SUPPLEMENTAL GROUNDWATER INVESTIGATION REPORT

2520 BLANDING AVENUE
ALAMEDA, CALIFORNIA 94501

Prepared for:

P.J. Smith Family Trust

Prepared by:

PACIFIC ENGINEEERING AND CONSTRUCTION, INC.
35 STILLMAN STREET, SUITE 126
SAN FRANCISCO, CALIFORNIA 94107

September 26, 2011

PACIFIC ENGINEERING & CONSTRUCTION, INC.
Consulting Engineers & Contractors
35 Stillman Street, Suite 126
San Francisco, CA 94107
Phone/fax (415) 974-1853
Cell (415) 516-8545
California Professional Engineering License # 38905b
California Contractor State License Board # 858547 (A, B, Haz, Asb)
Nevada Professional Engineering License # 17624
Nevada Certified Environmental Manager #1870

September 26, 2011

Ms. Donna L. Drogos, PE
Division Chief
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502

Subject: Supplemental Soil & Groundwater Investigation Report
2520 Blanding Avenue, Alameda, California

Dear Ms. Drogos:

Pacific Engineering and Construction, Inc (PECI) is pleased to present this Supplemental Groundwater Investigation Report for the investigation conducted at 2520 Blanding Avenue, Alameda, CA. PECI is providing this report to the Alameda County Environmental Health Department on behalf of the property P.J. Smith, who is a trustee of the P.J Smith Family Trust that owns the property.

Work for this supplemental investigation included additional site groundwater grab sampling. The groundwater grab sampling involved sampling using a hydraulic-push drilling rig.

Please contact the undersigned at (415) 974-1853 if you have any questions.

Sincerely,

A. Mark Waldman

A. Mark Waldman, P.E.
Principal

cc: Mr. P.J. Smith

September 26, 2011

Ms. Donna L. Drogos, PE
Division Chief
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502

Subject: Supplemental Soil & Groundwater Investigation Report
2520 Blanding Avenue, Alameda, California

Dear Ms. Drogos:

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

Signed:

P.J. Smith, Trustee of the P.J. Smith Family Trust

SUPPLEMENTAL GROUNDWATER INVESTIGATION REPORT

2520 BLANDING AVENUE
ALAMEDA, CALIFORNIA 94501

Prepared for:
P.J. Smith Family Trust

Prepared by:
PACIFIC ENGINEEERING AND CONSTRUCTION, INC.
35 STILLMAN STREET, SUITE 126
SAN FRANCISCO, CALIFORNIA 94107

September 26, 2011

Miles Grant, C.E.G
Project Geologist

A. Mark Waldman, P.E.
Principal

TABLE OF CONTENTS

INTRODUCTION

This report presents the results of the Supplemental Groundwater Investigation conducted by Pacific Engineering and Construction, Inc. (PECI) at 2520 Blanding Avenue in Alameda, California. The location of the Site is shown on Figure 1, Site Location Plan (Figures 1-5 are from Olson, 2009b). The site is owned by P.J. Smith Family Trust. The site is located in the northeastern part of the City of Alameda. A tidal canal connecting to the San Francisco Bay estuary lies approximately 390 feet to the north-northeast of the Site.

BACKGROUND

The Site is located at 2520 Blanding Avenue in Alameda California, as show on Figure 1. A Phase 1 Environmental Site Assessment (ESA) for the Site was performed by Olson Environmental, Inc. (OEI) on October 21, 2009 (OEI, 2009a). 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 approximately in the year of 1931. Records were not available regarding the removal of the UST. According to the owner the UST was formerly located along the southeast property line of the Site, four feet below the existing unpaved portion of driveway. The Owner stated that the UST was removed sometime between 1982 and 1984.

According to the foregoing information, a 550-gallon gasoline UST was in existence at the Site from approximately 1931 to between 1982 and 1984. Based upon the Site inspection, OEI (2009a) 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 Site was first developed on or before 1897 as residential housing. In 1925, the current existing single story structure was constructed. City Directories show that the Site operated as Home Ice Fuel & Supply Company from approximately 1933 to 1945. In 1950, City Directories list the Site as Home Ice & Supply Company until 1962. In 1950, Auto and Storage is listed for the Site on the Sanborn Fire Insurance Map. Building Department records indicate Magic Garden Products operated on the Site from approximately 1965 to 1970. The City Directories list Mr. P.J.Smith as the owner from 1980 until 2000. According to current owner, Mr. Philip Smith, says that he purchased the Site in 1970. The Site is currently operated as a business called "P.J. Smith Kustom Kitchens". Since 1970, Mr. Smith has leased a portion of the Site to numerous tenants including Pacific Car Company (1996), Burleigh Computing (1996 thru 2000), Mark Schmidt Builders, Western Painting, and Kerry and Chris Smith Construction (current tenants).

Following the recommendation contained in OEI, 2009a, in November of 2009 OEI was retained by the Owner to conduct a limited soil and groundwater investigation at the Site to determine if historical onsite usage of hazardous materials, including a former UST, has impacted the subject property (OEI, 2009b). This supplemental groundwater investigation will include and summarize the data collected from the OEI, 2009b report. The scope of work was implemented in response to discussions with the Alameda County Environmental Health Department (ACEH).

PURPOSE AND SCOPE

PECI was retained by the Owner to conduct a supplemental groundwater investigation to determine if the concentration of chemicals of concern (COCs) at the site have decreased. This report will present data obtained in this investigation, compare the data included in the present report with data collected in our previous investigation (OEI, 2009b), and compare the information contained in this report to recent closure recommendations by the UST program (UST, 2011).

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

- Advance three borings using a hydraulic push rig along the southeastern portion of the Site approximately one to two feet north (down gradient) from the same locations as three boring were advanced in the previous soil and groundwater report at the Site (OEI, 2009b). The location of the borings are shown in Figure 2, Soil Boring Location. One boring (SB1) is in the approximate center of the location of the former UST at the Site. SB2 is located approximately 14 feet to the north-northeast of SB1, and SB2 is located approximately 11 feet to the north-northeast of the site. Grab groundwater samples were collected from each borings.

- Submit soil and groundwater samples for laboratory analysis for TPH gasoline, diesel and oil range petroleum hydrocarbons and BTEX/MTBE using EPA Methods 8015B/8260B. All samples were submitted to a State Certified Laboratory using Chain of Custody Protocols.

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

REGULATORY CONSIDERATIONS

The Applicable Relevant and Appropriate Regulations (ARARs) are discussed below, to provide a regulatory context for the interpretation of findings, and a discussion regarding regulatory site closure. The Site COCs have been identified as petroleum hydrocarbons and their associate volatile components.

The subject property is currently provided regulatory oversight by Alameda County Environmental Health (ACEH). To our knowledge, the ACEH will provide oversight through site regulatory closure.

Building zones for the subject site are established by the City of Alameda. According to the records that we reviewed the subject site is zoned as M-2, General Industrial.

The California Regional Water Quality Control Board (Water Board), San Francisco Bay Region (Water Board) published a study of land use in 1999 (Water Board, 1999). According to this study, the subject site is classified as Zone C. The Zone C classification states that groundwater at the site is "Neither Existing, Probable or Potential" with-respect-to use as drinking water.

The possible ARARs governing groundwater are the site are the Water Board and drinking water standards. The Water Board established environmental screening levels (ESLs) as conservative numerical standards for evaluating the likelihood of environmental impact (Water Board, 2008). ESLs are not cleanup criteria, however, they are used as a preliminary guide in determining whether additional remediation and/or investigation may be warranted. Significant

exceedance of the ESLs suggests that additional investigation and/or remediation is warranted to demonstrate that there is no risk human health. Different ESLs are published for commercial/industrial vs. residential land use, whether or not groundwater is a potential source of drinking water, and whether or not the groundwater will be discharged into an existing or potential source for drinking water. The ESLs that are used for a site are determined using this criteria.

Since 1) the site is zoned as by The City of Alameda as "M-2 General Industrial", 2) groundwater is not an existing, probable or potential source of drinking water, according to the Water Board, and 3) the receiving body for groundwater discharge is an estuary (San Francisco Bay), which is not a drinking water source, in our professional opinion, the ARARs for the site are the Water Board ESLs (Water Board, 2008) and drinking water standards do not apply. Based on foregoing discussion, in our professional opinion the appropriate Water Board ESLs for the site Table B for soil and Table F1b for groundwater (Water Board, 2008).

