LIMITED PHASE II ENVIRONMENTAL SITE INVESTIGATION REPORT

2823 ADELINE STREET
OAKLAND, CALIFORNIA

Prepared for:

ALAMEDA COUNTY HEALTH CARE SERVICES
ALAMEDA, CALIFORNIA

September 2014

STELLAR
ENVIRONMENTAL SOLUTIONS, INC.
GEOSCIENCE & ENGINEERING CONSULTING

LIMITED PHASE II ENVIRONMENTAL SITE INVESTIGATION REPORT

2823 ADELINE STREET
OAKLAND, CALIFORNIA

Prepared for:

ALAMEDA COUNTY HEALTH CARE SERVICES
1131 HARBOR BAY PARKWAY, SUITE 250
ALAMEDA, CA 94502

Prepared by:

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September 5, 2014

STELLAR
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September 5, 2014

Mr. Jerry Wickham
Hazardous Materials Specialist
Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: Subsurface Investigation Report Findings – 2823 Adeline Street, Oakland, California

Dear Mr. Wickham:

Stellar Environmental Solutions Inc. (Stellar Environmental) is submitting this report of findings on behalf of the Hung Revocable Trust, the responsible party (RP) for the above mentioned address where an abandoned underground gasoline storage tank (UST) was discovered during a Phase I assessment in March 2014. The 1,100 gallon gasoline UST was closed in place at the site in July 2014. Transfer of Property ownership is pending with escrow due to close in September 2014. The scope of this investigation included limited soil and groundwater sampling intended to evaluate the extent of residual gasoline hydrocarbons downgradient of the UST after a grab groundwater sample collected during tank closure was found to contain hydrocarbons above ESLs. The property is not a listed site documenting the presence of a UST or that a leak has occurred. Based on the non-detectable concentrations of hydrocarbons and related compounds in soil and groundwater downgradient of the UST and dispenser, it is requested that no further action be taken.

We declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of our knowledge. Please call the undersigned at (510) 644-3123 if you have any questions.

Sincerely,

Steve Bittman, R.E.A.
Senior Environmental Scientist

Robert Hung
Trustee for the Hung Revocable Trust
Responsible Party

Richard Makdisi, R.G., R.E.A.
Principal Geochemist and President

REGISTERED GEOLOGIST
RICHARD S. MAKDISI
No 4652
Exp. 4/2016
STATE OF CALIFORNIA

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1.0 INTRODUCTION

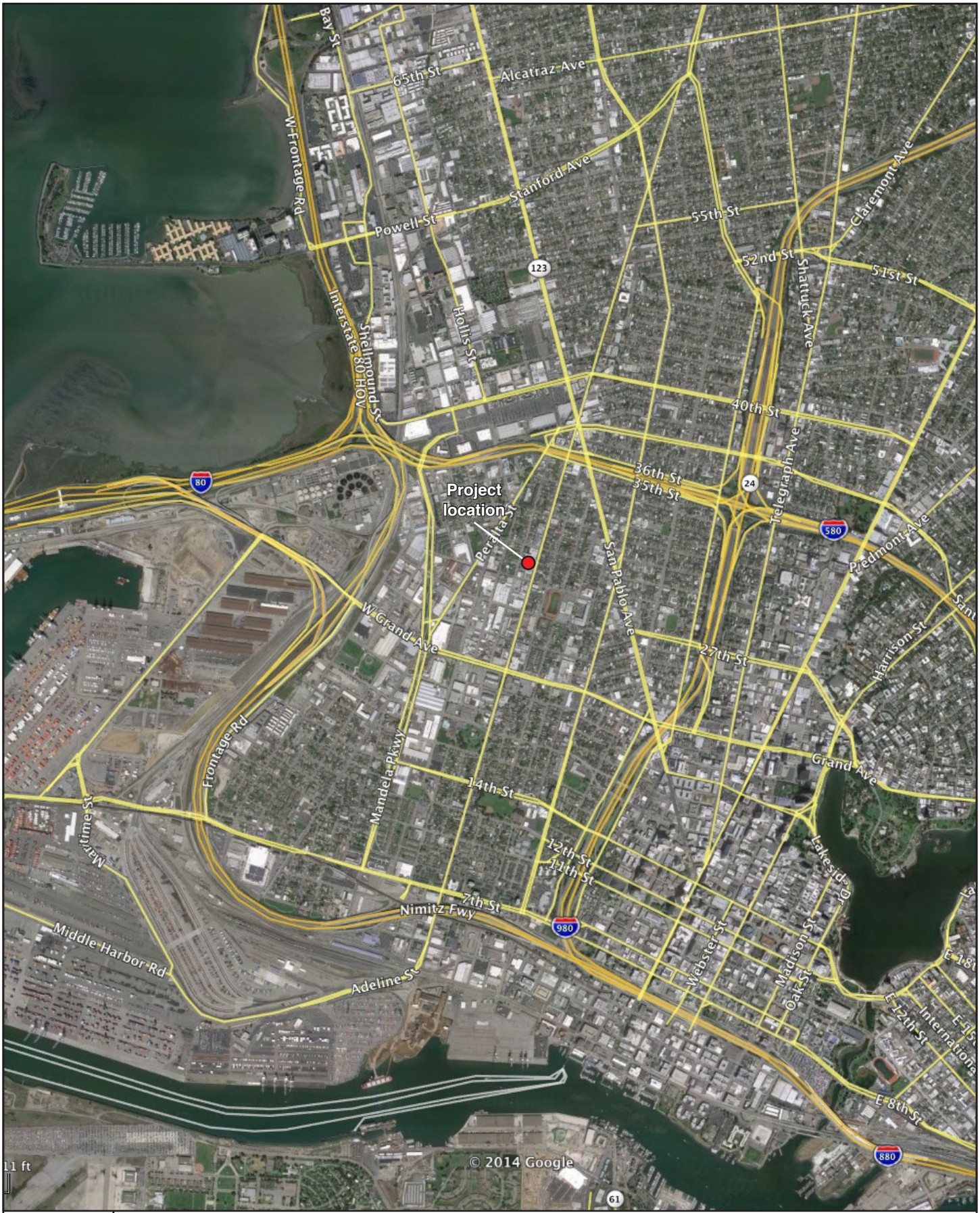
INTRODUCTION AND PROJECT BACKGROUND

On behalf of the Hung revocable Trust (the responsible party), Stellar Environmental Solutions, Inc. (Stellar Environmental) is providing this report of findings for subsurface work at the referenced property to evaluate the extent of residual fuel hydrocarbons detected in a grab groundwater sample collected during the in-place closure of an 1,000 gallon gasoline underground storage tank (UST) at the site in July 2014. The property is currently undergoing transfer of ownership

Site Description and UST History

The project site is located on the west side of Adeline Street, 100 feet north of 28th Street in Oakland, California. The Property has an address of 2823 Adeline Street and extends to Magnolia Street to the west. A covered fill port, set in the concrete sidewalk in front of the building on the Adeline Street side of the Property with a metal tag reading "Associated Flying A Gasoline" wired to the fill cap was discovered as part of a Phase I assessment of the Property conducted by International Geologic (IG) in April, 2014. A probe inserted into the fill port determined the burial depth of the UST to be approximately 7.5 feet below the sidewalk, and the tank to contain about 4-inches of gasoline. A sample of liquid with an odor of aged gasoline was retrieved from the tank using a bailer. A vent pipe, typical to such systems was observed about 15 feet north of the fill port protruding from the sidewalk adjacent to the building and rising against the side of the building. A capped discharge line was located beneath a wooden cover set into the dispenser pad just inside the roll-up door of the building.

The UST was likely associated with former delivery truck operations at the Property. The date of installation of the UST is unknown; however, based on site history, the UST is estimated to be at least 60 years old, and has been out of service since the 1960's. There are no USTs currently registered for the Property with the State of California (EDR®, 2014), and no records of USTs for the Property are recorded with local agencies. A Site Vicinity Map depicting the location of the Property is shown in Figure 1. Figure 2 shows the layout of the property including the former UST and dispenser locations.



SITE LOCATION MAP

2823 Adeline St. Oakland, CA	By: MJC	SEPTEMBER 2014
	Figure 1	

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SITE PLAN AND SOIL BORING LOCATIONS

2823 Adeline St.
Oakland, CA

By: MJC

SEPTEMBER 2014

Figure 2

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2014-36-02

UST Excavation Soil and Groundwater Confirmation Sampling

The top of the UST was exposed on July 10, 2014 when it was discovered that it extended beneath the location of a city street light pole. Inspector Sheryl Skillern of the Oakland Fire Department (OFD) ordered the UST to be abandoned in place and the collection of soil samples to proceed as practical. On July 11, 2014, excavation confirmation sampling was conducted immediately following the UST triple rinsing/inerting procedure and was witnessed by Inspector Skillern. The west (downgradient side) of the UST was excavated to a depth of about 8 feet bgs in two areas and samples T-N-8 and T-S-8 collected from soil brought to the surface in the backhoe bucket. Groundwater encountered at 8 feet bgs prevented further excavation. Some areas of discolored soil with no hydrocarbon odor or PID reading were present in the soil brought to the surface. Because water began collecting at the 8-foot depth, the water was pumped out, and allowed to collect again before grab sample GW-1 was collected using accepted protocols.

No detectable concentration of TVHg, naphthalene, BTEX or fuel oxygenates MTBE/TBA/EDB was detected in the soil samples T-N-8 and T-S-8 collected from 8 feet bgs at the west side of the excavation by the tank. No detectable concentration of tetraethyl or tetramethyl lead was detected in the soil samples T-N-8 or T-S-8.

A 4-point composite sample COMP-1 collected of the tank backfill, did not contain detectable concentrations of TVHg, naphthalene, BTEX or the fuel oxygenates MTBE/TBA/EDB. No detectable concentration of tetraethyl or tetramethyl lead was detected in sample COMP-1. This soil was used to temporarily backfill the excavation to secure the location for the weekend.

The initial groundwater grab sample collected from the tank excavation contained 2,000 µg/l TVHg, 97 µg/l benzene, 280 µg/l toluene, 31 µg/l ethylbenzene, 220 µg/l xylenes and 50 µg/l naphthalene. No MTBE or other fuel oxygenates were detected in the groundwater sample. The detection of 5.9 µg/l 1,2-dichloroethane is not related to the gasoline UST, and reportedly, no related VOCs were ever stored or used at the Property.

UST In-Place Abandonment Procedures

On July 15, 2014, the UST was re-exposed in order to proceed with filling the UST with sand/cement slurry. Approximately 5.5 cubic yards of sand/cement slurry was introduced into through a hole that had been ripped near the top of the tank wall. Excess sand/cement slurry was allowed to partially fill the excavation to assure the UST was filled to the top. Based on the laboratory analytical results showing lack of contamination, excavated backfill material was placed back in the excavation and compacted prior to sidewalk restoration.

See Appendix A for the complete UST closure report prepared by International Geologic.

2.0 SUBSURFACE SITE INVESTIGATION

This section describes the drilling completed and sampling methods used to evaluate for presence of subsurface contamination in areas downgradient of the former UST location.

Purpose and Scope of Work

The objective of the work was to address the concerns that contamination may have migrated downgradient from the former tank location via groundwater before the UST was closed.

The principal objectives of this site evaluation study are to:

- Collect soil and groundwater samples at three locations to determine if contaminants of concern are present including: gasoline range hydrocarbons, benzene, toluene, ethylbenzene, xylenes, and MTBE (MBTEX), fuel oxygenates and the LUFT 5 metals, at concentrations that exceed State Environmental Screening Levels (ESLs).
- At the time of the in-place closure of the UST in July, no dispenser area samples were collected. The scope of the investigation described here also included drilling a boring adjacent to the former dispenser area which is located inside the site building, about 10 feet to the west (downgradient) of the UST.
- Assess the site data in the context of business risk to a potential property owner in terms of existing site use, future residential or commercial use associated with site redevelopment and potential regulatory considerations and/or requirements.

Drilling Location Rationale and Sampling Methods

Groundwater beneath the site is assumed to flow in an approximately westerly direction with a possible northwesterly component based upon groundwater data from the nearest (within 600 feet) active site at 2836 Union Street (TO600105641) and on the local topographic gradient.

The bore locations were designed to evaluate the extent of residual hydrocarbons in soil and for the presence of groundwater contamination. The three exploratory bores were all located inside the warehouse building to the west of the UST location. As mentioned above, the dispenser area had not been sampled during the UST closure work, therefore borehole B1 was located adjacent to the former dispenser area within 10 feet of the former location of the UST. Boreholes B2 and B3 were located approximately 40 feet in the estimated downgradient directions from the source

area to evaluate potential migration and/or attenuation of the hydrocarbon contamination away from the residual source. Soil samples in Boring B1 were collected both above and below the groundwater table to document a vertical profile in the unsaturated and saturated zone. Soil samples were collected at boring B1 at depth of 4 feet (B1-3.5-4) (unsaturated) and 8 feet (B1-7.5-8) (saturated). One soil sample from boring B2 (B2-7.5-8), and one sample from boring B3 (B3-9.5-10) were also submitted for analyses.

Drilling was conducted by Cascade Drilling of Richmond, California (C57-938110) under the direct supervision of Stellar Environmental Geologist Steve Bittman, who continuously logged the bores. The boreholes were drilled with a GeoProbe™ 6600 direct-push drilling rig using 2½-inch-diameter steel outer drive casing lined with acetate sleeves. The soil samples were retained in their acetate sleeves and sealed with inert Teflon® tape and plastic caps. Groundwater samples were collected using a peristaltic pump equipped with new tubing and stored in appropriate glass containers. All soil and groundwater samples were immediately placed on ice at 4° C., and transported to McCampbell Analytical, a State of California Environmental Laboratory Accreditation Program (ELAP) certified laboratory, via laboratory courier under chain-of-custody documentation. Prior to drilling, Underground Service Alert (USA) was contacted with regard to potential underground utilities, and a drilling permit was obtained from the Alameda County Public Works Agency.

Appendix B contains photodocumentation of the field work, Appendix C the bore logs and Appendix D copies of the permits.

The drilling program objective involved collecting continuous soil cores in the acetate liners to the total depth of the boring in all three locations, logging the soil using the Unified Soils Classification System, and submitting selected samples for laboratory analysis. Groundwater samples were to be collected from all three boring locations and submitted for analysis. The following summarizes the depths reached and sampling protocol used for each boring:

- Boreholes B1 and B3 were drilled to a depth of 16 feet bgs and borehole B2 was drilled to a depth of 20 feet bgs. Two soil samples from boring B1 were selected for laboratory analyses based on depth, visual inspection and lithology as described above. Temporary wells constructed of ¾-inch diameter pvc, screened across the bottom 10-feet of each boring, were placed in each boring.

Following completion of drilling and sampling activities, the temporary pvc wells were removed and the boreholes tremie-grouted to surface with a mixture of neat Portland cement and potable water. Mr. Scott Brown representing Alameda County Public Works Agency approved the grouting. Waste soil and groundwater from this investigation was contained onsite in two 5-gallon buckets labeled “Non-Hazardous Waste” pending analysis.

Lithology and Hydrogeology

Site-specific lithology to a depth of 20 feet bgs was characterized at borings B1 and B3, and to a depth of 16 feet bgs in boring B2. Beneath the approximately 6-inches of concrete slab-on-grade floor, subsurface lithology can be described as grey/brown silty clay to a depth of approximately 6 to 8 feet bgs. This fine grained material is underlain by coarser grained materials consisting of brown to reddish brown, moist to wet, gravelly silty/sandy clay to clayey sand ranging in depth from about 12 feet bgs in boring B3, to 17 feet in boring B2. These coarse grained materials are underlain by stiff silty clay. Groundwater did not immediately flow into the borings, which prompted the installation of pvc casing into the borings. The depth to water in all three borings was about 8 to 10 feet bgs after 1 to 2 hours after installation of the pvc pipe. Geologic logs of the borings were completed using the uniform classification system (see Appendix C).

ANALYTICAL METHODS AND RESULTS

Samples collected were analyzed for the following constituents by McCampbell Analytical of Pittsburg, California by the methods described below. Appendix E contains the certified analytical laboratory report and chain-of-custody record.

- Total Volatile Hydrocarbons as gasoline (TVH-g), naphthalene benzene, toluene, ethylbenzene, and xylenes (BTEX) and the fuel oxygenates MTBE, EDB, TBA, TAME, DIPE and ETBE by EPA Method 5030/8260 (all soil and groundwater).

- LUFT 5 metals by EPA Method E200.8 (soil only for samples from B1).

Soil Analytical Results

None of the four soil samples collected from the three borings contained detectable concentrations of TVH-g, MBTEX or fuel oxygenates. LUFT metals cadmium, chromium, lead, nickel and zinc were detected at levels approximating background concentrations for the Bay Area and below established ESLs.

Groundwater Analytical Results

None of the three groundwater samples collected from the three borings contained detectable concentrations of TVH-g or MBTEX compounds. No fuel oxygenates were detected with the exception of T-Butyl-Alcohol (TBA) at a concentration of 14 micrograms per liter (µg/l) in the groundwater sample GW-3 collected from boring B3. The Environmental Screening level (ESL) for TBA in groundwater in a commercial setting where groundwater is considered a potential drinking water resource setting is 12 µg/L. Tables 1 and 2 summarize the analytical data. Figure 3 displays soil and groundwater analytical results.

Table 1
Total and Volatile Petroleum Hydrocarbons in Soil and Groundwater
2823 Adeline Street, Oakland, CA

Sample ID	TVHg	MTBE	Benzene	Toluene	Ethyl Benzene	Xylenes	Fuel Oxys
B1-3.5-4	< 0.25	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
B1-7.5-8	< 0.25	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
B2-7.5-8	< 0.25	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
B3-9.5-10	< 0.25	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
ESLs Residential[(a)]	100 / 100	0.023 / 8.4	0.044 / 0.74	2.9 / 9.3	3.3 / 4.7	2.3 / 11	Varies
ESLs Industrial[(a)]	500 / 500	0.023 / 8.4	0.044 / 1.2	2.9 / 9.3	3.3 / 4.7	2.3 / 11	Varies
GW-1	< 50	<5	<0.5	<0.5	<0.5	<0.5	<0.5
GW-2	< 50	<5	<0.5	<0.5	<0.5	<0.5	<0.5
GW-3	< 50	<5	<0.5	<0.5	<0.5	<0.5	**14** (TBA)
ESLs Residential[(a)]	100 / 500	5.0/1,800	1.0 / 27	40 / 130	30/ 43	20 / 100	Varies
ESLs Industrial[(a)]	100 / 500	5.0/1,800	1.0 / 46	40 / 130	30 / 43	20 / 100	TBA = 12/18,000

Notes:

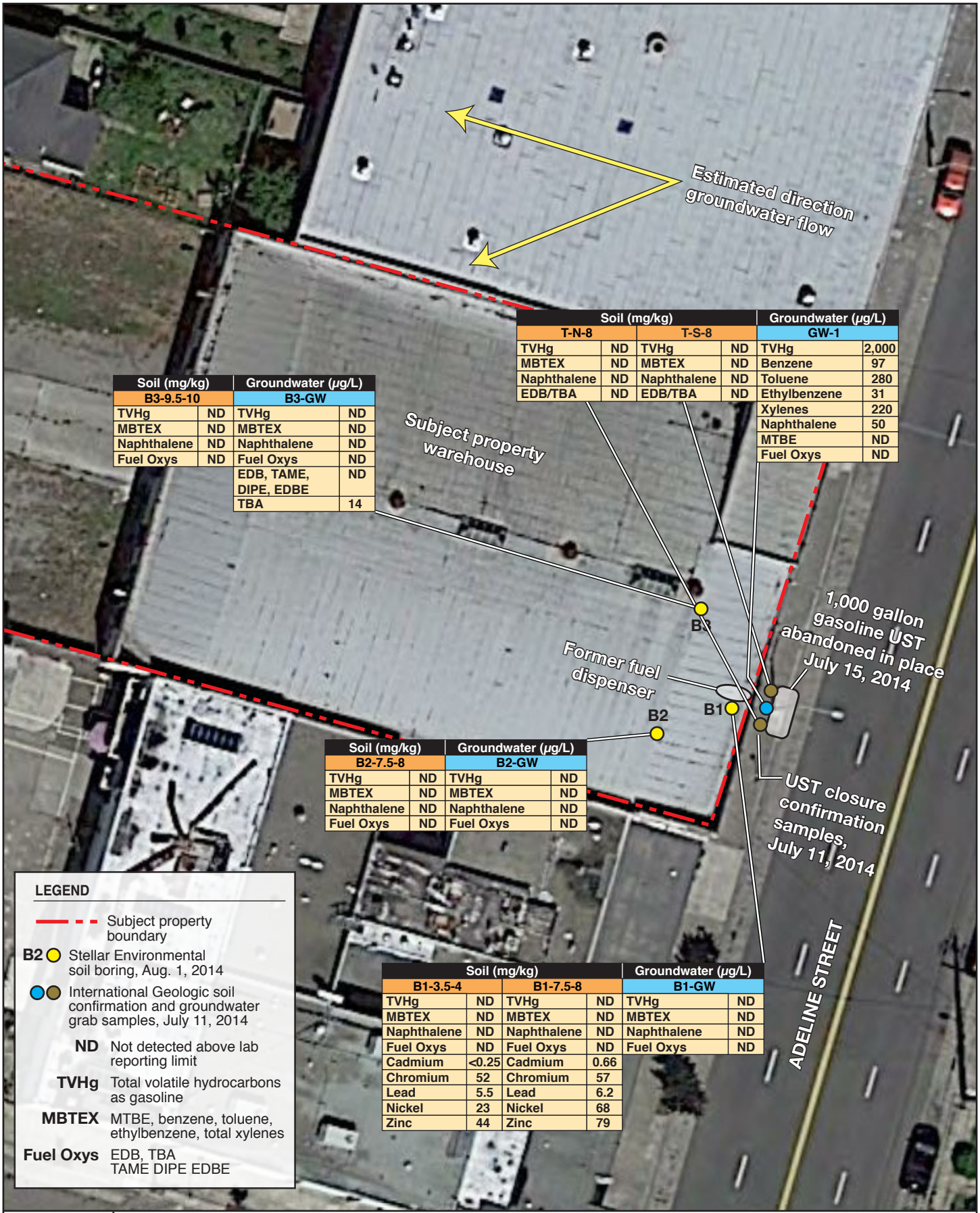
ESLs = Environmental Screening Levels

[(a)] Water Board Tier 1 shallow soil Environmental Screening Levels for sites where groundwater is/is not a likely drinking water resource.
Soil results expressed in milligrams per kiligram (mg/kg)
Groundwater results expresswed in micrograms per liter (µg/l) Results in **BOLD** type exceed ESL (Section 3)
TVHg = total volatile hydrocarbons as gasoline; MTBE = methyl-tertiary-butyl-ether (MTBE); TBA = Tertary-Butyl-Alcohol

Table 2
LUFT 5 Metals in Soil, 2823 Adeline Street, Oakland, CA

Sample ID	Cadmium	Chromium	Lead	Nickel	Zinc
B1-3.5-4	< 0.25	52	5.5	23	44
B1-7.5-8	0.66	57	6.2	68	79
ESLs Residential and Industrial [(a)]	12 / 12	1,000 / 2,500	80 / 320	150 / 150	600 / 600

Notes:
ESLs = Environmental Screening Levels; Concentrations expressed in milligrams per kilogram (mg/kg). [a)]Water Board Tier 1 groundwater Environmental Screening Levels for both residential and industrial sites where groundwater is a likely drinking water resource.



