PACIFIC ENGINEERING & CONSTRUCTION, INC.

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February 11, 2010

Mr. Mark Detterman Alameda County Environmental Health Department 1131 Harbor Bay Parkway Alameda, CA 94502

RE: Report of Unauthorized Release

2520 Blanding Avenue, Alameda California

Dear Mr. Detterman:

As a result of proposed property transaction a Phase 1 Environmental Site Assessment (ESA) for the Property was performed on October 21, 2009. The Phase 1 ESA indicated that according to the City of Alameda Fire Department, a 550-gallon gasoline underground storage tank (UST) was installed on the Property in approximately 1931. According to the owner's representative, the UST was formerly located along the southeast property line of the Site approximately four feet below the existing unpaved portion of driveway. Although no records are available it is believed that the tank was removed sometime between 1982 and 1984.

Based upon the results of the Phase I activities it was recommended that a limited soil and groundwater investigation be performed. This recommendation was accepted by the current owners and drilling activities were conducted at the site on November 6, 2009.

The soil borings were drilled using a truck-mounted hydraulic-push rig. Using a series of hollow, 4-foot long samplers lined with clear plastic tubing, soil cores were collected continuously to the total depths explored of approximately 12 feet below ground surface (bgs). Groundwater was encountered between 6.0 and 7.5 feet bgs

Each soil core was examined by field personnel for chemical odor and discoloration. Soil samples were collected from depths of 5 and 8 feet bgs for laboratory analysis. Lithologic descriptions of the cores were recorded on the boring log for each location. Details of the subsurface sediments are shown on the field soil boring logs included in Appendix C of the attached report..

The soil and groundwater samples collected were submitted to Test America, a State of California-certified analytical laboratory in Pleasanton, California.

Mr. Mark Detterman Alameda County Environmental Health Department February 11, 2010 Page 2 of 3

The soil samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-g), benzene, toluene, ethyl benzene, xylenes (BTEX), MTBE by EPA Method 8260B, total petroleum hydrocarbons as diesel (TPH-d) and motor oil by EPA Method (8015B), and lead by EPA Method 6010B.

The groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-g), benzene, toluene, ethyl benzene, xylenes (BTEX), MTBE by EPA Method 8260B, total petroleum hydrocarbons as diesel (TPH-d) and motor oil by EPA Method (8015B).

The results of the soil and groundwater analyses are summarized on Tables 1 and 2 below.

TABLE 1 - Soil Sample Analytical Results (milligrams per kilogram)

Date	Sample	Benzene	Toluene	Ethylbenzene	Xylene,	MTBE
	Number	Benzene			Total	
11/6/09	SB1-7	ND	ND	0.58	1.3	ND
11/6/09	SB2-7	ND	ND	ND	ND	ND
11/6/09	SB3-7	ND	ND	ND	ND	ND
RBSL		.26	29	33	100	8.4
Date	Sample Number	Gasoline C5-C12	Diesel C10-C28	Motor Oil C24-C36	Lead	
11/6/09	SB1-7	550	100	110	15	
11/6/09	SB2-7	ND	ND	ND	2.7	
11/6/09	SB3-7	ND	ND	ND	3.1	
RBSL		450	150	2500	750	

Mr. Mark Detterman Alameda County Environmental Health Department February 11, 2010 Page 3 of 3

TABLE 2 - Groundwater Sample Analytical Results (micrograms per liter)

Date	Sample Number	Benzene	Toluene	Ethylbenzene	Xylene, Total	MTBE
11/6/09	GW1- 1,2,3,4	14	ND	28	49	ND
11/6/09	GW3- 1,2,3	ND	ND	ND	ND	ND
RBSL	·	540	400	300	5300	1800
Date	Sample Number	Gasoline C5-C12	Diesel C10-C28	Motor Oil C24-C36	Lead	
11/6/09	GW1- 1,2,3,4	4900	14000	15000	NA	
11/6/09	GW3- 1,2,3	ND	ND	ND	ND	
RBSL		5000	2500	2500	50000	

Notes:

RBSL =

Risk Based Screening Level from Regional Water Quality Control Board (Table B, Shallow Soil, Commercial/Industrial Land Use Only, Interim Final - November 2007). Concentrations above the RBSLs are shown above in bold print.

NA

Not Analyzed

ND

Not Detected (see laboratory report for detection limits)

Based upon the results of the analysis it is recommended that an indeterminate quantity of groundwater be removed from the location of the former UST and that 3 monitoring wells be installed, and groundwater samples be collected and analyzed for a one year monitoring period.

Sincerely,

Pacific Engineering & Construction

A. Mark Waldman, P.E.

Principal Engineer

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	35 STILLMAN SINET SUITE 126	San Francisco 3° C	A 94107
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Environmental, Inc.