PRE-FIELD ACTIVITIES

The borings in this study were placed in close proximity to previous borings. These locations were cleared of being in close proximity to any underground utilities during the Olson investigation in November 2009 by Underground Service Alert (USA) (OEI, 2009b).

A drilling permit was obtained from the Alameda County Public Works Agency. This permit is included in Appendix A.

SOIL BORING AND SAMPLING

The Boring Location Map (Figure 2) shows the location of the former UST. As presented in the 2009b OEI study, Boring SB-1 was placed in the approximate center of the former UST, along the southeast end (property line) of the Property. Two soil borings were placed in down-gradient from the former UST (SB-2 and SB-3). In this study, Boring SB-1 (8-3-11) was placed 2 feet north of Boring SB-1, Boring SB-2 (8-3-11) was placed 12 inches to the north of Boring SB-2, and Boring SB-3 (8-3-11) was placed 10 inches to the north of Boring SB-3.

Drilling activities were conducted at the site on August 3, 2011 using a hydraulic push drilling rig. Prior to mobilization of the drilling rig on-site, all associated drilling and sampling equipment was thoroughly cleaned by Remedial Solutions, Incorporated (RSI), the drilling contractor, in order to remove soil all contaminants. 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 decontaminated using a steam cleaner. After all drilling was completed in each boring, the equipment was decontaminated by the same cleaning method.

Prior to boring at each location, the boring was advanced with a hand auger to a depth of three feet to clear the boring of surficial underground utilities. Borings were then advanced with a hydraulic push rig to the total depths of the borings.

Water generated from the steam cleaning and spoils from the hand-auger operation were placed in a properly labeled, sealed 55-gallon drum for disposal at a later time.

Groundwater samples were taken with a disposable bailer, and a new disposable bailer was used for each groundwater sampling event.

Due to the nature of the drilling operation (utilizing a hydraulic push rig) it was not possible to determine where groundwater was first discovered. During the previous investigation (Olson 2009b) groundwater was first encountered at 7.5 feet below ground surface (bgs) in boring SB1 and at 6.0 feet bgs in borings SB2 and SB3.

Boring SB-1 (8-3-11) and SB-3 (8-3-11) locations were drilled to a depth of 10 feet. Some groundwater was encountered at this depth, and these borings were allowed approximately one hour to recharge before sampling. After a period of approximately one hour, no groundwater was observed in Boring SB-3 (8-3-11) so the boring was advanced 2 more feet to total depth of 12 feet. After a period of approximately one half hour, this boring did recharge and we were able to collect a ground water sample.

Groundwater was collected from borings SB1 (8-3-11), SB-2 (8-3-11), and SB3 (8-3-11) in laboratory-supplied sample containers and was stored in a cooler with wet ice.

Steve Miller from the Alameda County Public Works Agency observed the three borings being grouted using the tremie method following the completion of the drilling operation.

SUBSURFACE CONDITIONS

Local topography information (see Figure 6) suggests a groundwater flow gradient of 0.01 feet per foot (10 foot drop to the north-northwest over a distance of 1,044 feet). The direction of the groundwater flow suggested by the topography is approximately parallel to the east and west Site boundaries. The actual groundwater flow gradient has not been established at this time. The topography is sloping to the north-northwest toward a tidal canal that connects to the San Francisco Bay Estuary. The Estuary-Tidal Canal lies approximately 390 feet to the north-northeast of the Site. Based on the topographic slope of the site area, groundwater flow direction is assumed to flow from east to southeast, toward the Estuary-Tidal Canal, and the Estuary-Tidal Canal that connects with the San Francisco Bay Estuary is the assumed outflow for the groundwater at the Site.

In the previous investigation (OEI, 2009b), subsurface materials consisted of artificial fill material, which was encountered to a depth of approximately two feet consisting of silty clayey sand and in one boring, SB-1, a layer of small cobble rocks was encountered at two to three feet. The fill was underlain by silty clay to a depth of approximately 6 to 8 feet below ground surface (bgs). A sandy clay unit was encountered beneath these sediments to a depth of 10-12 feet bgs.

In the previous investigation (OEI, 2009b), groundwater in all three borings was encountered at or just above the contact between the silty clay and the underlying sandy clay unit. This suggests that the silty clay unit lying at a depth of 6 to 8 feet may be an aquitard. If this is the case, serious consideration should be made regarding the installation of a groundwater monitoring well that would penetrate this layer and thus expose deeper aquifers to any contamination that may be present in the groundwater at the Site.

In the OEI, 2009b report, after drilling, groundwater was measured in the borings at depths between 6.0 and 7.5 feet bgs. Petroleum product odor as evidence of contamination and discoloration was first observed in all three of the soil borings at 6.0 feet bgs.

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).

In this investigation, no odors were observed in the groundwater samples.

In this investigation, groundwater was measured prior to sampling and prior to grouting the boring. Groundwater results were as follows:

SB1-2 (8-3-11) 5' 0" prior to sampling, 5' 4" prior to grouting
SB2-2 (8-3-11) 5' 2" prior to sampling, 5' 2" prior to grouting
SB3-2 (8-3-11) 5' 0" prior to sampling, 5' 1" prior to grouting

LABORATORY METHODS AND RESULTS

The groundwater samples collected on August 3, 2011 and were submitted to TestAmerica, a State of California-certified analytical laboratory in Pleasanton, California under proper Chain-of-Custody documentation.

The groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-g), benzene, toluene, ethyl benzene, xylenes (BTEX), MTBE by EPA Method 8260B, and total petroleum hydrocarbons as diesel (TPH-d) and motor oil by EPA Method (8015B). The laboratory report and chain-of-custody form are included with the laboratory report in Appendix B.

The results of the soil and groundwater analyses from OEI, 2009b and the results from this investigation are presented in Tables 1 and 2, where they are compared to the appropriate ESL limits.

Soil
In OEI, 2009b, Boring SB1, which is within the location of the former UST boundaries, concentrations of the chemicals that were tested and found to be above the reporting limit ("above the reporting limit" in principle means "detected") were: ethylbenzene (0.058 mg/kg), xylene (1.3 mg/kg), lead (15 mg/kg), gasoline (TPH C6-C12, 550 mg/kg),) diesel fuel (TPH C10-C28, 100 mg/kg),), and motor oil (TPH C24-C36, 110 mg/kg). Note that the vernacular for mg/kg is "parts per million." All of these constituents are below the ESLs for the Site.

In OEI, 2009b Borings SB2 and SB3 lead was detected at levels of 2.7 mg/kg and 3.1 mg/kg, respectively. Both of these values are below the ESLs for the Site, and no concentrations of the organic compounds that were tested for were found to be above the reporting limit.

Groundwater Samples
In the OEI, 2009b study, groundwater samples from boring SB1 contained concentrations of benzene (14 µg/L), ethylbenzene (28 µg/L), and xylene (49 µg/L) that did not exceed the ESLs for the site. In the OEI, 2009b study in Boring SB1 contained concentrations of TPH-gasoline (4,900 µg/L), TPH-diesel (14,000 µg/L), and TPH-motor oil (15,000 µg/L), which exceeded the ESLs for the Site. Note that µg/L means micrograms per liter and the venacular is "parts per billion." In OEI, 2009b, lead was not tested in the groundwater samples.

In the OEI, 2009b study no groundwater was recovered from Boring SB2 so none was tested,

and results for SB3, including lead, showed that and none of the tested analytes contained concentrations of COCs above the reporting limit.

In this study, the only COCs detected above the reporting limit were TPH-diesel (100 µg/kg), diesel fuel and motor oil (150 µg/L), and these values are below the ESLs for this site.

SUMMARY

The topography at the Site is sloping to the north-north east toward an estuary canal for the San Francisco Bay Estuary. Therefore, the direction of the groundwater flow suggested by the topography is east-northeast, which is approximately parallel to the east and west Site boundaries, and the San Francisco Bay Estuary is the assumed outflow for the groundwater at the Site. Local topographic information suggests a groundwater gradient of 0.01 feet per feet (10 foot drop to the north-northwest over a distance of 1,044 feet).

In November 2009 a limited soil and groundwater investigation was performed in the area where an Underground Storage Tank (UST) that was removed sometime between 1982 and 1984 (OEI, 2009b. In the this study low levels (levels below the applicable Environmental Screening Level (ESLs)) of hydrocarbon contamination were found in soil samples that were taken at a depth of 7 feet in the area where the UST was removed. No contamination was detected in soil samples lying 10 and 13 feet to the north-northeast (presumably and down gradient) from the contaminated area.