Soil (mg/kg)		Groundwater (µg/L)	
B3-9.5-10		B3-GW	
TVHg	ND	TVHg	ND
MBTEX	ND	MBTEX	ND
Naphthalene	ND	Naphthalene	ND
Fuel Oxys	ND	Fuel Oxys	ND
		EDB, TAME, DIPE, EDBE	ND
		TBA	14

Soil (mg/kg)				Groundwater (µg/L)	
T-N-8		T-S-8		GW-1	
TVHg	ND	TVHg	ND	TVHg	2,000
MBTEX	ND	MBTEX	ND	Benzene	97
Naphthalene	ND	Naphthalene	ND	Toluene	280
EDB/TBA	ND	EDB/TBA	ND	Ethylbenzene	31
				Xylenes	220
				Naphthalene	50
				MTBE	ND
				Fuel Oxys	ND

Soil (mg/kg)		Groundwater (µg/L)	
B2-7.5-8		B2-GW	
TVHg	ND	TVHg	ND
MBTEX	ND	MBTEX	ND
Naphthalene	ND	Naphthalene	ND
Fuel Oxys	ND	Fuel Oxys	ND

Soil (mg/kg)				Groundwater (µg/L)	
B1-3.5-4		B1-7.5-8		B1-GW	
TVHg	ND	TVHg	ND	TVHg	ND
MBTEX	ND	MBTEX	ND	MBTEX	ND
Naphthalene	ND	Naphthalene	ND	Naphthalene	ND
Fuel Oxys	ND	Fuel Oxys	ND	Fuel Oxys	ND
Cadmium	<0.25	Cadmium	0.66		
Chromium	52	Chromium	57		
Lead	5.5	Lead	6.2		
Nickel	23	Nickel	68		
Zinc	44	Zinc	79		

LEGEND

- Subject property boundary
- **B2** Stellar Environmental soil boring, Aug. 1, 2014
- International Geologic soil confirmation and groundwater grab samples, July 11, 2014
- **ND** Not detected above lab reporting limit
- **TVHg** Total volatile hydrocarbons as gasoline
- **MBTEX** MTBE, benzene, toluene, ethylbenzene, total xylenes
- **Fuel Oxys** EDB, TBA TAME DIPE EDBE

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SOIL AND GROUNDWATER ANALYTICAL RESULTS

2823 Adeline St.
Oakland, CA

By: MJC | SEPTEMBER 2014

Figure 3

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2014-36-03

3.0 REGULATORY CONSIDERATIONS

The concentrations reported in soil and groundwater samples are compared to regulatory limits and guidance to evaluate the extent of any potential impact on the property and the environment.

The Water Board has established Environmental Screening Levels (ESLs) for evaluating the likelihood of environmental impact. ESLs are conservative screening-level criteria for soil and groundwater, designed to be generally protective of both drinking water resources and aquatic environments; they incorporate both environmental and human health risk considerations. ESLs are not cleanup criteria (i.e., health-based numerical values or disposal-based values). Rather, they are used as a preliminary guide in determining whether additional remediation and/or investigation may be warranted. Exceedance of ESLs suggests that additional investigation and/or remediation is warranted.

Different ESLs are published for commercial/industrial vs. residential land use, for sites where groundwater is a likely versus unlikely drinking water resource, and the type of receiving water body. A Water Board-published "proposed groundwater management zones and designated areas map" in their East Bay Plains Beneficial Use Study (Water Board, 1999) shows the property area in a location where groundwater is unlikely to be used for drinking water.

The appropriate ESLs for the subject site are based on the following:

- Based on both the property zoning status (commercial/industrial) and the designation of this area of Oakland as "Zone A – Potential Drinking Water Resource (Water Board, 1999) the appropriate ESLs for the subject site are *commercial/industrial land use* and *groundwater is a potential drinking water resource.* Note that, for groundwater contaminants, all ESLs for the site contaminants are the same for both residential and commercial/industrial land use.
- The receiving body for groundwater discharge is an estuary (San Francisco Bay).

The State of California has also promulgated drinking water standards (Maximum Contaminant Levels [MCLs]) for some of the site contaminants. Drinking water standards may also be utilized by regulatory agencies to evaluate the potential risk associated with groundwater

contamination. For the established site contaminants, MCLs are generally the same as the ESLs (except that there is no MCL for petroleum compounds such as gasoline or diesel).

Once ESLs or drinking water standards are exceeded, the need for, and/or type of additional investigative and corrective actions are generally driven by the potential risk associated with the contamination. Minimum regulatory criteria generally applied to fuel leak cases in groundwater include:

- The contaminant source has been removed, including reasonably accessible contaminated soils that pose a long-term impact to groundwater;

This criteria has been met to the extent practical, with the UST having been triple-rinsed and closed in place by filling it with sand/cement slurry. Soil samples collected at burial depth on the UST west side and of the tank overburden backfill did not contain detectable concentrations of gasoline hydrocarbons.

- The extent of residual contamination has been fully characterized to obtain sufficient lithologic and hydrogeologic understanding (generally referred to as a Site Conceptual Model);

This criterion has been met with respect to the onsite and offsite residual contamination. No onsite impact or offsite groundwater plume is indicated to be present as a result of the contaminants detected in the grab-groundwater sample collected adjacent to the UST at the time of the UST closure.

- Groundwater wells have been installed and are monitored periodically to evaluate groundwater contaminant concentrations and hydrochemical trends;

This criterion has not been met, and will not be required.

- The stability of the contaminant plume has been evaluated to determine whether it is moving or increasing in concentration;

This criterion is not applicable as the data collected demonstrates that no groundwater contamination plume exists, and groundwater wells have not been installed (see above).

- A determination has been made as to whether the residual contamination poses an unacceptable risk to sensitive receptors.

This criterion has been met- no significant impact to groundwater downgradient of the UST location was detected.

As stated above, ESLs are used as a preliminary guide in determining whether additional remediation or other action is warranted. Exceeding ESLs may warrant additional actions, such as monitoring plume stability to demonstrate no risk to sensitive receptors in the case of sites where drinking water is not threatened.

GROUNDWATER IMPACTS AND BENEFICIAL USES

There are no known immediate impacts to the groundwater that affect current beneficial use. The nearest surface water body is San Francisco Bay, located approximately 1.4 miles to the west of the site. The primary source (UST) has been remediated to the extent practical by the in-place closure of the UST which had still contained about 30 gallons of gasoline upon discovery. The in-place closure included evacuating the residual fuel from the tank, triple rinsing it and then backfilling it with sand cement slurry. The property owner has no plans for any future UST or hydrocarbon use, or to utilize site groundwater for any purpose.

PETITION FOR REGULTORY CLOSURE

Based on there being no apparent immediate or probable future environmental impacts from the former gasoline UST, Stellar Environmental petitions ACEH on behalf of the Hung Revocable Trust for no-further-action status.

4.0 CONCLUSIONS, RECOMMENDATIONS, PROPOSED ACTIONS

CONCLUSIONS AND RECOMMENDATIONS

The following conclusions are based on the Phase II Environmental Site Assessment for the subject property located at 2823 Adeline Street, Oakland, Alameda County, California.

- One UST formerly containing gasoline was closed in place at the site in July 2014. The in place closure was necessary due to a city street light pole located directly over the top of the tank. Confirmation soil samples collected from the west (downgradient side) of the UST from the burial depth of 8 feet bgs and of the tank backfill, did not contain detectable concentrations of gasoline hydrocarbons or MBTEX. A UST closure documentation report discussing the UST closure is being submitted to the Oakland Fire Department concurrently with the submittal of this report.
- A groundwater grab sample collected at the time of the UST closure from adjacent to the west side of the UST at a depth of 8 feet bgs, contained 2,000 µg/l TVHg, 97 µg/l benzene, 280 µg/l toluene, 31 µg/l ethylbenzene, 220 µg/l xylenes and 50 µg/l naphthalene. No MTBE or other fuel oxygenates were detected in the groundwater sample. The detection of 5.9 µg/l 1,2-dichloroethane is not related to the gasoline UST and reportedly, no related VOCs were ever stored or used at the Property.
- Based on sampling conducted August 1, 2014, soil and groundwater adjacent to the fuel dispenser located 10 feet downgradient from the UST and two areas further downgradient of the former UST and dispenser locations have not been impacted with gasoline range hydrocarbons.
- The lack of residual hydrocarbon contamination in soil and groundwater downgradient of the former UST and dispenser locations suggests that no significant hydrocarbon contaminant remains in soil by these areas as a source for significant impact to groundwater.
- The appropriate ESL criterion for groundwater at the site is commercial/industrial where groundwater *is* a potential drinking water resource.
- The slight exceedence of the groundwater ESL for Tertiary-butyl-Alcohol (TBA) in boring B3, does not pose a health risk and will not require further evaluation.

Based on the limited Phase II findings and Stellar Environmental Solutions' understanding of ACHCS's site closure evaluation criteria we recommend the following:

- Upload this report to the State Geotracker database to satisfy State requirements.

PROPOSED ACTIONS

- Based on the closure criteria described in this report, the site does not appear to warrant further investigation. No on or off-site impact appears to exist in connection with the contaminated grab groundwater sample collected at the time of the UST closure. Thus, Stellar Environmental is petitioning Alameda County Health, on behalf of our client, the Hung Revocable Trust, to grant no further action for the site.

5.0 LIMITATIONS

This report has been prepared for the use of the Hung Revocable Trust and its authorized representatives.

The findings and conclusions presented in this report are based solely on previous investigations at the subject site conducted by Stellar Environmental, and the current sampling investigation. This report provides neither a certification nor guarantee that the property is free of hazardous substance contamination. This report has been prepared in accordance with generally accepted methodologies and standards of practice of the area.

The personnel performing this assessment are qualified to perform such investigations and have accurately reported the information available, but cannot attest to the validity of that information. No warranty, expressed or implied, is made as to the findings, conclusions, and recommendations included in the report. The findings of this report are valid as of the date of this report. Subject property conditions may change with the passage of time, natural processes or human intervention, which can invalidate the findings and conclusions presented in this report. Thank you again for the opportunity to provide you with the technical services described. Please call us directly at 510-644-3123 if you have any questions.

6.0 REFERENCES

Stellar Environmental Solutions, 2007. Underground fuel Storage Tank Removal and Hoist Removal Report, 2650 Magnolia Street, Oakland, California. September 14.

Regional Water Quality Control Board (Water Board), 1999. East Bay Plain Groundwater Basin Beneficial Use Evaluation Report – Alameda and Contra Costa Counties. June.

Regional Water Quality Control Board (Water Board), 2007. Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater. November.

APPENDIX A

UST Closure Report

International Geologic, September 5, 2014

INTERNATIONAL GEOLOGIC LLC
ENVIRONMENTAL AND GEOLOGICAL SERVICES
2831 SYLHOWE ROAD, OAKLAND, CALIFORNIA 94602
PHONE (510) 612-8751 EMAIL: igeologic@gmail.com

Summary Report

Underground Storage Tank Removal

at

2823 Adeline Street

Oakland, California

Prepared for:

Mr. Bob Hung

Berkeley, California

Prepared by:

INTERNATIONAL GEOLOGIC LLC

2831 Sylhowe Road

Oakland, California 94602

September 5, 2014

INTERNATIONAL GEOLOGIC LLC
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Mr. Bob Hung
PO Box 616
Berkeley, California 94701

September 5, 2014

Subject: Underground Storage Tank Closure at 2823 Adeline Street, Oakland, California.

Mr. Hung:

This report documents gasoline underground gasoline storage tank (UST) closure activities overseen by International Geologic (IG) at 2823 Adeline Street, Oakland ,California. The scope of work included: 1) Coordinating with a qualified Hazardous Waste Contractor and obtaining permits; 2) abandonment in-place of one, 1,000-gallon gasoline UST; 3) Collecting for laboratory analysis native soil samples adjacent to the tank; 4) Collecting for laboratory analysis groundwater that was present in the UST excavation; 5) Sampling and laboratory analysis of excavated soils; 6) Excavation backfilling and compaction; and 9) evaluating analytical results in the context of regulatory considerations.

Due to the below sidewalk location of the UST being directly beneath a street light pole, the Oakland Fire Department (OFD) Inspector onsite ordered the tank to be abandoned in place. No detectable petroleum hydrocarbons or fuel oxygenates were found in the native soil adjacent to the UST or in the tank backfill. A groundwater sample collected of water entering the soil sampling location contained concentrations of gasoline range hydrocarbons and BTEX above Water Board Environmental Screening Levels (ESLs) which will trigger the OFD to refer the case to the Alameda County Department of Environmental Health (ACDEH). Soil samples were not collected next to the former dispenser area as is normally required. In the interest of avoiding the work of demolishing the dispenser pad, and repairing the floor, the soil sample in that area will be collected in conjunction with additional groundwater sampling downgradient of the UST that will be needed to confirm the preliminary finding. That work will be done with minimal impact to the floor.

Sincerely,

Steve Bittman

Project Manager
International Geologic

Summary Report

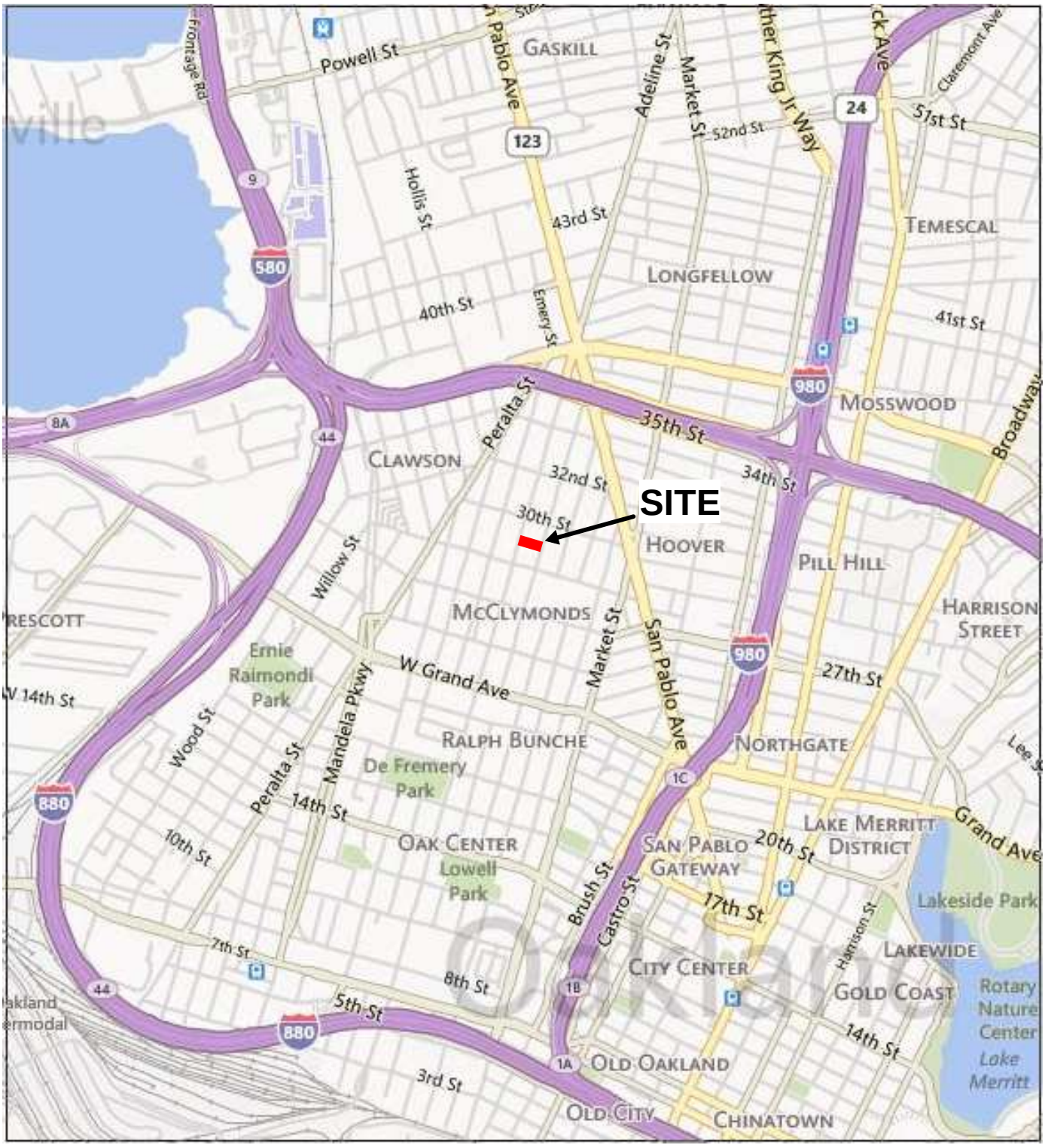
Underground Storage Tank Removal
at
2823 Adeline Street
Oakland, California

1.0 INTRODUCTION

Site Description and UST History

The project site is located on the west side of Adeline Street, 100 feet north of 28th Street in Oakland, California. The Property has an address of 2823 Adeline Street and extends to Magnolia Street to the west. A covered fill port, set in the concrete sidewalk in front of the building on the Adeline Street side of the Property with a metal tag reading "Associated Flying A Gasoline" wired to the fill cap was discovered as part of a Phase I assessment of the Property conducted by International Geologic in April, 2014. A probe inserted into the fill port determined the burial depth of the UST to be approximately 7.5 feet below the sidewalk, and the tank to be nearly empty. A small amount of liquid with an odor of aged gasoline was retrieved from the tank using a bailer. A vent pipe, typical to such systems was observed about 15 feet north of the fill port protruding from the sidewalk adjacent to the building and rising against the side of the building. A capped discharge line was located beneath a wooden cover set into the air and water station pad just inside the roll up door of the building about 10 feet to the west of the UST.

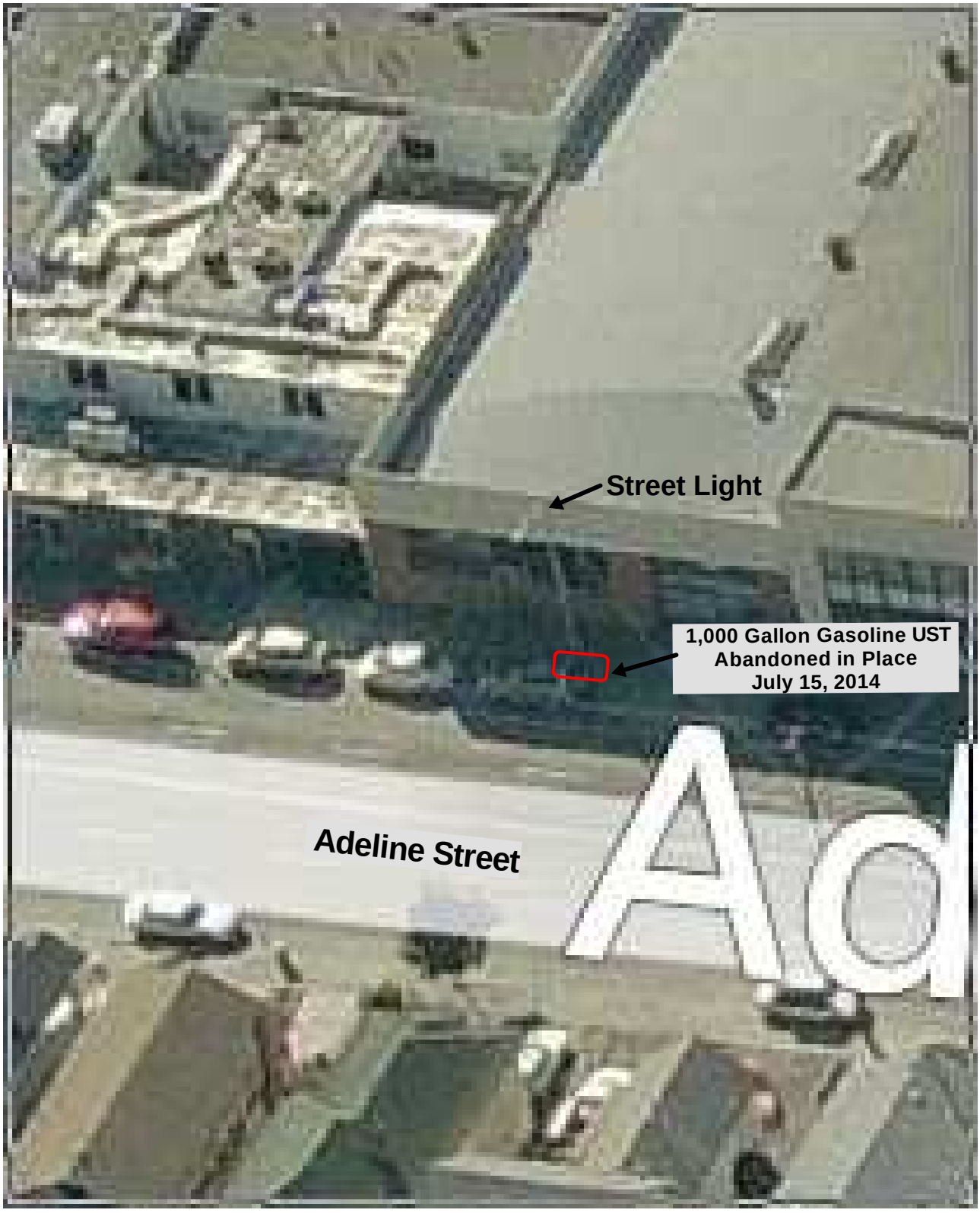
The UST was likely associated with former delivery truck operations at the Property. The date of installation of the UST is unknown; however, based on site history, the UST is estimated to be at least 60 years old, and has been out of service since the 1960's. There are no USTs currently registered for the Property with the State of California (EDR®, 2014), and no records of USTs for the Property are recorded with local agencies. A Site Vicinity Map depicting the location of the Property is shown in Figure 1. Figure 2 shows the layout of the property including the former UST and dispenser locations.