LIMITED SOIL AND GROUNDWATER INVESTIGATION 2520 Blanding Avenue Alameda, California 94501

Prepared for:

Rob Anderson 90 Oakmont Avenue Piedmont, CA 94610

Prepared by:

Olson Environmental, Inc. 2700 Central Avenue Alameda, CA 94501 (510) 541-5650

November 25, 2009



Olson

Environmental, Inc.

November 25, 2009

Rob Anderson 90 Oakmont Avenue Piedmont, CA 94610

Re:

Limited Soil and Groundwater Investigation

2520 Blanding Avenue Alameda, California 94501

Dear Mr. Anderson:

Olson Environmental, Inc. is pleased to present the results of the Limited Soil Investigation for the above referenced site. Three soil borings were drilled on the site on November 6, 2009. Three soil samples and two groundwater samples collected from the borings were submitted for laboratory chemical analysis. The results of the investigation are presented in the attached report.

If you have any questions regarding the information in this report, please don't hesitate to call us. It has been a pleasure working with you on this project.

Sincerely,

A. Mark Waldman

Mark Waldman CA Registered Civil Engineer

Myron Olson

CA Registered Environmental Assessor

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This report presents the results of the Limited Soil and Groundwater Investigation conducted by Olson Environmental, Inc. (Olson Environmental) at 2520 Blanding Avenue in Alameda, California (hereinafter the Property). The location of the Property is shown on **Figure 1**, Property Location Map. The location of soil borings is shown on **Figure 2**, Boring Location Map.

Background

A Phase 1 Environmental Site Assessment (ESA) for the Property was performed by Olson Environmental on October 21, 2009. The Phase 1 ESA indicated that according to the City of Alameda Fire Department, a 550-gallon gasoline underground storage tank (UST) was installed on the Property in approximately 1931. Records were not located about its removal at any time. According the owner's son Mr. Smith, the UST was formerly located along the southeast end (property line) of the Property, four feet below the existing unpaved portion of driveway. Mr. Smith stated the UST was removed sometime between 1982 and 1984.

The former use of the 550-gallon gasoline UST located on the Property from 1931 to approximately 1982 or 1984, is a recognized environmental condition. Olson Environmental recommended that soil borings be advanced to collect soil and groundwater samples to determine whether potential leaks from the former operations have affected subsurface environmental conditions.

Historical records indicate the Property was first developed on or before 1897 as residential housing. In 1925, the current single story structure was constructed. City Directories show that the Property operated as Home Ice Fuel & Supply Company from approximately 1933 to 1945. In 1950, City Directories list the Property as Home Ice & Supply Company until 1962. In 1950, Auto and Storage is listed on the Sanborn Fire Insurance Map. Building Department records indicate Magic Garden Products operated on the Property from approximately 1965 to 1970. The City Directories list Smith PJ residing from 1980 until 2000. According to current owner Mr. Philip Smith, he purchased the Property in 1970, and currently his son operates a business called P.J. Smith Kustom Kitchens. Since 1970, Mr. Smith has leased a portion of the Property to numerous tenants. Pacific Car Company is listed as a tenant in 1996, and Burleigh Computing in listed operating from 1996 thru 2000. The current occupants include Mark Schmidt Builders, Western Painting, Kerry and Chris Smith Construction.

Purpose and Scope

The environmental issues pertaining to the Property are as follows.

A 550-gallon gasoline UST located at the Property was removed in approximately 1982 to 1984.
 No soil or groundwater samples were collected from under or near the UST.

The scope of work performed for this investigation consisted of the following activities:

- Advance one soil boring (SB1-7) along the southeastern portion of the Property, in the approximate center of the former UST and collect two soil and one groundwater sample;
- Advance one soil boring (SB2-7) located down-gradient (southeast) of the former UST and collect two soil and one groundwater sample;
- Advance one soil boring (SB3-7) located down-gradient (east) of the former UST and collect two soil and one groundwater sample;
- Submit soil and groundwater samples for laboratory analysis for TPH gasoline, diesel and oil
 range petroleum hydrocarbons, BTEX/MTBE, and lead using EPA Methods
 8015B/8260B/6010B. All samples will be submitted to a State Certified Laboratory using Chain



of Custody Protocols.

Evaluate the findings from the field activities, sample analyses, and prepare a report.

Pre-Field Activities

Utility and UST Locating

On November 3, 2009, Olson Environmental marked the proposed drilling area with white paint and Underground Service Alert (USA) was notified of the planned drilling project to use standard care to avoid potential damage to subsurface utilities.

Soil Boring and Sampling

The Boring Location Map (**Figure 2**) shows the location of the former UST. One soil boring was placed in the approximate center of the former UST, along the southeast end (property line) of the Property. Two soil borings were advanced in the direction down-gradient (east and southeast) of the former UST.