Grab groundwater samples in the OEI, 2009b study exhibited concentrations of gasoline, diesel, and motor oil that were above the ESLs, and low levels of volatile hydrocarbon constituents that were below the ESLs.

During the OEI, 2009b study, a possible aquitard was encountered at a depth of 6 to 8 feet. Serious consideration should be made regarding the installation of a groundwater monitoring well that would penetrate this layer and thus expose deeper aquifers to any contamination that may be present in the groundwater at the Site.

In the case of this study, soil samples were not analyzed in this study due to the fact that the soil contamination was at low levels (levels below the applicable ESLs) in the OEI, 2009b study.

In this study, grab groundwater samples were recovered from locations that were very close sample locations in the 2009 study that were down gradient from the assumed ground flow direction. Analytical results from the SB1 sample location (Sample SB1-2) show that the concentration of gasoline decreased to a non-detectable level, and the concentration of diesel decreased to 100 µg/L, and the concentration of motor oil decreased to 150 µg/L. The concentrations of diesel and motor oil are now below the applicable ESL.

Analytical results of groundwater samples in two borings that were 11 and 14 feet to the north-northeast and down gradient from SB1 (SB2-2 and SB3-2) did not contain any petroleum hydrocarbons above the reporting limits.

Analytical results from the OEI, 2009b study show that COCs in soil are below the Site ESLs, and analytical results from this study show that COCs in the groundwater are now below the Site ESLs. Therefore, concentrations of soil and groundwater are below the Site ESLs.

RECOMMENDATION FOR SITE CLOSURE

On July 14, 2011, the Underground Storage Tank Program of the State of California published criteria for closure of low risk petroleum hydrocarbon contaminate sites (UST, 2011). Following are excerpts from this policy:

> **Criteria for Low-Threat Case Closure**
>
> In the absence of site-specific conditions that demonstrably increase the risk associated with residual petroleum constituents, cases that meet the general and media-specific criteria described in this policy do not pose a threat to human health, safety or the environment and are appropriate for UST case closure pursuant to Health and Safety Code section 25296.10. Cases that meet the criteria in this policy do not require further corrective action and shall be issued a uniform closure letter consistent with Health and Safety Code section 25296.10.
>
> *General Criteria*
>
> General criteria that must be satisfied by all candidate sites are listed as follows:
>
> a. The unauthorized release is located within the service area of a public water system;
> b. The unauthorized release consists only of petroleum;
> c. The unauthorized ("primary") release from the UST system has been stopped;
> d. Free product has been removed to the maximum extent practicable;
> e. A conceptual site model has been developed;
> f. Secondary source removal has been addressed and
> g. Soil or groundwater has been tested for MTBE and results reported in accordance with Health and Safety Code section 25296.15.
>
> *Sites with Releases That Have Not Affected Groundwater*
>
> Sites with soil that does not contain sufficient mobile constituents (leachate, vapors, or LNAPL) to cause groundwater to exceed the groundwater criteria in this policy shall be considered low threat sites for the groundwater medium. Provided the general criteria and criteria for other media are also met, those sites are eligible for case closure.
>
> For older releases, the absence of current groundwater impact is often a good indication that residual concentrations present in the soil are not a source for groundwater pollution.
>
> **********
>
> ***3. Direct Contact and Outdoor Air Exposure***
>
> This policy describes conditions where direct contact with contaminated soil or inhalation of contaminants volatized to outdoor air poses an insignificant threat to human health. Release sites where human exposure may occur satisfy the media-specific criteria for direct contact and outdoor air exposure and shall be considered low-threat if they meet any of the following:
>
> a. Maximum concentrations of petroleum constituents in soil are less than or equal to those listed in Table 1 for the specified depth below ground surface;

b. Maximum concentrations of petroleum constituents in soil are less than levels that a site specific risk assessment demonstrates will have no significant risk of adversely affecting human health; or
c. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, the regulatory agency determines that the concentrations of petroleum constituents in soil will have no significant risk of adversely affecting human health.

Table 1
Concentrations of Petroleum Constituents In Soil That Will Have No Significant Risk Of Adversely Affecting Human Health

Depth (feet)	Benzene (mg/kg)	Naphthalene (mg/kg)	PAH* (mg/kg)
0 to 5	2.3	13	0.038
5 to 10	100	1500	7.5

*Notes: Based on the seven carcinogenic PAHs as benzo(a)pyrene toxicity equivalent [BaPe]. The PAH screening level is only applicable where soil was affected by either waste oil and/or Bunker C fuel.

General Criteria

The Site satisfies the General Criteria listed in the UST, 2011 directive as follows:

a. The site does lie within the service area of a public water system (i.e., the Alameda County Water District).
b. The unauthorized release consists only of petroleum.
c. The unauthorized release has been stopped (the UST was removed three decades ago)
d. No free product has been observed in the site.
e. A conceptual model does not need to be developed due to the extremely small size of the release area.
f. There is no secondary source, hence it does not need to be removed.
g. Soil and groundwater have non-detectable amounts of MTBE, benzene, toluene, ethylbenzene, xylene. Groundwater has a non-detectable concentration of gasoline and low levels of diesel and motor oil (diesel fuel: 100 µg/L, motor oil: 150 µg/L). The soil samples from nearly two years ago contain 550 kg/mg of gasoline, 100 mg/kg of diesel fuel, and 110 mg/kg of motor oil. It assumed that bacterial activity in the soil would have decreased the concentrations of these analytes even further since the time they were originally sampled.

Direct Contact and Outside Air Exposure

The soil that contains levels of hydrocarbon contamination that are below the applicable ESLs. However, some hydrocarbon contamination was noted in the original investigation in soils that were several feet below the ground. Due to this fact, we recommend that the area where the contaminated soil is be capsulated with 2 inches of pavement. This will eliminate any health risk from direct contact with soil.

Samples of soil and water have non-detectable levels of benzene (and of other volatile

chemicals). Therefore, they do not pose a threat due to outdoor air exposure.

Conclusion

Soils in a very limited area of the site contain low levels of hydrocarbon contamination, and the levels of contamination are below the applicable action levels. Groundwater samples show very low to non-detectable levels of petroleum hydrocarbons, which, as stated in the UST, 2011 policy statement, "is often and good indication that residual concentrations present in the soil are not a source for groundwater pollution."

Soil at depth of several feet in the immediate historical area of the UST contains levels of hydrocarbon contamination that are below the applicable ESLs. However, some hydrocarbon contamination was noted in the original investigation in soils that were several feet below the ground. Therefore, we recommend that the area of the historical location of the UST be capsulated with 2 inches of pavement. This will eliminate any health risk from direct contact with soil.

In our professional opinion, the Site is qualifies for closure because it satisfies the criteria in the UST, 2011 policy statement for site closure.

REFERENCES

Department of Toxic Substances Control (DTSC), 2004. Guidance Document for the Implementation of United States Environmental Protection Agency Method 5035: Methodologies for Collection, Preservation, Storage, and Preparation of Soils to be Analyzed for Volatile Organic Compounds. November.

California Regional Water Quality Control Board, San Francisco Bay Region (Water Board), 1999. East Bay Plains Beneficial Use Study, San Francisco Bay. June 15.

California Regional Water Quality Control Board, San Francisco Bay Basin (Water Board), 2007. Water Quality Control Board (Basin Plan). January 18.

California Regional Water Quality Control Board, San Francisco Bay Region (Water Board), 2008. Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final, November 2007, Revised May 2008.

Olson Environmental, Inc.(OEI) 2009a. Phase 1 Environmental Site Assessment, 2520 Blanding Avenue, Alameda, California, October 21, 2009.

Olson Environmental, Inc. (OEI) 2009b. Limited Soil and Groundwater Investigation,2520 Blanding Avenue, Alameda, California, November 25, 2009.

Underground Storage Tank (UST) Program, Development of a Draft Low-Threat UST Closure Policy, July 14, 2011 (UST, 2011) Closure Policy, Available online at: http://www.swrcb.ca.gov/ust/lt_cls_plcy.shtml .

LIMITATIONS

This report has been prepared by PECI 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. PECI 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

contaminants that may affect the use or value of the Site. 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 was not encountered during this investigation. No warranty or guarantee is expressed or implied therein.