INTERNATIONAL GEOLOGIC Job # 3402-2
2823 Adeline Street
Oakland, California

N

PROPERTY LOCATION MAP
FIGURE 1



Approximate Scale:
1" = 20'

INTERNATIONAL GEOLOGIC Job # 3402-2
2823 Adeline Street
Oakland, California

SITE MAP
FIGURE 2

2.0 UST REMOVAL AND SITE RESTORATION

This section summarizes the pre-field work planning, UST removal activities, and site restoration activities. Appendix A contains photodocumentation of key field activities. The following companies and agencies participated in the UST removal:

International Geologic (IG) (Oakland, California): Consultant responsible for environmental sampling and closure documentation.

City of Oakland Fire Department (OFD): Permitting agency for tank removal, and lead implementing agency with regard to any UST-related environmental issues.

Advanced Fuel Services (AFS): (California Engineering/Hazardous Materials Contractor No. 590259): Property owner (Hung Revocable Trust) contractor responsible for UST removal and site restoration.

Pre-Field Work Planning

Prior to UST removal, the appropriate permits and regulatory agency notifications were completed on behalf of the property owner (included in Appendix B). These include:

City of Oakland Building Department: Excavation permit application, and coordination of inspection for sidewalk restoration.

City of Oakland Fire Department: UST removal permit application, and coordination of OFD onsite inspection of UST removal. Prior to work, AFS prepared and submitted to the OFD a site-specific Health and Safety Plan, in accordance with State of California requirements.

Bay Area Air Quality Management District: Regulation 8 Rule 40 Notification.

UST and Piping Removal and Soil Stockpiling

On July 9, 2014, the approximately 5-inch-thick concrete sidewalk surface over the UST was broken up using a jackhammer and removed for offsite disposal. Sufficient backfill material was removed to expose the top of the UST which was approximately 3 feet below the concrete sidewalk. The tank was oriented with its long axis parallel to Adeline Street with the southern four feet of the UST positioned beneath a steel, street light pole that post-dates the UST. The UST was cylindrical, 4-feet in diameter by 10 feet long single-walled steel and estimated to be of about 1,000 gallon capacity,

and installed in gravelly clay native soil and backfilled with native material. Backfill removed from the tank excavation top and west side was field tested using a photo-ionization detector (PID). No reading above 1 part per million (ppm) was noted during excavation.

On July 10, 2014, the existing liquid in the tank (about 20 gallons) was vacuumed out for offsite disposal as hazardous waste. The interior of the UST was then washed with water (approximately 50 gallons), and the rinseate was again vacuumed out for offsite disposal as hazardous waste (discussed in a following subsection).

Between approximately 1:00 p.m. and 3:00 p.m on July 10, 2014, the tank was vented and about 40 pounds of dry ice (solid carbon dioxide) was added to the UST to render its interior atmosphere inert (non-flammable). Upon examination by Inspector Sheryl Skillern of the OFD, it was agreed by all parties present that the removal of the UST would pose an unacceptable risk to the stability of the street light pole above it, and the order was given by Inspector Skillern to abandon the UST in-place. The product line lateral piping to the dispenser pad in the building was removed from the excavation and the vent line cut at the north end of the excavation.

UST Excavation Soil and Groundwater Confirmation Sampling

Excavation confirmation sampling was conducted immediately following the UST inerting procedure and was witnessed by Inspector Skillern of the OFD. The west (downgradient side) of the UST was excavated to a depth of about 8 feet bgs in two areas, and samples T-N-8 and T-S-8 were collected from soil brought to the surface in the backhoe bucket. Groundwater encountered at the 8 foot depth prevented further excavation. Samples were collected by driving new stainless steel soil sampling liners into the soil, labeled, entered onto a chain-of-custody form, and placed into a chilled ice chest for transportation to the laboratory. Some areas of discolored soil with no hydrocarbon odor or PID reading was present in the soil brought to the surface. Because water began collecting at the 8-foot depth, the water was pumped out, and then allowed to collect again before a sample was collected using laboratory cleaned glass containers. The water sample GW-1 was secured using the protocols described above.

In exposing the UST, a total of approximately 5 cubic yards of backfill material was removed. For public safety reasons, the available UST backfill was temporarily placed back into the excavation pending laboratory analyses of a 4-point composite sample (COMP-1) collected to confirm the suitability of the soil for re-use, using accepted protocols (see Section 3 for laboratory analytical results).

UST In-Place Abandonment Procedures

On July 15, 2014, the UST was re-exposed in order to proceed with filling the UST with sand/cement slurry. Approximately 5.5 cubic yards of sand/cement slurry was introduced into through a hole that had been ripped near the top of the tank wall. Excess sand/cement slurry was allowed to partially fill the excavation to assure the UST was filled to the top. Based on the laboratory analytical results showing lack of contamination,(discussed below in Section 3) excavated backfill material was placed back in the excavation and compacted prior to sidewalk restoration activities described below.

Waste Transport and Disposal

The approximately 70 gallons of UST rinseate and the UST piping are being temporarily stored onsite until additional groundwater testing can be conducted which may create added investigative wastes (Section 4).

Excavation Backfilling and Site Restoration

Restoration of the concrete sidewalk surface was completed on August 22, 2014. This work was inspected and approved by Mr. Yung Chen, Construction Inspector for the City of Oakland Design and Construction Services, Right of Way Management Division.

3.0 ANALYTICAL RESULTS AND REGULATORY CONSIDERATIONS

Laboratory Analytical Methods

The soil and groundwater samples collected during the UST abandonment were submitted under chain-of custody protocol to McCampbell Analytical Inc. (McCampbell) of Pittsburg, California. McCampbell is certified by the State of California to perform the requested analyses.

As specified in the UST permit application, and confirmed by Inspector Skillern at the time of the sampling, initial soil and groundwater samples collected from the UST area were analyzed for:

- TVH as gasoline (TVHg), naphthalene and BTEX plus fuel oxygenates MTBE, TBA and EDB by EPA Method 5030B/8260B;

- Tetraethyl and Tetramethyl Lead by EPA Method 3550B.

Laboratory Analytical Results

Tables 1 and 2 on the following pages summarize the analytical results of soil and groundwater samples collected during UST excavation confirmation sampling. Figure 3 depicts the UST system layout and sample locations with laboratory results. Appendix C contains the certified analytical laboratory reports and chain-of-custody records.

Laboratory quality control samples (e.g., method blanks, matrix spikes, surrogate spikes, etc.) were analyzed by the laboratory in accordance with requirements of each analytical method. All laboratory QC sample results and sample holding times were within the acceptance limits of the methods (Appendix C).

No detectable concentration of TVHg, naphthalene, BTEX or fuel oxygenates MTBE, TBA or EDB was detected in the soil samples T-N-8 and T-S-8 collected from 8 feet bgs at the west side of the excavation by the tank. No detectable concentration of tetraethyl or tetramethyl lead was detected in the soil samples T-N-8 or T-S-8.

The composite sample COMP-1 colleted of the tank backfill material, did not contain detectable concentrations of TVHg, naphthalene, BTEX or fuel oxygenates. No detectable concentration of tetraethyl or tetramethyl lead was detected in sample COMP-1.

The initial groundwater grab sample collected from the tank excavation contained 2,000 µg/l TVHg, 97 µg/l benzene, 280 µg/l toluene, 31 µg/l ethylbenzene, 220 µg/l xylenes and 50 µg/l naphthalene. No MTBE or other fuel oxygenates were detected in the groundwater sample. The detection of 5.9 µg/l 1,2-dichloroethane is likely not related to the gasoline UST.

TABLE 1
SOIL SAMPLING ANALYTICAL RESULTS
2823 ADELINE STREET, OAKLAND, CA
JULY 10, 2014 UST CONFIRMATION SAMPLING

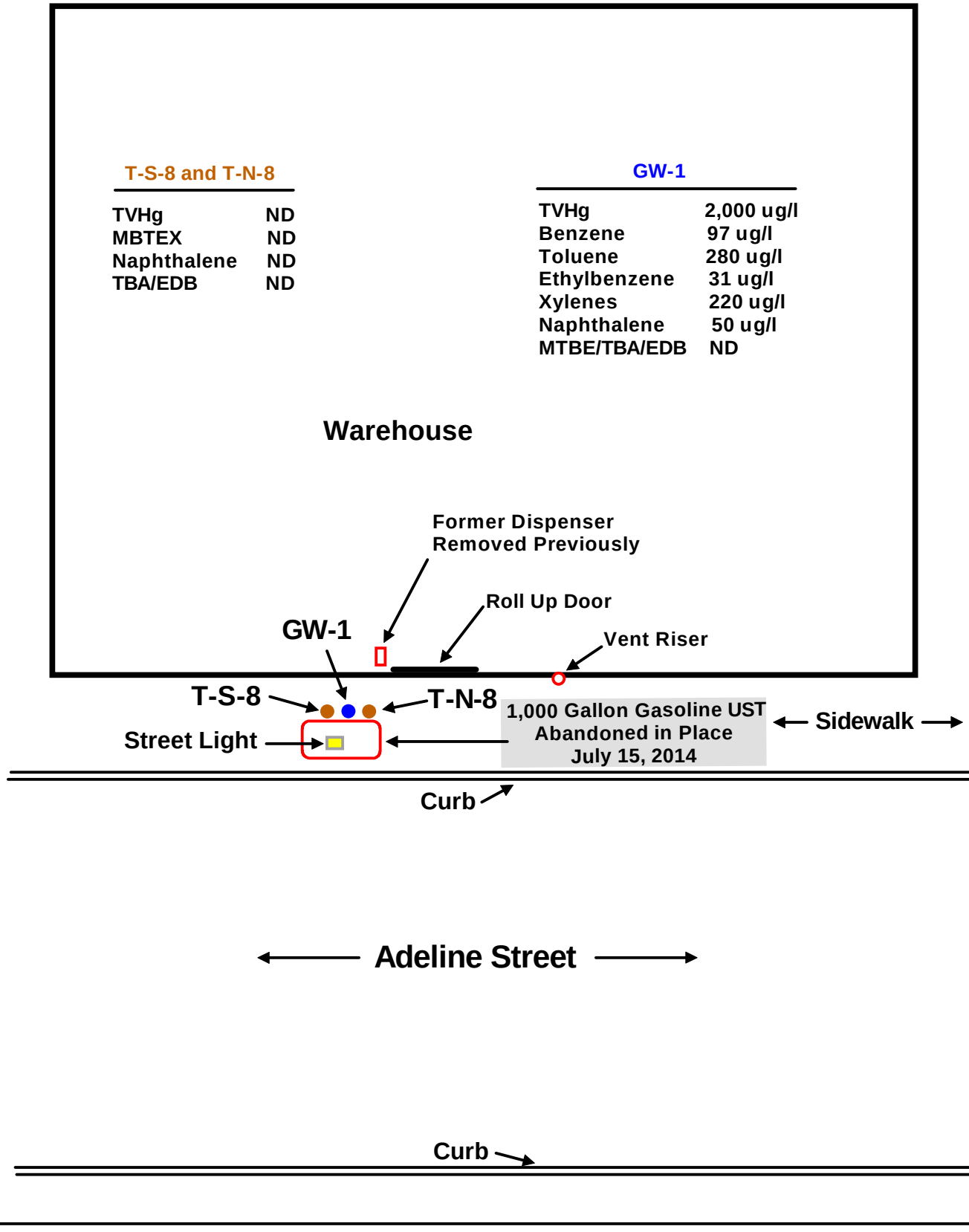
Analyte	T-N-8	T-S-8	COMP-1	ESL (mg/kg) Commercial	ESL (mg/kg) Residential
Lead					
Tetraethyl/Tetramethyl	ND	ND	ND	NLP	NLP
Gasoline and Volatiles					
TVHg	ND	ND	ND	500	100
Naphthalene	ND	ND	ND	1.2	1.2
Benzene	ND	ND	ND	0.044	0.044
Toluene	ND	ND	0.16	2.9	2.9
Ethylbenzene	ND	ND	0.069	3.3	3.3
Xylenes	ND	ND	0.43	2.3	2.3
MTBE	ND	ND	ND	0.023	0.023
TBA	ND	ND	ND	0.075	0.075
EDB	ND	ND	ND	NLP	NLP

Notes:
TVHg = Total volatile hydrocarbons as gasoline
MTBE = methyl tertiary butyl ether
TBA = t-butyl alcohol
EDB = ethylene dobromide
All results are in milligrams per kilogram (mg/kg) unless otherwise indicated.
ESL = Environmental Screening Level (Water Board, 2013)

TABLE 2
GRAB GROUNDWATER SAMPLING ANALYTICAL RESULTS
2823 ADELINE STREET, OAKLAND, CA
JULY 10, 2014 UST CONFIRMATION SAMPLING

Analyte	GW-1	ESL (mg/kg) Commercial	ESL (mg/kg) Residential
Gasoline and Volatiles			
TVHg	**2,000**	100	100
Naphthalene	**50**	6.1	6.1
Benzene	**97**	0.044	0.044
Toluene	**280**	40	40
Ethylbenzene	**31**	30	30
Xylenes	**220**	20	20
MTBE	ND	5	5.000
TBA	ND	12	12
EDB	ND	NLP	NLP
1,2-DCA	5.9	0.5	0.5

Notes:
TVHg = Total volatile hydrocarbons as gasoline
MTBE = methyl tertiary butyl ether
TBA = t-butyl alcohol
EDB = ethylene dIbromide
1,2-DCA= 1,2 dichloroethane
Results in micograms per kilogram (ug/kg) unless otherwise indicatec
ESL = Environmental Screening Level (Water Board, 2013)



● = Soil Sample

● = Grab Groundwater Sample

Approximate Scale:
1" = 15'

INTERNATIONAL GEOLOGIC Job # 3402-2
2823 Adeline Street
Oakland, California

UST LAYOUT & SAMPLE LOCATIONS
FIGURE 3

Discussion and Regulatory Considerations

Accessible soil backfill surrounding the UST was free of detectable gasoline and BTEX contamination. Because the location beneath a city street light pole dictated the in-place closure of the UST, the area directly beneath the tank remains unexplored. The concentrations of gasoline related hydrocarbons and BTEX detected in the grab groundwater sample exceeding 2013 California Water Board Environmental Screening Levels (ESLs), suggest leakage may have occurred beneath the tank. Shallow groundwater in this area of Oakland, approximately at the tank burial depth of about 8 feet bgs, coupled with bare steel construction of the tank is a likely cause for corrosion in this case.

The OFD is the lead regulatory agency for UST removal permitting, onsite inspection, and oversight of the collection of UST-related soil and groundwater samples. We understand that when UST-sourced residual soil and/or groundwater contamination is discovered, the OFD generally transfers the case to the Alameda County Department of Environmental Health (ACDEH). The ACDEH is a Local Oversight Program (LOP) to the Regional Water Quality Control Board, which has the ultimate authority in cases of soil or groundwater contamination by hydrocarbons. An Unauthorized Release Form (URF) has been completed and is included in Appendix D.

Soil samples were not collected next to the former dispenser area as is normally required. In the interest of avoiding the work of demolishing the dispenser pad, and repairing the floor, the soil sample in that area will be collected in conjunction with additional groundwater sampling downgradient of the UST that will be needed to confirm the preliminary finding.

4.0 RECOMMENDATIONS

1) Based on laboratory analyses indicating hydrocarbon impacts to groundwater in the UST pit, additional grab groundwater samples should be collected downgradient from the UST location. One of the sample locations should be located next to the former dispenser pad in the warehouse in order to allow collection of a soil sample in that area in addition to the groundwater sample.

2) UST rinsate and additional investigatory waste if generated, should be removed from the property under manifest after all additional site investigations are completed.

3) This summary report should be forwarded to the OFD as is required by that agency.

5.0 CERTIFICATION

I certify that the work presented in this report was performed under my supervision. To the best of my knowledge, the data contained herein is true and accurate, and the work was performed in accordance with professional standards.

Steve Bittman

September 5, 2014

Steve Bittman Date
CA Registered Environmental Assessor No. 04991

6.0 LIMITATIONS

Our professional judgment regarding the potential for environmental impacts is based on limited data and our investigation was not intended to be a definitive investigation of contamination at the site. Further investigation, including subsurface exploration and laboratory testing of soil and groundwater samples collected at the site, can aid in evaluating subsurface environmental conditions and reduce the inherent uncertainties associated with this type of limited environmental assessment.

APPENDIX A

PHOTO DOCUMENTATION

Photo # 1. **View of Property frontage from Adeline Street. UST is located beneath street light as indicated.**

Photo # 2. **Breaking up sidewalk.**

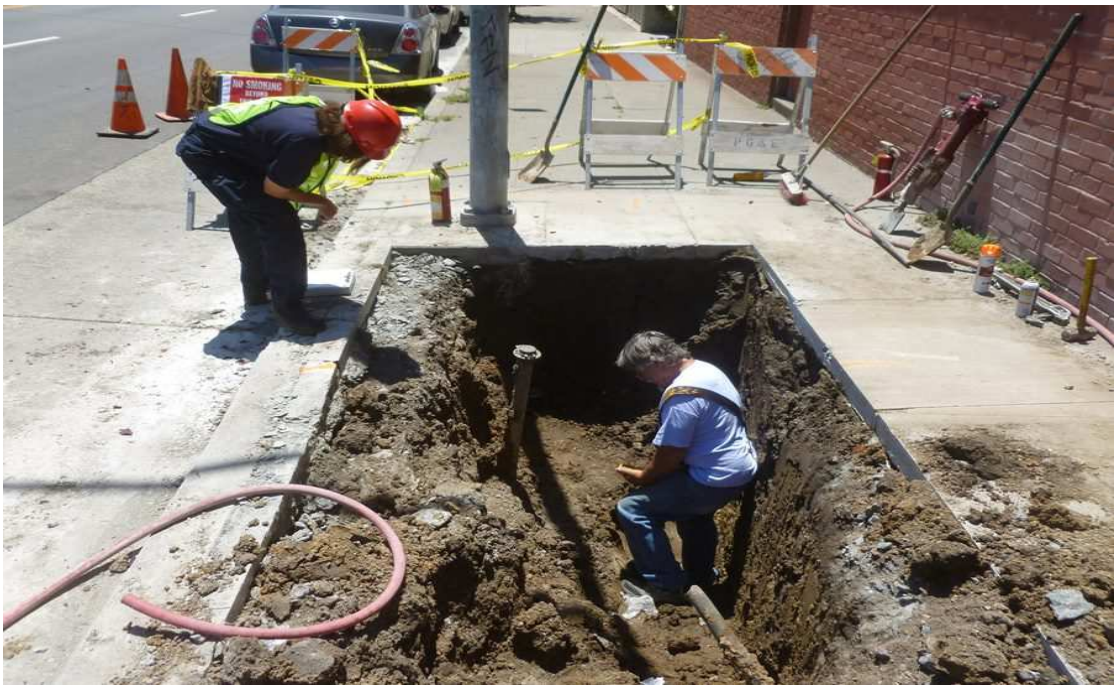


Photo # 3. Checking LEL under the supervision of Oakland Fire Department Inspector. Fill pipe is located approximately one foot from the UST north end. UST extends about 3 feet beyond the light post. The sidewalk concrete cuts were made before it became known that the UST extended beneath the light post.

Photo # 4. Groundwater collecting in soil sampling location at a depth of about 8 feet below the ground surface.

Photo # 5. Filling the UST with 5.5 yards of sand/cement slurry.

Photo # 6. UST completely filled with sand/cement slurry.

Photo # 7. **Dispenser pad with UST excavation on the other side of the building wall. This area is to be explored at the same time the groundwater confirmation samples are taken downgradient of the UST location.**

Photo # 8. **Finished sidewalk repair.**

APPENDIX B

PERMITS

Oakland Fire Department, Fire Prevention Bureau
250 Frank H. Ogawa Plaza, Ste. 3341
Oakland, CA 94612-2032

(510) 238-3851
TTY (510) 238-6884

Inspection Work Order

Business Name:	Advance Fuel Services, Inc.	Reason:	Tanks
Address:	2823 ADELINE ST	Scheduled:	2014-06-30 3:00PM
Job (Insp Ref#):	2014-29785	Assigned To:	Skillern,Sheryl

Comments: 06/30/14 - Mr. Steve Bittman w/ Advance Fuel Sevices, Inc. paid $668.00 (check # 1208) for the standard plan review including 1 tank removal inspection fees. - CL.

