sand, Dark Greenish Gray, Soft, Loose, 10% Fine to Medium Grained Gravel		
		X	SB-13-8				592	
				CL		Gravelly Silty Clay, Light Yellowish Brown, Mottled Orange/Light Yellow, Low Plasticity, 5% Fine Grained Gravel		
	10							
		X	SB-13-12	GC		Gravelly Sandy Clay, Dark Greenish Black, Slight Plasticity, Well Graded, Moist	852	
				CL		Lean Silty Clay, Light Yellowish Brown, Mottled Grayish Green, Tight, Slight Plasticity, <5% Fine Grained Gravel, Moist		
	15					(ATD) ▽		
		X	SB-13-16			Bottom of Boring at 16 feet bgs	486	
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-14

Sheet 1 of 1

Date(s) Drilled **December 20, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **15 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Concrete		
				CL		Silty Clay, Black, Low Plasticity, Slight Orange Mottling, Roots		
		X	SB-14-4	SM		Gravelly Silty Clay, Light Grayish Green, Stiff, Low Plasticity, Very Fine Grained, Poorly Graded	3.0	
	5			GM		Gravelly Silt, Light Greenish Gray, Mottled Orange, Soft, Loose, 5% Fine Grained Gravel		
		X	SB-14-8				1.9	
				CL		Gravelly Silty Clay, Light Olive Brown, Mottled Light Grayish Green, Low Plasticity, 10% Fine Grained Gravel Increasing with Depth, Strong Hydrocarbon Odor		
	10	X	SB-14-12	GC		Gravelly Sand, Light Yellowish Brown, Slight Plasticity, Well Graded, Moist	579	
				CL		Lean Silty Clay, Light Grayish Green, Mottled Red/Orange, Tight, Slight Plasticity, Moist		
	15					(ATD) ▽		
		X	SB-14-16			Bottom of Boring at 16 feet bgs		
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-15

Sheet 1 of 1

Date(s) Drilled **December 20, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **15 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Concrete		
				CL		Silty Clay, Black, Low Plasticity, Slight Orange Mottling, Roots		
		X	SB-15-4	SM		Gravelly Silty Clay, Greenish Gray, Stiff, Low Plasticity, Very Fine Grained, Moderately Graded	1.7	
	5							
		X	SB-15-8	GM		Gravelly Silt, Light Yellowish Brown, Mottled Orange, Soft, 5% Fine to Medium Grained Gravel	1.2	
				CL		Gravelly Silty Clay, Light Olive Brown, Mottled Green Gray, Low Plasticity, 5% Fine Grained Gravel		
	10							
		X	SB-15-12	SM		Sandy Silt, Dark Grayish Green, Soft, Slight Plasticity, Poorly Graded, Medium Grained Sand, Moist	25	
				CL		Gravelly Sandy Silt, Light Brown,Soft, Slight Plasticity, 5% Fine Grained Gravel, Moist		
	15			CL		Lean Clay, Light Brown, Mottled Grayish Green, Tight, Low Plasticity, <5% Fine Grained Gravel (ATD) ▽		
		X	SB-15-16			Bottom of Boring at 16 feet bgs	5.3	
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-16

Sheet 1 of 1

Date(s) Drilled **December 20, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **12 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **9 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Concrete		
				CL		Silty Clay, Black, Moderate Plasticity, Dry, <5% Fine Grained Gravel		
		X	SB-16-4				4.1	
	5			GM		Gravelly Silty Clay, Dark Grayish Green, Stiff, Low Plasticity, Moderately Graded		
				CL		Silty Clay, Light Grayish Green, Mottled Light Yellowish Brown, Low Plasticity		
		X	SB-16-8				16.9	
				GM		(ATD) ▽ Gravelly Silt, Light Greenish Gray, Well Graded, Fine to Medium Grained Gravel, Saturated		
	10			CL		Silty Clay, Light Yellowish Brown, Mottled Grayish Green, Tight, <5% Fine Grained Grave, Very Moist		
		X	SB-16-12			Bottom of Boring at 12 feet bgs	<1	
	15							
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-17

Sheet 1 of 1

Date(s) Drilled **December 20, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **12 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **8 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Concrete		
				CL		Silty Clay, Black, Low Plasticity, Dry, Moderately Graded, <5% Fine Grained Gravel		
		X	SB-17-4	GM		Gravelly Silty Sand, Dark Brownish Gray, Mottled Grayish Green, Stiff, 5% Fine Grained Gravel	1.7	
	5			CL		Silty Sandy Clay, Dark Brownish Gray, Mottled Grayish Green, Moderately Loose, 5% Fine Grained Gravel, Moist		
		X	SB-17-8	CL		Silty Clay, Dark Grayish Green, Stiff, No Gravel, Slightly Moist (ATD) ▽	4.2	
				GC		Gravelly Silty Clay, Light Olive Brown, Fine to Medium Grained Gravel, Low Plasticity, Highly Saturated		
	10							
		X	SB-17-12			Bottom of Boring at 12 feet bgs	6.7	
	15							
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-18

Sheet 1 of 1

Date(s) Drilled **December 20, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **8 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **6 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Asphalt		
				GM		Gravelly Silty Sand, Black, Low Plasticity, Dry, Well Graded, 10% Fine Grained Gravel, Poor Recovery		
		X	SB-18-4	CL		Silty Clay, Light Grayish Green, Moderate Plasticity, <5% Fine Grained Gravel, Very Moist	6.7	
	5			CL		Saturated (ATD) ▽		
				SM		Silty Sand, Black, Medium Grained, Poorly Graded, Moist, Very Loose, Poor Recovery		
		X	SB-18-8			Bottom of Boring at 8 feet bgs	2.1	
	10							
	15							
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-19

Sheet 1 of 1

Date(s) Drilled **December 20, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **15 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Asphalt		
				CL		Silty Clay, Black, Low Plasticity, Poorly Graded, Dry		
		X	SB-19-4	GM		Gravelly Sandy Silt, Greenish Gray, Low Plasticity, Moderately Graded, Fine Grained Gravel	17.3	
	5							
				CL		Silty Clay, Greenish Gray, Mottled Yellowish Orange, Low Plasticity, Dry		
		X	SB-19-8				3.2	
	10			CL		Sandy Silty Clay, Light Yellowish Brown, Low Plasticity, <5% Fine Grained Gravel		
		X	SB-19-12	GM		Sandy Silt, Dark Greenish Brown, Low Plasticity, Moist	1.4	
				CL		Silty Clay, Dark Greenish Brown, Moderate Plasticity, Moist		
				CL		Silty Clay, Light Yellowish Brown, Mottled Light Grayish Green, Low Plasticity, Saturated (ATD) ▽		
	15	X	SB-19-16			Bottom of Boring at 16 feet bgs	8.6	
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-20

Sheet 1 of 1

Date(s) Drilled **December 20, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **15 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Cement		
				CL		Silty Clay, Black, Low Plasticity, Poorly Graded, Dry		
		X	SB-20-4	GM		Gravelly Sandy Silt, Greenish Gray, Tight, Dry	13.1	
	5							
				CL		Silty Clay, Greenish Gray, Tight, <5% Fine Grained Gravel		
		X	SB-20-8				549	
	10							
				GM		Gravelly Sandy Silt, Soft, Light Olive Brown, Moderate Plasticity, Fine Grained Gravel		
		X	SB-20-12				179	
				CL		Silty Clay, Light Yellowish Brown, Tight, Low Plasticity, Moist		
	15					(ATD) ▽		
		X	SB-20-16			Bottom of Boring at 16 feet bgs	74.9	
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-21