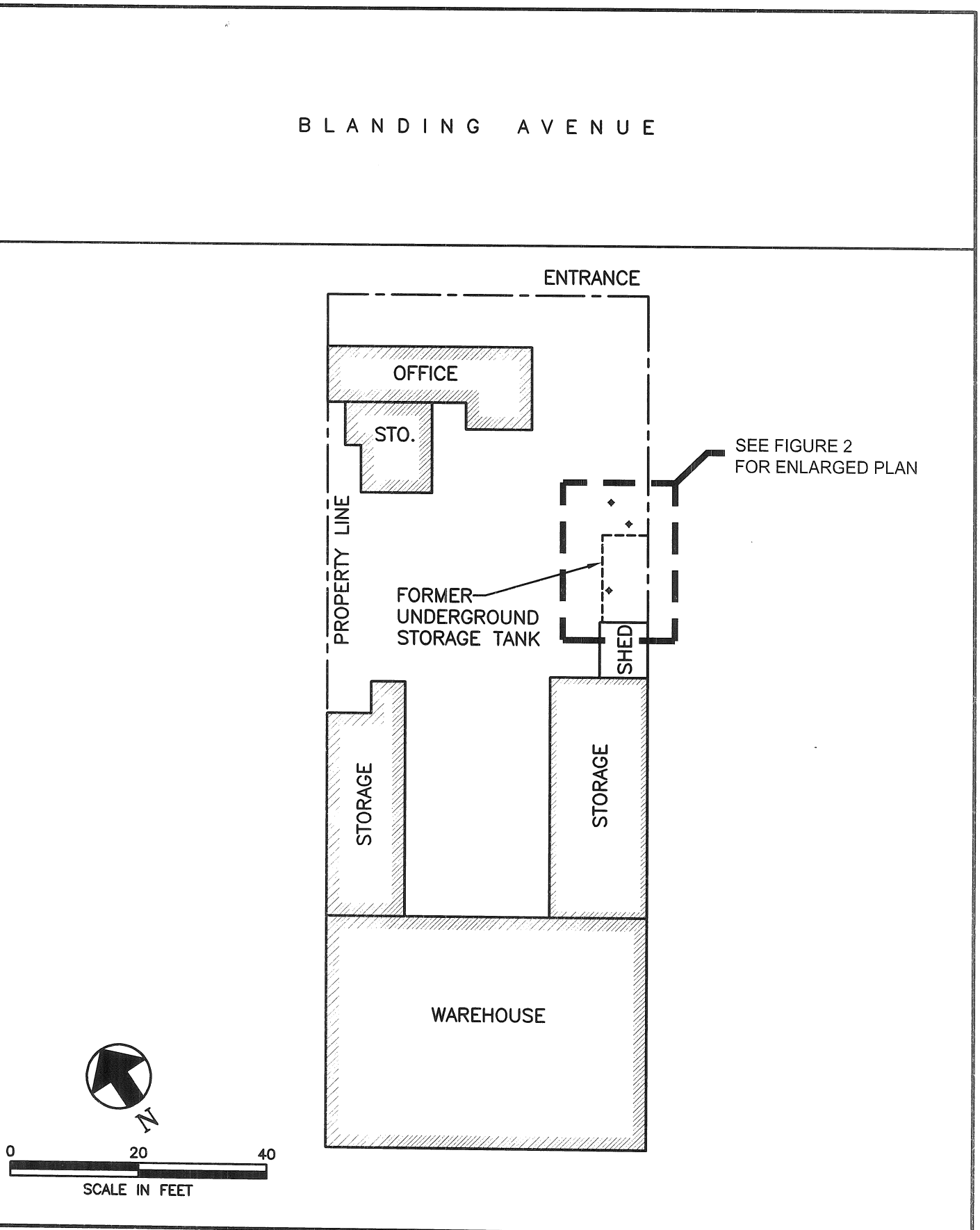
Figures

(Figures1-5 are from OEI, 2009b)

1. Property Location Map
2. Boring Location Map

3-5. Boring Logs

6. Topographic Map and Gradient



P: Pacific Engineering 2009 PECI 2009 Projects Myron Olsen 2530 Blanding CAD Site Location Plan.dwg 12/01/09 3:20pm angie

Olson Environmental
Environmental Consulting & Real Estate Due Diligence

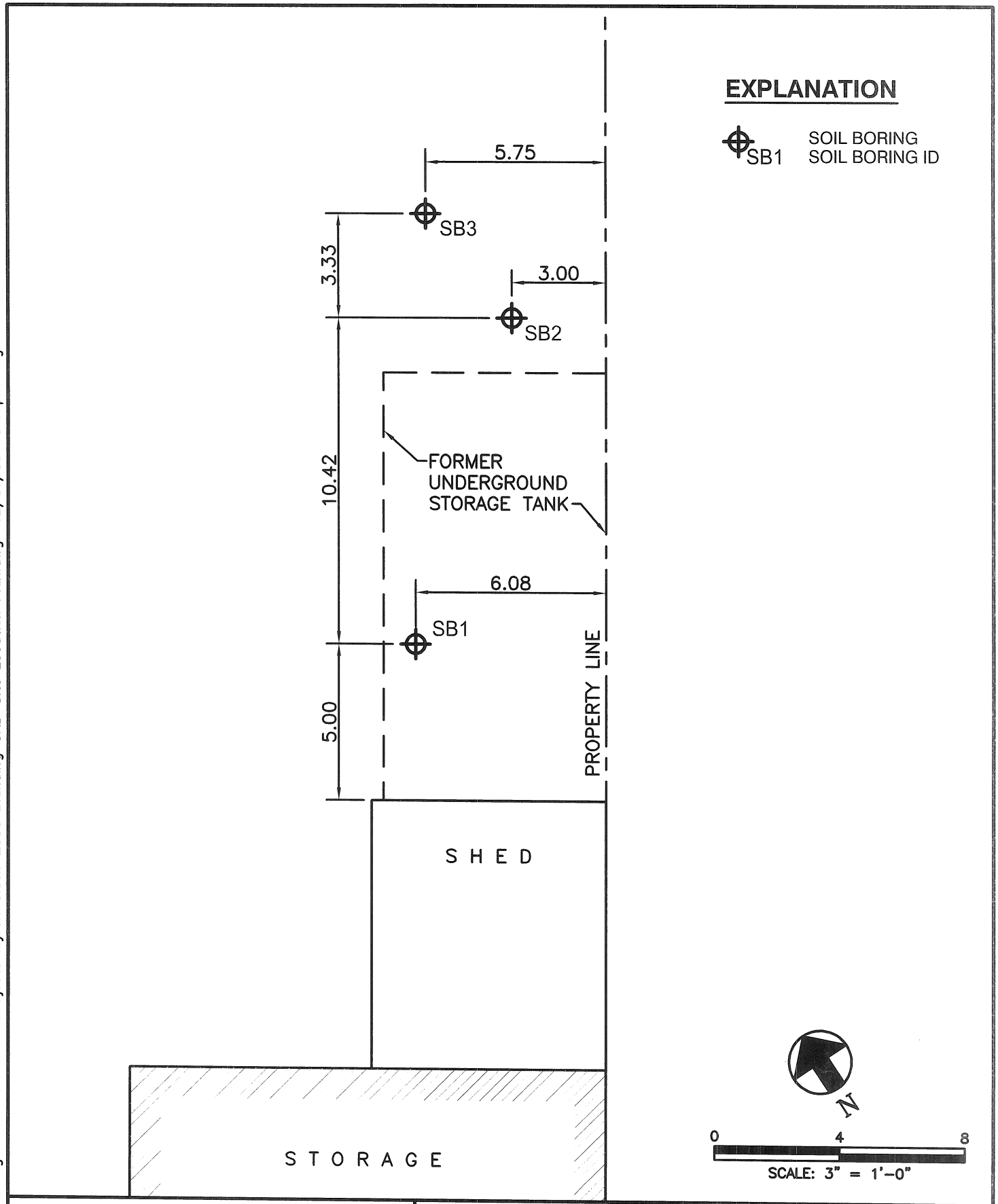
2700 Central Avenue, Alameda, CA 94501
Phone: (510) 541-5650
Fax: (866) 902-8021

SITE LOCATION PLAN

FIGURE 1

COMMERCIAL PROPERTY
2520 BLANDING AVE., ALAMEDA, CA 94501

DRAWN	DESIGN	APPROVED	DATE	REVISED DATE
AMA	AMW		DEC. 2009	



P: Pacific Engineering 2009 PECI 2009 Projects Myron Olsen 2530 Blanding CAD Site Location Plan.dwg 12/01/09 3:17pm angie