06/20/14 - Mr. Jim Ruble of Advance Fuel Services, Inc., 408-690-5568, was given an invoice of

Invoice #	2014-01926	Applicant:	
Invoice Amount	668.00	Applicant Ph#:	
		Contractor:	
		Contractor Ph#:	

Contact Name	Jim Ruble
Field Contact #	408-690-5568
Review Type	UST

REVIEWED AND APPROVED
OAKLAND FIRE DEPARTMENT
BY: [signature]
TITLE: Service Assistant
DATE: 7/7/14
ALL INSPECTIONS REQUIRE
48 HOURS NOTICE

CITY OF OAKLAND
FIRE PREVENTION BUREAU
250 Frank Ogawa Plaza, Suite 3341
Oakland, California 94612-2032
(510) 238-3851

APPLICATION for PERMIT to INSTALL, REMOVE or REPAIR TANKS In the CITY OF OAKLAND

Request Submittal Date: July 2, 2014

PLEASE CIRLCE APPROPRIATE ACTIONS: Application is hereby made for permit to:

(a) Remove (b) Install (c) Repair (d) Modify (e) Abandon/Close in Place A

(a) Gasoline (b) Fuel oil (c) Diesel (d) 1 tank(s) and excavate, commencing: July 7, 2014

(a) four feet inside the curb line*; (b) inside the property line; (c) aboveground: (d) underground tank(s)
*inside curb line, please attach copy of sidewalk/excavation permit from PLANNING AND BUILDING

on the West side of Adeline St Ave. 145 feet N of 28th St Ave.

Site Address: 2823 Adeline St Present storage empty

Owner: Hung Revocable Trust Address PO Box 616 Berkeley, CA 94710 Phone (510) 548-5960

Applicant: Advanced Fuel Services Address 2261 Emerald Cir. Phone 805-995-1577
Morro Bay, CA 93442

Sidewalk surface to be disturbed 10 X 25 Number of Tanks 1 Capacity 1,000 Gallons ea.

Remarks Please Schedule Inspection July 8, 2014

Signature Steve Bettina for Tim Ruble

PLEASE ATTACH/SUBMIT: (All applicants must have a City Business License Permit) account 28045960
emailed proof of payment 7/1/14

* (2) Copies of Closure Plans for underground tank removal (s)
* ~~(2) Sets of plans and (1) copy of specifications for above ground tank removal~~
* ~~(2) Sets of plans and (2) sets of application packets for underground tank installation/modifications~~
* ~~(2) Sets of plans for aboveground tank installation and specifications~~
* copy or prepare to show Planning and Building approval for aboveground tank removal and tank repair

NOTE: FOR TANK INSTALLATION PLEASE SUBMIT THIS APPLICATION FORM ALONG WITH A APPLICATION FOR PERMIT TO OPERATE, MAINTAIN OR STORE

FOR OFFICE USE ONLY

Permit No. Amt. Recv'd Date Issued:

Copies to: Electrical Inspection ck# Cash

Receipt# Recv'd by:

REVIEWED AND APPROVED
OAKLAND FIRE DEPARTMENT
BY:
TITLE: Senior Haz. Mat. Insp.
DATE: 7/2/14
ALL INSPECTIONS REQUIRE
48 HOURS NOTICE

FACILITY INFORMATION

Facility/Residence Name Hung Revocable Trust Business Type vacant
Site Address 2823 Adeline St City Oakland Zip 94608
Contact Person Robert Hung Title Trustee Phone 510-548-5960
E-Mail none Cell Phone none
Owner, Agency, or Corporation Name Hung Revocable Trust Phone 510-548-5960
Mailing Address P.O. Bx 666 City Berkley State CA Zip 94701
EPA ID Number
Note: Include "Proof of Financial Responsibility"

CONTRACTOR REMOVING TANK(S) AND PIPING:
Contractor Advanced Fuel Services Inc.
Contract Person Tim Ruble Phone 408-683-4537
Business Address P.O. Bx 1346 City Morro Bay Zip 93443
State Contractors License 780259 A-B-HAZ
Note: Attach a copy of Contractors License, Hazardous Materials Certification, and Workers Compensation

HAZARDOUS WASTE HAULERS:
Hazardous Waste Hauler, Tank(s) Cut on site EPA ID #
Business Address City
Contact Phone
Tank(s) and piping destination
Hazardous Waste Hauler (Rinsate) Bagel Environmental EPA ID # CAL000209350
Business address 27390 Hansen Rd. City Tracy
Contact Tim Liggett Phone 209-376-6008
Note: include Hauler License No. 3662 License Exp. Date [illegible]

See revised scope of work dated 7/3/14 [signature]

SAMPLE COLLECTION AND ANALYSIS:
Sample Collector Steve Bittman Company International Geologic
Address 2831 Sylhowe Rd City Oakland Phone 510-590-9757
Soil/Water Analysis Laboratory McCampbell Analytical
State certification No. #1644 Contact Melissa Valles Phone 925-252-9262
Business Address 1534 Willow Pass Rd City Pittsburg Zip 94565

TANK(S) INFORMATION

TANK SYSTEM: SIZE (GALLONS)	TANK CONSTRUCTION	SUBSTANCE(S) PREVIOUSLY CONTAINED
TANK 1 1,000 gal.	S.W. steel	oil
TANK 2		
TANK 3		
TANK 4		

REVIEWED AND APPROVED
OAKLAND FIRE DEPARTMENT
BY: [signature]
TITLE: Senior HazMat Insp
DATE: 7/2/14
ALL INSPECTIONS REQUIRE
48 HOURS [illegible]

Applicant Declaration:

I certify the application information is correct and factual. I declare that I have read and will follow the "procedures to Close Underground Storage tank(s) Systems." I further agree to comply with all applicable City of Oakland Ordinances; Fire Code; Health and Safety Code Chapter 6.7; Title 23, California Code of Regulations.

Applicant Teron Kranich (Applicant Signature) Date 6/30/14

Print

"This box for OFM use only"

Comments

Inspectors Signature Approval Date 7/7/14

REVI[illegible]VED
O[illegible]
BY:
TITLE: Senior Hazmat Insp
DATE: 7/7/14
ALL [illegible]

Advanced Fuel Services, Inc.
PO Box 1346
Morro Bay, CA 93443
PH: 805-995-1715
Fax: 805-995-1719

REVIEWED AND APPROVED
OAKLAND FIRE DEPARTMENT
BY:
TITLE: Senior Haz Mat Insp
DATE: 7/7/14
ALL INSPECTIONS REQUIRE
48 HOUR

City of Oakland
Fire Prevention Bureau
Hazardous Materials Unit
250 Frank H. Ogawa Plaza
Ste. 3341
Oakland, CA 94612

07/03/14

Attn: Sheryl Skillern

Re: Hung Revocable Trust
2823 Adeline St.
Oakland, CA

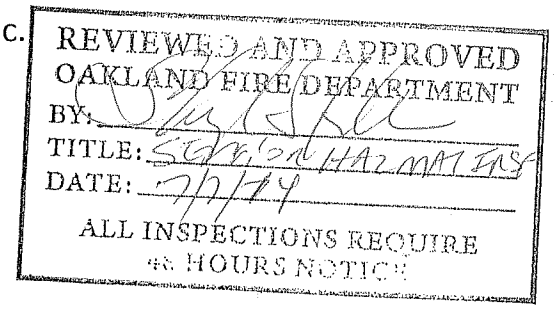
SCOPE OF WORK

Remove an existing/abandoned gasoline tank located under the sidewalk at 2823 Adeline St.

1. USA alert will be notified and utilities marked.
2. AFS will demolish the sidewalk over the tank and remove spoils from the site.
3. We will excavate to tank top, spoils will be stored on 6 mil. black visqueen and covered (if soil appears contaminated, we will segregate the contaminated and non contaminated soil).
4. Remove and drum any residual product for disposal (with hazardous waste manifest).
5. Triple rinse tank and drum rinsate for disposal as above.
6. One hour prior to removing the tank, place 50 lbs. of dry ice in the tank to assure it is inerted.
7. In the presence of the AHJ, take LEL and oxygen readings with a recently calibrated meter.
8. When LEL readings are below 10% of gasoline's LEL, and with the approval of the AHJ, remove the tank from the excavation and allow the AHJ to examine the tank.
9. Load tank on a licensed hazardous waste hauler for delivery to ECI in Richmond.
10. Take soil or water samples under the direction of the AHJ (International Geologic will sample). Two soil samples will be taken from the tank pit, from undisturbed soil less than two feet below tank bottom. A four tube composite will be taken from the stockpile
11. Analyze samples for TPHG, BTEX, naphthalene, 7 oxygenates (including MTBE) and organic lead.
12. Submit samples to a state certified laboratory.
13. Backfill the excavation with removed spoils and imported material to sub grade. (NOTE: excavated spoils will not be reused unless they have been tested clean.
14. Replace disturbed concrete.

Any contaminated material will be left onsite for legal disposal later.
Jim Ruble, AFS

Advanced Fuel Services, Inc.
PO Box 1346
Morro Bay, CA 93443
PH: 805-995-1715
Fax: 805-995-1719



Advanced Fuel Services Inc. (Dale McAnally, Inc.)
dba Petrotek
Hung Revocable Trust
Site Specific Health and Safety Plan

Introduction:

This site specific Health and Safety Plan, developed in accordance with Occupational Safety and Health Administration (OSHA) standards for hazardous waste operations (29CFR1910.120), establishes general health and safety protocol for Petrotek personnel at the Hung Revocable Trust located at 2823 Adeline St., Oakland, California.

For informational purposes only, this plan may be provided to subcontractor of Petrotek and other personnel involved in activities at the Hung Revocable Trust site. However, other personnel are solely responsible for their own health and safety and shall independently assess onsite conditions and develop their own protocols. (Any parties using less stringent protocols should immediately notify the Petrotek site supervisor.)

Petrotek has a corporate health and safety program which covers general safety training on an ongoing weekly schedule. These aspects of the program are not repeated in this plan but are part of our safety requirements at all projects.

Site Description:

This project is to remove one underground storage tank, allegedly gasoline, from the sidewalk at 2823 Adeline St., Oakland.

Key Health and Safety Personnel:

The Petrotek Site Safety Officer assigned to this project is Anthony Mendez who is also the project supervisor. During any period of absence from the site, his replacement is the senior Petrotek employee on site.

Responsibility -

Observe and enforce site safety conditions.
Modify protocols or terminate field work when unsafe conditions exist.
Familiarize site workers with all safety considerations.
Ensure use of personal protective equipment when appropriate.
Record reading and evaluate hazards with any site monitoring instruments.

Monitor decontamination activity.
Record all occurrences of site injury or illness and notify proper personnel if required.

If unsafe conditions are encounter, if illness or injury occurs or if level of personal protection needs to be changed, contact site safety supervisor, Anthony Menedez, or his representative.

Safety and Health Risk Evaluation:

Potential Physical and Chemical Hazard:
Field personnel should be aware of site physical and chemical safety hazard with the use of heavy equipment,chemicals and electrical equipment. Appropriate level D precautions include:

Hard hat, safety glasses and steel toe boots.
Chemical resistant glove, Tyvek coveralls.
Loose clothing that may catch and cause accidents will not be permitted.
Hearing protection if noise level above 85 decibels is expected.
Shoring of any excavation if over 5 feet deep if workers are to enter the excavation.
Use of ventilation and breathing equipment if confined space entry is required.
Washing hands and skin, particularly prior to eating.

Community Hazard Analysis:
No significant hazard to surrounding community is expected.
Site Control:
Access to the site shall be controlled by Petrotek personnel during this project and shall include traffic control measures, barricade and safety fencing with warning signs where appropriate. "No Smoking" signs will be posted on barricades. No smoking will be permitted within 50' of job site.
Monitoring:
Constant air monitoring shall be used if level of fumes dictate, (above 100 ppm) and work shall require Level C protection above 300 ppm. Level B protection is mandatory above 1000 ppm.
Decontamination:
Site work requiring only Level D protection will not require decontamination. If Level C protection is required, decontamination will consist of washing affected items with TSP or appropriate disposal.
Emergency Response Plan:
First Aid Kits shall be readily accessible on site. Fire extinguishers of 20BC capacity shall be remove from vehicle and placed no closer than 20' from excavation. Communication shall be verbal, by vehicle horn or personally (in high noise situations).

REVIEWED AND APPROVED
OAKLAND FIRE DEPARTMENT
BY:
TITLE: Senior Haz Mat Insp
DATE: 2/5/14
ALL INSPECTIONS REQUIRE
[illegible] NOTICE

Emergency Services Contacts
DIAL 911 or

Nearest Hospital:	Alta Bates Summit Medical Center 350 Hawthorne Ave. Oakland, CA 94609	510-655-4000

Fire Department: Oakland Fire	Dial 911
Police Department: Oakland Police	Dial 911
Poison Control:	800-792-0720
Chemtrack Emergency Information	800-424-9300
Underground Service Alert (USA):	800-642-2444
AFS office:	408-683-4537
AFS, Jim Ruble	408-690-5568
AFS, Eddie Martinez	408-690-5567

SIGNATURE MANDATORY PRIOR TO SITE ACCESS. ABSOLUTELY NO EXCEPTIONS PERMITTED.

REVIEWED AND APPROVED
OAKLAND FIRE DEPARTMENT
BY:
TITLE: Senior HAZMAT Insp
DATE: 7/7/14
ALL INSPECTIONS REQUIRE
48 HOURS TICE

Sign In Sheet - Health and Safety Plan

Representing:	Printed Name:	Signature:	Date:

REVIEWED AND APPROVED
OAKLAND FIRE DEPARTMENT
BY: Shy Sll
TITLE: SENIOR HAZ MAT INSP
DATE 07/7/14

Permits for which no major inspection has been approved within 180 days shall expire by limitation. No refund more than 180 days after expiration or final.

CITY OF OAKLAND

250 FRANK H. OGAWA PLAZA • 2ND FLOOR • OAKLAND, CA 94612

Planning and Building Department
www.oaklandnet.com

PH: 510-238-3891
FAX: 510-238-2263
TDD: 510-238-3254

Permit No: X1401569 Excavation

Filed Date: 6/20/2014

Job Site: 2823 ADELINE ST

Schedule Inspection by calling: 510-238-3444

Parcel No: 005 045702000

District:

Project Description: Remove UG storage tank in SIDEWALK AREA ONLY.
FIRE MARSHAL review required. 3rd FLOOR.
Call PWA INSPECTION prior to start: 510-238-3651. 4th FLOOR.

Related Permits:

	Name	Applicant	Address	Phone	License #
Owner:	HUNG HARRY J & MARIAN F TRS		2423 ASHBY AVE BERKELEY, CA		
Contractor:	DALE MCANALLY INC	X	9060 NEW AVE GILROY, CA	(408) 683-4537	590295

PERMIT DETAILS: Building/Public Infrastructure/Excavation/NA

General Information

Excavation Type: Private Party
Special Paving Detail Required:
Tree Removal Involved:
Date Street Last Resurfaced:
Holiday Restriction (Nov 1 - Jan 1):
Worker's Compensation Company Name:
Limited Operation Area (7AM-9AM) And (4PM-6PM):
Worker's Compensation Policy #:

Key Dates

Approximate Start Date:
Approximate End Date:

TOTAL FEES TO BE PAID AT FILING: $436.05

Application Fee	$71.00	Excavation - Private Party Type	$309.00	Records Management Fee	$36.10
Technology Enhancement Fee	$19.95				

Plans Checked By _____ Date _____ Permit Issued By _____ Date _____

Finalized By _____ Date _____

0.00
71.00
309.00
19.95
36.10

0.00
71.00
309.00
19.95
36.10

City of Oakland
Planning and Building Department
250 Frank H. Ogawa Plaza
510-238-4774

844 Accela Permit 0.00 0.00
Permit Number: X1401569

Fee
Application Fee 71.00 71.00

Fee
Excavation - Private Party Type 309.00 309.00

Fee
Technology Enhancement Fee 19.95 19.95

Fee
Records Management Fee 36.10 36.10

Payer Name: STEVE BITTMAN

SubTotal: 436.05
Total: 436.05

Master Card 436.05
Number : **********6284

6/30/2014 02:07
#0453668 /77/24

Thank You

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

COMPLIANCE & ENFORCEMENT DIVISION

Notification Form

Regulation 8 Rule 40

REMOVAL OF UNDERGROUND STORAGE TANKS *OR* TREATMENT OF CONTAMINATED SOIL

SITE OF ACTIVITY

Site Address: 2823 Adeline Street | **City & Zip:** Oakland, 94608 | **Site#:**

Specific Location of Project within Address: Sidewalk on Adeline Street in front of building

Owner/Operator: Robert Hung, PO Box 616, Berkeley, CA 94710

Check any that apply (400 numbers refer to regulation section requiring reporting):

☑ Tank Removal or Replacement ***(401)*** ☑ Contaminated Soil Excavation and Removal ***(402)***

☐ Aeration of Soil < 50 ppmw organic content, but does not meet Section 118 Exemption ***(403)***

☐ Section 114 Exempt; Date Pipeline Leak ***Started:*** _____ Vol. Of Soil: _____ ***(403)***

☐ Section 115 Exempt; Date Contamination Unrelated to UST Activities ***Discovered:*** _____ ***(405)***

If only Tank Removal is selected, attach results showing soil is not contaminated

CONTRACTOR INFORMATION

Name: Advanced Fuel Services | **Site Contact:** Jim Ruble | **Phone:** (408) 690-5568

Address: 2261 Emerald Circle, Morro Bay CA 93442

TANK REMOVAL *(Section 401)*

Scheduled Start Date: 6/23/14 | **Number and Size of Tank(s):** (1) 1,000 gallon

Explain Methods of:

Piping drainage or flushing ***(310.1)*** Gravity/pump into Drum

Liquid and sludge removal ***(310.2)*** Vacuum into tanker

Vapor removal *(310.3)* **[Check One]** ☐ Water Displacement ☑ Vapor Freeing* ☐ Ventilation*

* Emission controls required for vapor freeing or ventilation if tank size greater than 250 gallons.

COMPLETE INFORMATION BELOW OR ATTACH SAMPLE RESULTS SHOWING SOIL IS UNCONTAMINATED (310.4)

CONTAMINATED SOIL EXCAVATION AND REMOVAL *(Section 402)*

Scheduled Start Date: 6/24/14 | **Scheduled Completion Date:** 6/24/14

Purpose of Excavation: Remove gasoline contaminated soil as practical

Quantity of Soil: unknown **Organic Content & Type:** Gasoline range HC's/BTEX

Methods used to quantify and analyze soil: Screen with PID, analyze by certified laboratory

Method of Stockpile Control *(304-306)*

☐ Water Spray ☑ Covered ☐ Vapor Suppressant (List Material Used): _____

Method of Site Closure *(306)*

☑ Backfilled ☑ Contaminated Soil Removed

☐ Onsite Treatment (Describe): _____ A/C or P/O #: _____

Loaded Trucks Covered? *(306.2)* ☑ Yes ☐ No

AERATION OF SOIL < 50 PPMW ORGANIC CONTENT *(Section 403)*

You must submit a Permit Application and Risk Screening Analysis *(Forms will be sent to you)*

FOR BAAQMD USE ONLY

Fax/PM Date:	By:	Disp to I#:	Area:	Date:	By:
Inv Req Date:	By:	Fwd to Supv.		Date:	By:

See Page Two to Complete This Form Press to clear form ***Approved 7/8/03***

OTHER PUBLIC AGENCY CONTACTED *(Fire District, Hazardous Materials, City or County)**?***		
Agency Name: Oakland Fire Department	Contact Name: Keith Matthews	
Address: 150 Frank H. Ogawa Plaza, Suite 3354, Oakland, CA 94612		Phone: (510) 238-3927

EMERGENCY REMOVAL ORDER APPLICABLE?		
Agency Name: N/A	Contact Name:	
Address:		Phone:

H:\Pub_data\Janet\Reg 8-40\forms\notifdraft3.doc

GENERAL INFORMATION

- This notification form shall be used to notify the BAAQMD of any projects subject to the reporting requirements in Regulation 8, Rule 40, Sections 401 through 405. Notifications may be faxed to (415) 928-0338 or mailed to the address listed at the bottom of this form.
- An invoice for payment will be sent to the person listed under "Contractor Information" as the person responsible, unless the project is exempt from fee payment (see next item).
- See "Frequently Asked Questions" (FAQ) for definition of projects, change procedures, permit requirements, emergency conditions, project exemptions, and fee exemptions. For any questions not answered in the FAQ, contact the Compliance Assistance Counselor at (415) 749-4999.

INSTRUCTIONS

- **SITE OF ACTIVITY:** Give the site street address and indicate if it has any existing BAAQMD site number, for either a plant or GDF. Identify the specific project location if the site contains more than one building. Indicate all applicable activity types by checking appropriate boxes. For reporting requirements under Sections 401 through 403, additional information is required, as below.
- **CONTRACTOR INFORMATION:** Identify the contractor that is responsible for performing the work at the site location listed. This contractor is also responsible for payment of the applicable notification fee, if the project is not exempt.
- **SECTION 401 - TANK REMOVAL/REPLACEMENT:** All soils disturbed and/or excavated as part of the tank removal shall be subject to the requirements of Sections 304 through 306, unless the soil has been determined not to be contaminated by measurement of organic content using the procedures in Sections 601 and 602. Complete requirements for Section 402 or submit sample results showing that the soil is not contaminated.
- **SECTION 402 - CONTAMINATED SOIL EXCAVATION AND REMOVAL:**
  - Be as accurate as possible for the Scheduled Start and Completion Dates. Specific requirements apply for excavation projects triggered within either 45 or 90 days (Reg. 8-40-306.4) and Authority to Construct requirements for projects lasting longer than three months (Reg. 2-1-128.16).
  - If a vapor suppressant is used, attach a product data sheet or MSDS.
  - If Method of Site Closure used is Onsite Treatment, describe specific method, (e.g., bioremediation, vapor extraction, air sparging, thermal desorption, etc.).
  - If Onsite Treatment is used, indicate whether an Authority to Construct was obtained by providing the Application No. or attach copy of BAAQMD Certification of Exemption.
- **SECTION 403 – AERATION OF SOIL < 50 PPMW ORGANIC CONTENT:** Section 301 exempts from control the aeration of soil containing less than 50 ppmw of organic compounds, but Section 403 still requires reporting of **ANY** soil aeration. If such a project does not meet the exemption criteria of Section 118, then a Permit Application and Risk Screening Analysis must be submitted.
- **EMERGENCY REMOVAL INFORMATION (IF APPLICABLE):** The rule defines an emergency tank removal or excavation of contaminated soil as "carried out pursuant to an order of a state or local government agency issued because the contaminated soil poses an imminent threat to public health and safety." If the project(s) meet this definition, then identify the agency that issued the order. Under Section 402 requirements, on line two, identify the purpose as indicated in the order.