Drilling activities were conducted at the site on November 6, 2009. Prior to mobilization of the drill rig on-site, all associated drilling and sampling equipment was thoroughly cleaned by Precision Sampling of Stockton, California to remove soil, oil, grease, mud, tar, etc. The cleaning process consisted of high pressure steam cleaning of the drilling equipment and a high pressure hot water final rinse. Before drilling each boring, all drilling and sampling equipment was cleaned with an Alconex soap solution and a clean water rinse. After all drilling was completed, the equipment was decontaminated by the same cleaning method.

The soil borings were drilled using a truck-mounted hydraulic-push rig. Using a series of hollow, 4-foot long samplers lined with clear plastic tubing, soil cores were collected continuously to the total depths explored of approximately 12 feet below ground surface (bgs). Groundwater was first encountered at 7.5 feet bgs for boring SB1 and at 6.0 feet bgs for boring SB2 and SB3.

Each soil core was examined by Olson Environmental field personnel for chemical odor and discoloration. Soil samples were collected from depths of 5 and 8 feet bgs for laboratory analysis. Lithologic descriptions of the cores were recorded on the boring log for each location. Details of the subsurface sediments are shown on the field soil boring logs included in **Appendix C**.

A section of sample liner from the desired soil sampling depth was cut out, sealed with Teflon tape and plastic caps and stored in a cooler with blue ice until same-day transport to the laboratory. Groundwater was collected from borings SB1 and SB3 in laboratory supplied sample containers and also stored in a cooler with blue ice. Olson Environmental attempted to collected groundwater in boring SB2 but was unsuccessful after waiting two hours for the groundwater to recharge.

Subsurface Conditions

Subsurface materials beneath the unpaved area-soil (SB1) and paved area-asphalt (SB2 and SB3) surface consisted mostly of silty clay to a depth of approximately 6-8 feet bgs. A sandy clay unit was encountered beneath these sediments to a depth of 10-12 feet bgs. Groundwater was encountered in silty clay. After drilling, groundwater was measured in the borings at depths between 6.0 and 7.5 feet bgs, indicating groundwater is confined in the area of the Property. Petroleum product odor as evidence of contamination and discoloration was first observed in all three of the soil borings at 6.0 feet bgs. None of the groundwater encountered in the borings exhibited a petroleum product odor.

Based on the topographic slope of the site area, groundwater flow direction is assumed to fluctuate from east to southeast moving toward the Estuary-Tidal Canal.

According to an Alameda County Environmental Health Case Closure Summary for 2523-2691 Blanding Avenue, Avenue, SLIC Case No. RO0002738 and Geotracker Global ID



SL0600132345, Bridgeside Shopping Center, the depth to groundwater has been reported to be approximately 4.0 to 13.0 feet below ground surface with a groundwater flow direction toward the southeast (URS, 7/2003).

Laboratory Methods and Results

The soil and groundwater samples collected on November 6, 2009, were submitted to TestAmerica, a State of California-certified analytical laboratory in Pleasanton, California.

The soil samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-g), benzene, toluene, ethyl benzene, xylenes (BTEX), MTBE by EPA Method 8260B, total petroleum hydrocarbons as diesel (TPH-d) and motor oil by EPA Method (8015B), and lead by EPA Method 6010B.

The groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-g), benzene, toluene, ethyl benzene, xylenes (BTEX), MTBE by EPA Method 8260B, total petroleum hydrocarbons as diesel (TPH-d) and motor oil by EPA Method (8015B).

The results of the soil and groundwater analyses are summarized on **Table 1** below. The laboratory report and chain-of-custody form are included as **Appendix B**.

Soil

Concentrations of ethylbenzene, xylene, TPH-d, motor oil, and lead were detected in SB1 that did not exceed the current Regional Water Quality Control Board Risk Based Screening Levels (RBSL). An elevated concentration of TPH-g (550 mg/kg) was detected in SB1 that exceeded the RBSL of 450 mg/kg.

Concentrations of lead were detected in SB2 and SB3 that did not exceed the current Regional Water Quality Control Board RBSL. No concentrations of benzene, toluene, ethyl benzene, xylenes (BTEX), MTBE, TPH-g, TPH-d, and motor oil were detected in the soil samples advanced from borings SB2 and SB3.

TABLE 1 - Soil Sample Analytical Results (milligrams per kilogram)

Date	Sample Number	Benzene	Toluene	Ethylbenzene	Xylene, Total	MTBE
11/6/09	SB1-7	ND	ND	0.58	1.3	ND
11/6/09	SB2-7	ND	ND	ND	ND	ND
11/6/09	SB3-7	ND	ND	ND	ND	ND
RBSL		.26	29	33	100	8.4
Date	Sample Number	Gasoline C5-C12	Diesel C10-C28	Motor Oil C24-C36	Lead	
11/6/09	SB1-7	550	100	110	15	
11/6/09	SB2-7	ND	ND	ND	2.7	
11/6/09	SB3-7	ND	ND	ND	3.1	
RBSL		450	150	2500	750	



Notes:

RBSL = Risk Based Screening Level from Regional Water Quality Control Board (Table B,

Shallow Soil, Commercial/Industrial Land Use Only, Interim Final - November

2007). Concentrations above the RBSLs are shown above in bold print.

NA

Not Analyzed

ND

Not Detected (see laboratory report for detection limits)

Groundwater

Groundwater samples from boring SB1 contained concentrations of ethylbenzene, xylene, and TPH-g that did not exceed the current Regional Water Quality Control Board RBSLs. The level of TPH-g (4900 μg/L) in SB1 was slightly under the RBSL of 5000 μg/L. An elevated concentration of TPH-d (14000 µg/L) was detected in SB1 that exceeded the RBSL of 2500 µg/L. An elevated concentration of motor oil (15000 µg/L) was detected in SB1 that exceeded the RBSL of 2500 µg/L.

Olson Environmental attempted to collected groundwater in boring SB2 but was unsuccessful after waiting two hours for the groundwater to recharge.

No concentrations of benzene, toluene, ethyl benzene, xylenes (BTEX), MTBE, TPH-g, TPH-d, and motor oil were detected in the groundwater from boring SB3.

TABLE 2 - Groundwater Sample Analytical Results (micrograms per liter)

Date	Sample Number	Benzene	Toluene	Ethylbenzene	Xylene, Total	MTBE
11/6/09	GW1- 1,2,3,4	14	ND	28	49	ND
11/6/09	GW3- 1,2,3	ND	ND	ND	ND	ND
RBSL		540	400	300	5300	1800
Date	Sample Number	Gasoline C5-C12	Diesel C10-C28	Motor Oil C24-C36	Lead	
11/6/09	GW1- 1,2,3,4	4900	14000	15000	NA	
11/6/09	GW3- 1,2,3	ND	ND	ND	NA	
RBSL		5000	2500	2500	50000	

Notes:

RBSL =

Risk Based Screening Level from Regional Water Quality Control Board (Table B, Shallow Soil, Commercial/Industrial Land Use Only, Interim Final - November

2007). Concentrations above the RBSLs are shown above in bold print.

NA

Not Analyzed

ND

Not Detected (see laboratory report for detection limits)

Conclusions and Recommendations

The RBSLs were developed to address soil and groundwater contamination at sites impacted by chemical releases. The stated goals of the RBSLs is to determine the contamination levels of soil and groundwater, below which there is little if any potential to affect human health, groundwater, terrestrial biota and to prevent nuisance conditions.

Out of three locations drilled to investigate impact from the former 550-gallon gasoline tank, only one location SB1 was found to exceed the RBSL for soil and groundwater collected. An elevated concentration of TPH-g (550 mg/kg) was detected in SB1 that exceeded the RBSL of 450 mg/kg. An elevated concentration of TPH-d (14000 μ g/L) was detected in SB1 that exceeded the RBSL of 2500 μ g/L. An elevated concentration of motor oil (15000 μ g/L) was detected in SB1 that exceeded the RBSL of 2500 μ g/L.

The State of California Water Resource Control Board maintains a grant program to assist UST owners and operator in clean-up of impacted soil and groundwater, if the applicant or claimant is eligible.

It is advised that the owner of the property report this finding as an unauthorized release from previous fuel tank to the San Francisco Regional Water Quality Control Board for local oversight enforcement so that proper regulatory steps may be taken for further action toward regulatory closure. In case SFRWQCB decides to consider this release as voluntary oversight program, work plan for further vertical and horizontal delineation as well as plan for soil excavation and possible groundwater monitoring well installation shall be considered to proceed.

Limitations

This report has been prepared by Olson Environmental according to the State and local agency suggested guidance documents for these investigations and in general accordance with the accepted standard of practice which exists in Northern California at the time the investigation was performed. The interpretations, conclusions and recommendations made herein are based upon the data and analysis for the soil and water samples collected on-site. Olson Environmental is not responsible for errors in laboratory analysis and reporting, or for information withheld during the course of the study. The purpose of this study is to screen for the presence of contamination that may affect the use or value of the Property. As such, the evaluation of the geologic and environmental conditions on this site are made with very limited data. Judgements leading to conclusions are generally made with an incomplete knowledge of the conditions present. Additional conditions and materials could exist at the site that were not encountered during this investigation. No warranty or guarantee is expressed or implied therein.