Olson Environmental
Environmental Consulting & Real Estate Due Diligence

2700 Central Avenue, Alameda, CA 94501
Phone: (510) 541-5650
Fax: (866) 902-8021

SOIL BORING LOCATION

FIGURE 2

COMMERCIAL PROPERTY
2520 BLANDING AVE., ALAMEDA, CA 94501

DRAWN	DESIGN	APPROVED	DATE	REVISED DATE
AMA	AMW		DEC. 2009	

Drill Rig Type: Geo Probe 5400 GP Rig
Sampling Methods: 2"
Hammer WT. _____ Drop: _____
Start Time: 9:00 AM Date _____
Completed Time: 9:50 AM Date _____
Boring Depth: 12 Feet
Casing Depth: _____
Water Depth: @ 7.5
Time: _____
Date: _____

Boring No. SB1

Total Depth: 12 Feet

Date: 10-26-2009 Logged by: M. Olson

Drilling Contractor: Precision Sampling
Driller's Name: Hernandez, Crull

Surface Conditions: Unpaved and dry

Time	Sample	Hydrocarbon Stain	Depth (ft.)	
	SM		1	Sand, Silty, Clay fill, Olive gray
			2	
	CL-ML		3	Small cobble rocks, fill Silty clay, black, dry, dark brown
			4	
			5	
9:30	CL		6	Collect (SBI-6), strong petro smell odor
9:35		YES	7	Collect (SBI-7), visible oily sheen, dark gray
	CL		7.5 ▽	Moist, damp Clay, sandy (fine), light brown
	CL		8	
			9	Clay, sandy (fine grained), light brown
			10	
			11	
			12	Collect GW1+

Olson Environmental
Environmental Consulting & Real Estate Due Diligence

2700 Central Avenue, Alameda, CA 94501
Phone: (510) 541-5650
Fax: (866) 902-8021

SOIL BORING LOG - SB1

FIGURE 3

COMMERCIAL PROPERTY
2520 BLANDING AVE., ALAMEDA, CA 94501

DRAWN	DESIGN	APPROVED	DATE	REVISED DATE
AMA	AMW		DEC. 2009	

Drill Rig Type: Geo Probe 5400 GP Rig
Sampling Methods: 2"
Hammer WT. _____ Drop: _____
Start Time: 9:50 AM Date _____
Completed Time: 10:35 AM Date _____
Boring Depth: 10 Feet
Casing Depth: _____
Water Depth: @ 6.0
Time: _____
Date: _____

Boring No. SB2

Total Depth: 10 Feet

Date: 10-26-2009 Logged by: M. Olson

Drilling Contractor: Precision Sampling
Driller's Name: Hernandez, Crull

Surface Conditions: Paved and dry

Time	Sample	Hydrocarbon Stain	Depth (ft.)	
			1	Asphalt and fill
	CL-ML		2	Fill Silty clay, black, dry, dark brown
			3	
			4	
			5	
10:00	CL		6	Moist, damp, Collect (SB2-6), clay, sandy, fine, light brown Odor, petro smell
10:10			7	Collect (SB2-7)
			7.5	
			8	
			9	
			10	GW2 - no gw recharge

Olson Environmental
Environmental Consulting & Real Estate Due Diligence

2700 Central Avenue, Alameda, CA 94501
Phone: (510) 541-5650
Fax: (866) 902-8021

SOIL BORING LOG - SB2

COMMERCIAL PROPERTY
2520 BLANDING AVE., ALAMEDA, CA 94501

FIGURE 4

DRAWN	DESIGN	APPROVED	DATE	REVISED DATE
AMA	AMW		DEC. 2009	

Drill Rig Type: Geo Probe 5400 GP Rig
Sampling Methods: 2"
Hammer WT. _____ Drop: _____
Start Time: 10:35 AM Date _____
Completed Time: 1:30 PM Date _____
Boring Depth: 10 Feet
Casing Depth: _____
Water Depth: @ 6.0
Time: _____
Date: _____

Boring No. SB3

Total Depth: 10 Feet

Date: 10-26-2009 Logged by: M. Olson

Drilling Contractor: Precision Sampling
Driller's Name: Hernandez, Crull

Surface Conditions: Paved and dry

Time	Sample	Hydrocarbon Stain	Depth (ft.)	
			1	Asphalt and fill
	CL-ML		2	Silty clay, black, dry, dark brown
			3	
			4	
			5	
10:45	CL		6	Moist, damp, Collect (SB3-6), clay, sandy, fine, light brown Strong odor
10:45			7	Collect (SB3-7)
			7.5	
			8	
			9	
11:30			10	GW3 - collect

Olson Environmental
Environmental Consulting & Real Estate Due Diligence

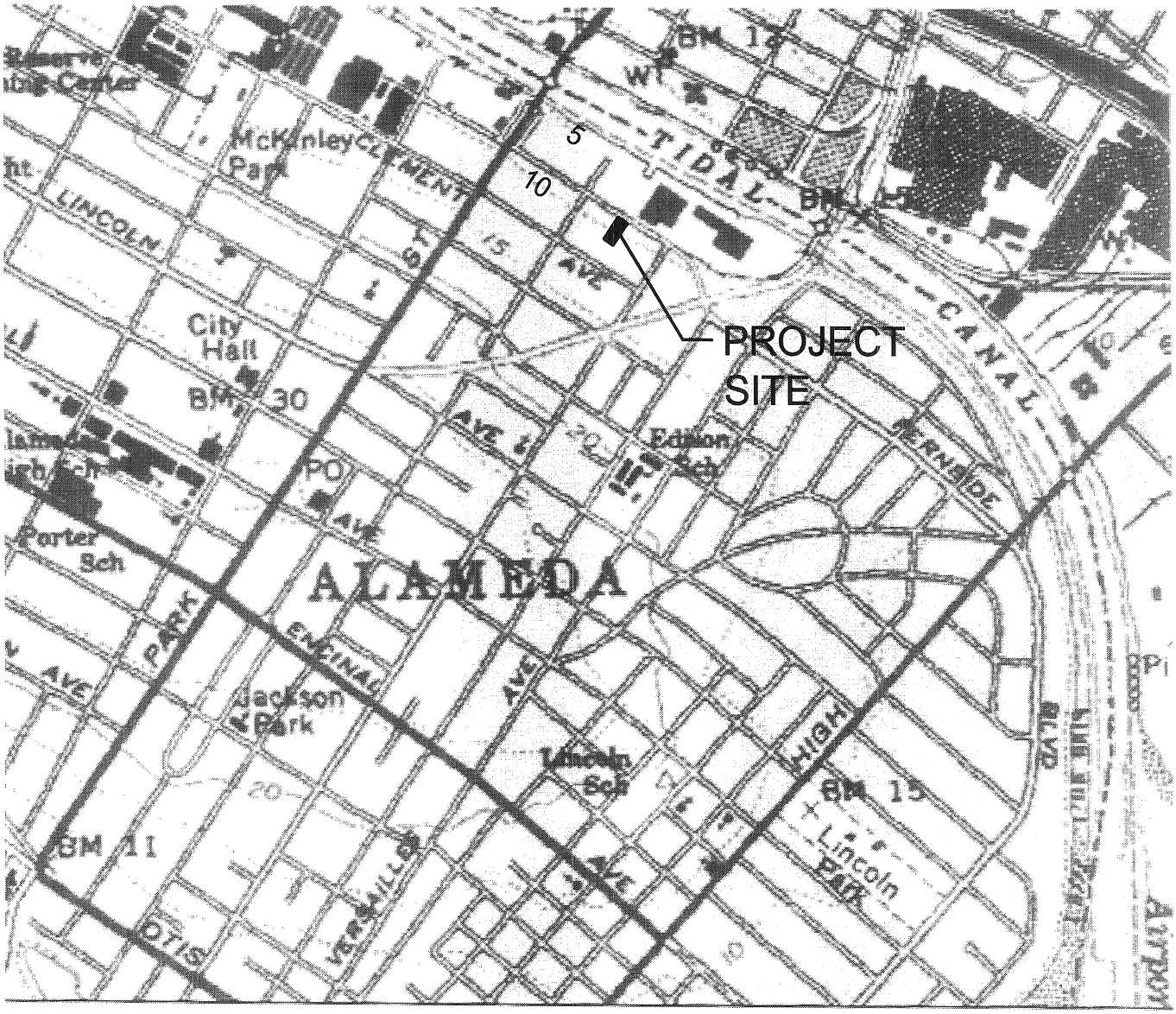
2700 Central Avenue, Alameda, CA 94501
Phone: (510) 541-5650
Fax: (866) 902-8021