UNIFIED PROGRAM CONSOLIDATED FORM
TANKS

UNDERGROUND STORAGE TANKS - FACILITY

(One page per site) Page 1 of 1

TYPE OF ACTION (Check one item only) ☐ 1. NEW PERMIT ☐ 3. RENEWAL PERMIT ☐ 4. AMENDED PERMIT (Specify change) ☐ 5. CHANGE OF INFORMATION ☐ 6. TEMPORARY SITE CLOSURE ☐ 7. PERMANENTLY CLOSED SITE ☒ 8. TANK REMOVED 400.

I. FACILITY/SITE INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As) 3.
Hung Revoacable Trust

FACILITY ID# 1.

NEAREST CROSS STREET 401.
28th

FACILITY OWNER TYPE 402.
☐ 1. CORPORATION ☐ 4. LOCAL AGENCY/DISTRICT* ☐ 5. COUNTY AGENCY* ☒ 2. INDIVIDUAL ☐ 6. STATE AGENCY* ☐ 3. PARTNERSHIP ☐ 7. FEDERAL AGENCY*

BUSINESS TYPE 403. ☐ 1. GAS STATION ☐ 3. FARM ☒ 5. COMMERCIAL ☐ 2. DISTRIBUTOR ☐ 4. PROCESSOR ☐ 6. OTHER

TOTAL NUMBER OF TANKS REMAINING AT SITE 404.
0

Is facility on Indian Reservation or trust lands? 405.
☐ Yes ☒ No

* If owner of UST is a public agency: name of supervisor of division, section or office which operates the UST. (This is the contact person for the tank records.) 406.

II. PROPERTY OWNER INFORMATION

PROPERTY OWNER NAME 407.
Hung Revocable Trust

PHONE 408.
510-548-5960

MAILING OR STREET ADDRESS 409.
P.O. Box 616

CITY 410
Berkley

STATE 411.
CA

ZIP CODE 412.
94701

PROPERTY OWNER TYPE 413. ☐ 1. CORPORATION ☒ 2. INDIVIDUAL ☐ 3. PARTNERSHIP ☐ 4. LOCAL AGENCY / DISTRICT ☐ 5. COUNTY AGENCY ☐ 6. STATE AGENCY ☐ 7. FEDERAL AGENCY

III. TANK OWNER INFORMATION

TANK OWNER NAME 414.
same as property owner

PHONE 415.

MAILING OR STREET ADDRESS 416.

CITY 417.

STATE 418.

ZIP CODE 419.

TANK OWNER TYPE 420. ☐ 1. CORPORATION ☐ 2. INDIVIDUAL ☐ 3. PARTNERSHIP ☐ 4. LOCAL AGENCY/DISTRICT ☐ 5. COUNTY AGENCY ☐ 6. STATE AGENCY ☐ 7. FEDERAL AGENCY

IV. BOARD OF EQUALIZATION UST STORAGE FEE ACCOUNT NUMBER

TY (TK) HQ 44- Call (916) 322-9669 if questions arise 421.

V. PETROLEUM UST FINANCIAL RESPONSIBILITY

INDICATE METHOD(s) 422. ☐ 1. SELF-INSURED ☐ 2. GUARANTEE ☐ 3. INSURANCE ☐ 4. SURETY BOND ☐ 5. LETTER OF CREDIT ☐ 6. EXEMPTION ☒ 7. STATE FUND ☐ 8. STATE FUND & CFO LETTER ☐ 9. STATE FUND & CD ☐ 10. LOCAL GOV'T MECHANISM ☐ 99. OTHER: _____

VI. LEGAL NOTIFICATION AND MAILING ADDRESS

Check one box to indicate which address should be used for legal notifications and mailing. Legal notifications and mailings will be sent to the tank owner unless box 1 or 2 is checked. 423. ☐ 1. FACILITY ☒ 2. PROPERTY OWNER ☐ 3. TANK OWNER

VII. APPLICANT SIGNATURE

Certification: I certify that the information provided herein is true and accurate to the best of my knowledge.

SIGNATURE OF APPLICANT

DATE 424.
6/16/2014

PHONE 425
408-683-4537

NAME OF APPLICANT (print) 426.
James G. Ruble

TITLE OF APPLICANT 427
Construction Manager

STATE UST FACILITY NUMBER (Agency use only) 428.
(See Data Element 1, above.

1998 UPGRADE CERTIFICATE NUMBER (Agency use only) 429.

UNIFIED PROGRAM CONSOLIDATED FORM
TANKS
UNDERGROUND STORAGE TANKS – TANK PAGE 1

(Two pages per tank)

TYPE OF ACTION (Check one item only) 430
☐ 1. NEW PERMIT ☐ 3. RENEWAL PERMIT ☐ 4. AMENDED PERMIT (Specify reason) ☐ 5. CHANGE OF INFORMATION (Specify reason) ☐ 6. TEMPORARY TANK CLOSURE ☐ 7. PERMANENTLY CLOSED ON SITE ☒ 8. TANK REMOVED

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As) 1.
Hung Revocable Trust

FACILITY ID: 1.

LOCATION WITHIN SITE (Optional) 431.

I. TANK DESCRIPTION

(A scaled plot plan with the location of the UST system including buildings and landmarks shall be submitted to the local agency.)

TANK ID # 432.	TANK MANUFACTURER 433.	COMPARTMENTALIZED TANK ☐ Yes ☒ No 434
1	unknown	If "Yes," complete one page for each compartment.
DATE INSTALLED (YEAR/MO) 435.	TANK CAPACITY IN GALLONS 436.	NUMBER OF COMPARTMENTS 437
unknown	1,000	1

ADDITIONAL DESCRIPTION (For local use only) 438

II. TANK CONTENTS

TANK USE 439.
☒ 1. MOTOR VEHICLE FUEL (If checked, complete Petroleum Type)
☐ 2. NON-FUEL PETROLEUM
☐ 3. CHEMICAL PRODUCT
☐ 4. HAZARDOUS WASTE (Includes Used Oil)
☐ 95. UNKNOWN

PETROLEUM TYPE 440
☒ 1a. REGULAR UNLEADED ☐ 2. LEADED ☐ 5. JET FUEL
☐ 1b. PREMIUM UNLEADED ☐ 3. DIESEL ☐ 6. AVIATION GAS
☐ 1c. MIDGRADE UNLEADED ☐ 4. GASOHOL ☐ 99. OTHER: _____

COMMON NAME (from Hazardous Materials Inventory page) 441.

CAS# (from Hazardous Materials Inventory page) 442.

III. TANK CONSTRUCTION

TYPE OF TANK (Check one item only) 443.
☒ 1. SINGLE WALL ☐ 2. DOUBLE WALL ☐ 3. SINGLE WALL WITH EXTERIOR MEMBRANE LINER ☐ 4. SINGLE WALL IN A VAULT ☐ 5. SINGLE WALL WITH INTERNAL BLADDER SYSTEM ☐ 95. UNKNOWN ☐ 99. OTHER _____

TANK MATERIAL – primary tank (Check one item only) 444
☒ 1. BARE STEEL ☐ 2. STAINLESS STEEL ☐ 3. FIBERGLASS / PLASTIC ☐ 4. STEEL CLAD W/FIBERGLASS REINFORCED PLASTIC (FRP) ☐ 5. CONCRETE ☐ 8. FRP COMPATIBLE W/100% METHANOL ☐ 95. UNKNOWN ☐ 99. OTHER: _____

TANK MATERIAL – secondary tank (Check one item only) 445.
☐ 1. BARE STEEL ☐ 2. STAINLESS STEEL ☐ 3. FIBERGLASS / PLASTIC ☐ 4. STEEL CLAD W/FIBERGLASS REINFORCED PLASTIC (FRP) ☐ 5. CONCRETE ☐ 8. FRP COMPTIBLE W/100% METHANOL ☐ 9. FRP NON-CORRODABLE JACKET ☐ 10. COATED STEEL ☐ 95. UNKNOWN ☐ 99. OTHER _____

TANK INTERIOR LINING OR COATING (Check one item only) 446.
☐ 1. RUBBER LINED ☐ 2. ALKYD LINING ☐ 3. EPOXY LINING ☐ 4. PHENOLIC LINING ☐ 5. GLASS LINING ☒ 6. UNLINED ☐ 95. UNKNOWN ☐ 99. OTHER _____
DATE INSTALLED 447. none

OTHER CORROSION PROTECTION (If Applicable) 448
☐ 1. MANUFACTURED CATHODIC PROTECTION ☐ 2. SACRIFICIAL ANODE ☐ 3. FIBERGLASS REINFORCED PLASTIC ☐ 4. IMPRESSED CURRENT ☐ 95. UNKNOWN ☐ 99. OTHER _____
DATE INSTALLED 449. none

SPILL AND OVERFILL (Check all that apply)
☐ 1. SPILL CONTAINMENT
☐ 2. DROP TUBE
☐ 3. STRIKER PLATE
YEAR INSTALLED 450. na na na
TYPE 451. na
OVERFILL PROTECTION EQUIPMENT: YEAR INSTALLED 452.
☐ 1. ALARM ____ ☐ 3. FILL TUBE SHUT OFF VALVE 1997
☐ 2. BALL FLOAT ____ ☐ 4. EXEMPT

IV. TANK LEAK DETECTION

(A description of the monitoring program shall be submitted to the local agency.)

IF SINGLE WALL TANK (Check all that apply) 453
☐ 1. VISUAL (EXPOSED PORTION ONLY)
☐ 2. AUTOMATIC TANK GAUGING (ATG)
☐ 3. CONTINUOUS ATG
☐ 4. STATISTICAL INVENTORY RECONCILIATION (SIR) + BIENNIAL TANK TESTING
☐ 5. MANUAL TANK GAUGING (MTG)
☐ 6. VADOSE ZONE
☐ 7. GROUNDWATER
☐ 8. TANK TESTING
☐ 99. OTHER none

IF DOUBLE WALL TANK OR TANK WITH BLADDER (Check one item only) 454.
☐ 1. VISUAL (SINGLE WALL IN VAULT ONLY)
☐ 2. CONTINUOUS INTERSTITIAL MONITORING
☐ 3. MANUAL MONITORING

V. TANK CLOSURE INFORMATION / PERMANENT CLOSURE IN PLACE

ESTIMATED DATE LAST USED (YR/MO/DAY) 455.	ESTIMATED QUANTITY OF SUBSTANCE REMAINING 456.	TANK FILLED WITH INERT MATERIAL? 457.
01/01/1970	0 gallons	☐ Yes ☒ No

UNIFIED PROGRAM CONSOLIDATED FORM
TANKS
UNDERGROUND STORAGE TANKS – TANK PAGE 2

VI. PIPING CONSTRUCTION (Check all that apply)

	UNDERGROUND PIPING				ABOVEGROUND PIPING			
SYSTEM TYPE	☐ 1. PRESSURE	☐ 2. SUCTION	☐ 3. GRAVITY	458.	☐ 1. PRESSURE	☐ 2. SUCTION	☐ 3. GRAVITY	459.
CONSTRUCTION/ MANUFACTURER	☐ 1. SINGLE WALL	☐ 3. LINED TRENCH	☐ 99. OTHER	460.	☐ 1. SINGLE WALL	☒ 95. UNKNOWN		462.
	☐ 2. DOUBLE WALL	☒ 95. UNKNOWN			☐ 2. DOUBLE WALL	☐ 99. OTHER		
MANUFACTURER				461.	MANUFACTURER			463.
☐ 1. BARE STEEL	☐ 6. FRP COMPATIBLE W/100% METHANOL				☐ 1. BARE STEEL	☐ 6. FRP COMPATIBLE W/100% METHANOL		
☐ 2. STAINLESS STEEL	☐ 7. GALVANIZED STEEL				☐ 2. STAINLESS STEEL	☐ 7. GALVANIZED STEEL		
☐ 3. PLASTIC COMPATIBLE WITH CONTENTS	☐ 95. UNKNOWN				☐ 3. PLASTIC COMPATIBLE W/ CONTENTS	☐ 8. FLEXIBLE (HDPE)	☐ 99. OTHER	
☐ 4. FIBERGLASS	☐ 8. FLEXIBLE (HDPE)	☐ 99. OTHER			☐ 4. FIBERGLASS	☐ 9. CATHODIC PROTECTION		
☐ 5. STEEL W/COATING	☐ 9. CATHODIC PROTECTION			464.	☐ 5. STEEL W/COATING	☐ 95. UNKNOWN		465.

VII. PIPING LEAK DETECTION (Check all that apply) (A description of the monitoring program shall be submitted to the local agency.)

UNDERGROUND PIPING

SINGLE WALL PIPING 466.

PRESSURIZED PIPING (Check all that apply):

☐ 1. ELECTRONIC LINE LEAK DETECTOR 3.0 GPH TEST WITH AUTO PUMP SHUT-OFF FOR LEAK, SYSTEM FAILURE, AND SYSTEM DISCONNECTION + AUDIBLE AND VISUAL ALARMS.

☐ 2. MONTHLY 0.2 GPH TEST

☐ 3. ANNUAL INTEGRITY TEST (0.1 GPH)

CONVENTIONAL SUCTION SYSTEMS

☐ 5. DAILY VISUAL MONITORING OF PUMPING SYSTEM + TRIENNIAL PIPING INTEGRITY TEST (0.1 GPH)

SAFE SUCTION SYSTEMS (NO VALVES IN BELOW GROUND PIPING):

☐ 7. SELF MONITORING

GRAVITY FLOW

☐ 9. BIENNIAL INTEGRITY TEST (0.1 GPH)

SECONDARILY CONTAINED PIPING

PRESSURIZED PIPING (Check all that apply):

10. CONTINUOUS TURBINE SUMP SENSOR WITH AUDIBLE AND VISUAL ALARMS AND (Check one)
  - ☐ a. AUTO PUMP SHUT OFF WHEN A LEAK OCCURS
  - ☐ b. AUTO PUMP SHUT OFF FOR LEAKS, SYSTEM FAILURE AND SYSTEM DISCONNECTION
  - ☐ c. NO AUTO PUMP SHUT OFF

☐ 11. AUTOMATIC LINE LEAK DETECTOR (3.0 GPH TEST) WITH FLOW SHUT OFF OR RESTRICTION

☐ 12. ANNUAL INTEGRITY TEST (0.1 GPH)

SUCTION/GRAVITY SYSTEM

☐ 13. CONTINUOUS SUMP SENSOR + AUDIBLE AND VISUAL ALARMS

EMERGENCY GENERATORS ONLY (Check all that apply)

☐ 14. CONTINUOUS SUMP SENSOR WITHOUT AUTO PUMP SHUT OFF AUDIBLE AND VISUAL ALARMS

☐ 15. AUTOMATIC LINE LEAK DETECTOR (3.0 GPH TEST) WITHOUT FLOW SHUT OFF OR RESTRICTION

☐ 16. ANNUAL INTEGRITY TEST (0.1 GPH)

☐ 17. DAILY VISUAL CHECK

ABOVEGROUND PIPING

SINGLE WALL PIPING 467.

PRESSURIZED PIPING (Check all that apply):

☐ 1. ELECTRONIC LINE LEAK DETECTOR 3.0 GPH TEST WITH AUTO PUMP SHUT OFF FOR LEAK, SYSTEM FAILURE, AND SYSTEM DISCONNECTION + AUDIBLE AND VISUAL ALARMS.

☐ 2. MONTHLY 0.2 GPH TEST

☐ 3. ANNUAL INTEGRITY TEST (0.1 GPH)

☐ 4. DAILY VISUAL CHECK

CONVENTIONAL SUCTION SYSTEMS (Check all that apply)

☐ 5. DAILY VISUAL MONITORING OF PIPING AND PUMPING SYSTEM

☐ 6. TRIENNIAL INTEGRITY TEST (0.1 GPH)

SAFE SUCTION SYSTEMS (NO VALVES IN BELOW GROUND PIPING):

☐ 7. SELF MONITORING

GRAVITY FLOW (Check all that apply):

☐ 8. DAILY VISUAL MONITORING

☐ 9. BIENNIAL INTEGRITY TEST (0.1 GPH)

SECONDARILY CONTAINED PIPING

PRESSURIZED PIPING (Check all that apply):

10. CONTINUOUS TURBINE SUMP SENSOR WITH AUDIBLE AND VISUAL ALARMS AND (Check one)
  - ☐ a. AUTO PUMP SHUT OFF WHEN A LEAK OCCURS
  - ☐ b. AUTO PUMP SHUT OFF FOR LEAKS, SYSTEM FAILURE AND SYSTEM DISCONNECTION
  - ☐ c. NO AUTO PUMP SHUT OFF

☐ 11. AUTOMATIC LEAK DETECTOR

☐ 12. ANNUAL INTEGRITY TEST (0.1 GPH)

SUCTION/GRAVITY SYSTEM

☐ 13. CONTINUOUS SUMP SENSOR + AUDIBLE AND VISUAL ALARMS

EMERGENCY GENERATORS ONLY (Check all that apply)

☐ 14. CONTINUOUS SUMP SENSOR WITHOUT AUTO PUMP SHUT OFF AUDIBLE AND VISUAL ALARMS

☐ 15. AUTOMATIC LINE LEAK DETECTOR (3.0 GPH TEST)

☐ 16. ANNUAL INTEGRITY TEST (0.1 GPH)

☐ 17. DAILY VISUAL CHECK

VIII. DISPENSER CONTAINMENT

DISPENSER CONTAINMENT 468.

DATE INSTALLED

none

☐ 1. FLOAT MECHANISM THAT SHUTS OFF SHEAR VALVE

☐ 2. CONTINUOUS DISPENSER PAN SENSOR + AUDIBLE AND VISUAL ALARMS

☐ 3. CONTINUOUS DISPENSER PAN SENSOR WITH AUTO SHUT OFF FOR DISPENSER + AUDIBLE AND VISUAL ALARMS

☐ 4. DAILY VISUAL CHECK 469.

☐ 5. TRENCH/LINER MONITORING

☒ 6. NONE

IX. OWNER/OPERATOR SIGNATURE

I certify that the information provided herein is true and accurate to the best of my knowledge.

SIGNATURE OF OWNER/OPERATOR

DATE: 06/16/14 470.

NAME OF OWNER/OPERATOR (print): Jim Ruble for Robert Hung

TITLE OF OWNER/OPERATOR: Const. mgr., Advanced Fuel Services Inc 472

Permit Number (Agency use only) 473.	Permit Approved By (Agency use only) 474.	Permit Expiration Date (Agency use only) 475.

APPENDIX C

LABORATORY DATA SHEETS
AND
CHAIN OF CUSTODY RECORDS

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1407332

Report Created for: International Geologic
2831 Sylhowe Road
Oakland, CA 94602

Project Contact: Steve Bittman
Project P.O.:
Project Name: Adeline

Project Received: 07/10/2014

Analytical Report reviewed & approved for release on 07/11/2014 by:

Question about your data?