Sheet 1 of 1

Date(s) Drilled **December 20, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **15 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Cement		
				CL		Silty Clay, Black, Mottled Reddish Orange, Moderate Plasticity, Poorly Graded		
		X	SB-21-4	CL		Silty Clay, Light Yellowish Brown, Mottled Greenish Gray, Soft, <5% Fine Grained Gravel	4.8	
	5							
		X	SB-21-8	GM		Gravelly Sandy Silt, Light Greenish Gray, Medium Grained Sand, 5% Fine to Medium Grained Gravel	6.0	
				CL		Silty Clay, Light Yellowish Brown, Mottled Greenish Gray, Tight, <5% Fine Grained Gravel, Dry		
	10	X	SB-21-12				12.7	
				CL		Silty Clay, Light Yellowish Brown, Mottled Light Gray, Moderate Plasticity, 5% Fine Grained Gravel		
	15					(ATD) ▽		
						Bottom of Boring at 16 feet bgs		
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-22

Sheet 1 of 1

Date(s) Drilled **December 20, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **14 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Cement		
				CL		Silty Clay, Black, Stiff, Dry, Roots		
		X	SB-22-4	GM		Gravelly Sandy Silt, Reddish Brown, Mottled Orange, Loose, 5% Fine Grained Gravel, Dry	2.2	
	5							
		X	SB-22-8	CL		Silty Clay, Light Olive Brown, Tight, Low Plasticity, <5% Fine Grained Gravel	5.8	
	10							
				CL		Silty Clay, Olive, Mottled Light Orange, Tight, <5% Fine Grained Gravel, Dry		
		X	SB-22-12				311	
						(ATD) ▽		
	15							
		X	SB-22-16			Bottom of Boring at 16 feet bgs	5.9	
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-23

Sheet 1 of 1

Date(s) Drilled **May 7, 2008**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **9.72 feet measured on May 14, 2008**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Cement		
				CL		Silty Clay, Very Dark Brown, Stiff, Dry, Roots		
			SB-23-4				<1	
	5							
				CL		Silty Clay, Light Brown, Mottled Greenish Gray, Dry		
			SB-23-8				<1	
				GM		Gravelly Silty Clay, Light Brown, Loose, Fine Grained Gravel — May14,2008 ▼		
	10							
			SB-23-12	CL		Silty Clay, Pale Brown, Mottled Greenish Gray, Slight to Moderate Plasticity	16	
	15							
			SB-23-16			Bottom of Boring at 16 feet bgs	23	
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-24

Sheet 1 of 1

Date(s) Drilled **May 7, 2008**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **10.57 feet measured on May 14, 2008**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Cement		
				CL		Silty Clay, Black, Stiff, Dry, Roots		
		X	SB-24-4	GM		Gravelly Silt, Dark Reddish Brown, Fine to Medium Grained Gravel, Moderately Loose	<1	
	5							
		X	SB-24-8	GM		Gravelly Silt, Very Dark Gray to Dark Green, Fine to Medium Grained Gravel, Loose		
				CL		Silty Clay, Light Yellowish Brown, Mottled Grayish Green		
	10					May14,2008 ▼		
		X	SB-24-12				158	
				CL		Clayey Silt, Light Yellowish Brown, Mottled Grayish Green, Strong Hydrocarbon Odors, Moist		
	15							
		X	SB-24-16			Bottom of Boring at 16 feet bgs	243	
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-25

Sheet 1 of 1

Date(s) Drilled **May 7, 2008**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **10.26 feet measured on May 9, 2008**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Cement		
				CL		Silty Clay, Black, Stiff, Dry, Roots		
		X	SB-25-4				<1	
	5			CL		Silty Clay, Dark Yellowish Brown, Tight, Dry		
				GM		Gravelly Silt, Yellowish Red, Fine to Medium Grained Gravel, Slightly Loose		
		X	SB-25-8				<1	
				CL		Silty Clay, Pale Brown, Very Hard, Tight		
	10					May9,2008 ▼		
				GM-ML		Gravelly Silty Clay, Dark Grayish Green, Fine to Medium Grained Gravel, Slightly Loose		
		X	SB-25-12	CL		Silty Clay, Dark Yellowish Brown, Mottled Dark Grayish Green, Slight Plasticity, Moist	33	
	15							
		X	SB-25-16			Bottom of Boring at 16 feet bgs	19	
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-26

Sheet 1 of 1

Date(s) Drilled **May 7, 2008**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **12.51 feet measured on May14,2008**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Cement		
				CL		Silty Clay, Black, Moderately Soft, Roots		
		X	SB-26-4				<1	
	5			ML		Clayey Silt, Pale Brown, Tight, Stiff, Dry		
				GM		Gravelly Silt, Yellowish Red, Fine to Medium Grained Gravel, Loose		
		X	SB-26-8				<1	
				CL		Silty Clay, Pale Brown, Very Hard, Tight		
	10							
		X	SB-26-12	CL		Silty Clay, Grayish Black, Soft May14,2008 ▼	12	
				GM-ML		Gravelly Silty, Dark Grayish Green, Fine to Medium Grained Gravel, Loose		
				CL		Silty Clay, Light Brown, Mottled Dark to Light Greenish Gray, Moderate Plasticity, Moist		
	15							
		X	SB-26-16			Bottom of Boring at 16 feet bgs	42	
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-27

Sheet 1 of 1

Date(s) Drilled **May 7, 2008**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **10.98 feet measured on May14,2008**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Cement		
				CL		Silty Clay, Black, Low Plasticity, Roots		
		X	SB-27-4				<1	
	5			CL		Silty Clay, Light Brown, Mottled Light Gray, <10% Fine Grained Gravel		
		X	SB-27-8	CL		Silty Clay, Yellowish Brown, Slight Plasticity, Tight	22	
	10					May14,2008 ▼		
				CL		Silty Clay, Dark Greenish Gray, Very Hard, Tight		
		X	SB-27-12				321	
				CL		Silty Clay, Light Brown, Moderate Plasticity, Soft		
				GM-ML		Gravelly Silty Clay, Light Grayish Green, Fine to Medium Grained Gravel, Hard		
	15			CL		Silty Clay, Light Grayish Green, Slight Plasticity, Moist		
		X	SB-27-16			Bottom of Boring at 16 feet bgs	72	
	20							

Figure

X:\PROJECTS\CHARACTERIZATION & REMEDIATION\CHARACTERIZATION\274761 Consult (Steffi Zimmerman) Oakland-HT\Soil Borings.bgs [AEI geoprobe 20.tpl]

Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-28

Sheet 1 of 1

Date(s) Drilled **May 7, 2008**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **14.23 feet measured on May16,2008**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Cement		
				CL		Silty Clay, Black, Stiff, Dry, Roots		
		X	SB-28-4				<1	
	5			CL		Sandy Silt, Very Pale Brown, Moderately Loose		
				GM		Gravelly Sandy Silt,Dark Yellowish Brown, Loose, 20% Fine Grained Gravel		
		X	SB-28-8				<1	
	10			SM		Sandy Silt, Very Pale Brown, Stiff, Tight		
				GC-CL		Gravelly Silty Clay, Yellowish Brown, Slight to Moderate Plasticity, <20% Fine Grained Gravel		
		X	SB-28-12				12	
						May16,2008 ▼		
	15							
		X	SB-28-16			Bottom of Boring at 16 feet bgs	3	
	20							

Figure

X:\PROJECTS\CHARACTERIZATION & REMEDIATION\CHARACTERIZATION\274761 Consult (Steffi Zimmerman) Oakland-HT\Soil Borings.bgs [AEI geoprobe 20.tpl]

Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-29

Sheet 1 of 1

Date(s) Drilled **May 7, 2008**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **12.79 feet measured on May16,2008**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Cement		
				CL		Silty Clay, Black, Stiff, Dry, Roots		
			SB-29-4					
	5			CL		Silty Clay, Pale Brown, 5% Fine Grained Gravel, Stiff, Tight		
				GM-ML		Gravelly Silty Clay, Yellowish Brown, Loose, 20% Fine Grained Gravel		
			SB-29-8					
				GM-ML		Gravelly Silty Clay, Yellowish Brown, Moderately Loose, 35% Medium Grained Gravel		
	10			GM-ML		Gravelly Silty Clay, Yellowish Brown, Loose, 25% Fine Grained Gravel		
			SB-29-12			May16,2008 ▼		
	15			CL		Silty Clay, Very Dark Brown, Stiff, Tight, No Plasticity		
			SB-29-16			Bottom of Boring at 16 feet bgs		
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-30

Sheet 1 of 1

Date(s) Drilled **May 7, 2008**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **9.83 feet measured on May14, 2008**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Cement		
				CL		Silty Clay, Grayish Black, Stiff, Dry, Roots		
		X	SB-30-4					
	5			SP		Gravelly Sand, Dark Yellowish Red, Fine Grained Gravel, Loose		
				ML		Clayey Silt, Pale Brown, Stiff, No Plasticity, Dry		
		X	SB-30-8					
						May14,2008 ▼		
	10	X	SB-30-12					
				CL		Clay, Yellowish Brown, Mottled Greenish Gray, Slight Plasticity, Moist		
	15	X	SB-30-16			Bottom of Boring at 16 feet bgs		
	20							

Figure

X:\PROJECTS\CHARACTERIZATION & REMEDIATION\CHARACTERIZATION\274761 Consult (Steffi Zimmerman) Oakland-HT\Soil Borings.bgs [AEI geoprobe 20.tpl]

Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-31

Sheet 1 of 1

Date(s) Drilled **May 7, 2008**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **11.13 feet measured on May14,2008**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Cement		
				CL		Silty Clay, Grayish Black, Stiff, Dry, Roots		
			SB-30-4					
	5			CL		Silty Clay, Very Dark Brown, Tight, Stiff, <10% Fine Grained Gravel, Dry		
				GM		Gravelly Silty Sand, Dark Brown, 30% Medium Grained Gravel, Stiff, Dry		
			SB-30-8	CL		Silty Clay, Dark Brown, Tight, Stiff		
	10					May14,2008 ▼		
			SB-30-12	CL		Clay, Dark Yellowish Brown, Tight, Slight Plasticity, Moist		
	15							
			SB-30-16			Bottom of Boring at 16 feet bgs		
	20							

Figure

X:\PROJECTS\CHARACTERIZATION & REMEDIATION\CHARACTERIZATION\274761 Consult (Steffi Zimmerman) Oakland-HT\Soil Borings.bgs [AEI geoprobe 20.tpl]

APPENDIX B

LABORATORY ANALYSES
WITH CHAIN OF CUSTODY DOCUMENTATION

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 05/07/08
2500 Camino Diablo, Ste. #200		Date Received: 05/08/08
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Reported: 05/15/08
	Client P.O.:	Date Completed: 05/15/08

WorkOrder: 0805212

May 15, 2008

Dear Harmony:

Enclosed within are:

1) The results of the **20** analyzed samples from your project: **#274761; Zimmerman,**
2) A QC report for the above samples,
3) A copy of the chain of custody, and
4) An invoice for analytical services.

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.

0805212

McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road
Pittsburg, CA 94565
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

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

EDF Required? ☒ Yes ☐ No

Report To: Harmony TomSun Bill To: same P.O. #

Company: AEI Consultants

2500 Camino Diablo, Suite 200

Walnut Creek, CA 94597 E-Mail: htomsun@aeiconsultants.com

Tele: (925) 944-2899 Fax: (925) 944-2895

Project #: 274761 Project Name: Zimmerman

Project Location: 3442 Adeline Street, Oakland, CA 94608

Sampler Signature:

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	Analysis Request: BTEX & TPH as Gas (602/8020 + 8015)/MTBE	Analysis Request: TPH as Diesel (8015) w/ Silica gel	Analysis Request: Total Petroleum Oil & Grease (5520 E&F/B&F)	Analysis Request: Total Petroleum Hydrocarbons (418.1)	Analysis Request: HVOCs EPA 8260	Analysis Request: BTEX ONLY (EPA 602 / 8020)	Analysis Request: TPH Multi-Range (G/D/MO 8015) w/ Silica Gel	Analysis Request: EPA 608 / 8080 PCB's ONLY	Analysis Request: EPA 624 / 8260	Analysis Request: EPA 625 / 8270 - SVOCs	Analysis Request: PAH's / PNA's by EPA 625 / 8270 / 8310	Analysis Request: CAM-17 Metals 6020	Analysis Request: LUFT 5 Metals	Analysis Request: Lead (7240/7421/239.2/6010)	Analysis Request: RCI	Other	Comments
SB-24-4	Oakland	5/7/08	11:30	1	Liner		X				X				X	X														HOLD
SB-24-8			11:35												X	X														
SB-24-12			11:40												X	X														
SB-24-16			11:45												X	X														
SB-30-4			11:05												X	X														HOLD
SB-30-8			11:10												X	X														
SB-30-12			11:15												X	X														
SB-30-16			11:20												X	X														HOLD
SB-26-4			10:35												X	X														HOLD
SB-26-8			10:40												X	X														
SB-26-12			10:45												X	X														
SB-26-15			10:55												X	X														HOLD
SB-29-4			9:55												X	X														HOLD
SB-29-8			10:00												X	X														

Other: HOLD

Relinquished By:	Date:	Time:	Received By:
	5/4/08	1526	
Relinquished By: ENVIRO-TECH SERVICES	Date: 5/7/08	Time: 15:55	Received By:
Relinquished By:	Date: 5/7/08	Time: 915	Received By:

ICE/t° 9.8
GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB

PRESERVATION APPROPRIATE CONTAINERS
PERSERVED IN LAB

VOAS	O&G	METALS	OTHER

McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road
Pittsburg, CA 94565
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

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

EDF Required? ☒ Yes ☐ No

Report To: Harmony TomSun	**Bill To:** same	**P.O. #**
Company: AEI Consultants		
2500 Camino Diablo, Suite 200		
Walnut Creek, CA 94597	**E-Mail:** htomsun@aeiconsultants.com	
Tele: (925) 944-2899	**Fax:** (925) 944-2895	
Project #: 274761	**Project Name:** Zimmerman	
Project Location: 3442 Adeline Street, Oakland, CA 94608		
Sampler Signature:		

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015) ~~Multi-range~~ w/ silica gel	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015) w/ Silica Gel	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other	Comments
SB-29-12	Oakland	5/7/08	10:05	1	Liner		X				X				X	X															
SB-29-16			10:10				X								X	X															HOLD
SB-28-4			9:20				X								X	X															HOLD
SB-28-8			9:25				X								X	X															
SB-28-12			9:30				X								X	X															
SB-28-16			9:35				X								X	X															HOLD
SB-27-4			8:40				X								X	X															HOLD
SB-27-8			8:45				X								X	X															
SB-27-12			8:50				X								X	X															
SB-27-16			8:55				X								X	X															
SB-31-4			12:40				X								X	X															HOLD
SB-31-8			12:45				X								X	X															
SB-31-12			12:50				X								X	X															
SB-31-16			12:55				X								X	X															HOLD

Relinquished By:	Date:	Time:	Received By:
	5/7/08	15:16	Envirotech
Relinquished By: ENVIRO-TECH SERVICES	Date: 5/7/08	Time: 15:55	Received By:
Relinquished By:	Date: 5/7/08	Time: 915	Received By:

ICE/t° _____ VOAS | O&G | METALS | OTHER
GOOD CONDITION _____ PRESERVATION _____
HEAD SPACE ABSENT _____ APPROPRIATE
DECHLORINATED IN LAB _____ CONTAINERS _____
PERSERVED IN LAB _____

~~080S170~~

McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road
Pittsburg, CA 94565

Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

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

EDF Required? ☒ Yes ☐ No

Report To: Harmony TomSun Bill To: same P.O. #

Company: AEI Consultants
2500 Camino Diablo, Suite 200
Walnut Creek, CA 94597 E-Mail: htomsun@aeiconsultants.com

Tele: (925) 944-2899 Fax: (925) 944-2895

Project #: 274761 Project Name: Zimmerman

Project Location: 3442 Adeline Street, Oakland, CA 94608

Sampler Signature: [signature]

SAMPLE ID (Field Point Name)	LOCATION	Sampling Date	Sampling Time	# Containers	Type Containers	Matrix: Water	Matrix: Soil	Matrix: Air	Matrix: Sludge	Matrix: Other	Preserved: Ice	Preserved: HCl	Preserved: HNO_3	Preserved: Other	BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015) ~~Motor Oil~~ w/Silica gel	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015) w/ Silica Gel	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other: Hold	Comments
SB-23-4	Oakland	5/7/08	2:00	1	Liner		X				X				X	X														X	HOLD
SB-23-8	↓	↓	2:05	↓	↓		↓				↓				X	X															
SB-23-12			2:10												X	X															
SB-23-16			2:15												X	X														X	HOLD
SB-25-4			1:15												X	X														X	HOLD
SB-25-8			1:20												X	X															
SB-25-12			1:25												X	X															
SB-25-16			1:30												X	X															HOLD

Relinquished By:	Date:	Time:	Received By:
[signature]	5/7/08	1526	Envirotech, [illegible]
ENVIRO-TECH SERVICES [illegible]	04/07/08	15:55	[signature]
[signature]	5/7/08	915	[signature]

ICE/t° ______ GOOD CONDITION ______ HEAD SPACE ABSENT ______ DECHLORINATED IN LAB ______

PRESERVATION ______ (VOAS | O&G | METALS | OTHER) APPROPRIATE CONTAINERS ______ PERSERVED IN LAB ______

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0805212 **ClientCode: AEL**

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

Report to:
Harmony TomSun
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
(925) 944-2899 FAX (925) 944-2895

Email: htomsun@aeiconsultants.com
cc:
PO:
ProjectNo: #274761; Zimmerman

Bill to:
Denise Mockel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
dmockel@aeiconsultants.com

Requested TAT: 5 days

Date Received: **05/08/2008**
Date Printed: **05/08/2008**

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
0805212-002	SB-24-8	Soil	5/7/2008 11:35	☐	A	A	A									
0805212-003	SB-24-12	Soil	5/7/2008 11:40	☐	A		A									
0805212-004	SB-24-16	Soil	5/7/2008 11:45	☐	A		A									
0805212-006	SB-30-8	Soil	5/7/2008 11:10	☐	A		A									
0805212-007	SB-30-12	Soil	5/7/2008 11:15	☐	A		A									
0805212-010	SB-26-8	Soil	5/7/2008 10:40	☐	A		A									
0805212-011	SB-26-12	Soil	5/7/2008 10:45	☐	A		A									
0805212-014	SB-29-8	Soil	5/7/2008 10:00	☐	A		A									
0805212-015	SB-29-12	Soil	5/7/2008 10:05	☐	A		A									
0805212-018	SB-28-8	Soil	5/7/2008 9:25	☐	A		A									
0805212-019	SB-28-12	Soil	5/7/2008 9:30	☐	A		A									
0805212-022	SB-27-8	Soil	5/7/2008 8:45	☐	A		A									
0805212-023	SB-27-12	Soil	5/7/2008 8:50	☐	A		A									
0805212-024	SB-27-16	Soil	5/7/2008 8:55	☐	A		A									

Test Legend:

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

Prepared by: Maria Venegas

Comments:

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

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0805212 **ClientCode: AEL**

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

Report to:
Harmony TomSun
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
(925) 944-2899 FAX (925) 944-2895

Email: htomsun@aeiconsultants.com
cc:
PO:
ProjectNo: #274761; Zimmerman

Bill to:
Denise Mockel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
dmockel@aeiconsultants.com

Requested TAT: 5 days

Date Received: **05/08/2008**
Date Printed: **05/08/2008**

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
0805212-026	SB-31-8	Soil	5/7/2008 12:45	☐	A		A									
0805212-027	SB-31-12	Soil	5/7/2008 12:50	☐	A		A									
0805212-030	SB-23-8	Soil	5/7/2008 14:05	☐	A		A									
0805212-031	SB-23-12	Soil	5/7/2008 14:10	☐	A		A									
0805212-034	SB-25-8	Soil	5/7/2008 13:20	☐	A		A									
0805212-035	SB-25-12	Soil	5/7/2008 13:25	☐	A		A									

Test Legend:

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

Prepared by: Maria Venegas

Comments:

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

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **05/08/08 1:32:53 PM**

Project Name: **#274761; Zimmerman**

Checklist completed and reviewed by: Maria Venegas

WorkOrder N°: **0805212** Matrix Soil

Carrier: EnviroTech

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: 9.8°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☐	No ☐	No VOA vials submitted ☑
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TTLC Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑

Client contacted: Date contacted: Contacted by:

Comments:

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 05/07/08
2500 Camino Diablo, Ste. #200		Date Received: 05/08/08
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 05/08/08
	Client P.O.:	Date Analyzed 05/09/08-05/13/08

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

Extraction method SW5030B Analytical methods SW8021B/8015Cm Work Order: 0805212

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
002A	SB-24-8	S	ND	ND	ND	ND	ND	ND	1	91
003A	SB-24-12	S	15,g,m	ND<0.15	0.011	0.023	0.020	0.044	1	88
004A	SB-24-16	S	41,b,m	ND<0.50	ND<0.050	ND<0.050	0.11	0.11	10	97
006A	SB-30-8	S	ND	ND	ND	ND	ND	ND	1	77
007A	SB-30-12	S	ND	ND	ND	ND	ND	ND	1	78
010A	SB-26-8	S	ND	ND	ND	ND	ND	ND	1	76
011A	SB-26-12	S	ND	ND	ND	ND	ND	ND	1	80
014A	SB-29-8	S	ND	ND	ND	ND	ND	ND	1	77
015A	SB-29-12	S	ND	ND	ND	ND	ND	ND	1	74
018A	SB-28-8	S	ND	ND	ND	ND	ND	ND	1	80
019A	SB-28-12	S	19,a	ND	0.24	0.034	0.031	0.036	1	100
022A	SB-27-8	S	ND	ND	ND	ND	ND	ND	1	82
023A	SB-27-12	S	27,b,m	ND	ND	0.10	ND	0.061	1	95
024A	SB-27-16	S	4.8,g,m	ND	0.0053	0.020	ND	0.0074	1	80
026A	SB-31-8	S	ND	ND	ND	ND	ND	ND	1	86
027A	SB-31-12	S	1.9,m	ND	ND	0.016	ND	ND	1	83
Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA	NA	NA	NA	NA	1	ug/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high organic / MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) value derived using a client specified carbon range; o) results are reported on a dry weight basis; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 05/07/08
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Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 05/08/08
	Client P.O.:	Date Analyzed 05/09/08-05/13/08

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

Extraction method SW5030B Analytical methods SW8021B/8015Cm Work Order: 0805212

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
030A	SB-23-8	S	ND	ND	ND	ND	ND	ND	1	93
031A	SB-23-12	S	310,a	ND<3.0	1.3	0.31	4.3	9.8	20	---#
034A	SB-25-8	S	ND	ND	ND	ND	ND	ND	1	85
035A	SB-25-12	S	48,g,m	ND<0.50	0.027	0.079	0.029	0.11	3.3	87

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

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

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high organic / MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) value derived using a client specified carbon range; o) results are reported on a dry weight basis; p) see attached narrative.

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AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 05/07/08
2500 Camino Diablo, Ste. #200		Date Received: 05/08/08
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 05/08/08
	Client P.O.:	Date Analyzed 05/09/08-05/15/08

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up*

Extraction method SW3550C/3630C Analytical methods: SW8015C Work Order: 0805212

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	DF	% SS
0805212-002A	SB-24-8	S	ND	1	116
0805212-003A	SB-24-12	S	3.4,d	1	102
0805212-004A	SB-24-16	S	ND	1	100
0805212-006A	SB-30-8	S	ND	1	112
0805212-007A	SB-30-12	S	ND	1	111
0805212-010A	SB-26-8	S	ND	1	113
0805212-011A	SB-26-12	S	ND	1	113
0805212-014A	SB-29-8	S	ND	1	108
0805212-015A	SB-29-12	S	ND	1	109
0805212-018A	SB-28-8	S	ND	1	111
0805212-019A	SB-28-12	S	1.6,d	1	100
0805212-022A	SB-27-8	S	ND	1	107
0805212-023A	SB-27-12	S	4.2,d,b	1	105
0805212-024A	SB-27-16	S	1.5,d,b	1	95
0805212-026A	SB-31-8	S	ND	1	90

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

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit; r) results are reported on a dry weight basis

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AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 05/07/08
2500 Camino Diablo, Ste. #200		Date Received: 05/08/08
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 05/08/08
	Client P.O.:	Date Analyzed 05/09/08-05/15/08

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up*

Extraction method SW3550C/3630C Analytical methods: SW8015C Work Order: 0805212

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	DF	% SS
0805212-027A	SB-31-12	S	ND	1	108
0805212-030A	SB-23-8	S	ND	1	109
0805212-031A	SB-23-12	S	73,d	1	109
0805212-034A	SB-25-8	S	ND	1	107
0805212-035A	SB-25-12	S	12,n	1	107

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

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit; r) results are reported on a dry weight basis

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder 0805212

EPA Method SW8021B/8015Cm **Extraction SW5030B** **BatchID: 35458** **Spiked Sample ID: 0805173-016A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	0.60	97.1	104	7.35	101	116	13.0	70 - 130	20	70 - 130	20
MTBE	ND	0.10	108	108	0	109	97.1	11.2	70 - 130	20	70 - 130	20
Benzene	ND	0.10	94.2	94.9	0.701	92.5	95.7	3.40	70 - 130	20	70 - 130	20
Toluene	ND	0.10	109	110	0.900	108	114	4.68	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	103	104	0.960	103	108	4.73	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	115	116	0.932	114	120	5.03	70 - 130	20	70 - 130	20
%SS:	75	0.10	93	94	1.13	92	95	3.68	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 35458 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0805212-002A	05/07/08 11:35 AM	05/08/08	05/13/08 4:35 AM	0805212-003A	05/07/08 11:40 AM	05/08/08	05/10/08 2:27 AM
0805212-004A	05/07/08 11:45 AM	05/08/08	05/09/08 7:43 PM	0805212-006A	05/07/08 11:10 AM	05/08/08	05/10/08 3:01 AM
0805212-007A	05/07/08 11:15 AM	05/08/08	05/10/08 3:34 AM	0805212-010A	05/07/08 10:40 AM	05/08/08	05/10/08 5:13 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.

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder 0805212

EPA Method SW8021B/8015Cm	Extraction SW5030B	BatchID: 35491	Spiked Sample ID: 0805212-034A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	0.60	115	94.9	18.7	89	92	3.31	70 - 130	20	70 - 130	20
MTBE	ND	0.10	101	104	2.77	92.7	94.1	1.51	70 - 130	20	70 - 130	20
Benzene	ND	0.10	95.9	93.7	2.31	91.4	90.5	0.985	70 - 130	20	70 - 130	20
Toluene	ND	0.10	110	109	0.405	76.5	77.1	0.780	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	104	103	0.932	88.5	87.2	1.48	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	115	115	0	80.2	80.8	0.852	70 - 130	20	70 - 130	20
%SS:	85	0.10	100	94	6.26	77	79	2.21	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 35491 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0805212-011A	05/07/08 10:45 AM	05/08/08	05/10/08 5:47 AM	0805212-014A	05/07/08 10:00 AM	05/08/08	05/10/08 7:26 AM
0805212-015A	05/07/08 10:05 AM	05/08/08	05/10/08 8:34 AM	0805212-018A	05/07/08 9:25 AM	05/08/08	05/09/08 9:04 PM
0805212-019A	05/07/08 9:30 AM	05/08/08	05/09/08 9:35 PM	0805212-022A	05/07/08 8:45 AM	05/08/08	05/09/08 10:05 PM
0805212-023A	05/07/08 8:50 AM	05/08/08	05/09/08 11:37 PM	0805212-024A	05/07/08 8:55 AM	05/08/08	05/10/08 12:38 AM
0805212-026A	05/07/08 12:45 PM	05/08/08	05/10/08 1:08 AM	0805212-027A	05/07/08 12:50 PM	05/08/08	05/10/08 1:39 AM
0805212-030A	05/07/08 2:05 PM	05/08/08	05/10/08 2:10 AM	0805212-031A	05/07/08 2:10 PM	05/08/08	05/10/08 6:53 AM
0805212-034A	05/07/08 1:20 PM	05/08/08	05/10/08 2:40 AM	0805212-035A	05/07/08 1:25 PM	05/08/08	05/11/08 2:23 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.

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QA/QC Officer

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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder 0805212

EPA Method SW8015C	Extraction SW3550C/3630C	BatchID: 35472	Spiked Sample ID: 0805212-035A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	12	20	70.9	70.4	0.361	101	101	0	70 - 130	30	70 - 130	30
%SS:	107	50	95	96	0.671	108	107	0.794	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 35472 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0805212-002A	05/07/08 11:35 AM	05/08/08	05/15/08 12:25 PM	0805212-003A	05/07/08 11:40 AM	05/08/08	05/11/08 12:23 AM
0805212-004A	05/07/08 11:45 AM	05/08/08	05/13/08 9:36 AM	0805212-006A	05/07/08 11:10 AM	05/08/08	05/10/08 7:55 PM
0805212-007A	05/07/08 11:15 AM	05/08/08	05/10/08 9:02 PM	0805212-010A	05/07/08 10:40 AM	05/08/08	05/10/08 10:09 PM
0805212-011A	05/07/08 10:45 AM	05/08/08	05/10/08 11:16 PM	0805212-014A	05/07/08 10:00 AM	05/08/08	05/11/08 12:23 AM
0805212-015A	05/07/08 10:05 AM	05/08/08	05/11/08 3:42 AM	0805212-018A	05/07/08 9:25 AM	05/08/08	05/09/08 8:31 PM
0805212-019A	05/07/08 9:30 AM	05/08/08	05/13/08 8:24 AM	0805212-022A	05/07/08 8:45 AM	05/08/08	05/09/08 10:45 PM
0805212-023A	05/07/08 8:50 AM	05/08/08	05/15/08 11:02 AM	0805212-026A	05/07/08 12:45 PM	05/08/08	05/15/08 1:53 PM
0805212-027A	05/07/08 12:50 PM	05/08/08	05/09/08 11:51 PM	0805212-030A	05/07/08 2:05 PM	05/08/08	05/10/08 4:16 AM
0805212-031A	05/07/08 2:10 PM	05/08/08	05/10/08 3:10 AM	0805212-034A	05/07/08 1:20 PM	05/08/08	05/10/08 2:04 AM
0805212-035A	05/07/08 1:25 PM	05/08/08	05/10/08 12:58 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.

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QA/QC Officer

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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder 0805212

EPA Method SW8015C	Extraction SW3550C/3630C	BatchID: 35492	Spiked Sample ID: 0805212-024A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	1.5	20	92.4	90.7	1.73	98.1	97.7	0.474	70 - 130	30	70 - 130	30
%SS:	95	50	103	104	1.10	105	104	1.15	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 35492 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0805212-024A	05/07/08 8:55 AM	05/08/08	05/15/08 11:02 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.

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AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 05/09/08
2500 Camino Diablo, Ste. #200		Date Received: 05/12/08
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Reported: 05/19/08
	Client P.O.:	Date Completed: 05/15/08

WorkOrder: 0805284

May 19, 2008

Dear Harmony:

Enclosed within are:

1) The results of the **1** analyzed sample from your project: **#274761; Zimmerman,**
2) A QC report for the above sample,
3) A copy of the chain of custody, and
4) An invoice for analytical services.

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.

0805284

McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road
Pittsburg, CA 94565
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

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

EDF Required? ☒ Yes ☐ No

Report To: Harmony TomSun Bill To: same P.O. #

Company: AEI Consultants
2500 Camino Diablo, Suite 200
Walnut Creek, CA 94597 E-Mail: htomsun@aeiconsultants.com

Tele: (925) 944-2899 Fax: (925) 944-2895

Project #: 274761 Project Name: Zimmerman

Project Location: 3442 Adeline Street, Oakland, CA 94608

Sampler Signature:

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	Soil	Air	Sludge	Other	METHOD PRESERVED Ice	HCl	HNO_3	Other	BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015) – w/ Silica Gel	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015) w/ Silica Gel	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other	Comments
+1 SB-25-W	Oakland	5/9/08	8:45	4	VOA AMBER	X					X				X	X															

Relinquished By:	Date:	Time:	Received By:
	7/10/08		
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

	VOAS	O&G	METALS	OTHER
ICE/t°				
GOOD CONDITION				
HEAD SPACE ABSENT				
DECHLORINATED IN LAB				
PRESERVATION APPROPRIATE				
CONTAINERS				
PERSERVED IN LAB				

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0805284 **ClientCode: AEL**

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

Report to:
Harmony TomSun
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
(925) 944-2899 FAX (925) 944-2895

Email: htomsun@aeiconsultants.com
cc:
PO:
ProjectNo: #274761; Zimmerman

Bill to:
Denise Mockel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
dmockel@aeiconsultants.com

Requested TAT: 5 days

Date Received: **05/11/2008**
Date Printed: **05/12/2008**

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
0805284-001	SB-25-W	Water	5/9/2008 8:45	☐	A	A	B									

Test Legend:

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

Prepared by: Maria Venegas

Comments:

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

McCampbell Analytical, Inc.
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Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **05/12/08 9:41:15 AM**

Project Name: **#274761; Zimmerman**

Checklist completed and reviewed by: Maria Venegas

WorkOrder N°: **0805284** Matrix Water

Carrier: Client Drop-In

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:		NA ☑
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TTLC Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑

Client contacted: Date contacted: Contacted by:

Comments:

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AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 05/09/08
2500 Camino Diablo, Ste. #200		Date Received: 05/12/08
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 05/14/08
	Client P.O.:	Date Analyzed 05/14/08

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

Extraction method SW5030B Analytical methods SW8021B/8015Cm Work Order: 0805284

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	SB-25-W	W	3600,a,i	ND	42	1.9	65	36	1	112

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	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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"When Quality Counts"

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 05/09/08
2500 Camino Diablo, Ste. #200		Date Received: 05/12/08
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 05/12/08
	Client P.O.:	Date Analyzed 05/14/08

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up*

Extraction method SW3510C/3630C Analytical methods: SW8015C Work Order: 0805284

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	DF	% SS
0805284-001B	SB-25-W	W	1300,d,i	1	116

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

* 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/matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder 0805284

EPA Method SW8015C **Extraction SW3510C/3630C** **BatchID: 35473** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	97.9	97.6	0.220	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	105	105	0	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 35473 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0805284-001B	05/09/08 8:45 AM	05/12/08	05/14/08 8:29 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.

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 N° 1644

QA/QC Officer

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder 0805284

EPA Method SW8021B/8015Cm Extraction SW5030B BatchID: 35545 Spiked Sample ID: 0805281-001A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	95.3	97.8	2.61	92.6	93	0.375	70 - 130	20	70 - 130	20
MTBE	ND	10	100	99.1	0.979	103	98.8	4.09	70 - 130	20	70 - 130	20
Benzene	ND	10	84	92.1	9.18	88.6	88.1	0.586	70 - 130	20	70 - 130	20
Toluene	ND	10	76	83.7	9.62	79.9	82	2.59	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	84.4	91.9	8.56	88	87.4	0.656	70 - 130	20	70 - 130	20
Xylenes	ND	30	81.1	89.6	9.89	85	86.2	1.41	70 - 130	20	70 - 130	20
%SS:	97	10	95	96	0.322	97	95	1.43	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 35545 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0805284-001A	05/09/08 8:45 AM	05/14/08	05/14/08 7:38 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, or inconsistency in sample containers.

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Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #274761; Zimmerman,3442 Adeline St, Oakland Ca	Date Sampled: 05/14/08
		Date Received: 05/14/08
	Client Contact: Harmony TomSun	Date Reported: 05/21/08
	Client P.O.:	Date Completed: 05/20/08

WorkOrder: 0805356

May 21, 2008

Dear Harmony:

Enclosed within are:

1) The results of the **6** analyzed samples from your project: **#274761; Zimmerman,3442 Adeline**
2) A QC report for the above samples,
3) A copy of the chain of custody, and
4) An invoice for analytical services.

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.

0805356

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

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

GeoTracker EDF ☒ PDF ☐ Excel ☐ Write On (DW) ☐

☐ Check if sample is effluent and "J" flag is required

Report To: Harmony Tomson Bill To: Same

Company: AEI Consultants

E-Mail: htomson@aeiconsultants.com

Tele: (925) 944-2899 Fax: (925) 944-2895

Project #: 274761 Project Name: Zimmerman

Project Location: 3447 Adeline Street Oakland CA 94608

Sampler Signature:

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other
+1 SB-23-W	Oakland	5/14	10:35	4	Amb VOA	X					X			
+1 SB-24-W			10:10			X					X			
+1 SB-26-W			9:00			X					X			
+1 SB-27-W			11:00			X					X			
+1 SB-30-W			9:25			X					X			
+1 SB-31-W			9:45			X					X			

Analysis Request	Other	Comments
BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE; TPH as Diesel (8015) w/ Silica Gel; Total Petroleum Oil & Grease (1664 / 5520 E/B&F); Total Petroleum Hydrocarbons (418.1); EPA 502.2 / 601 / 8010 / 8021 (HVOCs); MTBE / BTEX ONLY (EPA 602 / 8021); EPA 505/ 608 / 8081 (Cl Pesticides); EPA 608 / 8082 PCB's ONLY; 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); Lead (200.7 / 200.8 / 6010 / 6020)		Filter Samples for Metals analysis: Yes / No
X X		
X X		
X X		
X X		
X X		
X X		

Relinquished By:	Date:	Time:	Received By:
	5/14	12:35	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 11.8 ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ____
DECHLORINATED IN LAB ____
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB ____

COMMENTS:

VOAS O&G METALS OTHER
PRESERVATION ____ pH<2 ____

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0805356 **ClientCode: AEL**

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

Report to:
Harmony TomSun
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
(925) 944-2899 FAX (925) 944-2895

Email: htomsun@aeiconsultants.com
cc:
PO:
ProjectNo: #274761; Zimmerman,3442 Adeline St, Oakland Ca

Bill to:
Denise Mockel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
dmockel@aeiconsultants.com

Requested TAT: 5 days

Date Received: **05/14/2008**
Date Printed: **05/14/2008**

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
0805356-001	SB-23-W	Water	5/14/2008 10:35	☐	A	A	B									
0805356-002	SB-24-W	Water	5/14/2008 10:10	☐	A		B									
0805356-003	SB-26-W	Water	5/14/2008 9:00	☐	A		B									
0805356-004	SB-27-W	Water	5/14/2008 11:00	☐	A		B									
0805356-005	SB-30-W	Water	5/14/2008 9:25	☐	A		B									
0805356-006	SB-31-W	Water	5/14/2008 9:45	☐	A		B									

Test Legend:

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

Prepared by: Ana Venegas

Comments:

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

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Telephone: 877-252-9262 Fax: 925-252-9269

Sample Receipt Checklist

Client Name: **AEI Consultants** Date and Time Received: **5/14/2008 12:55:14 PM**

Project Name: **#274761; Zimmerman,3442 Adeline St, Oakland Ca** Checklist completed and reviewed by: Ana Venegas

WorkOrder N°: **0805356** Matrix Water Carrier: Client Drop-In

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: 11.8°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TTLC Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑

Client contacted: Date contacted: Contacted by:

Comments:

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"When Quality Counts"

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AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #274761; Zimmerman,3442 Adeline St, Oakland Ca	Date Sampled: 05/14/08
		Date Received: 05/14/08
	Client Contact: Harmony TomSun	Date Extracted: 05/15/08-05/19/08
	Client P.O.:	Date Analyzed 05/15/08-05/19/08

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

Extraction method SW5030B Analytical methods SW8021B/8015Cm Work Order: 0805356

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	SB-23-W	W	46,000,a,i	ND<450	9000	40	2300	5200	50	94
002A	SB-24-W	W	11,000,b,m,i	ND<50	80	ND<5.0	440	290	10	115
003A	SB-26-W	W	2300,a,h,i	ND<10	22	2.1	ND<1.0	2.4	2	112
004A	SB-27-W	W	740,a,m,i	ND	7.4	3.7	ND	1.0	1	115
005A	SB-30-W	W	ND,i	ND	ND	ND	ND	ND	1	94
006A	SB-31-W	W	5100,a,i	ND<110	270	6.3	79	7.2	10	97

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	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #274761; Zimmerman,3442 Adeline St, Oakland Ca	Date Sampled: 05/14/08
		Date Received: 05/14/08
	Client Contact: Harmony TomSun	Date Extracted: 05/14/08
	Client P.O.:	Date Analyzed 05/15/08-05/16/08

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up*

Extraction method SW3510C/3630C Analytical methods: SW8015C Work Order: 0805356

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	DF	% SS
0805356-001B	SB-23-W	W	4800,d,i	1	106
0805356-002B	SB-24-W	W	2900,d,i	1	106
0805356-003B	SB-26-W	W	770,d,h,i	1	106
0805356-004B	SB-27-W	W	180,d,i	1	104
0805356-005B	SB-30-W	W	ND,i	1	104
0805356-006B	SB-31-W	W	770,d,i	1	112

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

* 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/matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder 0805356

EPA Method SW8021B/8015Cm Extraction SW5030B BatchID: 35603 Spiked Sample ID: 0805143-001C

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	86.5	75.9	13.1	93.4	86.5	7.70	70 - 130	20	70 - 130	20
MTBE	ND	10	106	106	0	101	97.8	3.29	70 - 130	20	70 - 130	20
Benzene	ND	10	82	82	0	87.3	81	7.49	70 - 130	20	70 - 130	20
Toluene	0.65	10	84	86.2	2.36	96.8	89.4	7.96	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	88.3	91.8	3.91	94.8	87.2	8.37	70 - 130	20	70 - 130	20
Xylenes	ND	30	97.3	102	4.81	105	96.2	8.37	70 - 130	20	70 - 130	20
%SS:	92	10	92	88	5.27	92	92	0	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 35603 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0805356-001A	05/14/08 10:35 AM	05/15/08	05/15/08 1:23 PM	0805356-002A	05/14/08 10:10 AM	05/16/08	05/16/08 8:26 PM
0805356-003A	05/14/08 9:00 AM	05/19/08	05/19/08 9:29 PM	0805356-004A	05/14/08 11:00 AM	05/15/08	05/15/08 3:55 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.

£ 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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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder 0805356

EPA Method SW8021B/8015Cm Extraction SW5030B BatchID: 35607 Spiked Sample ID: 0805411-001A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	102	91.1	11.0	88.9	95.1	6.66	70 - 130	20	70 - 130	20
MTBE	ND	10	94	91.5	2.66	93.2	97.7	4.68	70 - 130	20	70 - 130	20
Benzene	ND	10	86.9	82.3	5.43	84.7	89.7	5.74	70 - 130	20	70 - 130	20
Toluene	ND	10	85.4	80.4	6.02	77.4	84	8.22	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	86.5	81.4	6.06	85.2	89.6	4.97	70 - 130	20	70 - 130	20
Xylenes	ND	30	81	76.5	5.71	84.4	89	5.28	70 - 130	20	70 - 130	20
%SS:	100	10	102	98	3.33	97	96	1.85	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 35607 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0805356-005A	05/14/08 9:25 AM	05/15/08	05/15/08 4:33 PM	0805356-006A	05/14/08 9:45 AM	05/15/08	05/15/08 5:12 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, or inconsistency in sample containers.

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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder 0805356

EPA Method SW8015C **Extraction SW3510C/3630C** **BatchID: 35620** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	105	105	0	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	105	104	0.623	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 35620 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0805356-001B	05/14/08 10:35 AM	05/14/08	05/16/08 6:14 PM	0805356-002B	05/14/08 10:10 AM	05/14/08	05/16/08 7:22 PM
0805356-003B	05/14/08 9:00 AM	05/14/08	05/16/08 8:30 PM	0805356-004B	05/14/08 11:00 AM	05/14/08	05/15/08 10:44 PM
0805356-005B	05/14/08 9:25 AM	05/14/08	05/15/08 11:52 PM	0805356-006B	05/14/08 9:45 AM	05/14/08	05/16/08 1:01 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 N° 1644

QA/QC Officer

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1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
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AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #274761; Zimmerman, 3442 Adeline St, Oakland, Ca	Date Sampled: 05/16/08
		Date Received: 05/16/08
	Client Contact: Harmony TomSun	Date Reported: 05/22/08
	Client P.O.:	Date Completed: 05/20/08

WorkOrder: 0805453

May 22, 2008

Dear Harmony:

Enclosed within are:

1) The results of the **2** analyzed samples from your project: **#274761; Zimmerman, 3442 Adeline**
2) A QC report for the above samples,
3) A copy of the chain of custody, and
4) An invoice for analytical services.

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.

0805453

McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road
Pittsburg, CA 94565
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 DAY

EDF Required? ☑ Yes ☐ No

Report To: Harmony TomSun Bill To: same P.O. #

Company: AEI Consultants

2500 Camino Diablo, Suite 200

Walnut Creek, CA 94597 E-Mail: htomsun@aeiconsultants.com

Tele: (925) 944-2899 Fax: (925) 944-2895

Project #: 274761 Project Name: Zimmerman

Project Location: 3442 Adeline Street, Oakland, CA 94608

Sampler Signature:

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	Soil	Air	Sludge	Other	METHOD PRESERVED Ice	HCl	HNO_3	Other
x1 SB-28-W	Oakland	5/16	8:30	3	1AMB 2VOA	X					X			
x5 SB-29-W		"	8:40	4	2 AMB 2VOA	X					X			

Analysis Request

BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015) ~~Multi-range~~ w/ Silica Gel	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015) w/ Silica Gel	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI
X	X													
X	X													

Other

Comments

Relinquished By:	Date:	Time:	Received By:
	5/16/05	5:55	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 3.4

GOOD CONDITION ✓

HEAD SPACE ABSENT ____

DECHLORINATED IN LAB ____

PRESERVATION ____ VOAS | O&G | METALS | OTHER

APPROPRIATE ✓

CONTAINERS ____

PERSERVED IN LAB ____

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0805453 **ClientCode: AEL**

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

Report to:
Harmony TomSun
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
(925) 944-2899 FAX (925) 944-2895

Email: htomsun@aeiconsultants.com
cc:
PO:
ProjectNo: #274761; Zimmerman, 3442 Adeline St, Oakland, Ca

Bill to:
Denise Mockel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
dmockel@aeiconsultants.com

Requested TAT: 5 days

Date Received: **05/16/2008**
Date Printed: **05/16/2008**

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
0805453-001	SB-28-W	Water	5/16/2008 8:30	☐	A	A	B									
0805453-002	SB-29-W	Water	5/16/2008 8:40	☐	A		B									

Test Legend:

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

Prepared by: Ana Venegas

Comments:

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

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Sample Receipt Checklist

Client Name: **AEI Consultants** Date and Time Received: **05/16/08 5:53:21 PM**

Project Name: **#274761; Zimmerman, 3442 Adeline St, Oakland, C** Checklist completed and reviewed by: Ana Venegas

WorkOrder N°: **0805453** Matrix Water Carrier: Client Drop-In

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: 3.4°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TTLC Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑

Client contacted: Date contacted: Contacted by:

Comments:

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AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #274761; Zimmerman, 3442 Adeline St, Oakland, Ca	Date Sampled: 05/16/08
		Date Received: 05/16/08
	Client Contact: Harmony TomSun	Date Extracted: 05/19/08-05/20/08
	Client P.O.:	Date Analyzed 05/19/08-05/20/08

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

Extraction method SW5030B Analytical methods SW8021B/8015Cm Work Order: 0805453

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	SB-28-W	W	290,a,i	ND	1.3	0.93	2.7	4.0	1	104
002A	SB-29-W	W	ND,i	ND	ND	ND	ND	ND	1	107

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	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #274761; Zimmerman, 3442 Adeline St, Oakland, Ca	Date Sampled: 05/16/08
		Date Received: 05/16/08
	Client Contact: Harmony TomSun	Date Extracted: 05/16/08
	Client P.O.:	Date Analyzed 05/17/08

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up*

Extraction method SW3510C/3630C Analytical methods: SW8015C Work Order: 0805453

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	DF	% SS
0805453-001B	SB-28-W	W	72,d,b,i	1	70
0805453-002B	SB-29-W	W	ND,i	1	109

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

* 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/matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder 0805453

EPA Method SW8015C **Extraction SW3510C/3630C** **BatchID: 35620** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	105	105	0	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	105	104	0.623	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 35620 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0805453-001B	05/16/08 8:30 AM	05/16/08	05/17/08 4:24 PM	0805453-002B	05/16/08 8:40 AM	05/16/08	05/17/08 5:31 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 N° 1644

QA/QC Officer

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder 0805453

EPA Method SW8021B/8015Cm Extraction SW5030B BatchID: 35681 Spiked Sample ID: 0805461-001A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	98.8	96.7	2.14	90.7	101	10.8	70 - 130	20	70 - 130	20
MTBE	ND	10	112	112	0	97.8	95.4	2.51	70 - 130	20	70 - 130	20
Benzene	ND	10	96	103	6.84	93	89.3	4.01	70 - 130	20	70 - 130	20
Toluene	ND	10	106	113	6.04	87.7	85.5	2.57	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	104	109	4.54	90.2	83.9	7.22	70 - 130	20	70 - 130	20
Xylenes	ND	30	115	120	3.86	82.2	80	2.74	70 - 130	20	70 - 130	20
%SS:	103	10	94	100	6.38	103	101	1.96	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 35681 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0805453-001A	05/16/08 8:30 AM	05/19/08	05/19/08 6:01 PM	0805453-002A	05/16/08 8:40 AM	05/20/08	05/20/08 4:14 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, or inconsistency in sample containers.