SOIL BORING LOG - SB3

COMMERCIAL PROPERTY
2520 BLANDING AVE., ALAMEDA, CA 94501

FIGURE 5

DRAWN	DESIGN	APPROVED	DATE	REVISED DATE
AMA	AMW		DEC. 2009	



LEGEND

.....10..... TOPOGRAPHY IN FEET

Pacific Engineering & Construction, Inc.
Consulting Engineers & Contractors
35 Stillman Street, Suite 126, San Francisco, CA 94107
Phone/Fax: (415) 974-1853 Cell phone: (415) 516-8545
email: amwaldman@sbcglobal.net

TOPOGRAPHIC MAP

FIGURE **6**

COMMERCIAL PROPERTY
Address: 2520 BLANDING AVE., ALAMEDA, CA 94501

DRAWN	DESIGN	APPROVED	DATE	REVISED DATE
AMA	AMW		SEPTEMBER, 2011	

Tables

1. Analytical Results of Soil Samples
2. Analytical Results of Groundwater Samples

Table 1 - Soil Sampling Results in milligrams per kilogram (mg/kg)

Boring SB1, Sample SB1-7 (sampled at a depth of 7 feet)

Date	**11/6/09**	**ESL**
Benzene	ND	2.7
Toluene	ND	9.3
Ethylbenzene	0.58	4.7
Zylene, Total	1.3	11
MTBE	ND	500
Gasoline C5-C12	550	1,800
Diesel C10-C28	100	1,800
Motor Oil C24-C36	110	2,500
Lead	NA	7,500

Boring SB2, Sample SB2-7 (sampled at a depth of 7 feet)

Date	**11/6/09**	**ESL**
Benzene	ND	2.7
Toluene	ND	9.3
Ethylbenzene	ND	4.7
Xylene, Total	ND	110
MTBE	ND	8.4
Gasoline C5-C12	ND	1,800
Diesel C10-C28	ND	1,800
Motor Oil C24-C36	ND	2,500
Lead	2.7	7,500

Boring SB3, Sample SB3-7 (sampled at a depth of 7 feet)

Date	**11/6/09**	**ESL**
Benzene	ND	2.7
Toluene	ND	9.3
Ethylbenzene	ND	4.7
Zylene, Total	ND	110
MTBE	ND	8.4
Gasoline C5-C12	ND	1,800
Diesel C10-C28	ND	1,800
Motor Oil C24-C36	ND	2,500
Lead	1.3	7,500

ESL = Environmental Screening Level (Water Board, 2008; Table B: ground water not a current or potential drinking water source). Concentrations above the ESLs are shown above in bold print.

NA = Not Analyzed

ND - Not Detected (see laboratory report for detection limits)

Table 2 - Groundwater Sampling Results in micrograms per liter (µg/L)

Sample Number	SB1	SB1-2 (1)	
Date	**11/6/09**	**8/3/11**	**ESL**
Benzene	14	ND	46
Toluene	ND	ND	130
Ethylbenzene	28	ND	43
Xylene, Total	49	ND	100
MTBE	ND	ND	1,800
Gasoline C5-C12	**4,900**	ND	210
Diesel C10-C28	**14,000**	100	210
Motor Oil C24-C36	**15,000**	150	210
Lead	NA	NA	2.5

(1) Groundwater sample 24 inches north-northeast of Boring SB-1

Sample Number	SB2	SB2-2 (2)	
Date	**11/6/09**	**8/3/11**	**ESL**
Benzene	Not Sampled	ND	46
Toluene		ND	130
Ethylbenzene		ND	43
Xylene, Total		ND	100
MTBE		ND	1,800
Gasoline C5-C12		ND	210
Diesel C10-C28		ND	210
Motor Oil C24-C36		ND	210
Lead		NA	2.5

(2) Groundwater sample 12 inches north of Boring SB-2

Sample Number	SB3	SB3-2	
Date	**11/6/09**	**8/3/11 (3)**	**ESL**
Benzene	ND	ND	46
Toluene	ND	ND	130
Ethylbenzene	ND	ND	43
Xylene, Total	ND	ND	100
MTBE	ND	ND	1,800
Gasoline C5-C12	ND	ND	210
Diesel C10-C28	ND	ND	210
Motor Oil C24-C36	ND	ND	210
Lead	ND	NA	2.5

(3) Groundwater sample 10 inches north of Boring SB-3

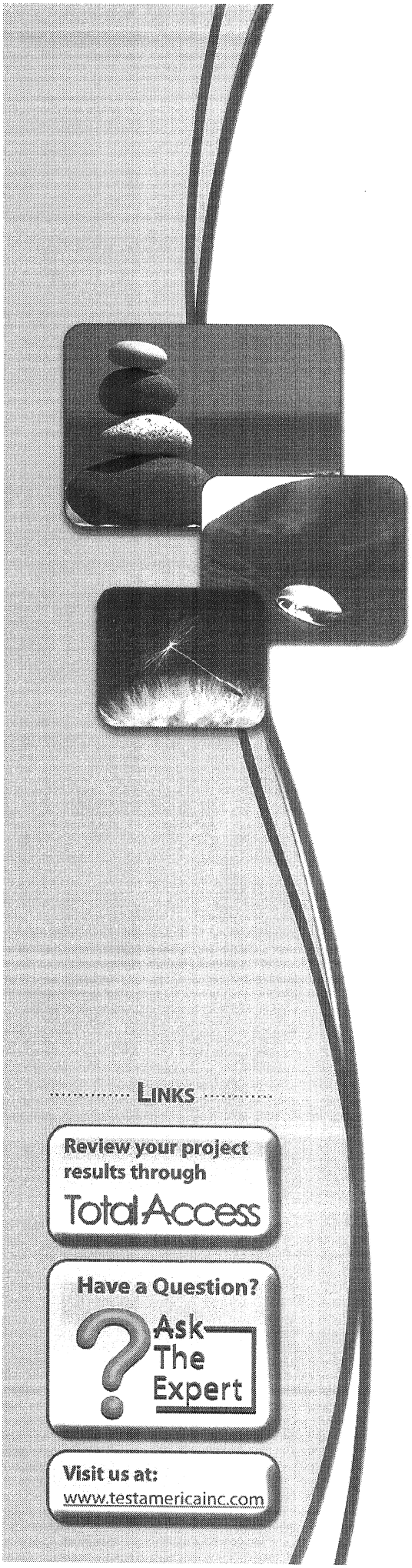
ESL = Environmental Screening Level (Water Board, 2008; Table F1b: ground water not a current or potential drinking water source). Concentrations above the ESLs are shown above in bold print.

NA = Not Analyzed

ND - Not Detected (see laboratory report for detection limits)

Appendix A

Alameda County Public Works Agency - Soil Boring Permit



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica San Francisco
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-36715-1
Client Project/Site: 2520 Blanding

For:
Pacific Engineering & Construction
35 Stillman St., Suite 208
San Francisco, California 94107

Attn: Mr. A.Mark Waldman

Surinder Sidhu

Authorized for release by:
08/10/2011 03:47:22 PM

Surinder Sidhu
Customer Service Manager
surinder.sidhu@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Table of Contents

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis.
EPA	United States Environmental Protection Agency
ND	Not Detected above the reporting level.
MDL	Method Detection Limit
RL	Reporting Limit
RE, RE1 (etc.)	Indicates a Re-extraction or Reanalysis of the sample.
%R	Percent Recovery
RPD	Relative Percent Difference, a measure of the relative difference between two points.

Job ID: 720-36715-1

Laboratory: TestAmerica San Francisco

Narrative

4

Job Narrative
720-36715-1

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS VOA
Method(s) 8260B: The following sample submitted for volatiles analysis was received with insufficient preservation (pH >2): SB3-2 (720-36715-3).

No other analytical or quality issues were noted.

GC Semi VOA
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Detection Summary

Client: Pacific Engineering & Construction
Project/Site: 2520 Blanding

TestAmerica Job ID: 720-36715-1

Client Sample ID: SB1-2

Lab Sample ID: 720-36715-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	100		61		ug/L	1		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	150		120		ug/L	1		8015B	Total/NA

Client Sample ID: SB2-2

Lab Sample ID: 720-36715-2

No Detections.

Client Sample ID: SB3-2

Lab Sample ID: 720-36715-3

No Detections.

Client Sample ID: TRIP BLANK

Lab Sample ID: 720-36715-4

No Detections.

5

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Client Sample ID: SB1-2
Date Collected: 08/03/11 08:00
Date Received: 08/03/11 16:40

Lab Sample ID: 720-36715-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			08/05/11 00:37	1
Benzene	ND		0.50		ug/L			08/05/11 00:37	1
Ethylbenzene	ND		0.50		ug/L			08/05/11 00:37	1
Toluene	ND		0.50		ug/L			08/05/11 00:37	1
Xylenes, Total	ND		1.0		ug/L			08/05/11 00:37	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			08/05/11 00:37	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*67 - 130*		*08/05/11 00:37*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*67 - 130*		*08/05/11 00:37*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*08/05/11 00:37*	*1*

Client Sample ID: SB2-2
Date Collected: 08/03/11 09:00
Date Received: 08/03/11 16:40

Lab Sample ID: 720-36715-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			08/05/11 01:06	1
Benzene	ND		0.50		ug/L			08/05/11 01:06	1
Ethylbenzene	ND		0.50		ug/L			08/05/11 01:06	1
Toluene	ND		0.50		ug/L			08/05/11 01:06	1
Xylenes, Total	ND		1.0		ug/L			08/05/11 01:06	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			08/05/11 01:06	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*67 - 130*		*08/05/11 01:06*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*67 - 130*		*08/05/11 01:06*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*08/05/11 01:06*	*1*

Client Sample ID: SB3-2
Date Collected: 08/03/11 10:55
Date Received: 08/03/11 16:40

Lab Sample ID: 720-36715-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			08/05/11 01:34	1
Benzene	ND		0.50		ug/L			08/05/11 01:34	1
Ethylbenzene	ND		0.50		ug/L			08/05/11 01:34	1
Toluene	ND		0.50		ug/L			08/05/11 01:34	1
Xylenes, Total	ND		1.0		ug/L			08/05/11 01:34	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			08/05/11 01:34	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*67 - 130*		*08/05/11 01:34*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*67 - 130*		*08/05/11 01:34*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*08/05/11 01:34*	*1*

Client: Pacific Engineering & Construction
Project/Site: 2520 Blanding

TestAmerica Job ID: 720-36715-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Client Sample ID: TRIP BLANK
Date Collected: 08/03/11 00:00
Date Received: 08/03/11 16:40

Lab Sample ID: 720-36715-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			08/05/11 02:55	1
Benzene	ND		0.50		ug/L			08/05/11 02:55	1
Ethylbenzene	ND		0.50		ug/L			08/05/11 02:55	1
Toluene	ND		0.50		ug/L			08/05/11 02:55	1
Xylenes, Total	ND		1.0		ug/L			08/05/11 02:55	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*79*		*67 - 130*		*08/05/11 02:55*	*1*
1,2-Dichloroethane-d4 (Surr)	*90*		*67 - 130*		*08/05/11 02:55*	*1*
Toluene-d8 (Surr)	*85*		*70 - 130*		*08/05/11 02:55*	*1*

Client: Pacific Engineering & Construction
Project/Site: 2520 Blanding

TestAmerica Job ID: 720-36715-1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: SB1-2
Date Collected: 08/03/11 08:00
Date Received: 08/03/11 16:40

Lab Sample ID: 720-36715-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	100		61		ug/L		08/04/11 12:12	08/05/11 11:09	1
Motor Oil Range Organics [C24-C36]	150		120		ug/L		08/04/11 12:12	08/05/11 11:09	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*96*		*23 - 156*	*08/04/11 12:12*	*08/05/11 11:09*	*1*

Client Sample ID: SB2-2
Date Collected: 08/03/11 09:00
Date Received: 08/03/11 16:40

Lab Sample ID: 720-36715-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		56		ug/L		08/04/11 12:12	08/05/11 11:33	1
Motor Oil Range Organics [C24-C36]	ND		110		ug/L		08/04/11 12:12	08/05/11 11:33	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*80*		*23 - 156*	*08/04/11 12:12*	*08/05/11 11:33*	*1*

Client Sample ID: SB3-2
Date Collected: 08/03/11 10:55
Date Received: 08/03/11 16:40

Lab Sample ID: 720-36715-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		62		ug/L		08/04/11 12:12	08/05/11 11:58	1
Motor Oil Range Organics [C24-C36]	ND		120		ug/L		08/04/11 12:12	08/05/11 11:58	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*88*		*23 - 156*	*08/04/11 12:12*	*08/05/11 11:58*	*1*

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Lab Sample ID: MB 720-96617/4
Matrix: Water
Analysis Batch: 96617

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			08/04/11 16:24	1
Benzene	ND		0.50		ug/L			08/04/11 16:24	1
Ethylbenzene	ND		0.50		ug/L			08/04/11 16:24	1
Toluene	ND		0.50		ug/L			08/04/11 16:24	1
Xylenes, Total	ND		1.0		ug/L			08/04/11 16:24	1

Surrogate	*MB % Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*67 - 130*		*08/04/11 16:24*	*1*
1,2-Dichloroethane-d4 (Surr)	*89*		*67 - 130*		*08/04/11 16:24*	*1*
Toluene-d8 (Surr)	*92*		*70 - 130*		*08/04/11 16:24*	*1*

Lab Sample ID: LCS 720-96617/5
Matrix: Water
Analysis Batch: 96617

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Methyl tert-butyl ether	25.0	25.8		ug/L		103	62 - 130
Benzene	25.0	24.6		ug/L		98	82 - 127
Ethylbenzene	25.0	24.0		ug/L		96	86 - 135
Toluene	25.0	24.5		ug/L		98	83 - 129
m-Xylene & p-Xylene	50.0	48.6		ug/L		97	70 - 142
o-Xylene	25.0	24.9		ug/L		100	89 - 136

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*89*		*67 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*

Lab Sample ID: LCSD 720-96617/6
Matrix: Water
Analysis Batch: 96617

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	25.0	26.2		ug/L		105	62 - 130	2	20
Benzene	25.0	24.7		ug/L		99	82 - 127	0	20
Ethylbenzene	25.0	24.2		ug/L		97	86 - 135	1	20
Toluene	25.0	24.6		ug/L		98	83 - 129	0	20
m-Xylene & p-Xylene	50.0	48.8		ug/L		98	70 - 142	0	20
o-Xylene	25.0	24.9		ug/L		100	89 - 136	0	20

Surrogate	*LCSD % Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*89*		*67 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: MB 720-96618/4
Matrix: Water
Analysis Batch: 96618

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			08/04/11 16:40	1
Benzene	ND		0.50		ug/L			08/04/11 16:40	1
Ethylbenzene	ND		0.50		ug/L			08/04/11 16:40	1
Toluene	ND		0.50		ug/L			08/04/11 16:40	1
Xylenes, Total	ND		1.0		ug/L			08/04/11 16:40	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			08/04/11 16:40	1

Surrogate	*MB % Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*67 - 130*		*08/04/11 16:40*	*1*
1,2-Dichloroethane-d4 (Surr)	*118*		*67 - 130*		*08/04/11 16:40*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*08/04/11 16:40*	*1*

Lab Sample ID: LCS 720-96618/5
Matrix: Water
Analysis Batch: 96618

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Methyl tert-butyl ether	25.0	24.3		ug/L		97	62 - 130
Benzene	25.0	22.5		ug/L		90	82 - 127
Ethylbenzene	25.0	24.6		ug/L		98	86 - 135
Toluene	25.0	23.7		ug/L		95	83 - 129
m-Xylene & p-Xylene	50.0	60.4		ug/L		121	70 - 142
o-Xylene	25.0	26.6		ug/L		106	89 - 136

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*111*		*67 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: LCS 720-96618/7
Matrix: Water
Analysis Batch: 96618

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	500	470		ug/L		94	62 - 117

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*111*		*67 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 720-96618/6
Matrix: Water
Analysis Batch: 96618

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	25.0	24.7		ug/L		99	62 - 130	2	20

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-96618/6
Matrix: Water
Analysis Batch: 96618

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Benzene	25.0	22.9		ug/L		92	82 - 127	2	20
Ethylbenzene	25.0	24.4		ug/L		98	86 - 135	1	20
Toluene	25.0	23.6		ug/L		94	83 - 129	0	20
m-Xylene & p-Xylene	50.0	59.9		ug/L		120	70 - 142	1	20
o-Xylene	25.0	26.6		ug/L		106	89 - 136	0	20

Surrogate	*LCSD % Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*112*		*67 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 720-96618/8
Matrix: Water
Analysis Batch: 96618

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12	500	470		ug/L		94	62 - 117	0	20

Surrogate	*LCSD % Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*109*		*67 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 720-96664/1-A
Matrix: Water
Analysis Batch: 96707

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 96664

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		50		ug/L		08/04/11 12:12	08/05/11 09:56	1
Motor Oil Range Organics [C24-C36]	ND		99		ug/L		08/04/11 12:12	08/05/11 09:56	1

Surrogate	*MB % Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*96*		*23 - 156*	*08/04/11 12:12*	*08/05/11 09:56*	*1*

Lab Sample ID: LCS 720-96664/2-A
Matrix: Water
Analysis Batch: 96707

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 96664

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Diesel Range Organics [C10-C28]	2500	2060		ug/L		83	40 - 150

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl	*110*		*23 - 156*

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 720-96664/3-A
Matrix: Water
Analysis Batch: 96707

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 96664

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	2500	2080		ug/L		83	40 - 150	1	35

Surrogate	*LCSD % Recovery*	*LCSD Qualifier*	*Limits*
p-Terphenyl	*110*		*23 - 156*

7

QC Association Summary

Client: Pacific Engineering & Construction
Project/Site: 2520 Blanding

TestAmerica Job ID: 720-36715-1

GC/MS VOA

Analysis Batch: 96617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-96617/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-96617/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-96617/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
720-36715-4	TRIP BLANK	Total/NA	Water	8260B/CA_LUFT MS	

Analysis Batch: 96618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-96618/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-96618/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-96618/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-96618/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-96618/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
720-36715-1	SB1-2	Total/NA	Water	8260B/CA_LUFT MS	
720-36715-2	SB2-2	Total/NA	Water	8260B/CA_LUFT MS	
720-36715-3	SB3-2	Total/NA	Water	8260B/CA_LUFT MS	

GC Semi VOA

Prep Batch: 96664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-96664/1-A	Method Blank	Total/NA	Water	3510C	
LCS 720-96664/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 720-96664/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
720-36715-1	SB1-2	Total/NA	Water	3510C	
720-36715-2	SB2-2	Total/NA	Water	3510C	
720-36715-3	SB3-2	Total/NA	Water	3510C	

Analysis Batch: 96707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-96664/1-A	Method Blank	Total/NA	Water	8015B	96664
LCS 720-96664/2-A	Lab Control Sample	Total/NA	Water	8015B	96664
LCSD 720-96664/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	96664
720-36715-1	SB1-2	Total/NA	Water	8015B	96664
720-36715-2	SB2-2	Total/NA	Water	8015B	96664
720-36715-3	SB3-2	Total/NA	Water	8015B	96664

Certification Summary

Client: Pacific Engineering & Construction
Project/Site: 2520 Blanding

TestAmerica Job ID: 720-36715-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica San Francisco	California	State Program	9	2496

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

9

Method Summary

Client: Pacific Engineering & Construction
Project/Site: 2520 Blanding

TestAmerica Job ID: 720-36715-1

Method	Method Description	Protocol	Laboratory
8260B/CA_LUFTMS	8260B / CA LUFT MS	SW846	TAL SF
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL SF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SF = TestAmerica San Francisco, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

10

Sample Summary

Client: Pacific Engineering & Construction
Project/Site: 2520 Blanding

TestAmerica Job ID: 720-36715-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-36715-1	SB1-2	Water	08/03/11 08:00	08/03/11 16:40
720-36715-2	SB2-2	Water	08/03/11 09:00	08/03/11 16:40
720-36715-3	SB3-2	Water	08/03/11 10:55	08/03/11 16:40
720-36715-4	TRIP BLANK	Water	08/03/11 00:00	08/03/11 16:40

720.36715

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA San Francisco Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 600-3002

Reference #: 132883
Project: 2520 Blanding
Date 8/3/11 Page 1 of 3

08/10/2011

*email: amwaldman@pcecglobal.net

Required

Attn: Mark Waldman
Company: Pacific Engineering & Construction / PCE
Address: 35 Stillman St #106 San Francisco CA 94107
Phone: 415 974-1853 Email: *
Bill To: PCE 35 Stillman St #106 San Fran 94107
Sampled By: 415-378-4114 Miles Grant
Attn: Mark Waldman Phone: 415-974-1853

Analysis Request

Sample ID	Date	Time	Matrix	Preserv.	TPH EPA - ☐ 8260B ☒ Gas w/ ☒ BTEX ☒ MTBE	TEPH EPA 8015M* ☐ Silica Gel ☒ Diesel ☒ Motor Oil ☐ Other	EPA 8260B: ☐ Gas ☒ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	(HVOCs) EPA 8021 by 8260B	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B ☐ 624	Semivolatiles GC/MS ☐ EPA 8270 ☐ 625	Oil and Grease ☐ Petroleum (EPA 1664) ☐ Total	Pesticides ☐ EPA 8081 ☐ 608 PCBs ☐ EPA 8082 ☐ 608	PNAs by ☐ 8270 ☐ 8310	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ Lead ☐ LUFT ☐ RCRA ☐ Other	Low Level Metals by EPA 200.8/6020 (ICP-MS):	☐ W.E.T (STLC) ☐ TCLP	☐ Hexavalent Chromium ☐ pH (24h hold time for H_2O)	☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ TDS	Anions: ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	# bottles						Number of Containers
SB1-2	8/3/11	8:00 AM	GW	BTEX HCl	X	X	X														7					7
SB2-2	8/3/11	9:00 AM	GW	"	X	X	X														7					7
SB3-2	8/3/11	10:55 AM	GW	"	X	X	X														7					7
Trip Blank	"						X														2					2

Project Info

Project Name: 2520 Blanding
Project#:
PO#:
Credit Card#:

TAT: 5 Day | 3 Day | 2 Day | 1 Day

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ State Tank Fund EDF
Special Instructions / Comments: ☐ Global ID

Sample Receipt

# of Containers: 23
Head Space:
Temp: 5.5°C
Conforms to record:
Other:

1) Relinquished by: Signature — Time: 1:30 PM
Printed Name: Miles Grant — Date:
Company: Pacific Engineering & Construction (PCE) — 8/3/11

1) Received by: Signature — Time: 1410
Printed Name: Ed Martinez — Date: 8-3-11
Company: TAS R

2) Relinquished by: Signature — Time: 1640
Printed Name: Ed Martinez — Date: 8-3-11
Company:

2) Received by: Signature — Time: 1640
Printed Name: — Date: 8/3/11
Company: TAS F

3) Relinquished by: Signature — Time:
Printed Name — Date:
Company

3) Received by: Signature — Time:
Printed Name — Date:
Company

See Terms and Conditions on reverse
*TestAmerica SF reports 8015M from C_4-C_{32} (industry norm). Default for 8015B is C_{10}-C_{28}

Login Sample Receipt Checklist

Client: Pacific Engineering & Construction

Job Number: 720-36715-1

Login Number: 36715
List Number: 1
Creator: Hoang, Julie

List Source: TestAmerica San Francisco

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Appendix B

Laboratory Analysis Report

Alameda County Public Works Agency - Water Resources Well Permit

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

Application Approved on: 07/28/2011 By jamesy

Permit Numbers: W2011-0496
Permits Valid from 08/03/2011 to 08/03/2011

Application Id:	1311788413558
Site Location:	2520 Blanding Avenue, Alameda
Project Start Date:	08/03/2011
Assigned Inspector:	Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org
Applicant:	Pacific Engineering & Construction - Mark Waldman 35 Stillman St #126, San Francisco, CA 94107
Property Owner:	PJ Smith Family, LLC 2520 Blanding Ave., Alameda, CA 94501
Client:	** same as Property Owner **

City of Project Site: Alameda

Completion Date: 08/03/2011

Phone: 415-974-1853

Phone: 208-484-5471

Total Due: $265.00
Receipt Number: WR2011-0226 **Total Amount Paid:** $265.00
Payer Name : Pacific Engineering & Paid By: CHECK **PAID IN FULL**

Construction

Works Requesting Permits:

Borehole(s) for Investigation-Contamination Study - 3 Boreholes
Driller: RSI - Lic #: 802334 - Method: other

Work Total: $265.00

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2011-0496	07/28/2011	11/01/2011	3	1.00 in.	10.00 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.