Click here to email McCampbell

Angela Rydelius,
Laboratory Manager

McCampbell Analytical, Inc.
"When Quality Counts"

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

Glossary of Terms & Qualifier Definitions

Client: International Geologic
Project: Adeline
WorkOrder: 1407332

Glossary Abbreviation

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

Analytical Qualifiers

S	spike recovery outside accepted recovery limits

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Analytical Report

Client:	International Geologic	**WorkOrder:**	1407332
Project:	Adeline	**Extraction Method:**	SW5030B
Date Received:	7/10/14 18:08	**Analytical Method:**	SW8260B
Date Prepared:	7/10/14	**Unit:**	mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
T-N-8	**1407332-001A**	**Soil**	**07/10/2014**	**GC28**	**92544**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	0.25	1	07/10/2014 23:41

Surrogates	REC (%)	Limits	
Toluene-d8	105	70-130	07/10/2014 23:41

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
T-S-8	**1407332-002A**	**Soil**	**07/10/2014**	**GC28**	**92544**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	0.25	1	07/11/2014 00:19

Surrogates	REC (%)	Limits	
Toluene-d8	109	70-130	07/11/2014 00:19

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Comp-1	**1407332-003A**	**Soil**	**07/10/2014**	**GC28**	**92544**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	0.25	1	07/11/2014 00:57

Surrogates	REC (%)	Limits	
Toluene-d8	110	70-130	07/11/2014 00:57

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Analytical Report

Client:	International Geologic	**WorkOrder:**	1407332
Project:	Adeline	**Extraction Method:**	SW5030B
Date Received:	7/10/14 18:08	**Analytical Method:**	SW8260B
Date Prepared:	7/11/14	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
GW-1	**1407332-004A**	**Water**	**07/10/2014**	**GC28**	**92591**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	**2000**	500	10	07/11/2014 01:35

Surrogates	REC (%)	Limits	
Toluene-d8	98	70-130	07/11/2014 01:35

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Analytical Report

Client:	International Geologic	**WorkOrder:**	1407332
Project:	Adeline	**Extraction Method:**	SW3550B
Date Received:	7/10/14 18:08	**Analytical Method:**	MAI-Organic Pb
Date Prepared:	7/10/14	**Unit:**	mg/Kg

Organic Lead

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
T-N-8	**1407332-001A**	**Soil/TOTAL**	**07/10/2014**	**GC20**	**92588**

Analytes	Result	RL	DF	Date Analyzed
Tetraethyl Lead as Lead	ND	0.0060	1	07/11/2014 02:12
Tetramethyl Lead as Lead	ND	0.010	1	07/11/2014 02:12
Surrogates	REC (%)	Limits		
Decachlorobiphenyl	120	70-130		07/11/2014 02:12

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
T-S-8	**1407332-002A**	**Soil/TOTAL**	**07/10/2014**	**GC20**	**92588**

Analytes	Result	RL	DF	Date Analyzed
Tetraethyl Lead as Lead	ND	0.0060	1	07/11/2014 01:16
Tetramethyl Lead as Lead	ND	0.010	1	07/11/2014 01:16
Surrogates	REC (%)	Limits		
Decachlorobiphenyl	124	70-130		07/11/2014 01:16

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Comp-1	**1407332-003A**	**Soil/TOTAL**	**07/10/2014**	**GC20**	**92588**

Analytes	Result	RL	DF	Date Analyzed
Tetraethyl Lead as Lead	ND	0.0060	1	07/11/2014 00:21
Tetramethyl Lead as Lead	ND	0.010	1	07/11/2014 00:21
Surrogates	REC (%)	Limits		
Decachlorobiphenyl	122	70-130		07/11/2014 00:21

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Analytical Report

Client:	International Geologic	**WorkOrder:**	1407332
Project:	Adeline	**Extraction Method:**	SW5030B
Date Received:	7/10/14 18:08	**Analytical Method:**	SW8260B
Date Prepared:	7/10/14	**Unit:**	mg/kg

MTBE and BTEX by GC/MS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
T-N-8	**1407332-001A**	**Soil**	**07/10/2014**	**GC28**	**92544**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.0050	1	07/10/2014 23:41
t-Butyl alcohol (TBA)	ND	0.050	1	07/10/2014 23:41
1,2-Dibromoethane (EDB)	ND	0.0040	1	07/10/2014 23:41
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	07/10/2014 23:41
Ethylbenzene	ND	0.0050	1	07/10/2014 23:41
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	07/10/2014 23:41
Naphthalene	ND	0.0050	1	07/10/2014 23:41
Toluene	ND	0.0050	1	07/10/2014 23:41
Xylenes, Total	ND	0.0050	1	07/10/2014 23:41

Surrogates	REC (%)	Limits	
Dibromofluoromethane	91	70-130	07/10/2014 23:41
Toluene-d8	96	70-130	07/10/2014 23:41

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
T-S-8	**1407332-002A**	**Soil**	**07/10/2014**	**GC28**	**92544**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.0050	1	07/11/2014 00:19
t-Butyl alcohol (TBA)	ND	0.050	1	07/11/2014 00:19
1,2-Dibromoethane (EDB)	ND	0.0040	1	07/11/2014 00:19
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	07/11/2014 00:19
Ethylbenzene	ND	0.0050	1	07/11/2014 00:19
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	07/11/2014 00:19
Naphthalene	ND	0.0050	1	07/11/2014 00:19
Toluene	ND	0.0050	1	07/11/2014 00:19
Xylenes, Total	ND	0.0050	1	07/11/2014 00:19

Surrogates	REC (%)	Limits	
Dibromofluoromethane	89	70-130	07/11/2014 00:19
Toluene-d8	99	70-130	07/11/2014 00:19

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Analytical Report

Client:	International Geologic	**WorkOrder:**	1407332
Project:	Adeline	**Extraction Method:**	SW5030B
Date Received:	7/10/14 18:08	**Analytical Method:**	SW8260B
Date Prepared:	7/10/14	**Unit:**	mg/kg

MTBE and BTEX by GC/MS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Comp-1	**1407332-003A**	**Soil**	**07/10/2014**	**GC28**	**92544**

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.0050	1	07/11/2014 00:57
t-Butyl alcohol (TBA)	ND	0.050	1	07/11/2014 00:57
1,2-Dibromoethane (EDB)	ND	0.0040	1	07/11/2014 00:57
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	07/11/2014 00:57
Ethylbenzene	ND	0.0050	1	07/11/2014 00:57
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	07/11/2014 00:57
Naphthalene	ND	0.0050	1	07/11/2014 00:57
Toluene	ND	0.0050	1	07/11/2014 00:57
Xylenes, Total	ND	0.0050	1	07/11/2014 00:57
Surrogates	**REC (%)**	**Limits**		
Dibromofluoromethane	89	70-130		07/11/2014 00:57
Toluene-d8	100	70-130		07/11/2014 00:57

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Analytical Report

Client:	International Geologic	**WorkOrder:**	1407332
Project:	Adeline	**Extraction Method:**	SW5030B
Date Received:	7/10/14 18:08	**Analytical Method:**	SW8260B
Date Prepared:	7/11/14	**Unit:**	µg/L

MTBE and BTEX by GC/MS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
GW-1	**1407332-004A**	**Water**	**07/10/2014**	**GC28**	**92591**

Analytes	Result	RL	DF	Date Analyzed
Benzene	**97**	5.0	10	07/11/2014 01:35
t-Butyl alcohol (TBA)	ND	20	10	07/11/2014 01:35
1,2-Dibromoethane (EDB)	ND	5.0	10	07/11/2014 01:35
1,2-Dichloroethane (1,2-DCA)	**5.9**	5.0	10	07/11/2014 01:35
Ethylbenzene	**31**	5.0	10	07/11/2014 01:35
Methyl-t-butyl ether (MTBE)	ND	5.0	10	07/11/2014 01:35
Naphthalene	**50**	5.0	10	07/11/2014 01:35
Toluene	**280**	5.0	10	07/11/2014 01:35
Xylenes, Total	**220**	5.0	10	07/11/2014 01:35
Surrogates	**REC (%)**	**Limits**		
Dibromofluoromethane	93	70-130		07/11/2014 01:35
Toluene-d8	89	70-130		07/11/2014 01:35

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Quality Control Report

Client:	International Geologic	**WorkOrder:**	1407332
Date Prepared:	7/9/14	**BatchID:**	92544
Date Analyzed:	7/9/14 - 7/10/14	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/Kg
Project:	Adeline	**Sample ID:**	MB/LCS-92544 1407281-002AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.0403	0.0050	0.050	-	80.6	70-130
Benzene	ND	0.0448	0.0050	0.050	-	89.6	70-130
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.222	0.050	0.20	-	111	70-130
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.0483	0.0050	0.050	-	96.6	70-130
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0432	0.0040	0.050	-	86.4	70-130
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0457	0.0040	0.050	-	91.3	70-130
1,1-Dichloroethene	ND	0.0433	0.0050	0.050	-	86.5	70-130
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

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Quality Control Report

Client:	International Geologic	**WorkOrder:**	1407332
Date Prepared:	7/9/14	**BatchID:**	92544
Date Analyzed:	7/9/14 - 7/10/14	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/Kg
Project:	Adeline	**Sample ID:**	MB/LCS-92544 1407281-002AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	0.0411	0.0050	0.050	-	82.2	70-130
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0437	0.0050	0.050	-	87.4	70-130
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0439	0.0050	0.050	-	87.8	70-130
Methylene chloride	0.0101	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.0503	0.0050	0.050	-	101	70-130
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.0474	0.0050	0.050	-	94.9	70-130
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-
Surrogate Recovery							
Dibromofluoromethane	0.118	0.170		0.18	94	97	70-130
Toluene-d8	0.127	0.173		0.18	102	99	70-130
4-BFB	0.0113	0.0184		0.018	90	105	70-130

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Quality Control Report

Client:	International Geologic	**WorkOrder:**	1407332
Date Prepared:	7/9/14	**BatchID:**	92544
Date Analyzed:	7/9/14 - 7/10/14	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/Kg
Project:	Adeline	**Sample ID:**	MB/LCS-92544 1407281-002AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	0.0373	0.0358	0.050	ND	74.6	71.6	70-130	4.21	30
Benzene	0.0401	0.0391	0.050	ND	80.2	78.2	70-130	2.55	30
t-Butyl alcohol (TBA)	0.201	0.184	0.20	ND	100	92	70-130	8.62	30
Chlorobenzene	0.0430	0.0423	0.050	ND	86.1	84.7	70-130	1.63	30
1,2-Dibromoethane (EDB)	0.0387	0.0363	0.050	ND	77.5	72.7	70-130	6.41	30
1,2-Dichloroethane (1,2-DCA)	0.0422	0.0402	0.050	ND	84.3	80.5	70-130	4.67	30
1,1-Dichloroethene	0.0402	0.0386	0.050	ND	80.5	77.3	70-130	4.07	30
Diisopropyl ether (DIPE)	0.0374	0.0369	0.050	ND	74.8	73.9	70-130	1.18	30
Ethyl tert-butyl ether (ETBE)	0.0403	0.0389	0.050	ND	80.6	77.7	70-130	3.67	30
Methyl-t-butyl ether (MTBE)	0.0404	0.0388	0.050	ND	80.9	77.7	70-130	4.02	30
Toluene	0.0441	0.0431	0.050	ND	88.2	86.2	70-130	2.29	30
Trichloroethene	0.0478	0.0451	0.050	ND	95.7	90.1	70-130	5.93	30
Surrogate Recovery									
Dibromofluoromethane	0.168	0.165	0.18		96	94	70-130	1.84	30
Toluene-d8	0.164	0.166	0.18		94	95	70-130	0.954	30
4-BFB	0.0167	0.0164	0.018		96	93	70-130	2.23	30

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Quality Control Report

Client:	International Geologic	**WorkOrder:**	1407332
Date Prepared:	7/10/14	**BatchID:**	92591
Date Analyzed:	7/10/14	**Extraction Method:**	SW5030B
Instrument:	GC28	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	Adeline	**Sample ID:**	MB/LCS-92591

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	-	0.50	-	-	-	-
Benzene	ND	19.7	0.50	20	-	98.6	70-130
Bromobenzene	ND	-	0.50	-	-	-	-
Bromochloromethane	ND	-	0.50	-	-	-	-
Bromodichloromethane	ND	-	0.50	-	-	-	-
Bromoform	ND	-	0.50	-	-	-	-
Bromomethane	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	2.0	-	-	-	-
t-Butyl alcohol (TBA)	ND	-	2.0	-	-	-	-
n-Butyl benzene	ND	-	0.50	-	-	-	-
sec-Butyl benzene	ND	-	0.50	-	-	-	-
tert-Butyl benzene	ND	-	0.50	-	-	-	-
Carbon Disulfide	ND	-	0.50	-	-	-	-
Carbon Tetrachloride	ND	-	0.50	-	-	-	-
Chlorobenzene	ND	-	0.50	-	-	-	-
Chloroethane	ND	-	0.50	-	-	-	-
Chloroform	ND	-	0.50	-	-	-	-
Chloromethane	ND	-	0.50	-	-	-	-
2-Chlorotoluene	ND	-	0.50	-	-	-	-
4-Chlorotoluene	ND	-	0.50	-	-	-	-
Dibromochloromethane	ND	-	0.50	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.20	-	-	-	-
1,2-Dibromoethane (EDB)	ND	-	0.50	-	-	-	-
Dibromomethane	ND	-	0.50	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.50	-	-	-	-
Dichlorodifluoromethane	ND	-	0.50	-	-	-	-
1,1-Dichloroethane	ND	-	0.50	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	-	0.50	-	-	-	-
1,1-Dichloroethene	ND	-	0.50	-	-	-	-
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,3-Dichloropropane	ND	-	0.50	-	-	-	-
2,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,1-Dichloropropene	ND	-	0.50	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-

(Cont.)

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Quality Control Report

Client:	International Geologic	**WorkOrder:**	1407332
Date Prepared:	7/10/14	**BatchID:**	92591
Date Analyzed:	7/10/14	**Extraction Method:**	SW5030B
Instrument:	GC28	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	Adeline	**Sample ID:**	MB/LCS-92591

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	-	0.50	-	-	-	-
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	-	0.50	-	-	-	-
Freon 113	ND	-	0.50	-	-	-	-
Hexachlorobutadiene	ND	-	0.50	-	-	-	-
Hexachloroethane	ND	-	0.50	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
Isopropylbenzene	ND	-	0.50	-	-	-	-
4-Isopropyl toluene	ND	-	0.50	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	17.5	0.50	20	-	87.4	70-130
Methylene chloride	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.50	-	-	-	-
Naphthalene	ND	-	0.50	-	-	-	-
n-Propyl benzene	ND	-	0.50	-	-	-	-
Styrene	ND	-	0.50	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
Tetrachloroethene	ND	-	0.50	-	-	-	-
Toluene	ND	20.2	0.50	20	-	101	70-130
1,2,3-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.50	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.50	-	-	-	-
Trichloroethene	ND	-	0.50	-	-	-	-
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.50	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	-	0.50	-	-	-	-
Xylenes, Total	ND	-	0.50	-	-	-	-
Surrogate Recovery							
Dibromofluoromethane	23.0	42.1		45	92	94	70-130
Toluene-d8	22.9	41.4		45	92	92	70-130
4-BFB	2.15	-		2.5	86	-	-

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Quality Control Report

Client:	International Geologic	**WorkOrder:**	1407332
Date Prepared:	7/10/14	**BatchID:**	92588
Date Analyzed:	7/10/14	**Extraction Method:**	SW3550B
Instrument:	GC20	**Analytical Method:**	MAI-Organic Pb
Matrix:	Soil	**Unit:**	mg/Kg
Project:	Adeline	**Sample ID:**	MB/LCS-92588 1407325-002AMS/MSD

QC Summary Report for Organic Lead

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Tetraethyl Lead as Lead	ND	0.197	0.0060	0.20	-	98.4	30-150
Tetramethyl Lead as Lead	ND	0.194	0.010	0.20	-	97.2	20-140
Surrogate Recovery							
Decachlorobiphenyl	0.0644	0.0650		0.050	129	130	30-150

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Tetraethyl Lead as Lead	NR	NR	0	ND<0.012	NR	NR	-	NR	
Tetramethyl Lead as Lead	NR	NR	0	ND<0.02	NR	NR	-	NR	
Surrogate Recovery									
Decachlorobiphenyl	NR	NR	0		NR	NR	-	NR	

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Quality Control Report

Client:	International Geologic	**WorkOrder:**	1407332
Date Prepared:	7/9/14	**BatchID:**	92544
Date Analyzed:	7/9/14 - 7/10/14	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/Kg
Project:	Adeline	**Sample ID:**	MB/LCS-92544 1407281-002AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	-	0.0050	-	-	-	-
Benzene	ND	0.0448	0.0050	0.050	-	89.6	70-130
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	-	0.050	-	-	-	-
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	-	0.0050	-	-	-	-
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	-	0.0040	-	-	-	-
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	-	0.0040	-	-	-	-
1,1-Dichloroethene	ND	-	0.0050	-	-	-	-
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

(Cont.)

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Quality Control Report

Client:	International Geologic	**WorkOrder:**	1407332
Date Prepared:	7/9/14	**BatchID:**	92544
Date Analyzed:	7/9/14 - 7/10/14	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/Kg
Project:	Adeline	**Sample ID:**	MB/LCS-92544 1407281-002AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	-	0.0050	-	-	-	-
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	-	0.0050	-	-	-	-
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0439	0.0050	0.050	-	87.8	70-130
Methylene chloride	0.0101	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.0503	0.0050	0.050	-	101	70-130
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	-	0.0050	-	-	-	-
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-
Surrogate Recovery							
Dibromofluoromethane	0.118	0.170		0.18	94	97	70-130
Toluene-d8	0.127	0.173		0.18	102	99	70-130
4-BFB	0.0113	-		0.0125	90	-	-

(Cont.)

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Quality Control Report

Client:	International Geologic	**WorkOrder:**	1407332
Date Prepared:	7/9/14	**BatchID:**	92544
Date Analyzed:	7/9/14 - 7/10/14	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/Kg
Project:	Adeline	**Sample ID:**	MB/LCS-92544 1407281-002AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Benzene	0.0401	0.0391	0.050	ND	80.2	78.2	70-130	2.55	30
Methyl-t-butyl ether (MTBE)	0.0404	0.0388	0.050	ND	80.9	77.7	70-130	4.02	30
Toluene	0.0441	0.0431	0.050	ND	88.2	86.2	70-130	2.29	30
Surrogate Recovery									
Dibromofluoromethane	0.168	0.165	0.18		96	94	70-130	1.84	30
Toluene-d8	0.164	0.166	0.18		94	95	70-130	0.954	30

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CHAIN-OF-CUSTODY RECORD

WorkOrder: 1407332 **ClientCode: IGO**

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

Report to:
Steve Bittman
International Geologic
2831 Sylhowe Road
Oakland, CA 94602
(510) 644-3123 FAX: (510) 530-8794

Email: stevebittman@gmail.com
cc/3rd Party:
PO:
ProjectNo: Adeline

Bill to:
Accounts Payable
International Geologic
2831 Sylhowe Road
Oakland, CA 94602

Requested TAT: 1 day

Date Received: **07/10/2014**
Date Printed: **07/11/2014**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1407332-001	T-N-8	Soil	7/10/2014	☐	A		A									
1407332-002	T-S-8	Soil	7/10/2014	☐	A		A									
1407332-003	Comp-1	Soil	7/10/2014	☐	A		A									
1407332-004	GW-1	Water	7/10/2014	☐		A										

Test Legend:

1	GAS8260_S	2	GAS8260_W	3	MAI_OPB_S	4		5	
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A, 004A contain testgroup.

Prepared by: Jena Alfaro

Comments:

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

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WORK ORDER SUMMARY

Client Name: INTERNATIONAL GEOLOGIC
Project: Adeline
Comments:

QC Level: LEVEL 2
Client Contact: Steve Bittman
Contact's Email: stevebittman@gmail.com

Work Order: 1407332
Date Received: 7/10/2014

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

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1407332-001A	T-N-8	Soil	TPH(g) & MBTEX by 8260B	1	Skinny Stainless Tube	☐	7/10/2014	1 day		☐	
			Organic Lead (speciated)			☐		1 day		☐	
1407332-002A	T-S-8	Soil	TPH(g) & MBTEX by 8260B	1	Skinny Stainless Tube	☐	7/10/2014	1 day		☐	
			Organic Lead (speciated)			☐		1 day		☐	
1407332-003A	Comp-1	Soil	TPH(g) & MBTEX by 8260B	1	Skinny Stainless Tube	☐	7/10/2014	1 day		☐	
			Organic Lead (speciated)			☐		1 day		☐	
1407332-004A	GW-1	Water	TPH(g) & MBTEX by 8260B	4	VOA w/ HCl	☐	7/10/2014	1 day	Present	☐	

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

Bottle Legend:
Skinny Stainless Tube =
VOA w/ HCl = 43mL VOA w/ HCl

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RUSH

1407332

CHAIN OF CUSTODY RECORD

TURN AROUND TIME: RUSH ☑ 1 DAY ☐ 2 DAY ☐ 3 DAY ☐ 5 DAY ☐

GeoTracker EDF ☐ PDF ☐ EDD ☐ Write On (DW) ☐ EQuIS ☐ 10 DAY ☐

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

Report To: Steve Bittman **Bill To:** International Geologic

Company: International Geologic
2831 Sylhowe Rd
Oakland, CA 94602
E-Mail: steve bittman e gmail.com

Tele: (510) 612-8751 **Fax:** ( )

Project #: **Project Name:** Adeline

Project Location: Oakland **Purchase Order#**

Sampler Signature: St Bittm

SAMPLE ID	Location/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	MATRIX: Ground Water	Waste Water	Drinking Water	Sea Water	Soil	Air	Sludge	Other	METHOD PRESERVED: HCL	HNO_3	Other
T-N-8		7-10-14		1	X				X						
T-S-8		7-10-14		1					X						
Comp-1		7-10-14		1					X						
GW-1		7-10-14		4	X								X		

Analysis Request

BTEX/ MTBE & TPH as Gas (8021/ 8015)	TPH as Diesel (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	BTEX/ MTBE & TPH as Gas (8260)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Metals (200.7 / 200.8 / 6010 / 6020)	Filter sample for DISSOLVED metals analysis	8 BTEX + naphthalene + TBA, EDC	EDB + TVHg by 8260	Organic Pb
																X	X	X

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

Relinquished By:	Date:	Time:	Received By:
St Bittm	7-10-14	1757	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

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

COMMENTS: Please - need results by EOD 7-11-14

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

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Sample Receipt Checklist

Client Name: **International Geologic** Date and Time Received: **7/10/2014 6:08:10 PM**

Project Name: **Adeline** LogIn Reviewed by: Jena Alfaro

WorkOrder №: **1407332** Matrix: Soil/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: 4°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	NA ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
pH acceptable upon receipt (Metal: pH<2; 522: pH<4)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

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

Comments:

APPENDIX D

UNAUTHORIZED RELEASE FORM

UNDERGROUND STORAGE TANK (UST) SITE - UNAUTHORIZED RELEASE / CONTAMINATION REPORT

EMERGENCY ☐ Yes ☒ No

HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? ☐ Yes ☒ No

REPORT DATE

CASE #

FOR LOCAL AGENCY USE ONLY

I HEREBY CERTIFY THAT I AM A DESIGNATED GOVERNMENT EMPLOYEE AND THAT I HAVE REPORTED THIS INFORMATION TO LOCAL OFFICIALS PURSUANT TO SECTION 25180.7 OF THE HEALTH AND SAFETY CODE.

SIGNED DATE

REPORTED BY

NAME OF INDIVIDUAL FILING REPORT: Steve Bittman

PHONE: (510) 612-8751

SIGNATURE: Steve Bittman

REPRESENTING
☐ LOCAL AGENCY ☐ REGIONAL BOARD
☒ OWNER/OPERATOR ☐ OTHER

COMPANY OR AGENCY NAME: International Geologic

ADDRESS: 2831 Sylhowe Road (STREET) Oakland (CITY) CA (STATE) 94602 (ZIP)

RESPONSIBLE PARTY

NAME: Hung Revocable Trust ☐ Unknown

CONTACT PERSON: Robert Hung

PHONE: (510) 548-5960

ADDRESS: PO Box 616 (STREET) Berkeley (CITY) CA (STATE) 94701 (ZIP)

SITE LOCATION

FACILITY NAME (IF APPLICABLE): Warehouse

OPERATOR: Vacant

PHONE: ( )

ADDRESS: 2823 Adeline Street (STREET) Oakland (CITY) Alameda (COUNTY) 94608 (ZIP)

CROSS STREET: 28th

IMPLEMENTING AGENCIES

LOCAL AGENCY AGENCY NAME: Oakland Fire Department

PHONE: (510) 283-7853

REGIONAL BOARD: San Francisco Bay Region

PHONE: (510) 622-2300

SUBSTANCES INVOLVED

(1) NAME: Gasoline QUANTITY LOST (GALLONS) ☒ Unknown

(2) ☐ Unknown

DISCOVERY/ABATEMENT

DATE DISCOVERED: 7/10/2014

HOW DISCOVERED: ☐ Tank Test ☒ Tank Removal ☐ Nuisance Conditions ☐ Inventory Control ☐ Subsurface Monitoring ☐ Other

DATE DISCHARGE BEGAN ☒ Unknown

HAS DISCHARGE BEEN STOPPED? ☒ Yes ☐ No IF YES, DATE 7/15/2014

METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY)
☒ Remove Contents ☒ Close Tank
☐ Repair Tank ☐ Change Procedure
☐ Replace Tank ☐ Other
☐ Repair Piping

SOURCE/CAUSE

SOURCE OF DISCHARGE
☒ Tank ☐ Piping ☐ Dispenser ☐ Delivery Problem
☐ Submersible Turbine Pump (STP) ☐ Other

CAUSE(S)
☐ Spill ☐ Overfill ☐ Physical/Mechanical Damage ☐ Corrosion
☐ Installation Problem ☒ Unknown ☐ Other

CASE TYPE

CHECK ONE ONLY
☒ Undetermined ☐ Soil Only ☐ Groundwater ☐ Drinking Water – (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)

CURRENT STATUS

CHECK ONE ONLY
☒ Open - Site Assessment
☐ Open - Assessment & Interim Remedial Action
☐ Open - Remediation
☐ Open - Verification Monitoring
☐ Open - Inactive
☐ Closed – No Further Action Required

REMEDIAL ACTION

CHECK APPROPRIATE ACTION(S)
Human health exposure control? ☐ Yes ☒ No ☐ Unknown
Groundwater migration control? ☐ Yes ☒ No ☐ Unknown

☒ No Action Required (NAR) ☐ Excavate & Treat (ET) ☐ Treatment at Hookup (TH) ☐ Other
☐ Excavate & Dispose (ED) ☐ Free Product Removal (FPR) ☐ Replace Supply (RS)

COMMENTS

1K 5al gasoline UST closed 7/15/14. Soil samples collected did not contain detectable hydrocarbons. Groundwater collected in UST excavation contained TVHg and benzene above ESLs. Soil and groundwater tests downgradient showed no impact.

Instructions for Completing UST Unauthorized Release (Leak) / Contamination Site Report

EMERGENCY: Indicate whether emergency response personnel and equipment were involved at any time. If so, a Hazardous Material Incident Report should be filed with the State Office of Emergency Services (OES). Indicate whether the OES report has been filed as of the date of this report.

LOCAL AGENCY USE ONLY: To avoid duplicate notifications pursuant to Health and safety Code Section 25180.7, a designated government employee should sign and date the form in this block. A signature here does not mean that the leak has been determined to pose a significant threat to human health or safety, only that notification procedures have been followed if required.

REPORTED BY: Enter name, telephone number, and address. Indicate which party you represent and provide company or agency name.

SIGNATURE: Sign the form in the space provided.

RESPONSIBLE PARTY: Enter the name, telephone number, contact person, and address of the party responsible for the leak. The Responsible Party would normally be the tank owner.

SITE LOCATION: Enter information regarding the tank facility. At a minimum, you must provide the facility name and full site address.

IMPLEMENTING AGENCIES: Enter the names of the local agency and Regional Water Quality Control Board having jurisdiction over the site.

SUBSTANCES INVOLVED: Enter the name and quantity lost of the hazardous substance(s) involved. If more than two substances leaked, list the two of most concern for cleanup.

DISCOVERY/ABATEMENT: Provide information regarding the discovery and abatement of the leak.

SOURCE: Indicate the source(s) of the leak. Check sourc(es) that apply.

CAUSE: Check box(es) that apply. Only use "other" when the release source is known, but does not fit into any of the other categories. For example releases from vent and vapor recovery lines.

CASE TYPE: Check one box only. Indicate the Case Type category for this leak. Case Type is based on the most sensitive resource affected. For example, if both soil and ground water have been affected, Case Type will be "Groundwater." Indicate "Drinking Water" only if one or more municipal or domestic water wells have actually been affected. A "Groundwater" designation does not imply that the affected water cannot be, or is not, used for drinking water, but only that water wells have not yet been affected. It is understood that Case Type may change upon further investigation.

CURRENT STATUS: Check one box only. Indicate the category which best describes the Current Status of the case. The response should be relative to the Case Type. For example, if the Case Type is "Groundwater," then Current Status should refer to the status of the ground water investigation or cleanup, as opposed to that of soil. Descriptions of options are as follows:

- **Open- Site Assessment –** An investigation to determine whether groundwater and/or soil have/has been, or will be, impacted as a result of the release.
- **Open- Assessment & Interim Remedial Action –** An investigation to determine whether groundwater and/or soil have/has been, or will be, impacted as a result of the release and appropriate actions to prevent or address an immediate threat to human health or the environment.
- **Open- Remediation –** Remedial activities to prevent or address a threat to human health or the environment as a result of the release.
- **Open- Verification Monitoring –** Periodic groundwater or other monitoring at the site to verify and/or evaluate the effectiveness of remedial activities.
- **Open- Inactive –** No activities have been implemented to determine whether groundwater and/or soil were/was impacted by the release.
- **Closed- No Further Action Required –** Regional Water Quality Control Board and local agency Local Oversight Program agree that no further work is necessary at the site.

IMPORTANT: THE INFORMATION PROVIDED ON THIS FORM IS INTENDED FOR GENERAL STATISTICAL PURPOSES ONLY AND IS NOT TO BE CONSTRUED AS REPRESENTING THE OFFICIAL POSITION OF ANY GOVERNMENTAL AGENCY.

REMEDIAL ACTION: Indicate which actions have been used to clean up or remediate the leak. Descriptions of options are as follows:

- **Human health exposure control? Yes –** Assessments for human exposures indicate there are no unacceptable human exposure pathways and the Regional Water Quality Control Board or other regulatory agency staff has determined the site is under control for current conditions.
- **Human health exposure control? No –** Data indicate that there are complete human exposures pathways that present unacceptable exposures to humans, and actions have yet to be completed to address these human exposure pathways for the entire site.
- **Human health exposure control? Unknown –** There is not sufficient information to determine whether there are any current, complete unacceptable human exposure pathways at the site.
- **Groundwater migration control? Yes –** All information on known and reasonably expected groundwater contamination has been reviewed and that the migration of contaminated groundwater is stabilized and there is no unacceptable discharge to surface water and monitoring will be conducted to confirm that affected groundwater remains in the original area of contamination.
- **Groundwater migration control? No –** All information on known and reasonably expected groundwater contamination has been reviewed and that the migration of contaminated groundwater is not stabilized.
- **Groundwater migration control? Unknown –** There is not sufficient information to determine whether the migration of contaminated groundwater is stabilized.
- **No Action Required (NAR) –** Incident is minor, requiring no remedial action.
- **Excavate and Dispose (ED) –** Remove contaminated soil and dispose at approved facility.
- **Excavate and Treat (ET) –** Remove contaminated soil and treat (includes spreading or land farming).
- **Free Product Removal (FPR) –** Remove floating product from water table.
- **Treatment at Hookup (TH) –** Install water treatment devices at each dwelling or other place of use.
- **Replace Supply (RS) –** Provide alternate water supply to affected parties.
- **Other –** Other remedial actions that are not listed above.

COMMENTS: Use this space to elaborate on any aspects of the incident.

DISTRIBUTION: If this form is completed by the tank owner or his/her agent, retain a copy and forward the original to your local tank permitting agency for distribution.

- Original – Local UST permitting agency. (Agency contact information is available at http://www.calcupa.net/services/directory/search.asp.)
- Copy – Regional Water Quality Control Board. (Boundaries and contact information are available at http://www.waterboards.ca.gov/waterboards_map.shtml.)
- Copy – Local Oversight Program (LOP) agency. (Agency contact information is available at http://www.waterboards.ca.gov/water_issues/programs/ust/contacts/lop.shtml.)
- Copy – Local Health Officer and County Board of Supervisors or their designee to receive Proposition 65 notifications.
- Copy – Owner/Responsible Party.

APPENDIX B

Photodocumentation

Subject: View of the UST fill port location. The UST extends towards the light pole, and approximately 50% of the tank is beneath the pole.

Site: 2823 Adeline Street, Oakland, California.

Date Taken: March, 2014	Project No.: 2014-36
Photographer: S. Bittman	Photo No.: 01

Subject: UST fill port with tag.

Site: 2823 Adeline Street, Oakland, California.

Date Taken: March, 2014	Project No.: 2014-36
Photographer: S. Bittman	Photo No.: 02

Subject: View of the dispenser pad on the other side of the building wall from the UST location..	
Site: 2823 Adeline Street, Oakland, California.	
Date Taken: March, 2014	Project No.: 2014-36
Photographer: S. Bittman	Photo No.: 03

Subject: Advancing boring B1 next to the dispenser pad.	
Site: 2823 Adeline Street, Oakland, California.	
Date Taken: August 1, 2014	Project No.: 2014-36
Photographer: S. Bittman	Photo No.: 04

Subject: Subsurface materials encountered in Boring B2.	
Site: 2823 Adeline Street, Oakland, California	
Date Taken: August 1, 2014	Project No.: 2014-36
Photographer: S. Bittman	Photo No.: 05

Subject: Grouting Boring B1	
Site: 2823 Adeline Street, Oakland, California	
Date Taken: August 1, 2014	Project No.: 2014-36
Photographer: S. Bittman	Photo No.: 06

APPENDIX C

Boring Logs

STELLAR
ENVIRONMENTAL SOLUTIONS, INC
GEOSCIENCE & ENGINEERING CONSULTING

Soil Boring Log

BORING NUMBER B-1 Page 1 of 1

PROJECT Groundwater Investigation
OWNER Bob Hung
LOCATION 2823 Adeline St., Oakland, CA
PROJECT NUMBER 2014-36
TOTAL DEPTH 16 feet bgs
BOREHOLE DIA. 2.5 inch
SURFACE ELEV. Approx. 17 feet
WATER FIRST ENCOUNTERED 8 feet
DRILLING COMPANY Cascade
DRILLING METHOD Direct Push Geoprobe 6600
DRILLER Juan and Rick
GEOLOGIST S.Bittman
DATE DRILLED 8/1/14

DEPTH (feet)	GRAPHIC LOG	DESCRIPTION/SOIL CLASSIFICATION	REMARKS
0		6" concrete slab	
2	B1-3.5-4	Silty clay, CL, grey brown, damp to moist, stiff, no odor	
4			
6	B1-7.5-8	▼ Clayey sand (SC) with 15% angular gravel, brown, moist to wet at 8', ▽ no odor	
8			
10			
12			
14		Clayey gravel (GC), brown, wet, dense, no odor or sheen	
16		Bottom of bore = 16'	
18			
20			

Notes:
Continuous core sampling — 100% core recovery unless otherwise noted

Grab groundwater samples collected within temporary PVC casing.

B1-7.5-8 = Soil sample collected for analyses.

2014-36-04

▽ First encountered groundwater ▼ Equilibrated groundwater level

STELLAR
ENVIRONMENTAL SOLUTIONS, INC
GEOSCIENCE & ENGINEERING CONSULTING

Soil Boring Log

BORING NUMBER B-2 Page 1 of 1

PROJECT Groundwater Investigation
OWNER Bob Hung
LOCATION 2823 Adeline St., Oakland, CA
PROJECT NUMBER 2014-36
TOTAL DEPTH 20 feet bgs
BOREHOLE DIA. 2.5 inch
SURFACE ELEV. Approx. 17 feet
WATER FIRST ENCOUNTERED 9 feet
DRILLING COMPANY Cascade
DRILLING METHOD Direct Push Geoprobe 6600
DRILLER Juan and Rick
GEOLOGIST S.Bittman
DATE DRILLED 8/1/14

DEPTH (feet)	GRAPHIC LOG	DESCRIPTION/SOIL CLASSIFICATION	REMARKS
0		6" concrete slab	
2		Silty clay (CL/CH), grey brown, damp, very stiff, no odor	
4			
6			
8	B2-7.5-8	▼ Sandy clay (CL) to clayey sand (SC), brown to reddish brown, interbedded ▽ sandy gravel, moist to wet, no odor	
10			
12			
14			
16			
18		Silty clay (CL), brown, decreasing moisture with depth	
20		Bottom of bore = 20'	

Notes:
Continuous core sampling — 100% core recovery unless otherwise noted

Grab groundwater samples collected within temporary PVC casing.

B2-7.5-8 = Soil sample collected for analyses.

▽ First encountered groundwater ▼ Equilibrated groundwater level

2014-36-05

STELLAR
ENVIRONMENTAL SOLUTIONS, INC
GEOSCIENCE & ENGINEERING CONSULTING

Soil Boring Log

BORING NUMBER B-3 Page 1 of 1

PROJECT Groundwater Investigation
OWNER Bob Hung
LOCATION 2823 Adeline St., Oakland, CA
PROJECT NUMBER 2014-36
TOTAL DEPTH 16 feet bgs
BOREHOLE DIA. 2.5 inch
SURFACE ELEV. Approx. 17 feet
WATER FIRST ENCOUNTERED 11 feet
DRILLING COMPANY Cascade
DRILLING METHOD Direct Push Geoprobe 6600
DRILLER Juan and Rick
GEOLOGIST S.Bittman
DATE DRILLED 8/1/14

DEPTH (feet)	GRAPHIC LOG	DESCRIPTION/SOIL CLASSIFICATION	REMARKS
0		6" concrete slab	
2		Silty clay, CL/CH, grey brown, damp, very stiff, no odor	
4			
6			
8			
10	B3-9.5-10	▼ Sandy clay (CL), grading to clayey sand (SC), brown, moist, stiff ▽	
12		Clayey gravel (GC), reddish brown, wet, medium dense, no odor or sheen	
14			Notes: Continuous core sampling — 100% core recovery unless otherwise noted Grab groundwater samples collected within temporary PVC casing. B3-9.5-10 = Soil sample collected for analyses.
16		Bottom of bore = 16'	
18			
20			

2014-36-06

▽ First encountered groundwater ▼ Equilibrated groundwater level

APPENDIX D

Drilling Permit

Alameda County Public Works Agency - Water Resources Well Permit

Public Works Agency
Alameda County

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 07/22/2014 By jamesy

Permit Numbers: W2014-0672
Permits Valid from 08/01/2014 to 08/01/2014

Application Id:	1405712079730	**City of Project Site:**	Oakland
Site Location:	2823 Adeline Street Oakland, CA 94608		
Project Start Date:	08/01/2014	**Completion Date:**	08/01/2014
Assigned Inspector:	Contact Balance Hydrologics, Inc at (510) 473-5663 or acwells@balancehydro.com		
Applicant:	Stellar Envoronmental Solutions - Steve Bittman 2198 Sixth Street, Berkeley, CA 94710	**Phone:**	510-644-3123
Property Owner:	Bob Hung Box 616 Berkeley, CA 94710, Berkeley, CA 94710	**Phone:**	510-644-3123
Client:	Steve Bittman 2198 Sixth Street, Berkeley, CA 94710	**Phone:**	510-644-3123
Contact:	Steve Bittman	**Phone:** **Cell:**	510-644-3123 510-644-3123

	Total Due:	$265.00
Receipt Number: WR2014-0290	**Total Amount Paid:**	$265.00
Payer Name : Henry Pietropaoli	Paid By: VISA	**PAID IN FULL**

Works Requesting Permits:

Borehole(s) for Investigation-Contamination Study - 3 Boreholes
Driller: Cascade Drilling - Lic #: 938110 - Method: DP **Work Total: $265.00**

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2014-0672	07/22/2014	10/30/2014	3	2.50 in.	20.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.

2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

4. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the

permits and requirements have been approved or obtained.

5. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

6. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

7. NOTE:
Under California laws, the owner/operator are responsible for reporting the contamination to the governmental regulatory agencies under Section 25295(a). The owner/operator is liable for civil penalties under Section 25299(a)(4) and criminal penalties under Section 25299(d) for failure to report a leak. The owner/operator is liable for civil penalties under Section 25299(b)(4) for knowing failure to ensure compliance with the law by the operator. These penalty provisions do not apply to a potential buyer.

8. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

APPENDIX E

Laboratory Analytical Results and Chain-of-Custody Documentation

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1408081

Report Created for: Stellar Environmental Solutions
2198 Sixth St. #201
Berkeley, CA 94710

Project Contact: Steve Bittman
Project P.O.:
Project Name: #2014-36

Project Received: 08/04/2014

Analytical Report reviewed & approved for release on 08/11/2014 by:

Question about your data?

Click here to email McCampbell

Angela Rydelius,
Laboratory Manager

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

1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com
NELAP: 4033ORELAP ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3

McCampbell Analytical, Inc.
"When Quality Counts"

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

Glossary of Terms & Qualifier Definitions

Client: Stellar Environmental Solutions
Project: #2014-36
WorkOrder: 1408081

Glossary Abbreviation

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

Analytical Qualifiers

b1	aqueous sample that contains greater than ~1 vol. % sediment

Quality Control Qualifiers

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

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"When Quality Counts"

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

Analytical Report

Client:	Stellar Environmental Solutions	**WorkOrder:**	1408081
Project:	#2014-36	**Extraction Method:**	SW5030B
Date Received:	8/4/14 17:02	**Analytical Method:**	SW8260B
Date Prepared:	8/4/14	**Unit:**	mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B1-3.5-4	**1408081-001A**	**Soil**	**08/01/2014**	**GC16**	**93602**

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.0050	1	08/08/2014 04:59
Benzene	ND	0.0050	1	08/08/2014 04:59
t-Butyl alcohol (TBA)	ND	0.050	1	08/08/2014 04:59
1,2-Dibromoethane (EDB)	ND	0.0040	1	08/08/2014 04:59
Diisopropyl ether (DIPE)	ND	0.0050	1	08/08/2014 04:59
Ethylbenzene	ND	0.0050	1	08/08/2014 04:59
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	08/08/2014 04:59
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	08/08/2014 04:59
Naphthalene	ND	0.0050	1	08/08/2014 04:59
Toluene	ND	0.0050	1	08/08/2014 04:59
Xylenes, Total	ND	0.0050	1	08/08/2014 04:59

Surrogates	REC (%)	Limits	
Dibromofluoromethane	91	70-130	08/08/2014 04:59
Toluene-d8	99	70-130	08/08/2014 04:59

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B1-7.5-8	**1408081-002A**	**Soil**	**08/01/2014**	**GC16**	**93602**

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.0050	1	08/08/2014 05:41
Benzene	ND	0.0050	1	08/08/2014 05:41
t-Butyl alcohol (TBA)	ND	0.050	1	08/08/2014 05:41
1,2-Dibromoethane (EDB)	ND	0.0040	1	08/08/2014 05:41
Diisopropyl ether (DIPE)	ND	0.0050	1	08/08/2014 05:41
Ethylbenzene	ND	0.0050	1	08/08/2014 05:41
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	08/08/2014 05:41
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	08/08/2014 05:41
Naphthalene	ND	0.0050	1	08/08/2014 05:41
Toluene	ND	0.0050	1	08/08/2014 05:41
Xylenes, Total	ND	0.0050	1	08/08/2014 05:41

Surrogates	REC (%)	Limits	
Dibromofluoromethane	93	70-130	08/08/2014 05:41
Toluene-d8	100	70-130	08/08/2014 05:41

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

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

Analytical Report

Client:	Stellar Environmental Solutions	**WorkOrder:**	1408081
Project:	#2014-36	**Extraction Method:**	SW5030B
Date Received:	8/4/14 17:02	**Analytical Method:**	SW8260B
Date Prepared:	8/4/14	**Unit:**	mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B3-9.5-10	**1408081-003A**	**Soil**	**08/01/2014**	**GC16**	**93602**

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.0050	1	08/08/2014 06:23
Benzene	ND	0.0050	1	08/08/2014 06:23
t-Butyl alcohol (TBA)	ND	0.050	1	08/08/2014 06:23
1,2-Dibromoethane (EDB)	ND	0.0040	1	08/08/2014 06:23
Diisopropyl ether (DIPE)	ND	0.0050	1	08/08/2014 06:23
Ethylbenzene	ND	0.0050	1	08/08/2014 06:23
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	08/08/2014 06:23
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	08/08/2014 06:23
Naphthalene	ND	0.0050	1	08/08/2014 06:23
Toluene	ND	0.0050	1	08/08/2014 06:23
Xylenes, Total	ND	0.0050	1	08/08/2014 06:23

Surrogates	REC (%)	Limits	
Dibromofluoromethane	94	70-130	08/08/2014 06:23
Toluene-d8	99	70-130	08/08/2014 06:23

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B2-7.5-8	**1408081-007A**	**Soil**	**08/01/2014**	**GC16**	**93602**

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.0050	1	08/11/2014 15:38
Benzene	ND	0.0050	1	08/11/2014 15:38
t-Butyl alcohol (TBA)	ND	0.050	1	08/11/2014 15:38
1,2-Dibromoethane (EDB)	ND	0.0040	1	08/11/2014 15:38
Diisopropyl ether (DIPE)	ND	0.0050	1	08/11/2014 15:38
Ethylbenzene	ND	0.0050	1	08/11/2014 15:38
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	08/11/2014 15:38
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	08/11/2014 15:38
Naphthalene	ND	0.0050	1	08/11/2014 15:38
Toluene	ND	0.0050	1	08/11/2014 15:38
Xylenes, Total	ND	0.0050	1	08/11/2014 15:38

Surrogates	REC (%)	Limits	
Dibromofluoromethane	93	70-130	08/11/2014 15:38
Toluene-d8	102	70-130	08/11/2014 15:38

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Analytical Report

Client:	Stellar Environmental Solutions	**WorkOrder:**	1408081
Project:	#2014-36	**Extraction Method:**	SW5030B
Date Received:	8/4/14 17:02	**Analytical Method:**	SW8260B
Date Prepared:	8/5/14	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B1-GW	**1408081-004A**	**Water**	**08/01/2014**	**GC16**	**93640**

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.50	1	08/05/2014 12:22
Benzene	ND	0.50	1	08/05/2014 12:22
t-Butyl alcohol (TBA)	ND	2.0	1	08/05/2014 12:22
1,2-Dibromoethane (EDB)	ND	0.50	1	08/05/2014 12:22
Diisopropyl ether (DIPE)	ND	0.50	1	08/05/2014 12:22
Ethylbenzene	ND	0.50	1	08/05/2014 12:22
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	08/05/2014 12:22
Methyl-t-butyl ether (MTBE)	ND	0.50	1	08/05/2014 12:22
Naphthalene	ND	0.50	1	08/05/2014 12:22
Toluene	ND	0.50	1	08/05/2014 12:22
Xylenes, Total	ND	0.50	1	08/05/2014 12:22

Surrogates	REC (%)	Limits	Analytical Comments: b1
Dibromofluoromethane	99	70-130	08/05/2014 12:22
Toluene-d8	97	70-130	08/05/2014 12:22

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B2-GW	**1408081-005A**	**Water**	**08/01/2014**	**GC16**	**93640**

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.50	1	08/05/2014 13:04
Benzene	ND	0.50	1	08/05/2014 13:04
t-Butyl alcohol (TBA)	ND	2.0	1	08/05/2014 13:04
1,2-Dibromoethane (EDB)	ND	0.50	1	08/05/2014 13:04
Diisopropyl ether (DIPE)	ND	0.50	1	08/05/2014 13:04
Ethylbenzene	ND	0.50	1	08/05/2014 13:04
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	08/05/2014 13:04
Methyl-t-butyl ether (MTBE)	ND	0.50	1	08/05/2014 13:04
Naphthalene	ND	0.50	1	08/05/2014 13:04
Toluene	ND	0.50	1	08/05/2014 13:04
Xylenes, Total	ND	0.50	1	08/05/2014 13:04

Surrogates	REC (%)	Limits	
Dibromofluoromethane	100	70-130	08/05/2014 13:04
Toluene-d8	95	70-130	08/05/2014 13:04

(Cont.)

CDPH ELAP 1644 ♦ NELAP 4033ORELAP KF Analyst's Initial Angela Rydelius, Lab Manager

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Analytical Report

Client:	Stellar Environmental Solutions	**WorkOrder:**	1408081
Project:	#2014-36	**Extraction Method:**	SW5030B
Date Received:	8/4/14 17:02	**Analytical Method:**	SW8260B
Date Prepared:	8/5/14	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B3-GW	**1408081-006A**	**Water**	**08/01/2014**	**GC16**	**93640**

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.50	1	08/05/2014 13:47
Benzene	ND	0.50	1	08/05/2014 13:47
t-Butyl alcohol (TBA)	**14**	2.0	1	08/05/2014 13:47
1,2-Dibromoethane (EDB)	ND	0.50	1	08/05/2014 13:47
Diisopropyl ether (DIPE)	ND	0.50	1	08/05/2014 13:47
Ethylbenzene	ND	0.50	1	08/05/2014 13:47
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	08/05/2014 13:47
Methyl-t-butyl ether (MTBE)	ND	0.50	1	08/05/2014 13:47
Naphthalene	ND	0.50	1	08/05/2014 13:47
Toluene	ND	0.50	1	08/05/2014 13:47
Xylenes, Total	ND	0.50	1	08/05/2014 13:47
Surrogates	**REC (%)**	**Limits**		
Dibromofluoromethane	99	70-130		08/05/2014 13:47
Toluene-d8	96	70-130		08/05/2014 13:47

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Analytical Report

Client:	Stellar Environmental Solutions	**WorkOrder:**	1408081
Project:	#2014-36	**Extraction Method:**	SW5030B
Date Received:	8/4/14 17:02	**Analytical Method:**	SW8260B
Date Prepared:	8/4/14	**Unit:**	mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B1-3.5-4	**1408081-001A**	**Soil**	**08/01/2014**	**GC16**	**93602**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	0.25	1	08/08/2014 04:59

Surrogates	REC (%)	Limits	
Dibromofluoromethane	92	70-130	08/08/2014 04:59

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B1-7.5-8	**1408081-002A**	**Soil**	**08/01/2014**	**GC16**	**93602**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	0.25	1	08/08/2014 05:41

Surrogates	REC (%)	Limits	
Dibromofluoromethane	95	70-130	08/08/2014 05:41

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B3-9.5-10	**1408081-003A**	**Soil**	**08/01/2014**	**GC16**	**93602**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	0.25	1	08/08/2014 06:23

Surrogates	REC (%)	Limits	
Dibromofluoromethane	96	70-130	08/08/2014 06:23

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B2-7.5-8	**1408081-007A**	**Soil**	**08/01/2014**	**GC16**	**93602**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	0.25	1	08/08/2014 07:06

Surrogates	REC (%)	Limits	
Dibromofluoromethane	96	70-130	08/08/2014 07:06

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Analytical Report

Client:	Stellar Environmental Solutions	**WorkOrder:**	1408081
Project:	#2014-36	**Extraction Method:**	SW5030B
Date Received:	8/4/14 17:02	**Analytical Method:**	SW8260B
Date Prepared:	8/5/14	**Unit:**	µg/L

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B1-GW	**1408081-004A**	**Water**	**08/01/2014**	**GC16**	**93640**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	08/05/2014 12:22

Surrogates	REC (%)	Limits	Analytical Comments: b1	
Dibromofluoromethane	105	70-130		08/05/2014 12:22

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B2-GW	**1408081-005A**	**Water**	**08/01/2014**	**GC16**	**93640**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	08/05/2014 13:04

Surrogates	REC (%)	Limits	
Dibromofluoromethane	106	70-130	08/05/2014 13:04

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B3-GW	**1408081-006A**	**Water**	**08/01/2014**	**GC16**	**93640**

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	50	1	08/05/2014 13:47

Surrogates	REC (%)	Limits	
Dibromofluoromethane	106	70-130	08/05/2014 13:47

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Analytical Report

Client:	Stellar Environmental Solutions	**WorkOrder:**	1408081
Project:	#2014-36	**Extraction Method:**	SW3050B
Date Received:	8/4/14 17:02	**Analytical Method:**	SW6020
Date Prepared:	8/4/14	**Unit:**	mg/Kg

LUFT 5 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B1-3.5-4	**1408081-001A**	**Soil/TOTAL**	**08/01/2014**	**ICP-MS2**	**93587**

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	08/06/2014 07:38
Chromium	**52**	0.50	1	08/06/2014 07:38
Lead	**5.5**	0.50	1	08/06/2014 07:38
Nickel	**23**	0.50	1	08/06/2014 07:38
Zinc	**44**	5.0	1	08/06/2014 07:38

Surrogates	REC (%)	Limits	
Tb 350.917	120	70-130	08/06/2014 07:38

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
B1-7.5-8	**1408081-002A**	**Soil/TOTAL**	**08/01/2014**	**ICP-MS2**	**93587**

Analytes	Result	RL	DF	Date Analyzed
Cadmium	**0.66**	0.25	1	08/06/2014 07:44
Chromium	**57**	0.50	1	08/06/2014 07:44
Lead	**6.2**	0.50	1	08/06/2014 07:44
Nickel	**68**	0.50	1	08/06/2014 07:44
Zinc	**79**	5.0	1	08/06/2014 07:44

Surrogates	REC (%)	Limits	
Tb 350.917	116	70-130	08/06/2014 07:44

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Quality Control Report

Client:	Stellar Environmental Solutions	**WorkOrder:**	1408081
Date Prepared:	8/4/14	**BatchID:**	93602
Date Analyzed:	8/4/14	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/Kg
Project:	#2014-36	**Sample ID:**	MB/LCS-93602 1408081-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.0381	0.0050	0.050	-	76.2	61-115
Benzene	ND	0.0482	0.0050	0.050	-	96.4	75-126
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.176	0.050	0.20	-	87.9	63-125
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	-	0.0050	-	-	-	-
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	-	0.0040	-	-	-	-
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	-	0.0040	-	-	-	-
1,1-Dichloroethene	ND	-	0.0050	-	-	-	-
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

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Quality Control Report

Client:	Stellar Environmental Solutions	**WorkOrder:**	1408081
Date Prepared:	8/4/14	**BatchID:**	93602
Date Analyzed:	8/4/14	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/Kg
Project:	#2014-36	**Sample ID:**	MB/LCS-93602 1408081-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	0.0439	0.0050	0.050	-	87.9	68-117
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0421	0.0050	0.050	-	84.2	67-116
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0417	0.0050	0.050	-	83.3	66-118
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.0508	0.0050	0.050	-	102	84-129
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	-	0.0050	-	-	-	-
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-
Surrogate Recovery							
Dibromofluoromethane	0.113	0.160		0.18	90	91	80-120
Toluene-d8	0.125	0.167		0.18	100	96	80-120
4-BFB	0.0120	-		0.0125	96	-	-

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Quality Control Report

Client:	Stellar Environmental Solutions	**WorkOrder:**	1408081
Date Prepared:	8/4/14	**BatchID:**	93602
Date Analyzed:	8/4/14	**Extraction Method:**	SW5030B
Instrument:	GC10	**Analytical Method:**	SW8260B
Matrix:	Soil	**Unit:**	mg/Kg
Project:	#2014-36	**Sample ID:**	MB/LCS-93602 1408081-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	0.0353	0.0360	0.050	ND	70.7	72	70-130	1.91	30
Benzene	0.0397	0.0405	0.050	ND	79.5	81	70-130	1.90	30
t-Butyl alcohol (TBA)	0.176	0.185	0.20	ND	88	92.4	70-130	4.84	30
Diisopropyl ether (DIPE)	0.0421	0.0427	0.050	ND	84.2	85.4	70-130	1.41	30
Ethyl tert-butyl ether (ETBE)	0.0410	0.0421	0.050	ND	82	84.2	70-130	2.63	30
Methyl-t-butyl ether (MTBE)	0.0374	0.0386	0.050	ND	74.9	77.2	70-130	3.06	30
Toluene	0.0394	0.0406	0.050	ND	78.8	81.3	70-130	3.08	30
Surrogate Recovery									
Dibromofluoromethane	0.160	0.159	0.18		92	91	70-130	0.643	30
Toluene-d8	0.163	0.165	0.18		93	94	70-130	1.52	30

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Quality Control Report

Client:	Stellar Environmental Solutions	**WorkOrder:**	1408081
Date Prepared:	8/5/14	**BatchID:**	93640
Date Analyzed:	8/5/14	**Extraction Method:**	SW5030B
Instrument:	GC16	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	#2014-36	**Sample ID:**	MB/LCS-93640 1408018-001BMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	15.4	0.50	20	-	76.8	70-130
Benzene	ND	17.7	0.50	20	-	88.7	70-130
Bromobenzene	ND	-	0.50	-	-	-	-
Bromochloromethane	ND	-	0.50	-	-	-	-
Bromodichloromethane	ND	-	0.50	-	-	-	-
Bromoform	ND	-	0.50	-	-	-	-
Bromomethane	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	2.0	-	-	-	-
t-Butyl alcohol (TBA)	ND	67.2	2.0	80	-	84.1	70-130
n-Butyl benzene	ND	-	0.50	-	-	-	-
sec-Butyl benzene	ND	-	0.50	-	-	-	-
tert-Butyl benzene	ND	-	0.50	-	-	-	-
Carbon Disulfide	ND	-	0.50	-	-	-	-
Carbon Tetrachloride	ND	-	0.50	-	-	-	-
Chlorobenzene	ND	-	0.50	-	-	-	-
Chloroethane	ND	-	0.50	-	-	-	-
Chloroform	ND	-	0.50	-	-	-	-
Chloromethane	ND	-	0.50	-	-	-	-
2-Chlorotoluene	ND	-	0.50	-	-	-	-
4-Chlorotoluene	ND	-	0.50	-	-	-	-
Dibromochloromethane	ND	-	0.50	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.20	-	-	-	-
1,2-Dibromoethane (EDB)	ND	-	0.50	-	-	-	-
Dibromomethane	ND	-	0.50	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.50	-	-	-	-
Dichlorodifluoromethane	ND	-	0.50	-	-	-	-
1,1-Dichloroethane	ND	-	0.50	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	-	0.50	-	-	-	-
1,1-Dichloroethene	ND	-	0.50	-	-	-	-
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,3-Dichloropropane	ND	-	0.50	-	-	-	-
2,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,1-Dichloropropene	ND	-	0.50	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-

(Cont.)

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Quality Control Report

Client:	Stellar Environmental Solutions	**WorkOrder:**	1408081
Date Prepared:	8/5/14	**BatchID:**	93640
Date Analyzed:	8/5/14	**Extraction Method:**	SW5030B
Instrument:	GC16	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	#2014-36	**Sample ID:**	MB/LCS-93640 1408018-001BMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	17.6	0.50	20	-	88.3	70-130
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	17.0	0.50	20	-	85.1	70-130
Freon 113	ND	-	0.50	-	-	-	-
Hexachlorobutadiene	ND	-	0.50	-	-	-	-
Hexachloroethane	ND	-	0.50	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
Isopropylbenzene	ND	-	0.50	-	-	-	-
4-Isopropyl toluene	ND	-	0.50	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	14.9	0.50	20	-	74.3	70-130
Methylene chloride	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.50	-	-	-	-
Naphthalene	ND	-	0.50	-	-	-	-
n-Propyl benzene	ND	-	0.50	-	-	-	-
Styrene	ND	-	0.50	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
Tetrachloroethene	ND	-	0.50	-	-	-	-
Toluene	ND	17.4	0.50	20	-	87.1	70-130
1,2,3-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.50	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.50	-	-	-	-
Trichloroethene	ND	-	0.50	-	-	-	-
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.50	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	-	0.50	-	-	-	-
Xylenes, Total	ND	-	0.50	-	-	-	-
Surrogate Recovery							
Dibromofluoromethane	24.2	23.8		25	97	95	70-130
Toluene-d8	23.7	23.5		25	95	94	70-130
4-BFB	2.19	-		2.5	87	-	-

(Cont.)

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Quality Control Report

Client:	Stellar Environmental Solutions	**WorkOrder:**	1408081
Date Prepared:	8/5/14	**BatchID:**	93640
Date Analyzed:	8/5/14	**Extraction Method:**	SW5030B
Instrument:	GC16	**Analytical Method:**	SW8260B
Matrix:	Water	**Unit:**	µg/L
Project:	#2014-36	**Sample ID:**	MB/LCS-93640 1408018-001BMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	16.3	17.5	20	ND	81.5	87.3	70-130	6.96	20
Benzene	17.4	18.6	20	ND	87.1	93	70-130	6.55	20
t-Butyl alcohol (TBA)	81.1	88.6	80	ND	101	111	70-130	8.93	20
Diisopropyl ether (DIPE)	18.0	19.0	20	ND	90.2	95.2	70-130	5.46	20
Ethyl tert-butyl ether (ETBE)	17.9	19.0	20	ND	89.5	95.2	70-130	6.15	20
Methyl-t-butyl ether (MTBE)	16.3	17.5	20	ND	81.6	87.7	70-130	7.15	20
Toluene	17.0	18.5	20	ND	85.2	92.3	70-130	8.02	20
Surrogate Recovery									
Dibromofluoromethane	44.0	44.8	45		98	100	70-130	1.82	20
Toluene-d8	42.5	44.1	45		95	98	70-130	3.61	20

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Quality Control Report

Client:	Stellar Environmental Solutions	**WorkOrder:**	1408081
Date Prepared:	8/4/14	**BatchID:**	93587
Date Analyzed:	8/5/14	**Extraction Method:**	SW3050B
Instrument:	ICP-MS2	**Analytical Method:**	SW6020
Matrix:	Soil	**Unit:**	mg/Kg
Project:	#2014-36	**Sample ID:**	MB/LCS-93587 1408049-001AMS/MSD

QC Summary Report for SW6020

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Cadmium	ND	54.0	0.25	50	-	108	75-125
Chromium	ND	54.4	0.50	50	-	109	75-125
Lead	ND	54.6	0.50	50	-	109	75-125
Nickel	ND	55.8	0.50	50	-	112	75-125
Zinc	ND	559	5.0	500	-	112	75-125
Surrogate Recovery							
Tb 350.917	572	544		500	114	109	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Cadmium	62.6	63.4	50	0.3565	125	126,F1	75-125	1.25	20
Chromium	108	114	50	46.77	122	133,F1	75-125	4.97	20
Lead	71.0	71.9	50	7.547	127,F1	129,F1	75-125	1.34	20
Nickel	116	123	50	49.90	132,F1	147,F1	75-125	6.28	20
Zinc	698	696	500	60.65	127,F1	127,F1	75-125	0	20
Surrogate Recovery									
Tb 350.917	624	626	500		125	125	70-130	0	20

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CHAIN-OF-CUSTODY RECORD

WorkOrder: 1408081 **ClientCode: SESB**

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

Report to:
Steve Bittman
Stellar Environmental Solutions
2198 Sixth St. #201
Berkeley, CA 94710
(510) 612-8751 FAX: 510-644-3859

Email: sbittman@stellar-environmental.com; steve
cc/3rd Party:
PO:
ProjectNo: #2014-36

Bill to:
Accounts Payable
Stellar Enviormental Solutions
2198 Sixth St. #201
Berkeley, CA 94710
lwheeler@stellar-environmental.com

Requested TAT: 5 days

Date Received: **08/04/2014**
Date Printed: **08/12/2014**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1408081-001	B1-3.5-4	Soil	8/1/2014	☐	A		A									
1408081-002	B1-7.5-8	Soil	8/1/2014	☐	A		A									
1408081-003	B3-9.5-10	Soil	8/1/2014	☐	A											
1408081-004	B1-GW	Water	8/1/2014	☐		A										
1408081-005	B2-GW	Water	8/1/2014	☐		A										
1408081-006	B3-GW	Water	8/1/2014	☐		A										
1408081-007	B2-7.5-8	Soil	8/1/2014	☐	A											

Test Legend:

1	GAS8260_S	2	GAS8260_W	3	LUFTMS_S	4		5	
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A contain testgroup.

Prepared by: Catherine Burton

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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WORK ORDER SUMMARY

Client Name: STELLAR ENVIRONMENTAL SOLUTIONS
QC Level: LEVEL 2
Work Order: 1408081
Project: #2014-36
Client Contact: Steve Bittman
Date Received: 8/4/2014
Comments:
Contact's Email: sbittman@stellar-environmental.com; stevebittman@gmail.com; rmakdisi@stellar-

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

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1408081-001A	B1-3.5-4	Soil	SW6020 (LUFT)	1	Acetate Liner	☐	8/1/2014	5 days		☐	
			TPH(g) & BTEX & 5 Oxys by 8260B			☐		5 days		☐	
1408081-002A	B1-7.5-8	Soil	SW6020 (LUFT) <Cadmium, Chromium, Lead, Nickel, Zinc>	1	Acetate Liner	☐	8/1/2014	5 days		☐	
			TPH(g) & BTEX & 5 Oxys by 8260B			☐		5 days		☐	
1408081-003A	B3-9.5-10	Soil	TPH(g) & BTEX & 5 Oxys by 8260B	1	Acetate Liner	☐	8/1/2014	5 days		☐	
1408081-004A	B1-GW	Water	TPH(g) & BTEX & 5-Oxys by 8260B	3	VOA w/ ASCORBIC ACID + HCl	☐	8/1/2014	5 days	1%+	☐	
1408081-005A	B2-GW	Water	TPH(g) & BTEX & 5-Oxys by 8260B	3	VOA w/ ASCORBIC ACID + HCl	☐	8/1/2014	5 days		☐	
1408081-006A	B3-GW	Water	TPH(g) & BTEX & 5-Oxys by 8260B	3	VOA w/ ASCORBIC ACID + HCl	☐	8/1/2014	5 days		☐	
1408081-007A	B2-7.5-8	Soil	TPH(g) & BTEX & 5 Oxys by 8260B	1	Acetate Liner	☐	8/1/2014	5 days		☐	

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

Bottle Legend:

Acetate Liner = Acetate Liner

VOA w/ ASCORBIC ACID + HCl = 43mL VOA w/ Ascorbic acid & HCl

Chain of Custody Record 1408081

Lab job no. _____
Date _____
Page 1 of 1

Laboratory McCampbell Analytical
Address 1534 Willow Pass Rd
Pittsburg, CA 94565

Method of Shipment Courrier
Shipment No. _____
Airbill No. _____
Cooler No. _____
Project Manager S. Bittman
Telephone No. (510) 612-8751
Fax No. _____
Samplers: (Signature) Steve Bittman

Project Owner Hung
Site Address 2823 Adeline St
Oakland, CA
Project Name _____
Project Number 2014-36

B4 1 8260

Field Sample Number	Location/ Depth	Date	Time	Sample Type	Type/Size of Container	Preservation: Cooler	Preservation: Chemical	Filtered	No. of Containers	TVHg MBTEX	Fuel oxys EDB/TBA Naphthalene	LUFT-5 Metals	Remarks
B1-3.5-4		8-1-14		S	Acetate	✓	ice		1	X	X X	X	
B1-7.5-8				S	Acetate	✓	ice		1	X	X X	X	
B3-9.5-10				S	Acetate	✓	ice		1	X	X X		
B1-GW				W	40 ml VOA	✓	HCl	N	3	X	X X		
B2-GW		↓		W	40 ml VOA	✓	HCl	N	3	X	X X		
B3-GW		8-1-14		W	40 ml VOA	✓	HCl	N	3	X	X X		
B2-7.5-8		8-1-14		S	Acetate	✓	ice		1	X	X X		

ICE / t° 2.0
GOOD CONDITION ___ APPROPRIATE
HEAD SPACE ABSENT ___ CONTAINERS ___
DECHLORINATED IN LAB ___ PRESERVED IN LAB ___
PRESERVATION | VOAS | O&G | METALS | OTHER |

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time	Received by:	Date	Time
Signature Steve Bittman	8/4/14		Signature	8/4/14		Signature	8/4/14		Signature		
Printed Steve Bittman		1750	Printed Bob Pringle			Printed Bob Pringle			Printed		
Company SES			Company MCampbell		1750	Company MCampbell			Company		

Turnaround Time: Normal 5-Day
Comments: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Signature			Signature		
Printed			Printed		
Company			Company		

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Sample Receipt Checklist

Client Name: **Stellar Environmental Solutions**
Date and Time Received: **8/4/2014 5:02:29 PM**

Project Name: **#2014-36**
LogIn Reviewed by: Catherine Burton

WorkOrder №: **1408081** Matrix: Soil/Water
Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

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

(Ice Type: WET ICE)

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

Comments: