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January 9, 2014

Mr. Keith Nowell
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: **Site Investigation Report**

Site: **76 Station No. 5191/5043**
449 Hegenberger Road
Oakland, California
Fuel Leak Case No. RO0000219

Dear Mr. Nowell;

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

If you have any questions or need additional information, please call:

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Pacific Convenience & Fuel
7180 Koll Center Parkway, Suite 100
Pleasanton, California 94566
Tel: (925) 931-5714
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WSprague@pcandf.com

Sincerely,

PACIFIC CONVENIENCE & FUEL

WALTER SPRAGUE
Director of Retail Services

Attachment

Site Investigation Report

76 Station No. 5191/5043
449 Hegenberger Road
Oakland, CA

Alameda County Health Care Services Agency
Fuel Leak Case No. RO0000219

Regional Water Quality Control Board
San Francisco Bay No. 01-1601

GeoTracker Global ID No.T0600101476

Antea Group Project No. I42705191

January 9, 2014

Prepared for:
Mr. Keith Nowell
Alameda County
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1.0 INTRODUCTION

Antea Group has prepared this report describing the advancement of ten soil borings in the vicinity of monitoring well MW-6 at the site located at 449 Hegenberger Road in Oakland, California. This work was performed as proposed in the Remedial Action Plan dated April 23, 2013 submitted by Antea Group to the Alameda County Health Care Services Agency (ACHCSA).

1.1 Site Description

The site is currently an operating 76 station located at 449 Hegenberger Road in Oakland, California (**Figure 1**). The site contains six fuel dispensers on two islands under a single canopy, three fuel underground storage tanks (USTs) on the north side of the site, a carwash facility on the west side of the site, and a station building in the central portion of the site. The current site features are shown on **Figure 2**.

1.2 Previous Assessment

October 1991 - Four soil samples were collected from the product pipe trenches at depths of approximately 3 feet below ground surface (bgs) during a dispenser island modification. The product pipe trenches were subsequently excavated to the groundwater depth at 4 to 4.5 feet bgs. Historical soil analytical results are presented in **Table 1**. Sample locations are shown on **Figure 3**.

February 1992 - Three monitoring wells, MW-1 through MW-3, were installed at the site to depths ranging from 13.5 to 15 feet bgs. Historical soil analytical results are presented in **Table 1**. Monitoring well locations are shown on **Figure 3**.

August 1992 - Three additional monitoring wells, MW-4 through MW-6, were installed at the site, each to a depth of 13.5 feet bgs. Historical soil analytical results are presented in **Table 1**. Monitoring well locations are shown on **Figure 3**.

September 1994 - One 280-gallon waste-oil UST was removed from the site. The UST was made of steel, and no apparent holes or cracks were observed in the UST. One soil sample was collected from beneath the former UST at a depth of approximately 9 feet bgs. No petroleum hydrocarbons were reported.

Historical soil analytical results are presented in **Table 1**. The location of the former waste-oil UST is shown on **Figure 3**.

January 1995 - Two additional monitoring wells, MW-9 and MW-10, were installed to depths of 13 and 15 feet bgs. In addition, two existing monitoring wells were destroyed in order to accommodate the construction of a car wash at the site. Monitoring wells MW-4 and MW-5 were fully drilled out and backfilled with neat cement. Historical soil analytical results are presented in **Table 1**. Monitoring well locations are shown on **Figure 3**.

March 1995 - Two 10,000-gallon gasoline USTs and one 10,000-gallon diesel UST were removed from the site. Groundwater was encountered in the tank cavity at a depth of approximately 8.5 feet bgs. Soil samples contained total petroleum hydrocarbons as diesel (TPHd), benzene, and TPH as gasoline (TPHg). Approximately 125,000 gallons of groundwater were pumped from the site for remediation and properly disposed of off-site. Four fuel dispenser islands and associated product piping were also removed. Based on the results of the confirmation samples, the product dispenser islands were over excavated to approximately 6 feet bgs. Historical soil analytical results are presented in **Table 1**. Sample locations are shown on **Figure 3**.

March-April 1995 - During demolition activities of the former station building, soil samples were collected from two excavations, which were subsequently over excavated. Confirmation samples contained petroleum hydrocarbons. An additional area on the south side of the former station building was excavated based on photo-ionization detector (PID) readings. Two monitoring wells, MW-1 and MW-2, were destroyed in order to allow for over excavation activities to extend to an area adjacent to the dispenser islands in the southeastern quadrant of the site. The excavated areas were subsequently backfilled with clean-engineered fill. Historical soil analytical results are presented in **Table 1**. Sample locations are shown on **Figure 3**.

April 1997 - Two additional monitoring wells, MW-7 and MW-8, were installed off-site to the south and west on the neighboring property to a depth of 13 feet bgs. In addition, monitoring well MW-3, which was damaged during recent site demolition activities was drilled out and replaced. Historical soil analytical results are presented in **Table 1**. Monitoring well locations are shown on **Figure 3**.

October 2003 - Site environmental consulting responsibilities were transferred to TRC.

April 8-9, 2005 - TRC conducted a 24-hour dual phase extraction (DPE) test at the site using monitoring well MW-6. The 24-hour DPE test was only moderately successful at removing vapor-phase petroleum hydrocarbons from the subsurface; therefore, TRC recommended DPE no longer be considered a viable remedial alternative for the site.

October 2007 - Site environmental consulting responsibilities were transferred to Delta Consultants.

December 2009 - Delta advanced two borings, B-4 and B-5, to depths of 20 feet bgs and 32 feet bgs, respectively. Analytical results from the soil and groundwater samples collected from these two borings indicated that the soil and the groundwater were impacted by petroleum hydrocarbons at these locations. Historical soil analytical results are presented in **Table 1**. Boring locations are shown on **Figure 3**.

June 2010 - Delta advanced four borings to be completed as monitoring wells MW-11, MW-12, MW-12A, and MW-13. The wells were installed to depths of 15 feet bgs (MW-13), 20 feet bgs (MW-11 and MW-12), and 34 feet bgs (MW-12A). Analytical results from the soil samples collected from the borings for monitoring wells MW-12 and MW-12A indicated that the soil was impacted by petroleum hydrocarbons. Historical soil analytical results are presented in **Table 1**. Monitoring well locations are shown on **Figure 2**.

May 2011 – Antea Group (formally Delta Consultants) installed four 2-inch diameter monitoring wells, MW-14 through MW-17, and advanced one soil boring, B-6, at the site. All four monitoring wells were installed with ten feet of screen from 3 feet bgs to 13 feet bgs. Historical soil analytical results are presented in **Table 1**. Monitoring well locations are shown on **Figure 2**.

March 2012 – Antea Group advanced five borings (HPB-1 through HPB-5) at the site. The borings were advanced using direct push technology. The borings were used to obtain a hydraulic profile of the substrate beneath the site.

1.3 Sensitive Receptors

April 24, 2006 TRC completed a sensitive receptor survey for the site. According to the Department of Water Resources (DWR) records, there are two irrigation wells and one industrial well located within one-half mile of the site. The nearest well, is an irrigation well located approximately 1,080 feet

southeast of the site. The other irrigation well is located approximately 2,623 feet southeast of the site and the industrial well is located approximately 2,570 feet northeast of the site.

In addition, two surface water bodies were observed within a one-half mile radius of the site. San Leandro Creek is located approximately 1,400 feet southwest of the site and flows into the San Leandro Bay. Elmhurst Creek is located approximately 2,220 feet north of the site and also flows into the San Leandro Bay.

2.0 SITE GEOLOGY AND HYDROGEOLOGY

The site is underlain by Holocene-age bay mud. The bay mud typically consists of unconsolidated, saturated clay and sandy clay that is rich in organic material. The bay mud locally contains lenses and stringers of silt, well-sorted sand and gravel, and beds of peat. Generalized geologic cross sections are shown on **Figure 4**, **Figure 5**, and **Figure 6**

The most recent monitoring and sampling event was conducted at the site on September 10, 2013. The measured depth to groundwater ranged from 2.98 feet to 6.54 feet below top of casing (TOC). The groundwater flow direction was southeast with a hydraulic gradient of 0.018 foot per foot.

3.0 BORING ADVANCEMENT ACTIVITIES

3.1 Permitting, Utility Notification, and Borehole Clearance

Before commencing field activities Antea Group prepared a Health and Safety Plan in accordance with state and federal requirements for use during investigation activities. Drilling permits were obtained for the ten (10) soil borings from the Alameda County Public Works Agency (**Appendix A**). Prior to drilling, Underground Service Alert (USA) was notified as required by law and a private utility locator was employed to clear each boring location for underground utilities. In addition, a hand auger was used to clear each boring location to a depth of 5 feet bgs prior borehole advancement.

3.2 Soil Boring

On July 25 through 26, 2013, Antea Group supervised the advancement of ten (10) soil borings (SB-1 through SB-10). Cascade Drilling, LLC, (Cascade) under the supervision of an Antea Group geologist, advanced the borings using a limited access drill rig with direct push technology. Soil samples were

collected continuously beginning at a depth of approximately 5 feet bgs and logged using the Unified Soil Classification System (USCS) for lithologic interpretation and field screened for the presence of volatile organic compounds by headspace analysis using a pre-calibrated photo ionization detector (PID). Soil samples from the borings were retained for laboratory analysis. The samples were chosen based on PID readings, changes in lithology, groundwater elevation, and the total depth of the boring. The soil borings were advanced to a total depth of 15 feet bgs. Boring logs are presented as **Appendix B**.

3.3 Soil Sampling

Soil samples retained for analysis were analyzed for TPHg , benzene, toluene, ethylbenzene, and total Xylene (collectively BTEX), methyl tertiary-butyl ether (MTBE), tertiary amyl methyl ether (TAME), di-isopropyl ether (DIPE), ethyl tertiary-butyl ether (ETBE), tertiary-butyl alcohol (TBA), 1,2-dichloroethane (1,2-DCA), ethylene dibromide (EDB), and ethanol by Environmental Protection Agency (EPA) Method 8260B; and TPHd by EPA Method 8015; with silica gel treatment. The samples were submitted with chain-of-custody documentation to Kiff Analytical (Kiff), a National Environmental Laboratory Accreditation Program (NELAP) certified laboratory (Certification No. 08263CA). The complete analytical report and Antea Group's laboratory data validation checklist is presented as **Appendix C.**

3.4 Quality Assurance / Quality Control

Antea Group's QA/QC measures included a detailed QA/QC data validation check on the Kiff analytical report for the July 2013 site investigation. Antea Group's laboratory data validation checklist and the Kiff analytical report are presented as **Appendix C**.

Laboratory QA/QC Performed:	Yes (validated by Antea Group)
Laboratory Data Qualifiers:	Yes – four qualifiers*
Are the data valid for their intended purpose?	Yes, the data are valid

* MS/MSD results associated with sample SB-2d11 for the analytes Ethylbenzene, P+M Xylene, and Toluene were outside of control limits. This may indicate a bias for the sample that was spiked. Since the LCS recoveries were within control limits, no data are flagged.
* MS/MSD results associated with sample SB-7d6 for the analytes Benzene, MTBE, and Toluene were outside of control limits. This may indicate a bias for the sample that was spiked. Since the LCS recoveries were within control limits, no data are flagged.
* MS/MSD results associated with sample SB-7d6 for the analyte Naphtalene were outside of control limits. This may indicate a bias for the sample that was spiked. Since the LCS recoveries were within control limits, no data are flagged.

* MS/MSD results associated with sample SB-1d5.5, SB-1d11, SB-1d15, SB-3d7.5, SB-5d6, and SB-2d11 for the analytes Benzene, Ethylbenzene, MTBE, Naphtalene, P+M Xylene, and Toluene were outside of control limits. This may indicate a bias for the sample that was spiked. Since the LCS recoveries were within control limits, no data are flagged.

3.5 Disposal of Drill Cuttings and Wastewater

Drill cuttings and decontamination water generated during soil boring advancement activities were placed into properly labeled 55-gallon Department of Transportation (DOT) approved steel drums. Samples of the drill cuttings and decontamination water were collected, properly labeled, placed on ice, and submitted to a California-certified laboratory for analysis of TPHg , BTEX, and MTBE by EPA Method 8260, and total lead by EPA Method 6010. Chain-of-custody documentation accompanied the samples during transportation to the laboratory. A copy of the analytical report is presented as **Appendix C**. The generated waste has been removed from the site and disposed of at approved waste facilities. Copies of the waste manifests are presented as **Appendix D**

4.0 RESULTS OF THE INVESTIGATION

4.1 Soil Analytical Results

Analytical results from the soil samples collected during this investigation reported TPHg concentrations ranging from 1.8 milligrams per kilogram (mg/kg) (SB-7d13) to 31,000 mg/kg (SB-1d5.5), benzene concentrations ranging from 0.0085 mg/kg (SB-1d15) to 85 mg/kg (SB-1d5.5), toluene concentrations ranging from 0.0072 mg/kg (SB-1d15) to 1,000 mg/kg (SB-1d5.5), ethylbenzene concentrations ranging from 0.018 mg/kg (SB-8d11) to 650 mg/kg (SB-1d5.5), total xylenes concentrations ranging from 0.0075 mg/kg (SB-8d11) to 3,400 mg/kg (SB-1d5.5), MTBE concentration at 0.0059 mg/kg (SB-2d15), and naphthalene concentrations ranging from 0.015 mg/kg (SB-1d15) to 150 mg/kg (SB-1d5.5). TPHd with silica gel concentrations were reported; however, all of the results did not match the laboratory standard for diesel. The diesel range hydrocarbons were either lower or higher-boiling than typical diesel. Concentrations of TPHd with silica gel ranged from 1.5 mg/kg (SB-7d13) to 900 mg/kg (SB-8d8). The soil analytical results are presented in **Table 1** and on **Figure 3**. A copy of the laboratory report, chain-of-custody documentation, and a laboratory validation sheet are presented as **Appendix C**. Cross sections showing the geology of the investigation area are presented on **Figure 5** and **Figure 6**.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the data from this investigation and previous investigations at this site it appears that there are two areas of concern beneath the site. The first area is east of the fuel dispensers, in the vicinity of monitoring wells MW-12 and MW-17. The source of petroleum hydrocarbon impact in the vicinity of monitoring wells MW-12 and MW-17 was most likely a release from the fuel dispensers and or product piping.

The second area of concern is in the southwest corner of the site between monitoring wells MW-6 and MW-14. The source of the petroleum hydrocarbon impacted in this area originated from an outside source. Based on a 1996 correspondence and the subsequent fingerprint analysis, it appears that the free product found in monitoring well MW-6 came from an outside source and did not originate from a release at this site. The fingerprint analysis indicates that the collected sample contained leaded gasoline and was not representative of the fuel refined by Unocal at that time.

Based on the results of this investigation the highest concentration of petroleum hydrocarbons in the soil in the vicinity of monitoring well MW-6 was found at depths between 5.5 and 8 feet bgs in soil borings SB-1, SB-4, SB-6 and SB-8. Lower concentrations were found at approximately the same depths in soil borings SB-3, SB-5 and, SB-7. In soil borings SB-2, SB-9 and SB-10 petroleum hydrocarbon concentrations are near or below laboratory reporting limits. Since the soil with the highest concentrations is relatively shallow and well defined, excavation may be the best strategy for source removal in this area of the site. Unfortunately, there are underground utilities running through the middle of this area including an electrical line to the gas station building, a sewer line running from the car wash to the street, and an unknown utility defined by metal readings in the ground. These utilities will need to be temporarily removed during the previously proposed excavation activities.

6.0 REMARKS

The recommendations contained in this report represent Antea USA, Inc.'s professional opinions based upon the currently available information and are arrived at in accordance with currently accepted professional standards. This report is based upon a specific scope of work requested by the client. The contract between Antea USA, Inc. and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Antea USA, Inc.'s client and anyone else specifically identified in writing by Antea USA, Inc. as a user of this report. Antea USA, Inc. will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Antea USA, Inc. makes no express or implied warranty as to the contents of this report.

Prepared by:

Jonathan Fillingame Date: 1/10/14

Jonathan Fillingame
Staff Geologist

Information, conclusions, and recommendations provided by Antea Group in this document regarding the site have been prepared under the supervision of and reviewed by the licensed professional whose signature appears below.

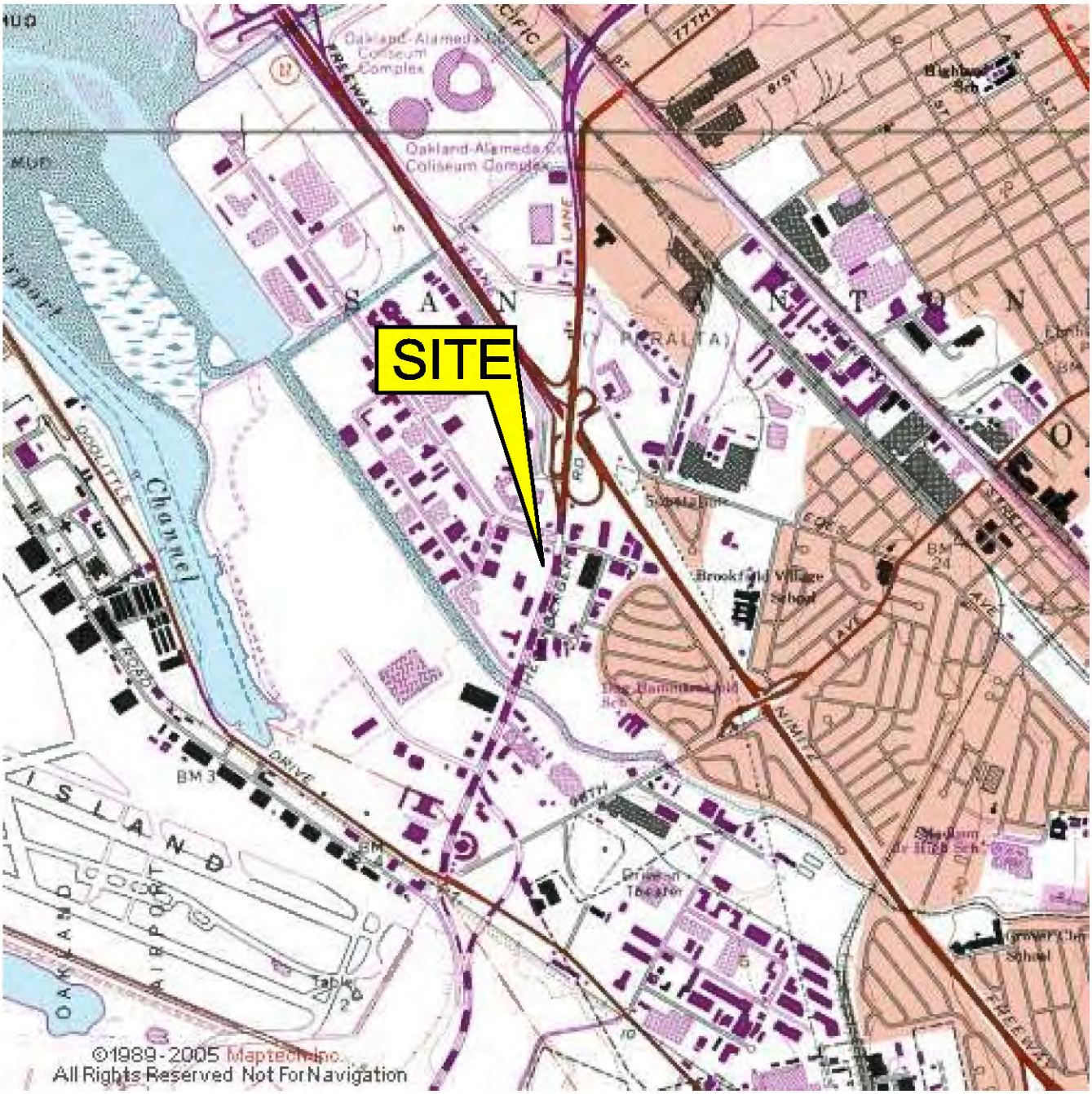
Licensed Approver:

PROFESSIONAL GEOLOGIST
DENNIS SHANNON DETTLOFF
No. 7480
STATE OF CALIFORNIA

Dennis S. Dettloff Date: 1/10/14

Dennis S. Dettloff, P.G.
Senior Project Manager
California Registered Professional Geologist No. 7480

Figures



North

0 900 1800 FT

SCALE

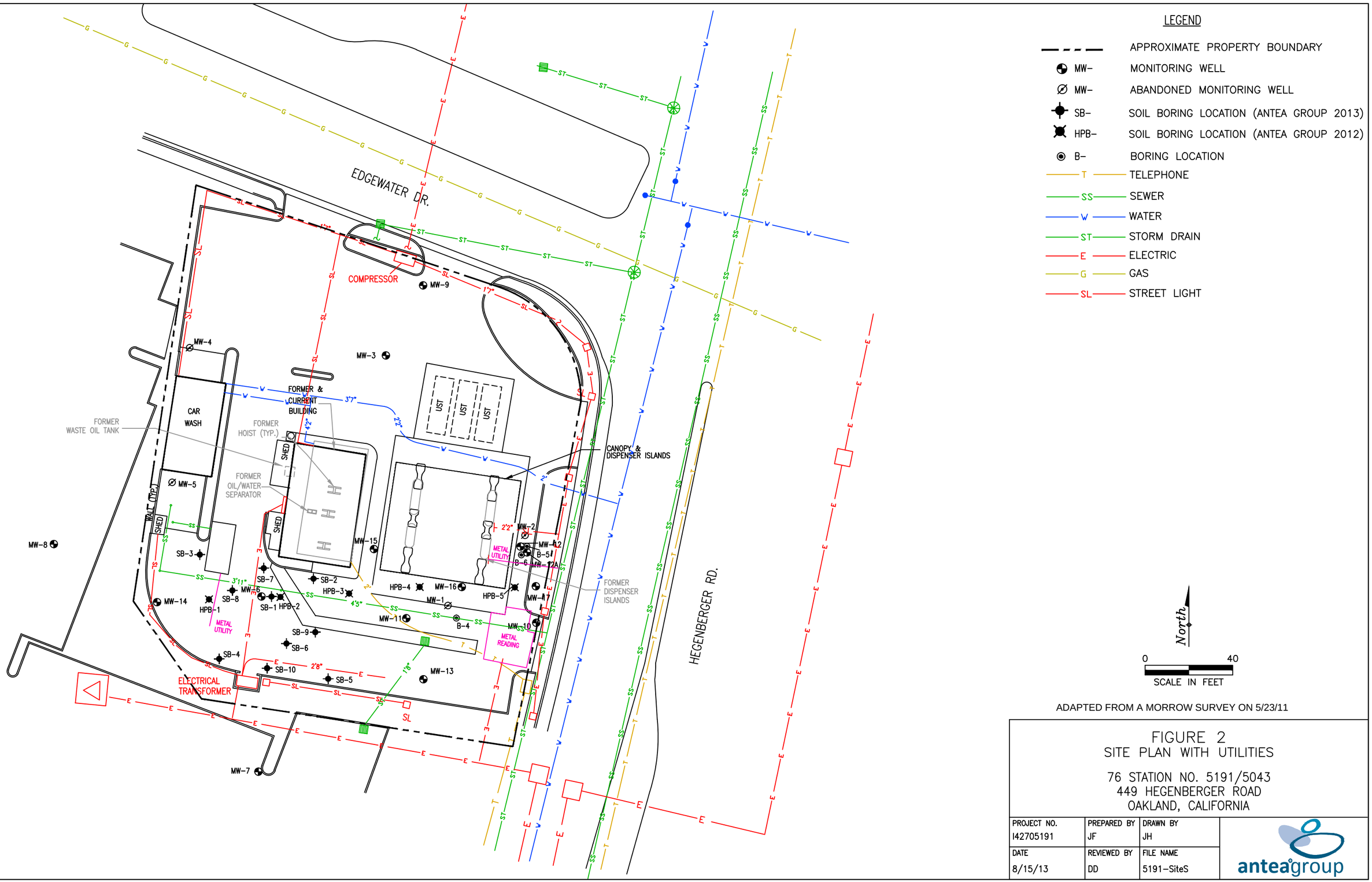
SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP, OAKLAND EAST QUADRANGLE (1973)

FIGURE 1
SITE LOCATION MAP

76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	EW	DR/JH
DATE	REVIEWED BY	FILE NAME
1/31/11	DD	5043-SiteLocator

antea group



ADAPTED FROM A MORROW SURVEY ON 5/23/11

FIGURE 2
SITE PLAN WITH UTILITIES

76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	JF	JH
DATE	REVIEWED BY	FILE NAME
8/15/13	DD	5191–SiteS

antea group

EDGEWATER DR.

MW-9

MW-4

MW-3

CAR WASH

FORMER & CURRENT BUILDING

FORMER WASTE OIL TANK

FORMER HOIST (TYP.)

FORMER OIL/WATER SEPARATOR

WALL (TYP.)

SHED

SW7 SW6 SW5 SW8(6) SW8 SW4

UST UST UST

SW1 SW2 SW3

CANOPY & DISPENSER ISLANDS

FBSW1 FB1 FBSW2 W01 FB2/RF1 UH-1 FBSW3 OWS-1 UH-2 FB3/RF2 FBSW4 FB4 HS-4-E UH-3 MW-15 HS-4-N HS-4-S HS-4-W

B2 B1 P4 D2/BD2 P2 D1/BD1 P3 BD4 P1 BD3 B4 HPB-4 MW-16 B3 HPB-5

MW-2 S2 MW-12 B-5 B-6 MW-12A S3 MW-17 MW-1 MW-11 MW1SW1 MW1SW2 B-4 WE3 S4 MW-10 WE1 WE2

MW-5 MW-8 SB-3 FS-1 SB-7 SB-2 HPB-3 MW-6 SB-8 MW-14 HPB-1 SB-1 HPB-2 SB-9 SB-4 SB-6 SB-10 SB-5 MW-13 MW-7

S1

SB-2 (7/25/13)					
Dp	1	3	5	11	15
G	<1.0	<1.0	<1.0	<1.0	<1.0
D	**10**	**2.1**	**5.9**	<1.0	<1.0
B	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
M	<0.0050	<0.0050	<0.0050	<0.0050	**0.0059**

SB-7 (7/26/13)			
Dp	6	11	13
G	**21**	**57**	**1.8**
D	**11**	**17**	**1.5**
B	**0.019**	**0.17**	**0.018**
M	<0.0050	<0.0050	<0.0050

SB-3 (7/25/13)		
Dp	7.5	15
G	**310**	<1.0
D	**330**	<1.0
B	**0.13**	<0.0050
M	<0.05	<0.0050

SB-1 (7/25/13)			
Dp	5.5	11	15
G	**31,000**	**73**	**5.0**
D	**450**	**3.1**	**3.1**
B	**85**	**1.2**	**0.0085**
M	<2.5	<0.0050	<0.0050

SB-8 (7/26/13)		
Dp	8	11
G	**3,300**	<1.0
D	**900**	<1.0
B	<0.50	<0.0050
M	<0.50	<0.0050

MW-14 (5/17/11)			
Dp	7	10	13
G	<0.23	**1,740**	**1.0**
D	<2.0	**45.9***	<2.0
B	<0.0027	**1.8**	<0.0027
M	<0.0027	<0.0026	<0.0027

SB-9 (7/26/13)		
Dp	6	15
G	<1.0	<1.0
D	**5.9**	<1.0
B	<0.0050	<0.0050
M	<0.0050	<0.0050

MW-15 (5/17/11)		
Dp	8	13
G	**2.3**	<0.23
D	**5.2**	<1.9
B	**0.023**	<0.0028
M	**0.19**	**0.015**

SB-4 (7/25/13)					
Dp	1	3	5	8	15
G	<1.0	<1.0	<1.0	**4,600**	<1.0
D	**13**	**2.6**	**4.7**	**31**	<1.0
B	<0.0050	<0.0050	<0.0050	**0.50**	<0.0050
M	<0.0050	<0.0050	<0.0050	<0.025	<0.0050

SB-6 (7/26/13)		
Dp	6.5	15
G	**1,900**	<1.0
D	**360**	<1.0
B	**0.57**	<0.0050
M	<0.25	<0.0050

SB-10 (7/26/13)		
Dp	8	11
G	<1.0	<1.0
D	**1.9**	<1.0
B	<0.0050	<0.0050
M	<0.0050	<0.0050

SB-5 (7/25/13)		
Dp	6	15
G	**100**	<1.0
D	**52**	<1.0
B	**0.020**	<0.0050
M	<0.0050	<0.0050

MW-11 (6/22/10)		
Dp	10	20
G	<0.18	<0.25
D	**3.2**	**27.3**
B	<0.0022	<0.0027
M	**0.011**	<0.0027

MW-13 (6/22/10)		
Dp	8	15
G	<0.21	<0.24
D	<2.0	<2.0
B	<0.0026	<0.0029
M	**0.064**	<0.0029

B-4 (12/17/09)			
Dp	6	15	20
G	**20.4**	<4.9	<4.9
D	**11.4**	<5.8	<5.6
B	**0.046**	**0.0036**	<0.003
M	**0.061**	**0.0081**	<0.003

MW-16 (5/17/11)		
Dp	8	13
G	<0.23	<0.23
D	<2.0	<2.0
B	<0.0027	<0.0028
M	**0.15**	<0.0028

B-6 (5/18/11)				
Dp	9	14	21	26
G	**2,490**	**194**	**7.2**	**17**
D	**68.6***	**250***	<2.0	**2.9***
B	**26.4**	**3.6**	**0.67**	**0.83**
M	<0.0031	<0.0025	**0.036**	**0.086**

MW-12 (6/22/10)			
Dp	8	10	20
G	**210**	**422**	<0.24
D	**45.7**	**73.6**	<2.0
B	**5.2**	**4**	**0.019**
M	<0.0028	<0.0029	<0.0028

B-5 (12/17/09)				
Dp	8	17.5	26.5	32
G	**1,060**	**136**	**1,570**	<4.8
D	**269**	**26.9**	**346**	<5.9
B	**6.2**	**0.55**	**16.2**	**0.007**
M	<0.0029	<0.003	**0.02**	<0.0029

MW-12A (6/23/10)			
Dp	26	32	34
G	**6,840**	**943**	<0.22
D	**2,210**	**267**	<1.9
B	**80.9**	**4.9**	<0.0027
M	<0.0027	**0.045**	<0.0027

MW-17 (5/18/11)		
Dp	9	13
G	**633**	**5.4**
D	**39.6***	**2.9***
B	**6**	**2.7**
M	<0.0026	<0.0027

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- MW- MONITORING WELL
- MW- ABANDONED MONITORING WELL
- SB- SOIL BORING LOCATION (ANTEA GROUP 2013)
- HPB- SOIL BORING LOCATION (ANTEA GROUP 2012)
- B- BORING LOCATION
- SOIL SAMPLE LOCATION
- 1995 EXCAVATION AREA

MW-12	
(6/22/10)	SAMPLE NAME / SAMPLE DATE
Dp 8	DEPTH (FEET)
G 210	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
D 45.7	DIESEL RANGE ORGANICS WITH SILICA GEL
B 5.2	BENZENE
M <0.0028	METHYL TERTIARY BUTYL ETHER

NOTES:

NA = NOT ANALYZED
< = LESS THAN LABORATORY INDICATED REPORTING LIMITS
* = RESULT DID NOT MATCH LABORATORY STANDARD
BOLD = ABOVE LABORATORY DETECTED REPORTING LIMITS

ALL CONCENTRATIONS IN MILLIGRAMS PER KILOGRAM (mg/kg).

North

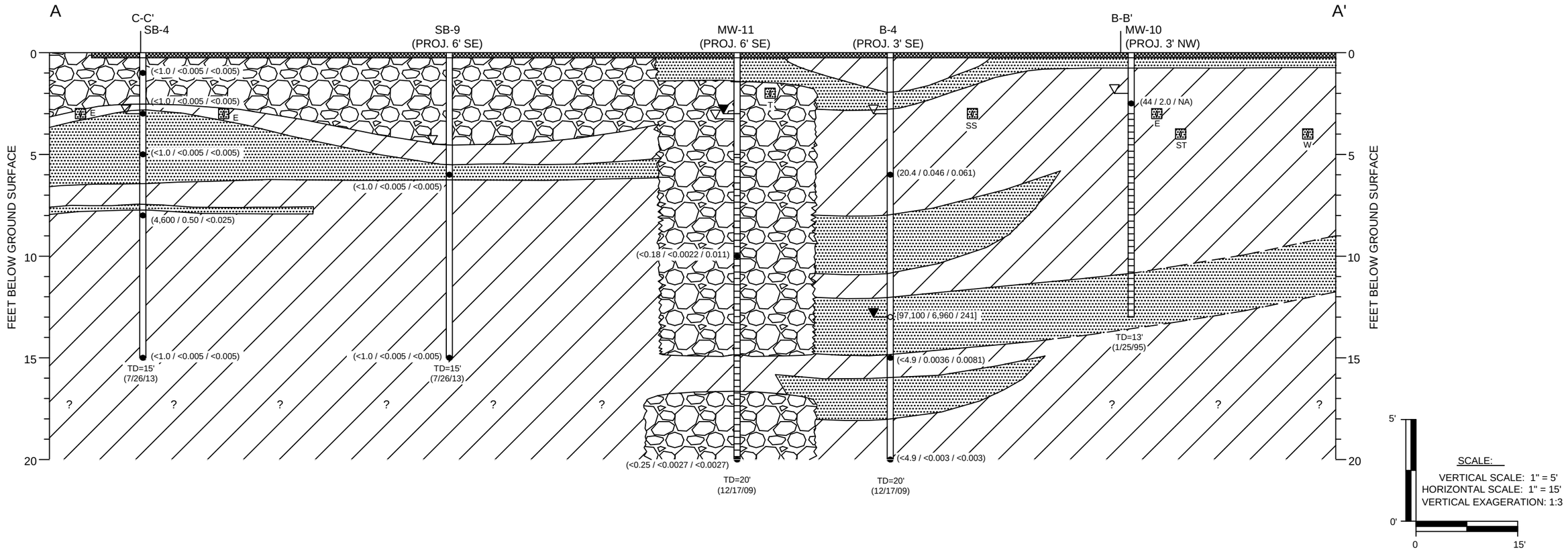
0 30

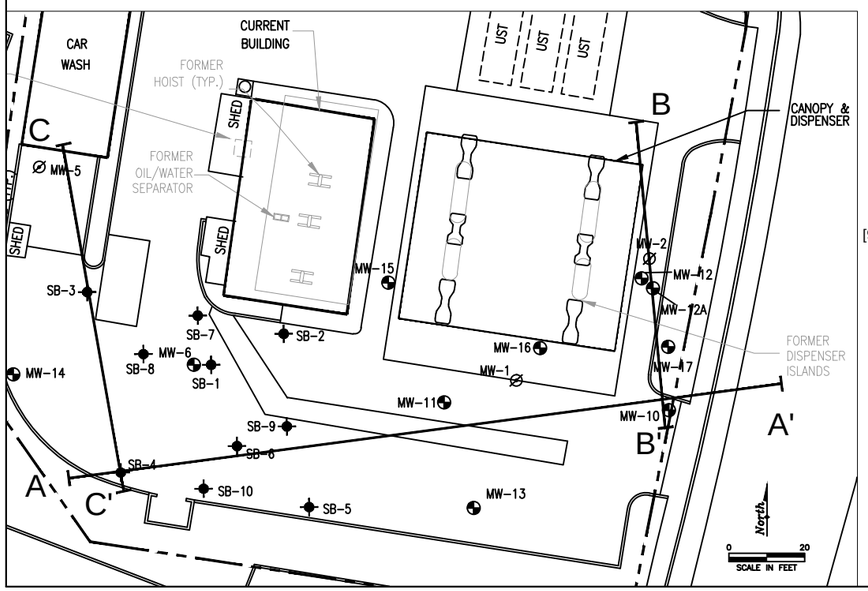
SCALE IN FEET

FIGURE 3
SITE PLAN WITH HISTORICAL SAMPLE LOCATIONS AND CONCENTRATIONS
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	EW	JH
DATE	REVIEWED BY	FILE NAME
01/07/14	DD	5191-SiteS

antea group





EXPLANATION

- MW-11 (PROJ.) — MONITORING WELL/BORING LOCATION PROJECTED DISTANCE (FEET)
- EXPLORATORY BORING / WELL CASING
- (44 / 2.0 / NA) — SOIL ANALYTICAL SAMPLE IN mg/kg (TPHg / BENZENE / MTBE)
- WELL SCREEN
- [97,100 / 6,960 / 241] — DEPTH TO STATIC WATER LEVEL WITH GROUNDWATER ANALYTICAL SAMPLE IN µg/L (TPHg / BENZENE / MTBE)
- DEPTH TO FIRST ENCOUNTERED GROUNDWATER
- TD=20' (6/23/10) — TOTAL DEPTH OF BORING DATE INSTALLED
- FINE GRAINED MATERIAL (CLAY)
- MEDIUM GRAINED MATERIAL (SAND)
- COARSE GRAINED MATERIAL (GRAVEL/FILL)
- ASPHALT / CONCRETE
- E — ELECTRICAL LINE
- T — TELEPHONE LINE
- ST — STORM DRAIN
- SS — SANITARY SEWER
- W — WATER LINE
- APPROXIMATE STRATIGRAPHIC BOUNDARY

NOTES:

mg/kg	= MILLIGRAMS PER KILOGRAM
µg/L	= MICROGRAMS PER LITER
TPHg	= TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
MTBE	= METHYL TERTIARY BUTYL ETHER
NA	= NOT ANALYZED
<	= LESS THAN LABORATORY INDICATED REPORTING LIMITS

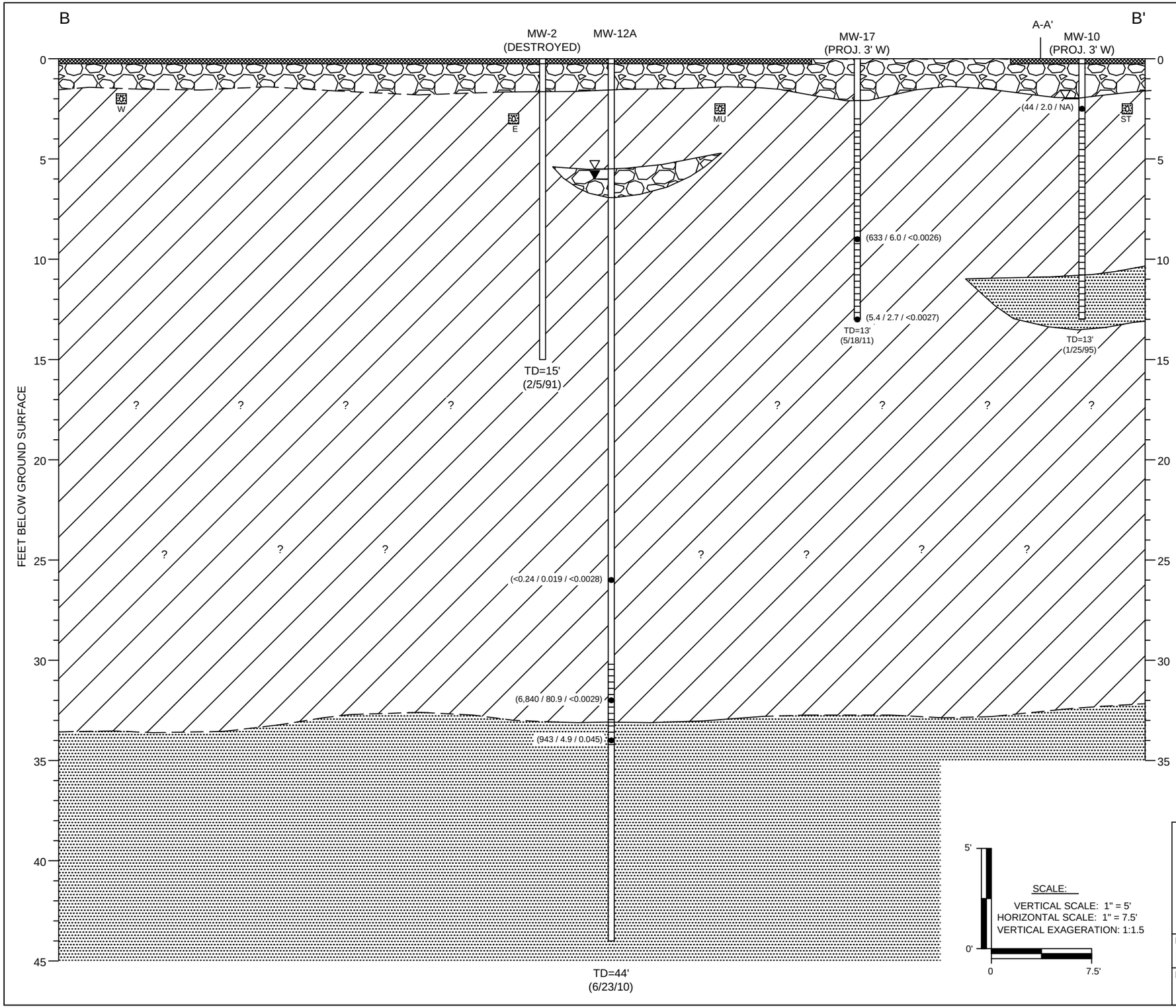
STRATIGRAPHY BETWEEN BORINGS IS INTERPRETIVE.

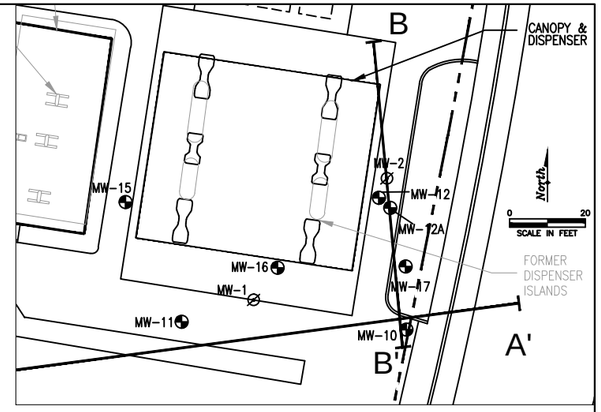
FIGURE 4
GEOLOGIC CROSS SECTION A–A'

76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	EW	JH
DATE	REVIEWED BY	FILE NAME
12/10/13	DD	5191–SiteS

antea group





EXPLANATION

MW-11 (PROJ.) — MONITORING WELL/BORING LOCATION PROJECTED DISTANCE (FEET)

EXPLORATORY BORING / WELL CASING

(943 / 4.9 / 0.045) — SOIL ANALYTICAL SAMPLE IN mg/kg (TPHg / BENZENE / MTBE)

WELL SCREEN

DEPTH TO STATIC WATER LEVEL

DEPTH TO FIRST ENCOUNTERED GROUNDWATER

TD=20' (6/23/10) — TOTAL DEPTH OF BORING DATE INSTALLED

FINE GRAINED MATERIAL (CLAY)

MEDIUM GRAINED MATERIAL (SAND)

COARSE GRAINED MATERIAL (GRAVEL/FILL)

ASPHALT / CONCRETE

APPROXIMATE STRATIGRAPHIC BOUNDARY

E	ELECTRICAL LINE
ST	STORM DRAIN
MU	METAL UTILITY
W	WATER LINE

NOTES:

mg/kg	= MILLIGRAMS PER KILOGRAM
TPHg	= TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
MTBE	= METHYL TERTIARY BUTYL ETHER
NA	= NOT ANALYZED
<	= LESS THAN LABORATORY INDICATED REPORTING LIMITS

STRATIGRAPHY BETWEEN BORINGS IS INTERPRETIVE.

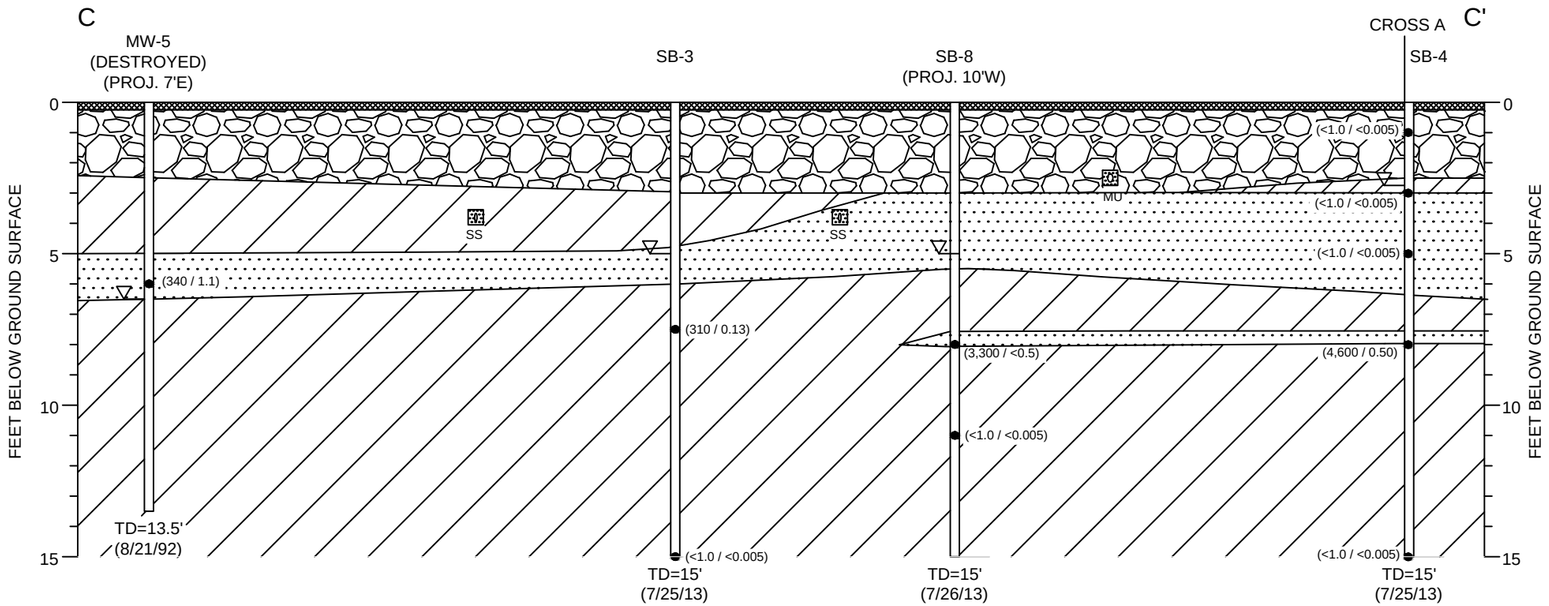
SCALE:
VERTICAL SCALE: 1" = 5'
HORIZONTAL SCALE: 1" = 7.5'
VERTICAL EXAGERATION: 1:1.5

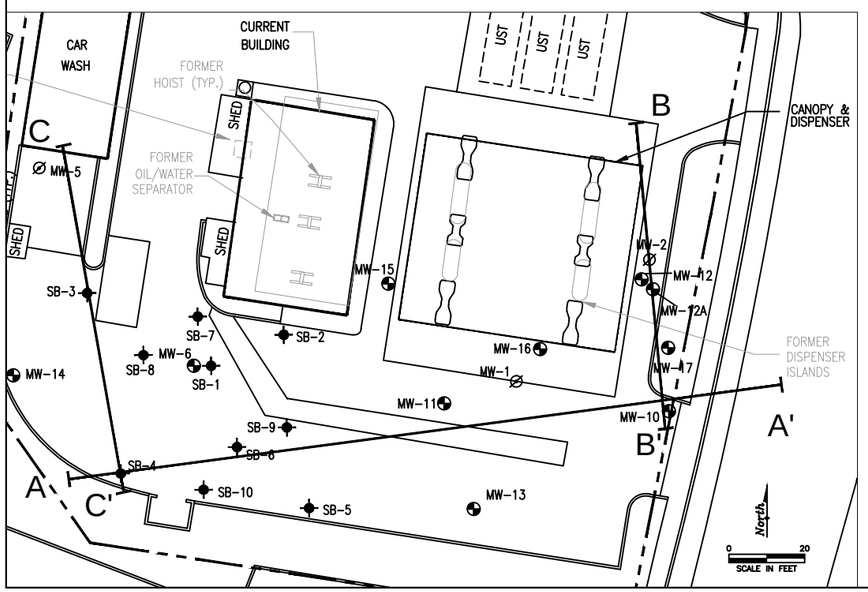
FIGURE 5
GEOLOGIC CROSS SECTION B–B'

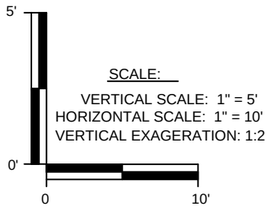
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	JF	JH
DATE	REVIEWED BY	FILE NAME
12/10/13	DD	5191–SiteS

antea group







SCALE:

VERTICAL SCALE: 1" = 5'
HORIZONTAL SCALE: 1" = 10'
VERTICAL EXAGERATION: 1:2

EXPLANATION

MW-11 (PROJ.) — MONITORING WELL/BORING LOCATION PROJECTED DISTANCE (FEET)

EXPLORATORY BORING / WELL CASING

(310 / 0.13) — SOIL ANALYTICAL SAMPLE IN mg/kg (TPHg / BENZENE)

WELL SCREEN

DEPTH TO FIRST ENCOUNTERED GROUNDWATER

TD=20' (6/23/10) — TOTAL DEPTH OF BORING DATE INSTALLED

FINE GRAINED MATERIAL (CLAY)

MEDIUM GRAINED MATERIAL (SAND)

COARSE GRAINED MATERIAL (GRAVEL/FILL)

ASPHALT / CONCRETE

SS — SANITARY SEWER

MU — METAL UTILITY LINE

APPROXIMATE STRATIGRAPHIC BOUNDARY

NOTES:

mg/kg = MILLIGRAMS PER KILOGRAM
TPHg = TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
MTBE = METHYL TERTIARY BUTYL ETHER
NA = NOT ANALYZED
< = LESS THAN LABORATORY INDICATED REPORTING LIMITS

STRATIGRAPHY BETWEEN BORINGS IS INTERPRETIVE.

FIGURE 6
GEOLOGIC CROSS SECTION C–C'

76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	JF	JH
DATE	REVIEWED BY	FILE NAME
12/10/13	DD	5191–SiteS

antea group

Tables

TABLE 1

HISTORICAL SOIL ANALYTICAL RESULTS

76 Station No. 5191/5043

449 Hegenberger Raod, Oakland, California

Sample ID	Date	Sample Depth (feet)	TPHg (mg/kg)	TPHg* (mg/kg)	DRO (mg/kg)	DRO* (mg/Kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	TAME (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	Ethanol (mg/kg)	EDB (mg/kg)	1,2-DCA (mg/kg)	Naphthalene (mg/kg)	Lead (mg/kg)
P1	10/25/1991	3	**3,200**	--	**420**	--	**33**	**120**	**110**	**540**	--	--	--	--	--	--	--	--	--	--
P2	10/25/1991	3	**9,000**	--	**8,400**	--	**46**	**120**	**330**	**1,500**	--	--	--	--	--	--	--	--	--	--
P3	10/25/1991	3	**7,100**	--	**1,100**	--	**48**	**410**	**220**	**1,200**	--	--	--	--	--	--	--	--	--	--
P4	10/25/1991	3	**370**	--	**460**	--	**7.4**	**39**	**12**	**77**	--	--	--	--	--	--	--	--	--	--
MW1(2.5)	2/5/1992	2.5	**14,000**	--	**1,200**	--	**160**	**680**	**470**	**2,400**	--	--	--	--	--	--	--	--	--	--
MW2(3.5)	2/5/1992	3.5	**9,000**	--	**2,400**	--	**74**	**440**	**280**	**1,400**	--	--	--	--	--	--	--	--	--	--
MW2(4.5)	2/5/1992	4.5	**31**	--	**29**	--	**2.4**	**0.14**	**3.0**	**9.0**	--	--	--	--	--	--	--	--	--	--
MW3(3)	2/5/1992	3	<1.0	--	**49**	--	<0.005	<0.005	<0.005	**0.011**	--	--	--	--	--	--	--	--	--	--
MW3(4.5)	2/5/1992	4.5	<1.0	--	<1.0	--	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--
MW4(5)	8/21/1992	5	<1.0	--	<1.0	--	<0.005	<0.005	<0.005	**0.0066**	--	--	--	--	--	--	--	--	--	--
MW5(6)	8/21/1992	6	**340**	--	**43**	--	**1.1**	**1.2**	**7.8**	**13**	--	--	--	--	--	--	--	--	--	--
MW6(5)	8/21/1992	5	**3.7**	--	**1.2**	--	**0.9**	<0.005	**1.0**	**0.05**	--	--	--	--	--	--	--	--	--	--
WO1	9/20/1994	9	<1.0	--	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	5.0
MW9(3)	1/25/1995	3	**1.7**	--	**2.6**	--	**0.016**	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--
MW10(2.5)	1/25/1995	2.5	**44**	--	**17**	--	**2.0**	**1.5**	**2.3**	**5.4**	--	--	--	--	--	--	--	--	--	--
SW1	3/10/1995	8	**11**	--	--	--	**2.8**	<0.005	**1.6**	**0.067**	--	--	--	--	--	--	--	--	--	--
SW2	3/10/1995	8	**11**	--	--	--	**3.8**	<0.005	**0.79**	**0.034**	--	--	--	--	--	--	--	--	--	--
SW2(4)	3/10/1995	4	**2,000**	--	**140**	--	<0.005	**53**	**42**	**240**	--	--	--	--	--	--	--	--	--	--
SW3	3/10/1995	8	**1.0**	--	<1.0	--	**0.009**	**0.006**	**0.007**	**0.014**	--	--	--	--	--	--	--	--	--	--
SW4	3/10/1995	8	<1.0	--	**1.8**	--	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--
SW5	3/10/1995	8	<1.0	--	**1.4**	--	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--
SW6	3/10/1995	8	<1.0	--	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--
SW7	3/10/1995	8	<1.0	--	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--
SW8	3/10/1995	8	**140**	--	--	--	**2.6**	**5.3**	**2.7**	**12**	--	--	--	--	--	--	--	--	--	--
D1	3/24/1995	3	**760**	--	**46**	--	**1.5**	**19**	**15**	**73**	--	--	--	--	--	--	--	--	--	--
D2	3/24/1995	3	**1,200**	--	**97**	--	**1.6**	**16**	**22**	**110**	--	--	--	--	--	--	--	--	--	--
B1	3/28/1995	6	<1.0	--	<1.0	--	**0.13**	**0.026**	**0.0088**	**0.059**	--	--	--	--	--	--	--	--	--	--
B2	3/28/1995	6	**3.4**	--	<1.0	--	**2.8**	**0.041**	**0.19**	**0.28**	--	--	--	--	--	--	--	--	--	--
B3	3/28/1995	6	<1.0	--	<1.0	--	<0.005	**0.01**	<0.005	**0.017**	--	--	--	--	--	--	--	--	--	--
B4	3/28/1995	6	<1.0	--	<1.0	--	<0.005	**0.017**	<0.005	**0.032**	--	--	--	--	--	--	--	--	--	--
BD1	3/28/1995	6	<1.0	--	<1.0	--	**0.21**	**0.011**	**0.018**	**0.038**	--	--	--	--	--	--	--	--	--	--
BD2	3/28/1995	6	**12**	--	**4.8**	--	**2.6**	**0.68**	**0.56**	**1.7**	--	--	--	--	--	--	--	--	--	--
BD3	3/28/1995	6	<1.0	--	<1.0	--	**0.012**	**0.014**	**0.012**	**0.043**	--	--	--	--	--	--	--	--	--	--
BD4	3/28/1995	6	<1.0	--	<1.0	--	<0.005	**0.011**	**0.0072**	**0.037**	--	--	--	--	--	--	--	--	--	--
S1	3/28/1995	4	**110**	--	<1.0	--	**3.5**	**0.61**	**7.0**	**13**	--	--	--	--	--	--	--	--	--	--
S2	3/28/1995	4	**1.4**	--	**9.4**	--	**0.028**	**0.012**	**0.015**	**0.019**	--	--	--	--	--	--	--	--	--	--
S3	3/28/1995	4	**22**	--	**2.9**	--	**1.2**	**1.2**	**0.65**	**1.9**	--	--	--	--	--	--	--	--	--	--
S4	3/28/1995	4	**150**	--	**5.8**	--	**6.8**	**5.6**	**5.3**	**27**	--	--	--	--	--	--	--	--	--	--
RF1	3/31/1995	3	**2,000**	--	**330**	--	**8.8**	**68**	**55**	**280**	--	--	--	--	--	--	--	--	--	--
RF2	3/31/1995	3	**3,300**	--	**230**	--	**18**	**160**	**110**	**550**	--	--	--	--	--	--	--	--	--	--
SW8(6)	4/3/1995	8	<1.0	--	<1.0	--	**0.0085**	<0.005	**0.0084**	**0.011**	--	--	--	--	--	--	--	--	--	--
FB1	4/3/1995	4.5	**25**	--	**8.6**	--	**2.1**	**0.058**	**2.2**	**1.3**	--	--	--	--	--	--	--	--	--	--
FB2	4/3/1995	4.5	**7.1**	--	**1.6**	--	**0.4**	**0.018**	**0.81**	**1.7**	--	--	--	--	--	--	--	--	--	--
FB3	4/3/1995	4.5	**1.6**	--	<1.0	--	**0.028**	<0.005	**0.13**	**0.26**	--	--	--	--	--	--	--	--	--	--

TABLE 1

HISTORICAL SOIL ANALYTICAL RESULTS

76 Station No. 5191/5043

449 Hegenberger Raod, Oakland, California

Sample ID	Date	Sample Depth (feet)	TPHg (mg/kg)	TPHg* (mg/kg)	DRO (mg/kg)	DRO* (mg/Kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	TAME (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	Ethanol (mg/kg)	EDB (mg/kg)	1,2-DCA (mg/kg)	Naphthalene (mg/kg)	Lead (mg/kg)
FB4	4/3/1995	4.5	**1.4**	--	<1.0	--	**0.23**	**0.022**	**0.05**	**0.15**	--	--	--	--	--	--	--	--	--	--
FBSW1	4/3/1995	3	**7.4**	--	**1.3**	--	**0.066**	**0.021**	**1.0**	<0.005	--	--	--	--	--	--	--	--	--	--
FBSW2	4/3/1995	3	**70**	--	**7.6**	--	**0.11**	**0.096**	**2.1**	**6.7**	--	--	--	--	--	--	--	--	--	--
FBSW3	4/3/1995	3	**2.3**	--	**7.8**	--	**0.012**	**0.01**	**0.018**	**0.012**	--	--	--	--	--	--	--	--	--	--
FBSW4	4/3/1995	3	**9.0**	--	**3.7**	--	**0.25**	**0.036**	**0.93**	**0.062**	--	--	--	--	--	--	--	--	--	--
MW1SW1	4/5/1995	5	**25**	--	**2.8**	--	**2.1**	**0.025**	**2.4**	**0.19**	--	--	--	--	--	--	--	--	--	--
MW1SW2	4/5/1995	5	**4.2**	--	**1.2**	--	**0.17**	**0.01**	**0.68**	**0.048**	--	--	--	--	--	--	--	--	--	--
WE1	4/5/1995	4.5	**26**	--	**3.4**	--	**0.31**	**0.3**	**0.59**	**2.6**	--	--	--	--	--	--	--	--	--	--
WE2	4/5/1995	4.5	**2.7**	--	**5.1**	--	**0.0054**	**0.0065**	**0.038**	**0.17**	--	--	--	--	--	--	--	--	--	--
WE3	4/5/1995	4.5	**8.2**	--	**1.6**	--	**0.21**	**0.074**	**1.6**	**0.0076**	--	--	--	--	--	--	--	--	--	--
FS-1	4/5/1995	4	**12**	--	<1.0	--	**0.28**	<0.005	**1.5**	**0.016**	--	--	--	--	--	--	--	--	--	--
MW8(6)	4/21/1997	6	**1.3**	--	<1.0	--	**0.0051**	<0.005	**0.015**	**0.041**	<0.005	--	--	--	--	--	--	--	--	--
Delta 2009																				
B-4@6	12/17/2009	6	**20.4**	--	**11.4**	**10.1**	**0.046**	**0.18**	**1.0**	**4.2**	**0.061**	**0.091**	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	--	--
B-4@15	12/17/2009	15	<4.9	--	<5.8	<5.8	**0.0036**	**0.0069**	**0.011**	**0.049**	**0.0081**	**0.036**	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	--	--
B-4@20	12/17/2009	20	<4.9	--	<5.6	<5.6	<0.003	<0.003	<0.003	<0.006	<0.003	<0.015	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	--	--
B-5@8	12/17/2009	8	**1,060**	--	**285**	**269**	**6.2**	**21.6**	**30.9**	**143**	<0.0029	**0.079**	**0.068**	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	--	--
B-5@17.5	12/17/2009	17.5	**136**	--	**27.8**	**26.9**	**0.55**	**1.4**	**2.7**	**15.8**	<0.003	**0.035**	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	--	--
B-5@26.5	12/17/2009	26.5	**1,570**	--	**338**	**346**	**16.2**	**73.5**	**52.8**	**255**	**0.02**	**0.11**	<0.0028	<0.0028	<0.0028	<0.0028	<0.0028	<0.0028	--	--
B-5@32	12/17/2009	32	<4.8	--	<5.9	<5.9	**0.007**	**0.0087**	**0.0057**	**0.031**	<0.0029	<0.015	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	--	--
Delta 2010																				
MW-11@10	6/22/2010	10	--	<0.18	--	**3.2**	<0.0022	<0.0022	<0.0022	<0.0066	**0.011**	<0.011	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	--	**6.1**
MW-11@20	6/22/2010	20	--	<0.25	--	**27.3**	<0.0027	<0.0027	<0.0027	<0.0081	<0.0027	<0.013	<0.0027	<0.0027	<0.0027	<0.0027	<0.0027	<0.0027	--	**3.4**
MW-12@8	6/22/2010	8	--	**210**	--	**45.7**	**5.2**	**9.1**	**6.7**	**33.3**	<0.0028	**0.021**	<0.0028	<0.0028	<0.0028	<0.0028	<0.0028	<0.0028	--	**8.6**
MW-12@10	6/22/2010	10	--	**422**	--	**73.6**	**4.0**	**3.5**	**11.0**	**31.4**	<0.0029	<0.015	**0.023**	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	--	**9.5**
MW-12@20	6/22/2010	20	--	<0.24	--	<2.0	**0.019**	<0.0028	<0.0028	<0.0085	<0.0028	<0.014	<0.0028	<0.0028	<0.0028	<0.0028	<0.0028	<0.0028	--	**6.6**
MW-12A@26	6/23/2010	26	--	**6,840**	--	**2,210**	**80.9**	**232**	**178**	**607**	<0.0027	<0.014	<0.0027	<0.0027	<0.0027	<0.0027	<0.0027	<0.0027	--	**13.1**
MW-12A@32	6/23/2010	32	--	**943**	--	**267**	**4.9**	**15.5**	**12.0**	**42.6**	**0.045**	**0.044**	**0.048**	<0.0028	<0.0028	<0.0028	<0.0028	<0.0028	--	**6.6**
MW-12A@34	6/23/2010	34	--	<0.22	--	<1.9	<0.0027	**0.0097**	**0.0074**	**0.033**	<0.0027	<0.013	<0.0027	<0.0027	<0.0027	<0.0027	<0.0027	<0.0027	--	**4.9**
MW-13@8	6/22/2010	8	--	<0.21	--	<2.0	<0.0026	<0.0026	<0.0026	<0.0077	**0.064**	<0.013	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	--	**3.6**
MW-13@15	6/22/2010	15	--	<0.24	--	<2.0	<0.0029	<0.0029	<0.0029	<0.0087	<0.0029	<0.014	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	--	**5.9**
Antea Group 2011																				
MW-14d7	5/17/2011	7	--	<0.23	<2.0	<2.0	<0.0027	<0.0027	<0.0027	<0.0081	<0.0027	<0.014	<0.0027	<0.0027	<0.0027	<0.36	<0.0027	<0.0027	--	**6.6**
MW-14d10	5/17/2011	10	--	**1,740**	**45.5 1n**	**45.9 1n**	**1.8**	**0.2**	**44**	**140**	<0.0026	<0.013	<0.0026	<0.0026	<0.0026	<0.34	<0.0026	<0.0026	--	**7**
MW-14d13	5/17/2011	13	--	**1.0**	<2.0	<2.0	<0.0027	<0.0027	**0.037**	**0.066**	<0.0027	<0.014	<0.0027	<0.0027	<0.0027	<0.36	<0.0027	<0.0027	--	**6.6**
MW-15d8	5/17/2011	8	--	**2.3**	**6.2**	**5.2**	**0.023**	<0.0038	**1.9**	**0.25**	**0.19**	**0.16**	<0.0038	<0.0038	<0.0038	<0.51	<0.0038	<0.0038	--	**7**
MW-15d13	5/17/2011	13	--	<0.23	<1.9	<1.9	<0.0028	<0.0028	<0.0028	<0.0083	**0.015**	**0.022**	<0.0028	<0.0028	<0.0028	<0.37	<0.0028	<0.0028	--	**7**
MW-16d8	5/17/2011	8	--	<0.23	<2.0	<2.0	<0.0027	<0.0027	<0.0027	<0.0081	**0.15**	**0.014**	<0.0027	<0.0027	<0.0027	<0.36	<0.0027	<0.0027	--	**5.7**
MW-16d13	5/17/2011	13	--	<0.23	<2.0	<2.0	<0.0028	<0.0028	<0.0028	<0.0084	<0.0028	<0.014	<0.0028	<0.0028	<0.0028	<0.37	<0.0028	<0.0028	--	**5.5**
MW-17d9	5/18/2011	9	--	**633**	**39.6 1n**	**36.7 1n**	**6.0**	**14.1**	**17.9**	**58**	<0.0026	**0.03**	<0.0026	<0.0026	<0.0026	<0.35	<0.0026	<0.0026	--	**16.3**
MW-17d13	5/18/2011	13	--	**5.4**	**2.9 1n**	**2.5 1n**	**2.7**	**0.46**	**1.4**	**2.8**	<0.0027	**0.029**	<0.0027	<0.0027	<0.0027	<0.36	<0.0027	<0.0027	--	**6.4**
B-6d9	5/18/2011	9	--	**2,490**	**72.0 1n**	**68.6 1n**	**26.4**	**73.9**	**58.1**	**230**	<0.0031	<0.015	<0.0031	<0.0031	<0.0031	<0.41	<0.0031	<0.0031	--	**10.1**
B-6d14	5/18/2011	14	--	**194**	**258 1n**	**250 1n**	**3.6**	**5.1**	**5.1**	**22**	<0.0025	<0.013	<0.0025	<0.0025	<0.0025	<0.33	<0.0025	<0.0025	--	**9.2**
B-6d21	5/18/2011	21	--	**7.2**	<2.0	<2.0	**0.67**	**0.86**	**0.25**	**0.94**	**0.036**	**0.014**	<0.0027	<0.0027	<0.0027	<0.37	<0.0027	<0.0027	--	**6.8**
B-6d26	5/18/2011	26	--	**17**	**3.4 1n**	**2.9 1n**	**0.83**	**1.2**	**0.46**	**1.7**	**0.086**	**0.021**	<0.0026	<0.0026	<0.0026	<0.34	<0.0026	<0.0026	--	**6.6**

TABLE 1

HISTORICAL SOIL ANALYTICAL RESULTS

76 Station No. 5191/5043

449 Hegenberger Raod, Oakland, California

Sample ID	Date	Sample Depth (feet)	TPHg (mg/kg)	TPHg* (mg/kg)	DRO (mg/kg)	DRO* (mg/Kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	TAME (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	Ethanol (mg/kg)	EDB (mg/kg)	1,2-DCA (mg/kg)	Naphthalene (mg/kg)	Lead (mg/kg)
Antea Group 2013																				
SB-1d5.5	7/25/2013	5.5	**31,000**	--	--	**450**	**85**	**1,000**	**650**	**3,400**	<2.5	--	--	--	--	--	--	--	**150**	--
SB-1d11	7/25/2013	11	**73**	--	--	**3.1**	**1.2**	**2.5**	**1.7**	**9.3**	<0.005	--	--	--	--	--	--	--	**0.7**	--
SB-1d15	7/25/2013	15	**5.0**	--	--	**3.1**	**0.0085**	**0.0072**	**0.048**	**0.13**	<0.005	--	--	--	--	--	--	--	**0.015**	--
SB-2d1	7/25/2013	1	<1.0	--	--	**10**	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	<0.005	--
SB-2d3	7/25/2013	3	<1.0	--	--	**2.1**	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	<0.005	--
SB-2d5	7/25/2013	5	<1.0	--	--	**5.9**	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	<0.005	--
SB-2d11	7/25/2013	11	<1.0	--	--	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	<0.005	--
SB-2d15	7/25/2013	15	<1.0	--	--	<1.0	<0.005	<0.005	<0.005	<0.005	**0.0059**	--	--	--	--	--	--	--	<0.005	--
SB-3d7.5	7/25/2013	7.5	**310**	--	--	**330**	**0.13**	<0.05	**7.5**	**30**	<0.05	--	--	--	--	--	--	--	**3.3**	--
SB-3d15	7/25/2013	15	<1.0	--	--	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	<0.005	--
SB-4d1	7/25/2013	1	<1.0	--	--	**13**	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	<0.005	--
SB-4d3	7/25/2013	3	<1.0	--	--	**2.6**	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	<0.005	--
SB-4d5	7/25/2013	5	<1.0	--	--	**4.7**	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	<0.005	--
SB-4d8	7/25/2013	8	**4,600**	--	--	**31**	**0.5**	**0.23**	**160**	**130**	<0.025	--	--	--	--	--	--	--	**40**	--
SB-4d15	7/25/2013	15	<1.0	--	--	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	<0.005	--
SB-5d6	7/25/2013	6	**100**	--	--	**52**	**0.02**	<0.005	**3.4**	**1.7**	<0.005	--	--	--	--	--	--	--	**3.3**	--
SB-5d15	7/25/2013	5	<1.0	--	--	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	<0.005	--
SB-6d6.5	7/26/2013	6.5	**1,900**	--	--	**360**	**0.57**	**1.1**	**44**	**220**	<0.25	--	--	--	--	--	--	--	**12**	--
SB-6d15	7/26/2013	15	<1.0	--	--	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	<0.005	--
SB-7d6	7/26/2013	6	**21**	--	--	**11**	**0.019**	<0.005	**0.13**	**0.012**	<0.005	--	--	--	--	--	--	--	**0.8**	--
SB-7d11	7/26/2013	11	**57**	--	--	**17**	**0.17**	**0.39**	**1.0**	**4.1**	<0.005	--	--	--	--	--	--	--	**0.54**	--
SB-7d13	7/26/2013	13	**1.8**	--	--	**1.5**	**0.018**	**0.0086**	**0.11**	**0.37**	<0.005	--	--	--	--	--	--	--	**0.055**	--
SB-8d8	7/26/2013	8	**3,300**	--	--	**900**	<0.5	<0.5	**15**	**54**	<0.5	--	--	--	--	--	--	--	**4.6**	--
SB-8d11	7/26/2013	11	<1.0	--	--	<1.0	<0.005	<0.005	**0.018**	**0.0075**	<0.005	--	--	--	--	--	--	--	<0.005	--
SB-9d6	7/26/2013	6	<1.0	--	--	**5.9**	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	<0.005	--
SB-9d15	7/26/2013	15	<1.0	--	--	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	<0.005	--
SB-10d8	7/26/2013	8	<1.0	--	--	**1.9**	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	<0.005	--
SB-10d11	7/26/2013	11	<1.0	--	--	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	<0.005	--

Notes:

TPHg = total petroleum hydrocarbons as gasoline by EPA Method 8015

TPHg* = total petroleum hydrocarbons as gasoline by CA LUFT

DRO = Diesel Range Organics by EPA Method 8015B

DRO* = Diesel Range Organics by EPA Method 8015 Silica Gel Treated

BTEX = benzene, toluene, ethylbenzene, total xylenes by EPA Method 8260B

MTBE = methyl tertiary-butyl ether by EPA Method 8260

TBA = tertiary-butyl alcohol by EPA Method 8260

TAME = tert-amyl methyl ether by EPA Method 8260

DIPE = Diisopropyl ether by EPA Method 8260

ETBE = Ethyl-tert-butyl-ether by EPA Method 8260

EDB = 1,2-Dibromoethane by EPA Method 8260

1,2-DCA = 1,2-Dichloroethane by EPA Method 8260

mg/kg = milligrams per kilogram

-- = not analysed

Appendix A

Drilling Permit

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: 06/20/2013 By jamesy

Permit Numbers: W2013-0476
Permits Valid from 06/24/2013 to 06/25/2013

Application Id:	1371597971785	**City of Project Site:**Oakland
Site Location:	449 Hegenberger Road, Oakland, CA	
Project Start Date:	06/24/2013	**Completion Date:**06/25/2013
Assigned Inspector:	Contact Sam Brathwaite at (925) 570-7609 or sbrathwaite@groundzonees.com	
Applicant:	Antea Group - Ed Weyrens 11050 White Rock Ste 110, Rancho Cordova, CA 95670	**Phone:** 916-503-1277
Property Owner:	Pacific Convenience & Fuels 2603 Camino Ramon, Ste 350, San Ramon, CA 94583	**Phone:** 925-884-0800
Client:	** same as Property Owner **	

	Total Due:	$265.00
Receipt Number: WR2013-0224	**Total Amount Paid:**	$265.00
Payer Name : Antea Group	Paid By: CHECK	**PAID IN FULL**

Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitorinig Study - 7 Boreholes
Driller: Cascade - Lic #: 938110 - Method: DP

Work Total: $265.00

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2013-0476	06/20/2013	09/22/2013	7	3.00 in.	11.00 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. 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.

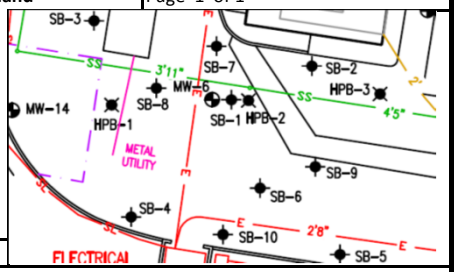
5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

6. 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 B

Boring Logs

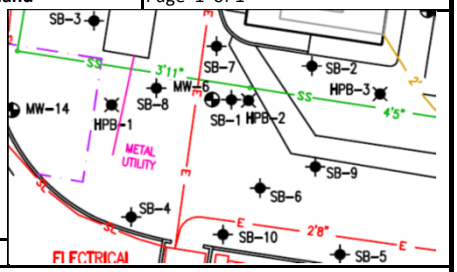
Project No:	**I42705191**	Client:	**COP/ELT**	**Boring No: SB-1**
Logged By:	**Jonathan Fillingame**	Location:	**449 Hegenberger Road, Oakland**	Page 1 of 1
Driller:	**Cascade Drilling**	Date Drilled:	**7/25/2013**	
Drilling Method:	Direct Push	Hole Diameter:	**2 in**	
Sampling Method:	Continuous	Hole Depth:	**15 ft**	
		▽ First Water Depth:	5 ft	
		▼ Static Water Depth:	NA	
Elevation:		Northing:		Easting:



Boring Completion	Static Water Level	Moisture Content	PID Reading (ppm)	Sample Identification	Depth (feet)	Sample Recovery	Sample Analyzed	Soil Type	LITHOLOGY / DESCRIPTION
					0				4" Asphalt
									Gravel Fill
					1				**Lean CLAY (CL)** - black, 95% clay 5% fine to medium sand medium plasticity, stiff moist.
					2				
			5	Hand Auger	3				**Lean CLAY (CL)** - greenish grey, 95% clay, 5% fine to medium sand medium plasticity, stiff moist.
					4				
	▽				5				
			1370	SB-1d5.5					**Clayey SAND (SC)** - dark grey, 80% fine to medium sand, 20% clay, dense, wet, hydrocarbon odor.
					6				
			80		7				
					8				**Lean CLAY (CL)** - black, 100% clay, medium plasticity, soft, wet, hydrocarbon odor.
			78		9				
					10				
			199.0						**Organic SOIL (OL)** - black with brown organics, 70% clay, 30% plant matter (roots or grass), medium plasticity, soft, wet.
				SB-1d11	11				
			6.8						
				SB-1d12	12				**Lean CLAY (CL)** - dark grey, 100% clay, medium plasticity, very stiff, moist.
			21.5						
			18.5		13				**Lean CLAY (CL)** - blueish grey, 100% clay, medium plasticity, very stiff, moist.
					14				
			9.5	SB-1d15	15				Total Depth 15 feet below ground surface
					16				
					17				
					18				
					19				
					20				
					21				
					22				

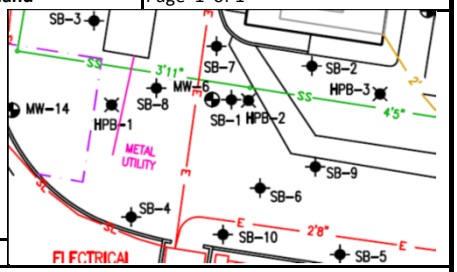
neat cement

Project No:	I42705191	Client:	COP/ELT	**Boring No: SB-2**
Logged By:	**Jonathan Fillingame**	Location:	**449 Hegenberger Road, Oakland**	Page 1 of 1
Driller:	**Cascade Drilling**	Date Drilled:	**7/25/2013**	
Drilling Method:	Direct Push	Hole Diameter:	**2 in**	
Sampling Method:	Continuous	Hole Depth:	**15 ft**	
		▽ First Water Depth:	4.5 ft	
		▼ Static Water Depth:	NA	
Elevation:		Northing:		Easting:



Boring Completion	Static Water Level	Moisture Content	PID Reading (ppm)	Sample Identification	Depth (feet)	Sample Recovery	Sample Analyzed	Soil Type	LITHOLOGY / DESCRIPTION
neat cement	▽		0	SB-2d1	1				4" Asphalt
									Poorly Graded Gravel with sand (GP) - reddish brown, 60% fine gravel, 30% fine to coarse sand, 10% clay, moist.
			0	SB-2d3	3				**Well Graded Gravel with sand (GW)** - reddish brown, 60% fine to coarse gravel, 30% fine to coarse sand, 10% clay, moist.
			0	SB-2d5	5				**Poorly Graded Gravel with sand (GP)** - reddish brown, 65% fine gravel, 35% fine to coarse sand, wet.
			0	SB-2d7.5	7				**Lean Clay (CL)** - greenish grey, 90% clay, 10% fine to coarse sand, low plasticity, stiff, wet.
			0.1		8				**Organic SOIL (OL)** - black, 60% plant matter (roots or grass), 40% clay, low plasticity, soft, wet.
					9				**Lean CLAY (CL)** - black, 90% clay, 10% plant matter medium plasticity, stiff, moist.
			0.3	SB-2d11	11				**Lean CLAY (CL)** - dark grey, 95-100% clay, <5% plant matter medium plasticity, stiff, moist.
			0		13				
			0.1		14				**Lean CLAY (CL)** - greenish grey, 95-100% clay, <5% plant matter medium plasticity, stiff, moist.
			0	SB-2d15	15				Total Depth 15 feet below ground surface
					16				
					17				
					18				
					19				
					20				
					21				
					22				

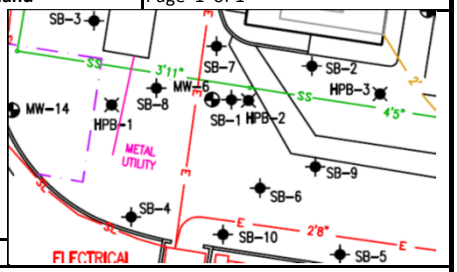
Project No:	I42705191	Client:	COP/ELT	Boring No: SB-3
Logged By:	Jonathan Fillingame	Location:	449 Hegenberger Road, Oakland	Page 1 of 1
Driller:	Cascade Drilling	Date Drilled:	7/25/2013	
Drilling Method:	Direct Push	Hole Diameter:	2 in	
Sampling Method:	Continuous	Hole Depth:	15 ft	
		▽ First Water Depth:	4.75 ft	
		▼ Static Water Depth:	NA	
Elevation:		Northing:		Easting:



Depth (feet)	Sample Recovery	Sample Analyzed	Soil Type	Boring Completion	Static Water Level	Moisture Content	PID Reading (ppm)	Sample Identification	LITHOLOGY / DESCRIPTION
0									4" Asphalt
1							0		**Poorly Graded Gravel with sand (GP)** - brown, 60% fine gravel, 35% fine to coarse sand, 5% clay, dense, moist.
2									
3							0		**Lean CLAY (CL)** - dark grey, 90% clay, 5% fine to medium sand, 5% organics, medium plasticity, stiff, moist.
4									**Lean CLAY (CL)** - dark grey, 90% clay, 15% fine to medium sand, medium plasticity, stiff, wet.
5					▽		0		**Clayey SAND (SC)** - reddish brown, 60% fine to coarse sand, 40% clay, loose, wet.
6							98		**Lean Clay (CL)** - grey, 95% clay, 5% fine to medium sand, medium plasticity, soft, wet.
7							167	SB-3d7.5	**Lean Clay (CL)** - dark grey, 95% clay, 5% fine to medium sand, low plasticity, medium stiff, wet.
8									**Organic SOIL (OL)** - brown, grey, 90% plant matter (roots or grass), 10% clay, soft, wet.
9							17.8		**Organic SOIL (OL)** - dark grey, 70% clay, 30% plant matter (roots or grass), low plasticity, medium stiff, wet.
10							3.4		**Lean CLAY (CL)** - black, 90% clay, 10% plant matter, medium plasticity, stiff, moist.
11							0.2	SB-3d11	**Lean CLAY (CL)** - black, 95-100% clay, 5% organics, medium plasticity, stiff, moist.
12							0.2		
13							0		**Lean CLAY (CL)** - greenish grey 95-100% clay, 5% organics, low plasticity, very stiff, moist.
14							0		
15							0	SB-3d15	Total Depth 15 feet below ground surface
16									
17									
18									
19									
20									
21									
22									

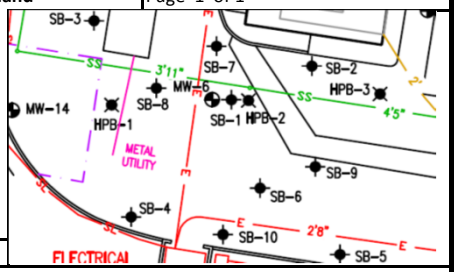
neat cement

Project No:	**I42705191**	Client:	**COP/ELT**	**Boring No: SB-4**
Logged By:	**Jonathan Fillingame**	Location:	**449 Hegenberger Road, Oakland**	Page 1 of 1
Driller:	**Cascade Drilling**	Date Drilled:	**7/25/2013**	
Drilling Method:	Direct Push	Hole Diameter:	**2 in**	
Sampling Method:	Continuous	Hole Depth:	**15 ft**	
		First Water Depth:	2.9 ft	
		Static Water Depth:	NA	
Elevation:		Northing:		Easting:



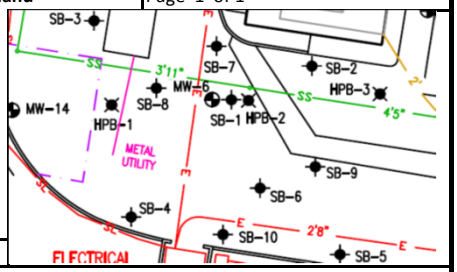
Boring Completion	Static Water Level	Moisture Content	PID Reading (ppm)	Sample Identification	Depth (feet)	Sample Recovery	Sample Analyzed	Soil Type	LITHOLOGY / DESCRIPTION
neat cement									4" Asphalt
			0	SB-4d1	1				**Poorly Graded Gravel with sand (GP)** - light grey, 60% fine gravel, 40% fine to coarse sand, medium dense, dry.
	▽		0	SB-4d3	2				**Lean CLAY (CL)** - dark grey, 90% clay, 5% fine to medium sand, 5% organics, medium plasticity, stiff, moist.
			0	SB-4d5	3				**Clayey SAND (SC)** - grey, 70% fine to medium sand, 30% clay, loose, wet.
			2.9		4				**Clayey SAND (SC)** - grey, 55% fine to medium sand, 45% clay, loose, wet.
			1338	SB-4d8	5				**Clayey SAND (SC)** - grey, 70% fine to medium sand, 30% clay, loose, wet.
			1.2		6				**Lean Clay (CL)** - black, 95% clay, 5% fine sand, low plasticity, very stiff, moist.
			1.2	SB-4d11	7				**Poorly graded SAND (SP)** - black, 100% medium sand, dense, wet, oil odor.
			0.4		8				**Lean CLAY (CL)** - grey, 100% clay, medium plasticity, soft, moist.
			0.1		9				**Lean CLAY (CL)** - black, 95% clay, 5% organics, medium plasticity, stiff, moist.
			0	SB-4d15	10				**Lean CLAY (CL)** - grey, 100% clay, low plasticity, stiff, moist.
					11				**Lean CLAY (CL)** - greenish grey, 95% clay, 5% fine to medium sand, low plasticity, very stiff, moist.
					12				Total Depth 15 feet below ground surface
					13				
					14				
					15				
					16				
					17				
					18				
					19				
					20				
					21				
					22				

Project No:	I42705191	Client:	COP/ELT	**Boring No: SB-5**	
Logged By:	**Jonathan Fillingame**	Location:	**449 Hegenberger Road, Oakland**	Page 1 of 1	
Driller:	**Cascade Drilling**	Date Drilled:	**7/25/2013**		
Drilling Method:	Direct Push	Hole Diameter:	**2 in**		
Sampling Method:	Continuous	Hole Depth:	**15 ft**		
		▽ First Water Depth:	4 ft		
		▼ Static Water Depth:	NA		
Elevation:		Northing:		Easting:	



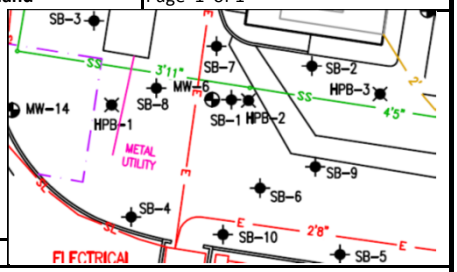
Depth (feet)	Sample Recovery	Sample Analyzed	Soil Type	Static Water Level	Moisture Content	PID Reading (ppm)	Sample Identification	Boring Completion	LITHOLOGY / DESCRIPTION
									4" Asphalt
1						0			**Poorly Graded Gravel with sand (GP)** - reddish brown, 60% fine gravel, 30% fine to coarse sand, 10% clay, moist.
2									
3						0			**Lean CLAY (CL)** - brown, 90% clay, 10% fine to coarse sand, stiff, low plasticity, moist.
4				▽					
5						0			**Well graded SAND (SW)** - grey, 100% fine to coarse sand, loose, wet.
6						78.0	SB-5d6.5		**Lean CLAY (CL)** - grey, 90% clay, 10% fine to coarse sand, stiff, medium plasticity, wet.
7						12.4			**Organic SOIL (OL)** - grey, 90% clay, 10% organics, soft, wet.
8						4.0			**Poorly Graded Sand (SP)** - grey, 95% medium sand, 5% clay, loose wet.
9						1.8			**Organic SOIL (OL)** - grey, 60% organics, 40% clay, medium plasticity, medium stiff, wet.
10						2.3			**Lean CLAY (CL)** - dark grey, 90% clay, 10% organics, soft, medium plasticity, wet.
11						0.3	SB-5d11		**Lean CLAY (CL)** - dark grey, 90% clay, 10% organics, stiff, medium plasticity, wet.
12						0.1			**Lean CLAY (CL)** - dark grey, 100% clay, stiff, medium plasticity, moist.
13						0			**Lean CLAY (CL)** - dark grey, 95% clay, 5% organics, very stiff, medium plasticity, moist.
14						0			**Lean CLAY (CL)** - greenish grey, 100% clay, very stiff, medium plasticity, moist.
15						0	SB-5d15	neat cement	
16									Total Depth 15 feet below ground surface
17									
18									
19									
20									
21									
22									

Project No:	I42705191	Client:	COP/ELT	**Boring No: SB-6**	
Logged By:	Jonathan Fillingame	Location:	449 Hegenberger Road, Oakland	Page 1 of 1	
Driller:	Cascade Drilling	Date Drilled:	7/26/2013		
Drilling Method:	Direct Push	Hole Diameter:	2 in		
Sampling Method:	Continuous	Hole Depth:	15 ft		
		▽ First Water Depth:	4.5 ft		
		▼ Static Water Depth:	NA		
Elevation:		Northing:		Easting:	



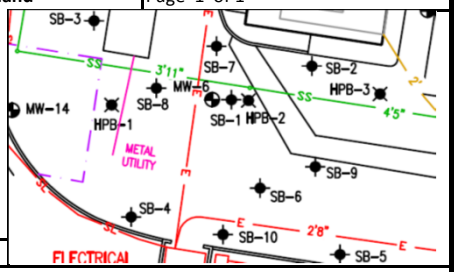
Boring Completion	Static Water Level	Moisture Content	PID Reading (ppm)	Sample Identification	Depth (feet)	Sample Recovery	Sample Analyzed	Soil Type	LITHOLOGY / DESCRIPTION
neat cement									4" Asphalt
			0.1		1				**Poorly Graded Gravel with sand (GP)** - reddish brown, 60% fine gravel, 30% fine to coarse sand, 10% clay, moist.
			0		2				**Clayey SAND (SC)** - greenish grey, 60% fine to medium sand, 40% clay, medium dense, moist.
					3				**Lean CLAY (CL)** - greenish grey, 80% clay, 20% fine to medium sand, stiff, low plasticity, moist.
	▽		0.1		4				**Lean CLAY (CL)** - greenish grey, 95% clay, 5% fine to medium sand, stiff, medium plasticity, wet.
			16		5				
			40		6				**Poorly Graded Sand (SP)** - grey, 100% medium sand, medium dense, wet, hydrocarbon odor. 1 or 2 inches thick
			2567	SB-6d6.5					
			33.5		7				**Clayey Sand (SC)** - dark grey, 60% fine to medium sand, 40% clay, medium dense, wet.
			29.2		8				**Lean CLAY (CL)** - grey, 90% clay, 10% fine to medium sand, soft, medium plasticity, wet.
			2.9		9				**Poorly Graded Sand (SP)** - grey, 93% medium sand, 5% clay, 2% organics, medium dense, wet.
			1.9		10				**Lean CLAY (CL)** - dark grey, 90% clay, 10% organics, stiff, medium plasticity, wet.
				SB-6d11	11				**Lean CLAY (CL)** - dark grey, 100% clay, stiff, medium plasticity, moist.
			1.8		12				**Lean CLAY (CL)** - dark grey, 95% clay, 5% organics, very stiff, medium plasticity, moist.
			0.1		13				**Lean CLAY (CL)** - greenish grey, 100% clay, very stiff, medium plasticity, moist.
			0.2		14				
			0.1	SB-6d15	15				Total Depth 15 feet below ground surface
					16				
					17				
					18				
					19				
					20				
					21				
					22				

Project No:	**I42705191**	Client:	**COP/ELT**	**Boring No: SB-7**	
Logged By:	**Jonathan Fillingame**	Location:	**449 Hegenberger Road, Oakland**	Page 1 of 1	
Driller:	**Cascade Drilling**	Date Drilled:	**7/26/2013**		
Drilling Method:	Direct Push	Hole Diameter:	**2 in**		
Sampling Method:	Continuous	Hole Depth:	**15 ft**		
		First Water Depth:	4 ft		
		Static Water Depth:	NA		
Elevation:		Northing:		Easting:	



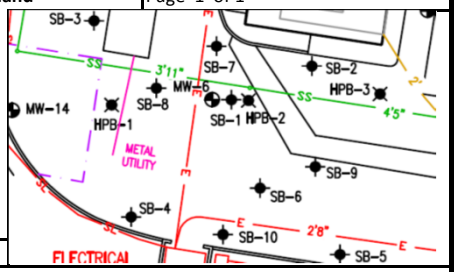
Boring Completion	Static Water Level	Moisture Content	PID Reading (ppm)	Sample Identification	Depth (feet)	Sample Recovery	Sample Analyzed	Soil Type	LITHOLOGY / DESCRIPTION
neat cement	▽		0		1				4" Asphalt
			0		2				**Poorly Graded Gravel with sand (GP)** - reddish brown, 60% fine gravel, 30% fine to coarse sand, 10% clay, moist.
					3				**Clayey Gravel with sand (GC)** - brown, 50% fine to coarse gravel, 25% fine to coarse sand, 25% clay (in clumps), moist.
					4				**Clayey Gravel with sand (GC)** - grey, 50% fine to coarse gravel, 25% fine to coarse sand, 25% clay (in clumps), moist. - brown, 50% fine to coarse gravel, 25% fine to coarse sand, 25% clay (in clumps), moist.
			0		5				**Lean CLAY (CL)** - grey, 90% clay, 10% fine to coarse sand, soft, medium plasticity, wet.
			0.4	SB-7d6	6				
					7				**Clayey Sand (SC)** - grey, 60% fine to medium sand, 40% clay, dense, wet.
			0.4		8				**Lean CLAY (CL)** - grey, 100% clay, soft, medium plasticity, wet.
			2.9		9				**Lean CLAY (CL)** - dark grey, 95% clay, 5% fine to coarse sand, soft, medium plasticity, wet.
			7.6		10				**Lean CLAY (CL)** - dark grey, 95% clay, 5% fine to coarse sand, stiff, low plasticity, moist.
			14.8	SB-7d11	11				**Lean CLAY (CL)** - dark grey, 90% clay, 5% fine to coarse sand, 5% organics, stiff, low plasticity, moist.
			4.9		12				**Lean CLAY (CL)** - dark grey, 93% clay, 5% fine to coarse sand, 2% organics, stiff, low plasticity, moist.
			42.2	SB-7d13	13				
			0.9		14				**Lean CLAY (CL)** - greenish grey, 93% clay, 5% fine to coarse sand, 2% organics, very stiff, low plasticity, moist.
			0.6		15				Total Depth 15 feet below ground surface
					16				
					17				
					18				
					19				
					20				
					21				
					22				

Project No:	I42705191	Client:	COP/ELT	Boring No: SB-8
Logged By:	Jonathan Fillingame	Location:	449 Hegenberger Road, Oakland	Page 1 of 1
Driller:	Cascade Drilling	Date Drilled:	7/26/2013	
Drilling Method:	Direct Push	Hole Diameter:	2 in	
Sampling Method:	Continuous	Hole Depth:	15 ft	
		▽ First Water Depth:	5 ft	
		▼ Static Water Depth:	NA	
Elevation:		Northing:		Easting:



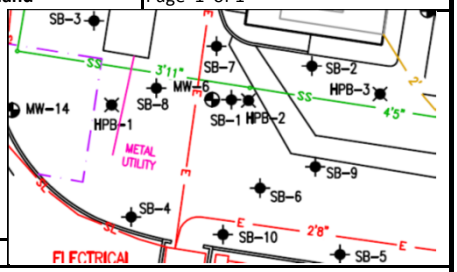
Boring Completion	Static Water Level	Moisture Content	PID Reading (ppm)	Sample Identification	Depth (feet)	Sample Recovery	Sample Analyzed	Soil Type	LITHOLOGY / DESCRIPTION
neat cement	▽		0.1		1				4" Asphalt
									Poorly Graded Gravel with sand (GP) - reddish brown, 60% fine gravel, 30% fine to coarse sand, 10% clay, moist.
					2				**Clayey Gravel with sand (GC)** - brown, 50% fine to coarse gravel, 25% fine to coarse sand, 25% clay (in clumps), moist.
			0.4		3				**Well Graded SAND (SW)** - grey, 95% fine to coarse sand, 5% clay, loose, moist.
			0.1		4				**Clayey Sand (SC)** - grey, 80% fine to medium sand, 20% clay, medium dense, moist.
			7.2		5				Wet at 5 feet.
					6				**Lean CLAY (CL)** - grey, 100% clay, stiff, medium plasticity, moist.
			144		7				**Lean CLAY (CL)** - dark grey, 100% clay, stiff, medium plasticity, moist.
			1207	SB-8d8	8				**Poorly Graded SAND (SP)** - dark grey to black, 100% fine sand, dense, wet, hydrocarbon odor.
			4.7		9				**Lean CLAY (CL)** - dark grey, 100% clay, soft, medium plasticity, wet.
			1.1		10				Piece of wood in clay < 1 inch thick at 9.5 feet below grade
			1.1	SB-8d11	11				**Lean CLAY (CL)** - dark grey, 100% clay, stiff, medium plasticity, moist.
			0.4		12				**Lean CLAY (CL)** - grey, 100% clay, very stiff, medium plasticity, moist.
			0.2		13				**Lean CLAY (CL)** - greenish grey, 100% clay, very stiff, medium plasticity, moist.
			0.3		14				
			0.5		15				Total Depth 15 feet below ground surface
					16				
					17				
					18				
					19				
					20				
					21				
					22				

Project No:	**I42705191**	Client:	**COP/ELT**	**Boring No: SB-9**
Logged By:	**Jonathan Fillingame**	Location:	**449 Hegenberger Road, Oakland**	Page 1 of 1
Driller:	**Cascade Drilling**	Date Drilled:	**7/26/2013**	
Drilling Method:	Direct Push	Hole Diameter:	**2 in**	
Sampling Method:	Continuous	Hole Depth:	**15 ft**	
		First Water Depth:	4.5 ft	
		Static Water Depth:	NA	
Elevation:		Northing:		Easting:



Boring Completion	Static Water Level	Moisture Content	PID Reading (ppm)	Sample Identification	Depth (feet)	Sample Recovery	Sample Analyzed	Soil Type	LITHOLOGY / DESCRIPTION
neat cement	▽		0		1				4" Asphalt
			0		2				**Poorly Graded Gravel with sand (GP)** - reddish brown, 60% fine gravel, 30% fine to coarse sand, 10% clay, moist.
					3				**Well Graded Gravel with sand (GW)** - reddish brown, 60% fine to coarse gravel, 30% fine to coarse sand, 10% clay, moist.
			0		4				
			27.0	SB-9d6	5				**Lean CLAY (CL)** - grey, 95% clay, 5% fine to medium sand, stiff, medium plasticity, wet.
			0.1		6				**Clayey SAND (SC)** - grey, 80% fine to coarse sand, 20% clay, dense, wet.
			0		7				**Lean CLAY (CL)** - grey, 100% clay, soft, medium plasticity, wet.
			0.2	SB-9d9	8				**Lean CLAY (CL)** - grey, 95% clay, 5% fine to coarse sand, soft, medium plasticity, wet.
					9				**Lean CLAY (CL)** - dark grey, 100% clay, medium stiff, medium plasticity, moist.
					10				**Lean CLAY (CL)** - grey, 100% clay, stiff, medium plasticity, moist.
					11				
			0.1		12				**Lean CLAY (CL)** - grey, 100% clay, very stiff, medium plasticity, moist.
			0		13				**Lean CLAY (CL)** - grey, 100% clay, hard, medium plasticity, moist.
					14				
			0	SB-9d15	15				Total Depth 15 feet below ground surface
					16				
					17				
					18				
					19				
					20				
					21				
					22				

Project No:	I42705191	Client:	COP/ELT	**Boring No: SB-10**	
Logged By:	**Jonathan Fillingame**	Location:	**449 Hegenberger Road, Oakland**	Page 1 of 1	
Driller:	**Cascade Drilling**	Date Drilled:	**7/26/2013**		
Drilling Method:	Direct Push	Hole Diameter:	**2 in**		
Sampling Method:	Continuous	Hole Depth:	**15 ft**		
		▽ First Water Depth:	4.75 ft		
		▼ Static Water Depth:	NA		
Elevation:		Northing:		Easting:	



Boring Completion	Static Water Level	Moisture Content	PID Reading (ppm)	Sample Identification	Depth (feet)	Sample Recovery	Sample Analyzed	Soil Type	LITHOLOGY / DESCRIPTION
neat cement	▽		0		1				4" Asphalt
					2				**Poorly Graded Gravel with sand (GP)** - grey, 60% fine to coarse gravel, 40% fine to coarse sand, dry.
			0		3				**Poorly Graded SAND (SP)** - brown, 100% fine sand, loose, moist.
					4				**Lean CLAY (CL)** - grey, brown, 90% clay, 10% fine to medium sand, very stiff, low plasticity, wet.
			0		5				**Clayey SAND (SC)** - grey, 60% fine to medium sand, 40% clay, medium dense, wet.
			0		6				**Lean CLAY (CL)** - grey, 100% clay, stiff, low plasticity, wet.
			0		7				**Poorly Graded SAND (SP)** - grey, 95% fine sand, 5% clay, dense, wet.
			0	SB-10d8	8				**Sandy Lean CLAY (CL)** - grey, 70% clay, 30% fine sand, soft, low plasticity, wet.
			0		9				**Lean CLAY (CL)** - grey, 90% clay, 5% fine sand, 5% organics, stiff, medium plasticity, moist.
			0		10				
			0	SB-10d11	11				**Lean CLAY (CL)** - dark grey, 90% clay, 5% fine sand, 5% organics, stiff, medium plasticity, moist.
			0		12				
			0		13				**Lean CLAY (CL)** - greenish grey, 90% clay, 5% fine sand, 5% organics, very stiff, medium plasticity, moist.
			0		14				
			0		15				Total Depth 15 feet below ground surface
					16				
					17				
					18				
					19				
					20				
					21				
					22				

Appendix C

Certified Laboratory Analytical Reports and Data Validation Forms

KIFF Analytical LLC

Report Number : 85536
Date : 08/05/2013

Laboratory Results

Dennis Dettloff
Antea Group
11050 White Rock Rd. Suite 110
Rancho Cordova, CA 95670

Subject : 28 Soil Samples
Project Name : I42705191
Project Number :

Dear Mr. Dettloff,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed. Testing procedures comply with the 2003 NELAC and TNI 2009 standards. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Troy G. Turpen

Troy Turpen

KIFF Analytical LLC

Report Number : 85536
Date : 08/05/2013

Subject : 28 Soil Samples
Project Name : I42705191
Project Number :

Case Narrative

All soil samples were reported on a total weight (wet weight) basis.

A revised Chain of Custody was provided by the client requesting additional analyses.

Matrix Spike/Matrix Spike Duplicate results associated with sample SB-2d11 for the analytes Ethylbenzene, P + M Xylene, and Toluene were outside of control limits. This may indicate a bias for the sample that was spiked. Since the LCS recoveries were within control limits, no data are flagged.

Matrix Spike/Matrix Spike Duplicate results associated with sample SB-7d6 for the analytes Benzene, Methyl-t-butyl ether, and Toluene were outside of control limits. This may indicate a bias for the sample that was spiked. Since the LCS recoveries were within control limits, no data are flagged.

Matrix Spike/Matrix Spike Duplicate results associated with samples SB-7d6 and SB-7d11 for the analyte Naphthalene were outside of control limits. This may indicate a bias for the sample that was spiked. Since the LCS recoveries were within control limits, no data are flagged.

Matrix Spike/Matrix Spike Duplicate results associated with samples SB-1d5.5, SB-1d11, SB-1d15, SB-3d7.5, SB-5d6, and SB-2d11 for the analytes Benzene, Ethylbenzene, Methyl-t-butyl ether, Naphthalene, P + M Xylene, and Toluene were outside of control limits. This may indicate a bias for the sample that was spiked. Since the LCS recoveries were within control limits, no data are flagged.

KIFF Analytical LLC

Analysis Summary

Report Number : 85536

Date : 08/05/13

Attention : Dennis Dettloff
Antea Group
11050 White Rock Rd. Suite 110
Rancho Cordova, CA 95670

Project Name :I42705191
Project Number :

			Sample Name	SB-1d5.5	SB-1d11		SB-1d15		SB-2d1		SB-2d3		SB-2d5		SB-2d11	
			Sample Date	07/25/13	07/25/13		07/25/13		07/25/13		07/25/13		07/25/13		07/25/13	
Analyte	Method	Units	MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results
Benzene	EPA 8260B	mg/Kg	2.5	**85**	0.025	**1.2**	0.0050	**0.0085**	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
Ethylbenzene	EPA 8260B	mg/Kg	2.5	**650**	0.025	**1.7**	0.0050	**0.048**	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
Toluene	EPA 8260B	mg/Kg	2.5	**1000**	0.025	**2.5**	0.0050	**0.0072**	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
Total Xylenes	EPA 8260B	mg/Kg	25	**3400**	0.025	**9.3**	0.0050	**0.13**	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
Methyl-t-butyl ether (MTBE)	EPA 8260B	mg/Kg	2.5	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
TPH as Gasoline	EPA 8260B	mg/Kg	2500	**31000**	2.5	**73**	1.0	**5.0**	1.0	ND	1.0	ND	1.0	ND	1.0	ND
Naphthalene	EPA 8260B	mg/Kg	2.5	**150**	0.025	**0.70**	0.0050	**0.015**	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
1,2-Dichloroethane-d4 (Surr)	EPA 8260B	%		97.9		99.7		99.7		110		108		107		115
2-Bromochlorobenzene (Surr)	EPA 8260B	%		103		83.8										
4-Bromofluorobenzene (Surr)	EPA 8260B	%		103		104		102		101		101		97.8		103
Toluene - d8 (Surr)	EPA 8260B	%		99.9		100		99.6		102		103		102		104
TPH as Diesel (Silica Gel)	M EPA 8015	mg/Kg	10	**450**	1.0	**3.1**	1.0	**3.1**	2.0	**10**	1.0	**2.1**	1.0	**5.9**	1.0	ND
Octacosane (Silica Gel Surr)	M EPA 8015	%		78.4		109		116		117		93.5		100		97.6

MRL = Method Reporting Limit
ND = Not Detected

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800
ELAP # 2236

KIFF Analytical LLC

Analysis Summary

Report Number : 85536
Date : 08/05/13

Attention : Dennis Dettloff
Antea Group
11050 White Rock Rd. Suite 110
Rancho Cordova, CA 95670

Project Name :I42705191
Project Number :

			Sample Name	SB-2d15		SB-3d7.5		SB-3d15		SB-4d1		SB-4d3		SB-4d5		SB-4d8	
			Sample Date	07/25/13		07/25/13		07/25/13		07/25/13		07/25/13		07/25/13		07/25/13	
Analyte	Method	Units		MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results
Benzene	EPA 8260B	mg/Kg		0.0050	ND	0.050	**0.13**	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.025	**0.50**
Ethylbenzene	EPA 8260B	mg/Kg		0.0050	ND	0.050	**7.5**	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.50	**160**
Toluene	EPA 8260B	mg/Kg		0.0050	ND	0.050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.025	**0.23**
Total Xylenes	EPA 8260B	mg/Kg		0.0050	ND	0.050	**30**	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.50	**130**
Methyl-t-butyl ether (MTBE)	EPA 8260B	mg/Kg		0.0050	**0.0059**	0.050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.025	ND
TPH as Gasoline	EPA 8260B	mg/Kg		1.0	ND	5.0	**310**	1.0	ND	1.0	ND	1.0	ND	1.0	ND	50	**4600**
Naphthalene	EPA 8260B	mg/Kg		0.0050	ND	0.050	**3.3**	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.50	**40**
1,2-Dichloroethane-d4 (Surr)	EPA 8260B	%			110		98.4		112		114		110		109		106
2-Bromochlorobenzene (Surr)	EPA 8260B	%					87.1										94.2
4-Bromofluorobenzene (Surr)	EPA 8260B	%			107		103		106		93.7		100		101		108
Toluene - d8 (Surr)	EPA 8260B	%			104		100		103		99.0		102		103		105
TPH as Diesel (Silica Gel)	M EPA 8015	mg/Kg		1.0	ND	1.0	**330**	1.0	ND	5.0	**13**	1.0	**2.6**	1.0	**4.7**	1.0	**31**
Octacosane (Silica Gel Surr)	M EPA 8015	%			105		97.0		117		106		107		99.5		110

MRL = Method Reporting Limit
ND = Not Detected

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800
ELAP # 2236

KIFF Analytical LLC

Analysis Summary

Report Number : 85536

Date : 08/05/13

Attention : Dennis Dettloff
Antea Group
11050 White Rock Rd. Suite 110
Rancho Cordova, CA 95670

Project Name :I42705191
Project Number :

			Sample Name	SB-4d15		SB-5d6		SB-5d15		SB-6d6.5		SB-6d15		SB-7d6		SB-7d11	
			Sample Date	07/25/13		07/25/13		07/25/13		07/26/13		07/26/13		07/26/13		07/26/13	
Analyte	Method	Units		MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results
Benzene	EPA 8260B	mg/Kg		0.0050	ND	0.0050	**0.020**	0.0050	ND	0.25	**0.57**	0.0050	ND	0.0050	**0.019**	0.0050	**0.17**
Ethylbenzene	EPA 8260B	mg/Kg		0.0050	ND	0.025	**3.4**	0.0050	ND	0.25	**44**	0.0050	ND	0.0050	**0.13**	0.025	**1.0**
Toluene	EPA 8260B	mg/Kg		0.0050	ND	0.0050	ND	0.0050	ND	0.25	**1.1**	0.0050	ND	0.0050	ND	0.0050	**0.39**
Total Xylenes	EPA 8260B	mg/Kg		0.0050	ND	0.025	**1.7**	0.0050	ND	0.25	**220**	0.0050	ND	0.0050	**0.012**	0.025	**4.1**
Methyl-t-butyl ether (MTBE)	EPA 8260B	mg/Kg		0.0050	ND	0.0050	ND	0.0050	ND	0.25	ND	0.0050	ND	0.0050	ND	0.0050	ND
TPH as Gasoline	EPA 8260B	mg/Kg		1.0	ND	2.5	**100**	1.0	ND	25	**1900**	1.0	ND	1.0	**21**	2.5	**57**
Naphthalene	EPA 8260B	mg/Kg		0.0050	ND	0.025	**3.3**	0.0050	ND	0.25	**12**	0.0050	ND	0.0050	**0.80**	0.025	**0.54**
1,2-Dichloroethane-d4 (Surr)	EPA 8260B	%			115		98.2		113		101		113		97.9		107
2-Bromochlorobenzene (Surr)	EPA 8260B	%					84.6				91.5						82.2
4-Bromofluorobenzene (Surr)	EPA 8260B	%			104		104		108		114		107		103		104
Toluene - d8 (Surr)	EPA 8260B	%			102		101		104		106		102		100		98.4
TPH as Diesel (Silica Gel)	M EPA 8015	mg/Kg		1.0	ND	1.0	**52**	1.0	ND	1.0	**360**	1.0	ND	1.0	**11**	1.0	**17**
Octacosane (Silica Gel Surr)	M EPA 8015	%			120		72.9		72.3		113		110		76.6		104

MRL = Method Reporting Limit
ND = Not Detected

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800
ELAP # 2236

KIFF Analytical LLC

Analysis Summary

Report Number : 85536
Date : 08/05/13

Attention : Dennis Dettloff
Antea Group
11050 White Rock Rd. Suite 110
Rancho Cordova, CA 95670

Project Name :I42705191
Project Number :

			Sample Name	SB-7d13	SB-8d8		SB-8d11		SB-9d6		SB-9d15		SB-10d8		SB-10d11	
			Sample Date	07/26/13	07/26/13		07/26/13		07/26/13		07/26/13		07/26/13		07/26/13	
Analyte	Method	Units		MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results
Benzene	EPA 8260B	mg/Kg		0.0050	**0.018**	0.50	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
Ethylbenzene	EPA 8260B	mg/Kg		0.0050	**0.11**	0.50	**15**	0.0050	**0.018**	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
Toluene	EPA 8260B	mg/Kg		0.0050	**0.0086**	0.50	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
Total Xylenes	EPA 8260B	mg/Kg		0.0050	**0.37**	0.50	**54**	0.0050	**0.0075**	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
Methyl-t-butyl ether (MTBE)	EPA 8260B	mg/Kg		0.0050	ND	0.50	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
TPH as Gasoline	EPA 8260B	mg/Kg		1.0	**1.8**	50	**3300**	1.0	ND	1.0	ND	1.0	ND	1.0	ND	1.0	ND
Naphthalene	EPA 8260B	mg/Kg		0.0050	**0.055**	0.50	**4.6**	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND
1,2-Dichloroethane-d4 (Surr)	EPA 8260B	%			112		105		116		108		113		103		110
2-Bromochlorobenzene (Surr)	EPA 8260B	%					90.0										
4-Bromofluorobenzene (Surr)	EPA 8260B	%			110		110		107		108		100		99.1		101
Toluene - d8 (Surr)	EPA 8260B	%			104		104		105		103		103		103		100
TPH as Diesel (Silica Gel)	M EPA 8015	mg/Kg		1.0	**1.5**	1.0	**900**	1.0	ND	1.0	**5.9**	1.0	ND	1.0	**1.9**	1.0	ND
Octacosane (Silica Gel Surr)	M EPA 8015	%			121		108		91.5		102		115		111		105

MRL = Method Reporting Limit
ND = Not Detected

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800
ELAP # 2236

KIFF Analytical LLC

Report Number : 85536
Date : 08/05/13

Project Name : **I42705191**
Project Number :

Sample : **SB-1d5.5** Matrix : Soil Lab Number : 85536-01
Sample Date :07/25/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**85**	2.5	mg/Kg	EPA 8260B	08/01/13 18:22
Toluene	**1000**	2.5	mg/Kg	EPA 8260B	08/01/13 18:22
Ethylbenzene	**650**	2.5	mg/Kg	EPA 8260B	08/01/13 18:22
Total Xylenes	**3400**	25	mg/Kg	EPA 8260B	08/02/13 10:58
Methyl-t-butyl ether (MTBE)	< 2.5	2.5	mg/Kg	EPA 8260B	08/01/13 18:22
TPH as Gasoline	**31000**	2500	mg/Kg	EPA 8260B	08/02/13 10:58
Naphthalene	**150**	2.5	mg/Kg	EPA 8260B	08/01/13 18:22
1,2-Dichloroethane-d4 (Surr)	97.9		% Recovery	EPA 8260B	08/01/13 18:22
Toluene - d8 (Surr)	99.9		% Recovery	EPA 8260B	08/01/13 18:22
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	08/01/13 18:22
2-Bromochlorobenzene (Surr)	103		% Recovery	EPA 8260B	08/01/13 18:22
TPH as Diesel (Silica Gel)	**450**	10	mg/Kg	M EPA 8015	08/01/13 23:21
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	78.4		% Recovery	M EPA 8015	08/01/13 23:21

KIFF Analytical LLC

Report Number : 85536
Date : 08/05/13

Project Name : **I42705191**
Project Number :

Sample : **SB-1d11** Matrix : Soil Lab Number : 85536-02
Sample Date :07/25/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**1.2**	0.025	mg/Kg	EPA 8260B	08/01/13 17:10
Toluene	**2.5**	0.025	mg/Kg	EPA 8260B	08/01/13 17:10
Ethylbenzene	**1.7**	0.025	mg/Kg	EPA 8260B	08/01/13 17:10
Total Xylenes	**9.3**	0.025	mg/Kg	EPA 8260B	08/01/13 17:10
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 01:22
TPH as Gasoline	**73**	2.5	mg/Kg	EPA 8260B	08/01/13 17:10
Naphthalene	**0.70**	0.025	mg/Kg	EPA 8260B	08/01/13 17:10
1,2-Dichloroethane-d4 (Surr)	99.7		% Recovery	EPA 8260B	08/01/13 17:10
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	08/01/13 17:10
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	08/01/13 17:10
2-Bromochlorobenzene (Surr)	83.8		% Recovery	EPA 8260B	08/01/13 17:10
TPH as Diesel (Silica Gel)	**3.1**	1.0	mg/Kg	M EPA 8015	08/01/13 12:58
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	109		% Recovery	M EPA 8015	08/01/13 12:58

KIFF Analytical LLC

Report Number : 85536
Date : 08/05/13

Project Name : **I42705191**
Project Number :

Sample : **SB-1d15** Matrix : Soil Lab Number : 85536-04
Sample Date :07/25/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**0.0085**	0.0050	mg/Kg	EPA 8260B	08/01/13 15:29
Toluene	**0.0072**	0.0050	mg/Kg	EPA 8260B	08/01/13 15:29
Ethylbenzene	**0.048**	0.0050	mg/Kg	EPA 8260B	08/01/13 15:29
Total Xylenes	**0.13**	0.0050	mg/Kg	EPA 8260B	08/01/13 15:29
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 15:29
TPH as Gasoline	**5.0**	1.0	mg/Kg	EPA 8260B	08/01/13 15:29
Naphthalene	**0.015**	0.0050	mg/Kg	EPA 8260B	08/01/13 15:29
1,2-Dichloroethane-d4 (Surr)	99.7		% Recovery	EPA 8260B	08/01/13 15:29
Toluene - d8 (Surr)	99.6		% Recovery	EPA 8260B	08/01/13 15:29
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	08/01/13 15:29
TPH as Diesel (Silica Gel)	**3.1**	1.0	mg/Kg	M EPA 8015	08/01/13 12:29
(Note: Some hydrocarbons lower-boiling, some higher-boiling than Diesel.)					
Octacosane (Silica Gel Surr)	116		% Recovery	M EPA 8015	08/01/13 12:29

KIFF Analytical LLC

Report Number : 85536
Date : 08/05/13

Project Name : **I42705191**
Project Number :

Sample : **SB-2d1** Matrix : Soil Lab Number : 85536-05
Sample Date :07/25/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 00:22
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 00:22
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 00:22
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 00:22
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 00:22
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	07/31/13 00:22
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 00:22
1,2-Dichloroethane-d4 (Surr)	110		% Recovery	EPA 8260B	07/31/13 00:22
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	07/31/13 00:22
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	07/31/13 00:22
TPH as Diesel (Silica Gel)	**10**	2.0	mg/Kg	M EPA 8015	08/01/13 10:41
(Note: Hydrocarbons are higher-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	117		% Recovery	M EPA 8015	08/01/13 10:41

KIFF Analytical LLC

Report Number : 85536
Date : 08/05/13

Project Name : **I42705191**
Project Number :

Sample : **SB-2d3** Matrix : Soil Lab Number : 85536-06
Sample Date :07/25/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 01:00
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 01:00
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 01:00
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 01:00
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 01:00
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	07/31/13 01:00
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 01:00
1,2-Dichloroethane-d4 (Surr)	108		% Recovery	EPA 8260B	07/31/13 01:00
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	07/31/13 01:00
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	07/31/13 01:00
TPH as Diesel (Silica Gel)	**2.1**	1.0	mg/Kg	M EPA 8015	07/31/13 10:04
(Note: Hydrocarbons are higher-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	93.5		% Recovery	M EPA 8015	07/31/13 10:04

KIFF Analytical LLC

Report Number : 85536
Date : 08/05/13

Project Name : **I42705191**
Project Number :

Sample : **SB-2d5** Matrix : Soil Lab Number : 85536-07
Sample Date :07/25/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 01:34
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 01:34
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 01:34
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 01:34
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 01:34
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	07/31/13 01:34
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 01:34
1,2-Dichloroethane-d4 (Surr)	107		% Recovery	EPA 8260B	07/31/13 01:34
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	07/31/13 01:34
4-Bromofluorobenzene (Surr)	97.8		% Recovery	EPA 8260B	07/31/13 01:34
TPH as Diesel (Silica Gel)	**5.9**	1.0	mg/Kg	M EPA 8015	07/31/13 12:45
(Note: Hydrocarbons are higher-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	100		% Recovery	M EPA 8015	07/31/13 12:45

KIFF Analytical LLC

Report Number : 85536
Date : 08/05/13

Project Name : **I42705191**
Project Number :

Sample : **SB-2d11** Matrix : Soil Lab Number : 85536-09
Sample Date :07/25/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 00:08
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 00:08
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 00:08
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 00:08
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 00:08
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	08/01/13 00:08
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 12:35
1,2-Dichloroethane-d4 (Surr)	115		% Recovery	EPA 8260B	08/01/13 00:08
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	08/01/13 00:08
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	08/01/13 00:08
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	08/01/13 13:33
Octacosane (Silica Gel Surr)	97.6		% Recovery	M EPA 8015	08/01/13 13:33

KIFF Analytical LLC

Report Number : 85536

Date : 08/05/13

Project Name : **I42705191**

Project Number :

Sample : **SB-2d15** Matrix : Soil Lab Number : 85536-10

Sample Date :07/25/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 02:00
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 02:00
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 02:00
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 02:00
Methyl-t-butyl ether (MTBE)	**0.0059**	0.0050	mg/Kg	EPA 8260B	08/01/13 02:00
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	08/01/13 02:00
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 02:00
1,2-Dichloroethane-d4 (Surr)	110		% Recovery	EPA 8260B	08/01/13 02:00
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	08/01/13 02:00
4-Bromofluorobenzene (Surr)	107		% Recovery	EPA 8260B	08/01/13 02:00
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	08/01/13 14:08
Octacosane (Silica Gel Surr)	105		% Recovery	M EPA 8015	08/01/13 14:08

KIFF Analytical LLC

Report Number : 85536
Date : 08/05/13

Project Name : **I42705191**
Project Number :

Sample : **SB-3d7.5** Matrix : Soil Lab Number : 85536-11
Sample Date :07/25/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**0.13**	0.050	mg/Kg	EPA 8260B	08/02/13 04:01
Toluene	< 0.050	0.050	mg/Kg	EPA 8260B	08/02/13 04:01
Ethylbenzene	**7.5**	0.050	mg/Kg	EPA 8260B	08/02/13 04:01
Total Xylenes	**30**	0.050	mg/Kg	EPA 8260B	08/02/13 04:01
Methyl-t-butyl ether (MTBE)	< 0.050	0.050	mg/Kg	EPA 8260B	08/02/13 04:01
TPH as Gasoline	**310**	5.0	mg/Kg	EPA 8260B	08/02/13 04:01
Naphthalene	**3.3**	0.050	mg/Kg	EPA 8260B	08/02/13 04:01
1,2-Dichloroethane-d4 (Surr)	98.4		% Recovery	EPA 8260B	08/02/13 04:01
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	08/02/13 04:01
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	08/02/13 04:01
2-Bromochlorobenzene (Surr)	87.1		% Recovery	EPA 8260B	08/02/13 04:01
TPH as Diesel (Silica Gel)	**330**	1.0	mg/Kg	M EPA 8015	08/01/13 14:42
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	97.0		% Recovery	M EPA 8015	08/01/13 14:42

KIFF Analytical LLC

Report Number : 85536

Date : 08/05/13

Project Name : **I42705191**

Project Number :

Sample : **SB-3d15** Matrix : Soil Lab Number : 85536-13

Sample Date :07/25/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 02:36
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 02:36
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 02:36
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 02:36
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 02:36
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	08/01/13 02:36
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 02:36
1,2-Dichloroethane-d4 (Surr)	112		% Recovery	EPA 8260B	08/01/13 02:36
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	08/01/13 02:36
4-Bromofluorobenzene (Surr)	106		% Recovery	EPA 8260B	08/01/13 02:36
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	08/01/13 15:17
Octacosane (Silica Gel Surr)	117		% Recovery	M EPA 8015	08/01/13 15:17

KIFF Analytical LLC

Report Number : 85536
Date : 08/05/13

Project Name : **I42705191**
Project Number :

Sample : **SB-4d1** Matrix : Soil Lab Number : 85536-14
Sample Date :07/25/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/30/13 15:15
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/30/13 15:15
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/30/13 15:15
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/30/13 15:15
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/30/13 15:15
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	07/30/13 15:15
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/30/13 21:19
1,2-Dichloroethane-d4 (Surr)	114		% Recovery	EPA 8260B	07/30/13 15:15
Toluene - d8 (Surr)	99.0		% Recovery	EPA 8260B	07/30/13 15:15
4-Bromofluorobenzene (Surr)	93.7		% Recovery	EPA 8260B	07/30/13 15:15
TPH as Diesel (Silica Gel)	**13**	5.0	mg/Kg	M EPA 8015	08/01/13 10:06
(Note: Hydrocarbons are higher-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	106		% Recovery	M EPA 8015	08/01/13 10:06

KIFF Analytical LLC

Report Number : 85536
Date : 08/05/13

Project Name : **I42705191**
Project Number :

Sample : **SB-4d3** Matrix : Soil Lab Number : 85536-15
Sample Date :07/25/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 02:08
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 02:08
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 02:08
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 02:08
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 02:08
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	07/31/13 02:08
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 02:08
1,2-Dichloroethane-d4 (Surr)	110		% Recovery	EPA 8260B	07/31/13 02:08
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	07/31/13 02:08
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	07/31/13 02:08
TPH as Diesel (Silica Gel)	**2.6**	1.0	mg/Kg	M EPA 8015	07/31/13 13:19
(Note: Hydrocarbons are higher-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	107		% Recovery	M EPA 8015	07/31/13 13:19

KIFF Analytical LLC

Report Number : 85536
Date : 08/05/13

Project Name : **I42705191**
Project Number :

Sample : **SB-4d5** Matrix : Soil Lab Number : 85536-16
Sample Date :07/25/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 02:42
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 02:42
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 02:42
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 02:42
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 02:42
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	07/31/13 02:42
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 02:42
1,2-Dichloroethane-d4 (Surr)	109		% Recovery	EPA 8260B	07/31/13 02:42
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	07/31/13 02:42
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	07/31/13 02:42
TPH as Diesel (Silica Gel)	**4.7**	1.0	mg/Kg	M EPA 8015	07/31/13 14:14
(Note: Hydrocarbons are higher-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	99.5		% Recovery	M EPA 8015	07/31/13 14:14

KIFF Analytical LLC

Report Number : 85536
Date : 08/05/13

Project Name : **I42705191**
Project Number :

Sample : **SB-4d8** Matrix : Soil Lab Number : 85536-17
Sample Date :07/25/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**0.50**	0.025	mg/Kg	EPA 8260B	08/01/13 04:25
Toluene	**0.23**	0.025	mg/Kg	EPA 8260B	08/01/13 04:25
Ethylbenzene	**160**	0.50	mg/Kg	EPA 8260B	08/01/13 16:17
Total Xylenes	**130**	0.50	mg/Kg	EPA 8260B	08/01/13 16:17
Methyl-t-butyl ether (MTBE)	< 0.025	0.025	mg/Kg	EPA 8260B	08/01/13 04:25
TPH as Gasoline	**4600**	50	mg/Kg	EPA 8260B	08/01/13 16:17
Naphthalene	**40**	0.50	mg/Kg	EPA 8260B	08/01/13 16:17
1,2-Dichloroethane-d4 (Surr)	106		% Recovery	EPA 8260B	08/01/13 16:17
Toluene - d8 (Surr)	105		% Recovery	EPA 8260B	08/01/13 16:17
4-Bromofluorobenzene (Surr)	108		% Recovery	EPA 8260B	08/01/13 16:17
2-Bromochlorobenzene (Surr)	94.2		% Recovery	EPA 8260B	08/01/13 16:17
TPH as Diesel (Silica Gel)	**31**	1.0	mg/Kg	M EPA 8015	08/01/13 15:53
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	110		% Recovery	M EPA 8015	08/01/13 15:53

KIFF Analytical LLC

Report Number : 85536

Date : 08/05/13

Project Name : **I42705191**

Project Number :

Sample : **SB-4d15** Matrix : Soil Lab Number : 85536-19

Sample Date :07/25/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 03:16
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 03:16
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 03:16
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 03:16
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 03:16
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	08/01/13 03:16
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 03:16
1,2-Dichloroethane-d4 (Surr)	115		% Recovery	EPA 8260B	08/01/13 03:16
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	08/01/13 03:16
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	08/01/13 03:16
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	08/01/13 16:28
Octacosane (Silica Gel Surr)	120		% Recovery	M EPA 8015	08/01/13 16:28

KIFF Analytical LLC

Report Number : 85536
Date : 08/05/13

Project Name : **I42705191**
Project Number :

Sample : **SB-5d6** Matrix : Soil Lab Number : 85536-20
Sample Date :07/25/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**0.020**	0.0050	mg/Kg	EPA 8260B	08/01/13 03:51
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 03:51
Ethylbenzene	**3.4**	0.025	mg/Kg	EPA 8260B	08/01/13 16:37
Total Xylenes	**1.7**	0.025	mg/Kg	EPA 8260B	08/01/13 16:37
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 03:51
TPH as Gasoline	**100**	2.5	mg/Kg	EPA 8260B	08/01/13 16:37
Naphthalene	**3.3**	0.025	mg/Kg	EPA 8260B	08/01/13 16:37
1,2-Dichloroethane-d4 (Surr)	98.2		% Recovery	EPA 8260B	08/01/13 16:37
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	08/01/13 16:37
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	08/01/13 16:37
2-Bromochlorobenzene (Surr)	84.6		% Recovery	EPA 8260B	08/01/13 16:37
TPH as Diesel (Silica Gel)	**52**	1.0	mg/Kg	M EPA 8015	08/02/13 14:42
(Note: Some hydrocarbons lower-boiling, some higher-boiling than Diesel.)					
Octacosane (Silica Gel Surr)	72.9		% Recovery	M EPA 8015	08/02/13 14:42

KIFF Analytical LLC

Report Number : 85536
Date : 08/05/13

Project Name : **I42705191**
Project Number :

Sample : **SB-5d15** Matrix : Soil Lab Number : 85536-22
Sample Date :07/25/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 11:17
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 11:17
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 11:17
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 11:17
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 11:17
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	08/01/13 11:17
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 11:17
1,2-Dichloroethane-d4 (Surr)	113		% Recovery	EPA 8260B	08/01/13 11:17
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	08/01/13 11:17
4-Bromofluorobenzene (Surr)	108		% Recovery	EPA 8260B	08/01/13 11:17
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	08/01/13 17:02
Octacosane (Silica Gel Surr)	72.3		% Recovery	M EPA 8015	08/01/13 17:02

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Report Number : 85536
Date : 08/05/13

Project Name : **I42705191**
Project Number :

Sample : **SB-6d6.5** Matrix : Soil Lab Number : 85536-23
Sample Date :07/26/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**0.57**	0.25	mg/Kg	EPA 8260B	08/01/13 05:40
Toluene	**1.1**	0.25	mg/Kg	EPA 8260B	08/01/13 05:40
Ethylbenzene	**44**	0.25	mg/Kg	EPA 8260B	08/01/13 05:40
Total Xylenes	**220**	0.25	mg/Kg	EPA 8260B	08/01/13 05:40
Methyl-t-butyl ether (MTBE)	< 0.25	0.25	mg/Kg	EPA 8260B	08/01/13 05:40
TPH as Gasoline	**1900**	25	mg/Kg	EPA 8260B	08/01/13 05:40
Naphthalene	**12**	0.25	mg/Kg	EPA 8260B	08/01/13 15:43
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	08/01/13 05:40
Toluene - d8 (Surr)	106		% Recovery	EPA 8260B	08/01/13 05:40
4-Bromofluorobenzene (Surr)	114		% Recovery	EPA 8260B	08/01/13 05:40
2-Bromochlorobenzene (Surr)	91.5		% Recovery	EPA 8260B	08/01/13 05:40
TPH as Diesel (Silica Gel)	**360**	1.0	mg/Kg	M EPA 8015	08/02/13 00:32
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	113		% Recovery	M EPA 8015	08/02/13 00:32

KIFF Analytical LLC

Report Number : 85536
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Project Name : **I42705191**
Project Number :

Sample : **SB-6d15** Matrix : Soil Lab Number : 85536-25
Sample Date :07/26/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 11:55
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 11:55
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 11:55
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 11:55
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 11:55
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	08/01/13 11:55
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 11:55
1,2-Dichloroethane-d4 (Surr)	113		% Recovery	EPA 8260B	08/01/13 11:55
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	08/01/13 11:55
4-Bromofluorobenzene (Surr)	107		% Recovery	EPA 8260B	08/01/13 11:55
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	08/02/13 01:07
Octacosane (Silica Gel Surr)	110		% Recovery	M EPA 8015	08/02/13 01:07

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Report Number : 85536
Date : 08/05/13

Project Name : **I42705191**
Project Number :

Sample : **SB-7d6** Matrix : Soil Lab Number : 85536-26
Sample Date :07/26/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**0.019**	0.0050	mg/Kg	EPA 8260B	08/02/13 01:33
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/02/13 01:33
Ethylbenzene	**0.13**	0.0050	mg/Kg	EPA 8260B	08/02/13 01:33
Total Xylenes	**0.012**	0.0050	mg/Kg	EPA 8260B	08/02/13 01:33
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/02/13 01:33
TPH as Gasoline	**21**	1.0	mg/Kg	EPA 8260B	08/02/13 15:11
Naphthalene	**0.80**	0.0050	mg/Kg	EPA 8260B	08/02/13 15:11
1,2-Dichloroethane-d4 (Surr)	97.9		% Recovery	EPA 8260B	08/02/13 01:33
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	08/02/13 01:33
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	08/02/13 01:33
TPH as Diesel (Silica Gel)	**11**	1.0	mg/Kg	M EPA 8015	08/01/13 22:11
(Note: Some hydrocarbons lower-boiling, some higher-boiling than Diesel.)					
Octacosane (Silica Gel Surr)	76.6		% Recovery	M EPA 8015	08/01/13 22:11

KIFF Analytical LLC

Report Number : 85536
Date : 08/05/13

Project Name : **I42705191**
Project Number :

Sample : **SB-7d11** Matrix : Soil Lab Number : 85536-27
Sample Date :07/26/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**0.17**	0.0050	mg/Kg	EPA 8260B	08/01/13 15:05
Toluene	**0.39**	0.0050	mg/Kg	EPA 8260B	08/01/13 15:05
Ethylbenzene	**1.0**	0.025	mg/Kg	EPA 8260B	08/02/13 16:23
Total Xylenes	**4.1**	0.025	mg/Kg	EPA 8260B	08/02/13 16:23
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 15:05
TPH as Gasoline	**57**	2.5	mg/Kg	EPA 8260B	08/02/13 16:23
Naphthalene	**0.54**	0.025	mg/Kg	EPA 8260B	08/02/13 16:23
1,2-Dichloroethane-d4 (Surr)	107		% Recovery	EPA 8260B	08/01/13 15:05
Toluene - d8 (Surr)	98.4		% Recovery	EPA 8260B	08/01/13 15:05
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	08/02/13 16:23
2-Bromochlorobenzene (Surr)	82.2		% Recovery	EPA 8260B	08/02/13 16:23
TPH as Diesel (Silica Gel)	**17**	1.0	mg/Kg	M EPA 8015	08/01/13 23:57
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	104		% Recovery	M EPA 8015	08/01/13 23:57

KIFF Analytical LLC

Report Number : 85536
Date : 08/05/13

Project Name : **I42705191**
Project Number :

Sample : **SB-7d13** Matrix : Soil Lab Number : 85536-28
Sample Date :07/26/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**0.018**	0.0050	mg/Kg	EPA 8260B	08/01/13 13:10
Toluene	**0.0086**	0.0050	mg/Kg	EPA 8260B	08/01/13 13:10
Ethylbenzene	**0.11**	0.0050	mg/Kg	EPA 8260B	08/01/13 13:10
Total Xylenes	**0.37**	0.0050	mg/Kg	EPA 8260B	08/01/13 13:10
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 13:10
TPH as Gasoline	**1.8**	1.0	mg/Kg	EPA 8260B	08/02/13 15:45
Naphthalene	**0.055**	0.0050	mg/Kg	EPA 8260B	08/01/13 13:10
1,2-Dichloroethane-d4 (Surr)	112		% Recovery	EPA 8260B	08/01/13 13:10
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	08/01/13 13:10
4-Bromofluorobenzene (Surr)	110		% Recovery	EPA 8260B	08/01/13 13:10
TPH as Diesel (Silica Gel)	**1.5**	1.0	mg/Kg	M EPA 8015	08/01/13 15:00
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	121		% Recovery	M EPA 8015	08/01/13 15:00

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Project Name : **I42705191**
Project Number :

Sample : **SB-8d8** Matrix : Soil Lab Number : 85536-29
Sample Date :07/26/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	mg/Kg	EPA 8260B	08/01/13 16:53
Toluene	< 0.50	0.50	mg/Kg	EPA 8260B	08/01/13 16:53
Ethylbenzene	**15**	0.50	mg/Kg	EPA 8260B	08/01/13 16:53
Total Xylenes	**54**	0.50	mg/Kg	EPA 8260B	08/01/13 16:53
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	mg/Kg	EPA 8260B	08/01/13 16:53
TPH as Gasoline	**3300**	50	mg/Kg	EPA 8260B	08/01/13 16:53
Naphthalene	**4.6**	0.50	mg/Kg	EPA 8260B	08/01/13 16:53
1,2-Dichloroethane-d4 (Surr)	105		% Recovery	EPA 8260B	08/01/13 16:53
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	08/01/13 16:53
4-Bromofluorobenzene (Surr)	110		% Recovery	EPA 8260B	08/01/13 16:53
2-Bromochlorobenzene (Surr)	90.0		% Recovery	EPA 8260B	08/01/13 16:53
TPH as Diesel (Silica Gel)	**900**	1.0	mg/Kg	M EPA 8015	08/02/13 15:16
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	108		% Recovery	M EPA 8015	08/02/13 15:16

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Project Name : **I42705191**
Project Number :

Sample : **SB-8d11** Matrix : Soil Lab Number : 85536-30
Sample Date :07/26/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 13:48
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 13:48
Ethylbenzene	**0.018**	0.0050	mg/Kg	EPA 8260B	08/01/13 13:48
Total Xylenes	**0.0075**	0.0050	mg/Kg	EPA 8260B	08/01/13 22:33
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 13:48
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	08/01/13 13:48
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 13:48
1,2-Dichloroethane-d4 (Surr)	116		% Recovery	EPA 8260B	08/01/13 13:48
Toluene - d8 (Surr)	105		% Recovery	EPA 8260B	08/01/13 13:48
4-Bromofluorobenzene (Surr)	107		% Recovery	EPA 8260B	08/01/13 13:48
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	08/02/13 10:36
Octacosane (Silica Gel Surr)	91.5		% Recovery	M EPA 8015	08/02/13 10:36

KIFF Analytical LLC

Report Number : 85536
Date : 08/05/13

Project Name : **I42705191**
Project Number :

Sample : **SB-9d6** Matrix : Soil Lab Number : 85536-31
Sample Date :07/26/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 14:27
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 14:27
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 14:27
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 14:27
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 14:27
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	08/01/13 14:27
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 14:27
1,2-Dichloroethane-d4 (Surr)	108		% Recovery	EPA 8260B	08/01/13 14:27
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	08/01/13 14:27
4-Bromofluorobenzene (Surr)	108		% Recovery	EPA 8260B	08/01/13 14:27
TPH as Diesel (Silica Gel)	**5.9**	1.0	mg/Kg	M EPA 8015	08/02/13 15:51
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	102		% Recovery	M EPA 8015	08/02/13 15:51

KIFF Analytical LLC

Report Number : 85536
Date : 08/05/13

Project Name : **I42705191**
Project Number :

Sample : **SB-9d15** Matrix : Soil Lab Number : 85536-33
Sample Date :07/26/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 21:10
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 21:10
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 21:10
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 21:10
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 21:10
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	07/31/13 21:10
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13 21:10
1,2-Dichloroethane-d4 (Surr)	113		% Recovery	EPA 8260B	07/31/13 21:10
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	07/31/13 21:10
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	07/31/13 21:10
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	08/02/13 16:27
Octacosane (Silica Gel Surr)	115		% Recovery	M EPA 8015	08/02/13 16:27

KIFF Analytical LLC

Report Number : 85536
Date : 08/05/13

Project Name : **I42705191**
Project Number :

Sample : **SB-10d8** Matrix : Soil Lab Number : 85536-34
Sample Date :07/26/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 00:17
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 00:17
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 00:17
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 00:17
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 00:17
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	08/01/13 00:17
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 00:17
1,2-Dichloroethane-d4 (Surr)	103		% Recovery	EPA 8260B	08/01/13 00:17
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	08/01/13 00:17
4-Bromofluorobenzene (Surr)	99.1		% Recovery	EPA 8260B	08/01/13 00:17
TPH as Diesel (Silica Gel)	**1.9**	1.0	mg/Kg	M EPA 8015	08/02/13 17:02
Octacosane (Silica Gel Surr)	111		% Recovery	M EPA 8015	08/02/13 17:02

KIFF Analytical LLC

Report Number : 85536
Date : 08/05/13

Project Name : **I42705191**
Project Number :

Sample : **SB-10d11** Matrix : Soil Lab Number : 85536-35
Sample Date :07/26/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 00:51
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 00:51
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 00:51
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 00:51
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 00:51
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	08/01/13 00:51
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13 00:51
1,2-Dichloroethane-d4 (Surr)	110		% Recovery	EPA 8260B	08/01/13 00:51
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	08/01/13 00:51
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	08/01/13 00:51
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	08/02/13 17:36
Octacosane (Silica Gel Surr)	105		% Recovery	M EPA 8015	08/02/13 17:36

Report Number : 85536

Date : 08/05/13

QC Report : Method Blank Data

Project Name : **I42705191**

Project Number :

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	07/31/13
Octacosane (Silica Gel Surr)	97.4		%	M EPA 8015	07/31/13
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	08/01/13
Octacosane (Silica Gel Surr)	107		%	M EPA 8015	08/01/13
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	08/02/13
Octacosane (Silica Gel Surr)	105		%	M EPA 8015	08/02/13
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/30/13
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/30/13
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/30/13
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/30/13
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/30/13
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	07/30/13
1,2-Dichloroethane-d4 (Surr)	102		%	EPA 8260B	07/30/13
Toluene - d8 (Surr)	98.6		%	EPA 8260B	07/30/13
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/30/13
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/30/13
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/30/13
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/30/13
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/30/13
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	07/30/13
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/30/13
1,2-Dichloroethane-d4 (Surr)	112		%	EPA 8260B	07/30/13
4-Bromofluorobenzene (Surr)	102		%	EPA 8260B	07/30/13
Toluene - d8 (Surr)	103		%	EPA 8260B	07/30/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	07/31/13
1,2-Dichloroethane-d4 (Surr)	103		%	EPA 8260B	07/31/13
Toluene - d8 (Surr)	98.0		%	EPA 8260B	07/31/13
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	07/31/13
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13
1,2-Dichloroethane-d4 (Surr)	100		%	EPA 8260B	07/31/13
4-Bromofluorobenzene (Surr)	98.8		%	EPA 8260B	07/31/13
Toluene - d8 (Surr)	102		%	EPA 8260B	07/31/13
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	07/31/13
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/31/13
1,2-Dichloroethane-d4 (Surr)	107		%	EPA 8260B	07/31/13
4-Bromofluorobenzene (Surr)	101		%	EPA 8260B	07/31/13
Toluene - d8 (Surr)	103		%	EPA 8260B	07/31/13

Report Number : 85536

Date : 08/05/13

QC Report : Method Blank Data

Project Name : **I42705191**

Project Number :

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	08/01/13
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13
1,2-Dichloroethane-d4 (Surr)	104		%	EPA 8260B	08/01/13
4-Bromofluorobenzene (Surr)	102		%	EPA 8260B	08/01/13
Toluene - d8 (Surr)	100		%	EPA 8260B	08/01/13
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/01/13
1,2-Dichloroethane-d4 (Surr)	102		%	EPA 8260B	08/01/13
Toluene - d8 (Surr)	100		%	EPA 8260B	08/01/13
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/02/13
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/02/13
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	08/02/13
Naphthalene	< 0.0050	0.0050	mg/Kg	EPA 8260B	08/02/13
4-Bromofluorobenzene (Surr)	104		%	EPA 8260B	08/02/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

KIFF ANALYTICAL, LLC

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Report Number : 85536

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 08/05/13

Project Name : **I42705191**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene														
	85536-14	<0.0050	0.0398	0.0391	0.0368	0.0365	mg/Kg	EPA 8260B	7/30/13	92.3	93.3	1.11	70.0-130	25
Ethylbenzene														
	85536-14	<0.0050	0.0398	0.0391	0.0366	0.0358	mg/Kg	EPA 8260B	7/30/13	91.9	91.4	0.503	70.0-130	25
Methyl-t-butyl ether														
	85536-14	<0.0050	0.0397	0.0390	0.0425	0.0421	mg/Kg	EPA 8260B	7/30/13	107	108	0.904	60.0-130	25
Naphthalene														
	85536-14	<0.0050	0.0398	0.0391	0.0368	0.0335	mg/Kg	EPA 8260B	7/30/13	92.5	85.6	7.71	70.0-130	25
P + M Xylene														
	85536-14	<0.0050	0.0398	0.0391	0.0367	0.0358	mg/Kg	EPA 8260B	7/30/13	92.1	91.3	0.806	70.0-130	25
Toluene														
	85536-14	<0.0050	0.0398	0.0391	0.0377	0.0374	mg/Kg	EPA 8260B	7/30/13	94.7	95.6	1.01	70.0-130	25
TPH-D (Si Gel)														
	85536-06	2.1	19.8	19.8	19.8	19.0	mg/Kg	M EPA 8015	7/31/13	89.1	84.9	4.82	60-140	25
TPH-D (Si Gel)														
	85536-04	3.1	19.9	19.4	21.1	21.1	mg/Kg	M EPA 8015	8/1/13	90.7	92.7	2.18	60-140	25

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2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 08/05/2013

Project Name : **I42705191**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH-D (Si Gel)														
	85536-30	<1.0	20.0	19.4	18.8	18.6	mg/Kg	M EPA 8015	8/2/13	94.3	96.0	1.84	60-140	25
Benzene														
	85536-15	<0.0050	0.0398	0.0398	0.0370	0.0365	mg/Kg	EPA 8260B	7/30/13	92.9	91.7	1.24	70.0-130	25
Ethylbenzene														
	85536-15	<0.0050	0.0398	0.0398	0.0360	0.0348	mg/Kg	EPA 8260B	7/30/13	90.4	87.4	3.34	70.0-130	25
Methyl-t-butyl ether														
	85536-15	<0.0050	0.0397	0.0396	0.0399	0.0363	mg/Kg	EPA 8260B	7/30/13	100	91.6	9.10	60.0-130	25
P + M Xylene														
	85536-15	<0.0050	0.0398	0.0398	0.0344	0.0335	mg/Kg	EPA 8260B	7/30/13	86.3	84.2	2.46	70.0-130	25
Toluene														
	85536-15	<0.0050	0.0398	0.0398	0.0365	0.0351	mg/Kg	EPA 8260B	7/30/13	91.6	88.3	3.70	70.0-130	25
Benzene														
	85536-14	<0.0050	0.0397	0.0397	0.0279	0.0302	mg/Kg	EPA 8260B	7/31/13	70.2	76.2	8.13	70.0-130	25
Ethylbenzene														
	85536-14	<0.0050	0.0397	0.0397	0.0263	0.0273	mg/Kg	EPA 8260B	7/31/13	**66.3**	**68.7**	3.60	70.0-130	25
Methyl-t-butyl ether														
	85536-14	<0.0050	0.0396	0.0396	0.0272	0.0286	mg/Kg	EPA 8260B	7/31/13	68.8	72.3	5.08	60.0-130	25

Report Number : 85536

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 08/05/2013

Project Name : **I42705191**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
P + M Xylene														
	85536-14	<0.0050	0.0397	0.0397	0.0250	0.0260	mg/Kg	EPA 8260B	7/31/13	**63.0**	**65.6**	4.14	70.0-130	25
Toluene														
	85536-14	<0.0050	0.0397	0.0397	0.0265	0.0283	mg/Kg	EPA 8260B	7/31/13	**66.8**	71.4	6.64	70.0-130	25
Benzene														
	85557-02	<0.0050	0.0382	0.0395	0.0370	0.0382	mg/Kg	EPA 8260B	7/31/13	96.7	96.7	0.00917	70.0-130	25
Ethylbenzene														
	85557-02	<0.0050	0.0382	0.0395	0.0381	0.0387	mg/Kg	EPA 8260B	7/31/13	99.7	97.9	1.76	70.0-130	25
Methyl-t-butyl ether														
	85557-02	<0.0050	0.0381	0.0394	0.0360	0.0358	mg/Kg	EPA 8260B	7/31/13	94.4	90.9	3.75	60.0-130	25
Naphthalene														
	85557-02	<0.0050	0.0382	0.0395	0.0358	0.0323	mg/Kg	EPA 8260B	7/31/13	93.6	81.8	13.4	70.0-130	25
P + M Xylene														
	85557-02	<0.0050	0.0382	0.0395	0.0372	0.0386	mg/Kg	EPA 8260B	7/31/13	97.2	97.6	0.343	70.0-130	25
Toluene														
	85557-02	<0.0050	0.0382	0.0395	0.0384	0.0394	mg/Kg	EPA 8260B	7/31/13	100	99.6	0.927	70.0-130	25
Benzene														
	85536-33	<0.0050	0.0393	0.0390	0.0327	0.0337	mg/Kg	EPA 8260B	7/31/13	83.2	86.4	3.75	70.0-130	25

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Report Number : 85536

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 08/05/2013

Project Name : **I42705191**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Ethylbenzene														
	85536-33	<0.0050	0.0393	0.0390	0.0330	0.0342	mg/Kg	EPA 8260B	7/31/13	83.9	87.9	4.57	70.0-130	25
Methyl-t-butyl ether														
	85536-33	<0.0050	0.0392	0.0389	0.0370	0.0377	mg/Kg	EPA 8260B	7/31/13	94.4	96.9	2.63	60.0-130	25
Naphthalene														
	85536-33	<0.0050	0.0393	0.0390	0.0342	0.0360	mg/Kg	EPA 8260B	7/31/13	86.9	92.3	6.04	70.0-130	25
P + M Xylene														
	85536-33	<0.0050	0.0393	0.0390	0.0333	0.0345	mg/Kg	EPA 8260B	7/31/13	84.7	88.5	4.43	70.0-130	25
Toluene														
	85536-33	<0.0050	0.0393	0.0390	0.0338	0.0346	mg/Kg	EPA 8260B	7/31/13	86.0	88.6	2.98	70.0-130	25
Benzene														
	85536-09	<0.0050	0.0386	0.0390	0.0139	0.0142	mg/Kg	EPA 8260B	8/1/13	**36.1**	**36.6**	1.33	70.0-130	25
Ethylbenzene														
	85536-09	<0.0050	0.0386	0.0390	0.0146	0.0146	mg/Kg	EPA 8260B	8/1/13	**37.7**	**37.6**	0.430	70.0-130	25
Methyl-t-butyl ether														
	85536-09	<0.0050	0.0385	0.0389	0.0122	0.0136	mg/Kg	EPA 8260B	8/1/13	**31.8**	**35.1**	10.1	60.0-130	25
Naphthalene														
	85536-09	<0.0050	0.0386	0.0390	0.0116	0.0107	mg/Kg	EPA 8260B	8/1/13	**30.0**	**27.5**	8.82	70.0-130	25

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2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 85536

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 08/05/2013

Project Name : **I42705191**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
P + M Xylene														
	85536-09	<0.0050	0.0386	0.0390	0.0150	0.0151	mg/Kg	EPA 8260B	8/1/13	**38.8**	**38.6**	0.368	70.0-130	25
Toluene														
	85536-09	<0.0050	0.0386	0.0390	0.0143	0.0146	mg/Kg	EPA 8260B	8/1/13	**37.1**	**37.4**	0.559	70.0-130	25
Benzene														
	85536-30	<0.0050	0.0397	0.0386	0.0278	0.0253	mg/Kg	EPA 8260B	8/1/13	70.2	**65.5**	6.88	70.0-130	25
Ethylbenzene														
	85536-30	0.032	0.0397	0.0386	0.0663	0.0597	mg/Kg	EPA 8260B	8/1/13	85.1	70.3	19.0	70.0-130	25
Methyl-t-butyl ether														
	85536-30	<0.0050	0.0396	0.0385	0.0237	0.0244	mg/Kg	EPA 8260B	8/1/13	**59.8**	63.3	5.63	60.0-130	25
P + M Xylene														
	85536-30	<0.0050	0.0397	0.0386	0.0348	0.0318	mg/Kg	EPA 8260B	8/1/13	87.6	82.4	6.11	70.0-130	25
Toluene														
	85536-30	<0.0050	0.0397	0.0386	0.0280	0.0255	mg/Kg	EPA 8260B	8/1/13	70.5	**66.0**	6.53	70.0-130	25
Ethylbenzene														
	85536-16	<0.0050	0.0387	0.0388	0.0310	0.0303	mg/Kg	EPA 8260B	8/2/13	80.1	78.1	2.49	70.0-130	25
Naphthalene														
	85536-16	<0.0050	0.0387	0.0388	0.0230	0.0225	mg/Kg	EPA 8260B	8/2/13	**59.4**	**57.8**	2.72	70.0-130	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 85536

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 08/05/2013

Project Name : **I42705191**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
P + M Xylene														
	85536-16	<0.0050	0.0387	0.0388	0.0304	0.0295	mg/Kg	EPA 8260B	8/2/13	78.5	76.0	3.28	70.0-130	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Laboratory Control Sample (LCS)

Date : 08/05/2013

Project Name : **I42705191**

Project Number :

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
TPH-D (Si Gel)	20.0	mg/Kg	M EPA 8015	7/31/13	91.8	70-130
TPH-D (Si Gel)	20.0	mg/Kg	M EPA 8015	8/1/13	101	70-130
TPH-D (Si Gel)	20.0	mg/Kg	M EPA 8015	8/2/13	92.4	70-130
Benzene	0.0399	mg/Kg	EPA 8260B	7/30/13	90.9	70.0-130
Ethylbenzene	0.0399	mg/Kg	EPA 8260B	7/30/13	90.1	70.0-130
Methyl-t-butyl ether	0.0398	mg/Kg	EPA 8260B	7/30/13	88.4	60.0-130
P + M Xylene	0.0399	mg/Kg	EPA 8260B	7/30/13	87.1	70.0-130
Toluene	0.0399	mg/Kg	EPA 8260B	7/30/13	89.6	70.0-130
Benzene	0.0388	mg/Kg	EPA 8260B	7/30/13	95.8	70.0-130
Ethylbenzene	0.0388	mg/Kg	EPA 8260B	7/30/13	96.5	70.0-130
Methyl-t-butyl ether	0.0387	mg/Kg	EPA 8260B	7/30/13	105	60.0-130
Naphthalene	0.0388	mg/Kg	EPA 8260B	7/30/13	93.4	70.0-130
P + M Xylene	0.0388	mg/Kg	EPA 8260B	7/30/13	97.0	70.0-130
Toluene	0.0388	mg/Kg	EPA 8260B	7/30/13	99.5	70.0-130
Benzene	0.0393	mg/Kg	EPA 8260B	7/31/13	94.7	70.0-130
Ethylbenzene	0.0393	mg/Kg	EPA 8260B	7/31/13	96.0	70.0-130

QC Report : Laboratory Control Sample (LCS)

Project Name : **I42705191**

Project Number :

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Methyl-t-butyl ether	0.0392	mg/Kg	EPA 8260B	7/31/13	83.4	60.0-130
P + M Xylene	0.0393	mg/Kg	EPA 8260B	7/31/13	92.7	70.0-130
Toluene	0.0393	mg/Kg	EPA 8260B	7/31/13	93.4	70.0-130
Benzene	0.0385	mg/Kg	EPA 8260B	7/31/13	96.8	70.0-130
Ethylbenzene	0.0385	mg/Kg	EPA 8260B	7/31/13	99.1	70.0-130
Methyl-t-butyl ether	0.0384	mg/Kg	EPA 8260B	7/31/13	89.7	60.0-130
Naphthalene	0.0385	mg/Kg	EPA 8260B	7/31/13	91.0	70.0-130
P + M Xylene	0.0385	mg/Kg	EPA 8260B	7/31/13	97.1	70.0-130
Toluene	0.0385	mg/Kg	EPA 8260B	7/31/13	102	70.0-130
Benzene	0.0388	mg/Kg	EPA 8260B	7/31/13	94.2	70.0-130
Ethylbenzene	0.0388	mg/Kg	EPA 8260B	7/31/13	94.1	70.0-130
Methyl-t-butyl ether	0.0386	mg/Kg	EPA 8260B	7/31/13	104	60.0-130
Naphthalene	0.0388	mg/Kg	EPA 8260B	7/31/13	88.8	70.0-130
P + M Xylene	0.0388	mg/Kg	EPA 8260B	7/31/13	95.1	70.0-130
Toluene	0.0388	mg/Kg	EPA 8260B	7/31/13	98.2	70.0-130
Benzene	0.0397	mg/Kg	EPA 8260B	8/1/13	89.3	70.0-130
Ethylbenzene	0.0397	mg/Kg	EPA 8260B	8/1/13	93.5	70.0-130
Methyl-t-butyl ether	0.0396	mg/Kg	EPA 8260B	8/1/13	82.5	60.0-130
Naphthalene	0.0397	mg/Kg	EPA 8260B	8/1/13	92.7	70.0-130

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Laboratory Control Sample (LCS)

Date : 08/05/2013

Project Name : **I42705191**

Project Number :

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
P + M Xylene	0.0397	mg/Kg	EPA 8260B	8/1/13	93.0	70.0-130
Toluene	0.0397	mg/Kg	EPA 8260B	8/1/13	90.5	70.0-130
Benzene	0.0399	mg/Kg	EPA 8260B	8/1/13	85.3	70.0-130
Ethylbenzene	0.0399	mg/Kg	EPA 8260B	8/1/13	90.0	70.0-130
Methyl-t-butyl ether	0.0398	mg/Kg	EPA 8260B	8/1/13	77.1	60.0-130
P + M Xylene	0.0399	mg/Kg	EPA 8260B	8/1/13	88.2	70.0-130
Toluene	0.0399	mg/Kg	EPA 8260B	8/1/13	85.9	70.0-130
Ethylbenzene	0.0398	mg/Kg	EPA 8260B	8/2/13	94.1	70.0-130
Naphthalene	0.0398	mg/Kg	EPA 8260B	8/2/13	93.6	70.0-130
P + M Xylene	0.0398	mg/Kg	EPA 8260B	8/2/13	92.1	70.0-130

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

KIFF Analytical LLC

2795 2nd Street Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No. 855536

Page 1 of 3

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): Dennis Dettloff

California EDF Report? ☐ Yes ☐ No

Company / Address: Antea Group
11050 White Rock Road, Suite 110
Rancho Cordova, CA 95670

Sampling Company Log Code:

Phone #: (916) 503-1261

Fax #:

Global ID: T0600101476

Project #: Cummins2 0002

P.O. #:

EDF Deliverable To (Email Address): dennis.dettloff@anteagroup.com; jonathan.fillingame@anteagroup.com

Project Name: I42705191 0004

Sampler Signature: Jonathan Fillingame

Project Address: 449 Hegenberger Road, Oakland, CA

Sample Designation	Field Point Name	Sampling Date	Sampling Time	Container: 40 ml VOA	Container: Sleeve	Container: Poly	Container: Glass	Container: Tedlar	Container:	Preservative: HCl	Preservative: HNO_3	Preservative: None	Preservative:	Preservative:	Matrix: Water	Matrix: Soil	Matrix:	Matrix:	EPA 8260B TPHg, Btex, MTBE, naphthalene	EPA 8015M TPHd - Silica Gel		hold.							TAT	For Lab Use Only
SB-1d5.5	SB-1	7/25	9:35																									☐ 12 hr ☐ 24 hr ☐ 48hr ☐ 72 hr ☒ 1 wk	01
SB-1d11	SB-1	7/25	9:40																										02
SB-1d12	SB-1	7/25	9:42																										03
SB-1d15	SB-1	7/25	9:45																										04
SB-2d1	SB-2	7/25	10:25																X	X									05
SB-2d3	SB-2	7/25	10:32																X	X									06
SB-2d5	SB-2	7/25	10:55																X	X									07
SB-2d7.5	SB-2	7/25	11:00																										08
SB-2d11	SB-2	7/25	11:09																										09
SB-2d15	SB-2	7/25	11:20																										10
SB-3d7.5	SB-3	7/25	13:10																										11
SB-3d11	SB-3	7/25	13:12																										12

Relinquished by:	Date	Time	Received by:
Jonathan Fillingame	7/26/13	17:00	
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by Laboratory:
	07 2013	1709	

Samples not marked for analysis are on hold.

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID	Coolant Present
					Yes / No

KIFF Analytical LLC

2795 2nd Street Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No. 85536

Page 2 of 3

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): Dennis Dettloff	California EDF Report? ☐ Yes ☐ No
Company / Address: Antea Group 11050 White Rock Road, Suite 110 Rancho Cordova, CA 95670	Sampling Company Log Code:
Phone #: (916) 503-1261 / Fax #:	Global ID: T0600101476
Project #: Cummins2 0002 / P.O. #:	EDF Deliverable To (Email Address): dennis.dettloff@anteagroup.com; jonathan.fillingame@anteagroup.com
Project Name: I42705191 0004	Sampler Signature: Jonathan F Dillingame
Project Address: 449 Hegenberger Road Oakland, CA	

Analysis Request

TAT: ☐ 12 hr ☐ 24 hr ☐ 48hr ☐ 72 hr ☒ 1 wk

Sample Designation	Field Point Name	Sampling: Date	Sampling: Time	Container: 40 ml VOA	Container: Sleeve	Container: Poly	Container: Glass	Container: Tedlar	Preservative: HCl	Preservative: HNO_3	Preservative: None	Matrix: Water	Matrix: Soil	EPA 8260B TPHg, Btex, MTBE, naphthalene	EPA 8015M TPHd - Silica Gel			hold						For Lab Use Only
SB-3d 13	SB-3	7/25	13:19															1						13
SB-4 d 1	SB-4	7/25	14:00																					14
SB-4d 3	SB-4	7/25	14:05																					15
SB-4d 5	SB-4	7/25	14:10																					16
SB-4d 8	SB-4	7/25	14:18																					17
SB-4d 11	SB-4	7/25	14:25																					18
SB-4d 15	SB-4	7/25	14:30																					19
SB-5d 6	SB-5	7/25	15:05																					20
SB-5d 11	SB-5	7/25	15:08																					21
SB-5d 15	SB-5	7/25	15:10																					22
SB-6d 6.5	SB-6	7/26	8:00																					23
SB-6d 11	SB-6	7/26	8:02																					24

Relinquished by:	Date	Time	Received by:
Jonathan F Dillingame	7/26/13	17:20	
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by Laboratory:
	072613	1719	Lab Staff

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID	Coolant Present
					Yes / No

KIFF Analytical LLC

2795 2nd Street Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No. 85536

Page 3 of 3

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): Dennis Dettloff

California EDF Report? ☐ Yes ☐ No

Company / Address: Antea Group
11050 White Rock Road, Suite 110
Rancho Cordova, CA 95670

Sampling Company Log Code:

Phone #: (916) 503-1261

Fax #:

Global ID: T0600101475

Project #: Cummins2 0002

P.O. #:

EDF Deliverable To (Email Address):
dennis.dettloff@anteagroup.com
jonathan.fillingame@anteagroup.com

Project Name: I42705191 0004

Sampler Signature: Jonathan Fillingame

Project Address: 449 Hegenberger Road Oakland, CA

Analysis Request

TAT: ☐ 12 hr ☐ 24 hr ☐ 48hr ☐ 72 hr ☒ 1 wk

Sample Designation	Field Point Name	Sampling Date	Sampling Time	Container: 40 ml VOA	Container: Sleeve	Container: Poly	Container: Glass	Container: Tedlar	Container:	Preservative: HCl	Preservative: HNO_3	Preservative: None	Preservative:	Preservative:	Preservative:	Matrix: Water	Matrix: Soil	Matrix:	Matrix:	EPA 8260B TPHg, Btex, MTBE, naphthalene	EPA 8015M TPHd - Silica Gel		Hold							For Lab Use Only
SB-6d.15	SB-6	7/26	8:05																											25
SB-7d.6	SB-7	7/26	8:58																											26
SB-7d.11	SB-7	7/26	9:00																											27
SB-7d.13	SB-7	7/26	9:02																											28
SB-8d.8	SB-8	7/26	9:50																											29
SB-8d.11	SB-8	7/26	9:53																											30
SB-9d.6	SB-9	7/26	11:16																											31
SB-9d.9	SB-9	7/26	10:45																											32
SB-9d.13	SB-9	7/26	10:47																											33
SB-10d.8	SB-10	7/26	11:58																											34
SB-10d.11	SB-10	7/26	12:00																											35

Relinquished by:	Date	Time	Received by:
Jonathan Fillingame	7/26/23	17:00	
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by Laboratory:
	072623	1709	

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID	Coolant Present
					Yes / No

KIFF Analytical LLC

2795 2nd Street Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No. _____

Page 1 of 3

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): Dennis Dettloff	California EDF Report? ☐ Yes ☐ No
Company / Address: Antea Group 11050 White Rock Road, Suite 110 Rancho Cordova, CA 95670	Sampling Company Log Code:
Phone #: (916) 503-1261 Fax #:	Global ID: T0600101476
Project #: ~~Cummins2 0002~~ I42705191 P.O. #:	EDF Deliverable To (Email Address): dennis.dettloff@anteagroup.com jonathan.fillingame@anteagroup.com
Project Name: I42705191 0004	Sampler Signature: Jonathan Fillingame
Project Address: 449 Hegenberger Road Oakland, CA	

Sample Designation	Field Point Name	Sampling Date	Sampling Time	Container: 40 ml VOA	Container: Sleeve	Container: Pol.	Container: Glass	Container: Tedlar	Preservative: HC	Preservative: HNO_3	Preservative: None	Matrix: Water	Matrix: Soil	EPA 8260B TPHg, Btex, MTBE, naphthalene	EPA 8015M TPHd - Silica Gel	hold	TAT: 12 hr	TAT: 24 hr	TAT: 48hr	TAT: 72 hr	TAT: 1 wk	For Lab Use Only
SB-1 d 5.5	SB-1	7/25	9:35											X	X							01
SB-1 d 11	SB-1	7/25	9:48											X	X							02
SB-1 d 12	SB-1	7/25	9:52											~~X~~	~~X~~							03
SB-1 d 15	SB-1	7/25	9:45											X	X							04
SB-2 d 1	SB-2	7/25	10:25											X	X							05
SB-2 d 3	SB-2	7/25	10:34											X	X							06
SB-2 d 5	SB-2	7/25	10:55											X	X							07
SB-2 d 7.5	SB-2	7/25	11:00											—	—							08
SB-2 d 11	SB-2	7/25	11:09											X	X							09
SB-2 d 15	SB-2	7/25	11:20											X	X							10
SB-3 d 7.5	SB-3	7/25	13:10											X	X							11
SB-3 d 11	SB-3	7/25	13:12											—								12

Relinquished by:	Date	Time	Received by:
Jonathan Fillingame	7/26/13	17:00	
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by Laboratory:
	072613	1709	

Samples not marked for analysis are on hold.

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	therm. ID	Coolant Present
					Yes / No

KIFF Analytical LLC

2795 2nd Street Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No. _____

Page 2 of 3

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): Dennis Dettloff	California EDF Report? ☐ Yes ☐ No
Company / Address: Antea Group 11050 White Rock Road, Suite 110 Rancho Cordova, CA 95670	Sampling Company Log Code:
Phone #: (916) 503-1261 Fax #:	Global ID: T0600101476
Project #: ~~Cummins2 0002~~ I42705191 P.O. #:	EDF Deliverable To (Email Address): dennis.dettloff@anteagroup.com; jonathan.fillingame@anteagroup.com
Project Name: I42705191 0004	Sampler Signature: Jonathan Fillingame
Project Address: 449 Hegenberger Road Oakland, CA	

Sample Designation	Field Point Name	Sampling Date	Sampling Time	Container: 40 ml VOA	Container: Sleeve	Container: Pol.	Container: Glass	Container: Tedlar	Preservative: HC	Preservative: HNO3	Preservative: None	Matrix: Water	Matrix: Soil	EPA 8260B TPHg, Btex, MTBE, naphthalene	EPA 8015M TPHd - Silica Gel	Analysis Request: hold	TAT: 12 hr ☐	TAT: 24 hr ☐	TAT: 48hr ☐	TAT: 72 hr ☐	TAT: 1 WK ☐	For Lab Use Only
SB-3d 15	SB-3	7/25	13:19											X	X							13
SB-4 d 1	SB-4	7/25	14:00											↓	↓							14
SB-4d 3	SB-4	7/25	14:05																			15
SB-4d 5	SB-4	7/25	14:10																			16
SB-4d 8	SB-4	7/25	14:10											X	X							17
SB-4d 11	SB-4	7/25	14:15											—	—							18
SB-4d 15	SB-4	7/25	14:20											X	X							19
SB-5d 6	SB-5	7/25	15:05											X	X							20
SB-5d 11	SB-5	7/25	15:08											—	—							21
SB-5d 15	SB-5	7/25	15:10											X	X							22
SB-6d 6.5	SB-6	7/26	8:00											X	X							23
SB-6d 11	SB-6	7/26	8:02											—	—							24

	Date	Time	Received by:
Relinquished by: Jonathan Fillingame	7/26/13	17:00	
Relinquished by:			Received by:
Relinquished by:	Date 07/26/13	Time 1719	Received by Laboratory:

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	Therm. ID	Coolant Present
					Yes / No

KIFF Analytical LLC

2795 2nd Street Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No. _____

Page 3 of 3

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): Dennis Dettloff	California EDF Report? ☐ Yes ☐ No
Company / Address: Antea Group 11050 White Rock Road, Suite 110 Rancho Cordova, CA 95670	Sampling Company Log Code:
Phone #: (916) 503-1261	Fax #:
Global ID: T0600101475	
Project #: ~~Cummins2 0002~~ I42705191	P.O. #:
EDF Deliverable To (Email Address): dennis.dettloff@anteagroup.com; jonathan.fillingame@anteagroup.com	
Project Name: I42705191 0004	Sampler Signature: Jonathan Fillingame
Project Address: 449 Hegenberger Road, Oakland, CA	

Sample Designation	Field Point Name	Sampling Date	Sampling Time	Container: 40 ml VOA	Container: Sleeve	Container: Poly	Container: Glass	Container: Tedlar	Preservative: HCl	Preservative: HNO_3	Preservative: None	Matrix: Water	Matrix: Soil	EPA 8260B TPHg, Btex, MTBE, naphthalene	EPA 8015M TPHd - Silica Gel	hold	TAT: 12 hr	TAT: 24 hr	TAT: 48hr	TAT: 72 hr	TAT: LBS 1 WK	For Lab Use Only
SB-6d15	SB-6	7/26	8:05											X	X							25
SB-7d6	SB-7	7/26	8:58											X	X							26
SB-7d11	SB-7	7/26	9:00											X	X							27
SB-7d13	SB-7	7/26	9:02											X	X							28
SB-8d8	SB-8	7/26	9:50											X	X							29
SB-8d11	SB-8	7/26	9:53											X	X							30
SB-9d6	SB-9	7/26	11:16											X	X							31
SB-9d9	SB-9	7/26	10:45											—	—							32
SB-9d15	SB-9	7/26	10:47											X	X							33
SB-10d8	SB-10	7/26	11:58											X	X							34
SB-10d11	SB-10	7/26	12:00											X	X							35

Relinquished by:	Date	Time	Received by:
Jonathan Fillingame	7/26/13	17:00	
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by Laboratory:
	072613	1709	

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	herm. ID	Coolant Present
					Yes / No

KIFF Analytical LLC

SAMPLE RECEIPT CHECKLIST

SRG #: 85536

Sample Receipt	Initials/Date: [illegible] 072613	Storage Time: 1709	Sample Login	Initials/Date: TJB 072413

TAT: ☒ Standard ☐ Rush ☐ Split ☐ None

Method of Receipt: ☐ Courier ☒ Over-the-counter ☐ Shipped

Temp °C 5.4 ☐ N/A | Therm ID IR-3 | Time 1700 | Coolant present ☒ Yes ☐ No ☐ Water | ☐ Temp Excursion

For Shipments Only: Cooler Receipt Initials/Date/Time: | Custody Seals ☐ N/A ☐ Intact ☐ Broken

Chain-of-Custody:	Yes	No
Is COC present?	✓	
Is COC signed by relinquisher?	✓	
Is COC dated by relinquisher?	✓	
Is the sampler's name on the COC?	✓	
Are there analyses or hold for all samples?		✓

Documented on	COC	Labels	Discrepancies:
Sample ID	X	X	5191 on most labels
Project ID	X	X	
Sample Date	X	X	
Sample Time	X	X	Sample - 27 has 8:00 on the anterior.
Does COC match project history?	☒ N/A	☐ Yes	☐ No

Samples:	N/A	Yes	No
Are sample custody seals intact?	✓		
Are sample containers intact?		✓	
Is preservation documented?	✓		
In-house Analysis:	**N/A**	**Yes**	**No**
Are preservatives acceptable?	✓		
Are samples within holding time?		✓	
Are sample container types correct?		✓	
Is there adequate sample volume?		✓	

Comments:

Receipt Details:

Matrix	Container Type	# of Containers
So	sleeve	35

CS Required: ☐

Proceed With Analysis: ☐ YES ☐ NO Init/Date:

Client Communication:

Is the Data Valid? (circle) Yes / No	Preservation Temperature (if Known): 5.4 °C

Antea Group Lab Validation Sheet

Project/Client: COP/ELT
Project #: I42705191
Date of Validation: 12/2/13 **Date of Analysis:** 8/1/13 **Sample Date:** 7/25/13
Completed By: Jon F. **Signature:** Jonathan Filingeri
Analytical Lab Used and Report # (if any): Kiff Analytical LLC 85536

	Circle or Highlight Yes/No below	
1. Was the analysis the one requested?	Yes / No	
2. Do the sample number(s) on the chain-of-custody (COC) match the one(s) that appear on the laboratory data sheet?	Yes / No	
3. Were samples prepared (extracted, filtered, etc.) within EPA holding times?	Yes / No	
4. Once prepared/extracted, were the samples analyzed within the EPA holding times?	Yes / No	
5. Were Laboratory blanks performed, if so, were they below non-detect?	Yes / No	
6. Are the units correct? (i.e., soil samples in mg/kg or ug/g, water samples mg/L, ug/L, and air samples in volume mg/m^3,etc.)	Yes / No	
7. Were appropriate Matrix Spike (MS) and Matrix Spike Duplicate (MSD) samples included in the laboratory batch sample?	Yes / No	
8. In lieu of MS/ MSD, were surrogate spike (SS) or surrogate spike duplicate (SSD) samples included in the laboratory batch samples?	Yes / No	N/a
9. Were MS/ MSD (or SS/SSD) within the acceptable range of % recovery (i.e., approx 80-120% depending on analyte)?	Yes / No	
10. Were MS/MSD (or SS/SSD) values used to calculate Relative Percent Difference (RPD)?	Yes / No	
11. Were Relative Percent Difference values within the acceptable range (i.e. ± 25%)?	Yes / No	

If any answer is no, explain why and what corrective action was taken:

9. MS/MSD results associated with sample SB-2d11 for the analytes Ethylbenzene, P+M Xylene, and Toluene were outside of control limits. This may indicate a bias for the sample that was spiked. Since the LCS recoveries were within control limits, no data are flagged.
MS/MSD results associated with sample SB-7d6 for the analytes Benzene, MTBE, and Toluene were outside of control limits. This may indicate a bias for the sample that was spiked. Since the LCS recoveries were within control limits, no data are flagged.
MS/MSD results associated with sample SB-7d6 for the analyte Naphtalene were outside of control limits. This may indicate a bias for the sample that was spiked. Since the LCS recoveries were within control limits, no data are flagged.
MS/MSD results associated with sample SB-1d5.5, SB-1d11, SB-1d15, SB-3d7.5, SB-5d6, and SB-2d11 for the analytes Benzene, Ethylbenzene, MTBE, Naphtalene, P+M Xylene, and Toluene were outside of control limits. This may indicate a bias for the sample that was spiked. Since the LCS recoveries were within control limits, no data are flagged.

KIFF Analytical LLC

Report Number : 85535
Date : 08/01/2013

Laboratory Results

Dennis Dettloff
Antea Group
11050 White Rock Rd. Suite 110
Rancho Cordova, CA 95670

Subject : 1 Soil Sample and 1 Water Sample
Project Name : I42705191
Project Number :

Dear Mr. Dettloff,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed. Testing procedures comply with the 2003 NELAC and TNI 2009 standards. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Troy G. Turpen

Troy Turpen

KIFF Analytical LLC

Report Number : 85535
Date : 08/01/2013

Subject : 1 Soil Sample and 1 Water Sample
Project Name : I42705191
Project Number :

Case Narrative

All soil samples were reported on a total weight (wet weight) basis.

Matrix Spike/Matrix Spike Duplicate results associated with sample Waste Water for the analyte Benzene were affected by the analyte concentrations already present in the un-spiked sample.

KIFF Analytical LLC

Analysis Summary

Report Number : 85535
Date : 08/01/13

Attention : Dennis Dettloff
Antea Group
11050 White Rock Rd. Suite 110
Rancho Cordova, CA 95670

Project Name :I42705191
Project Number :

			Sample Name	Waste Soil
			Sample Date	07/26/13
Analyte	Method	Units	MRL	Results
Lead	EPA 6010B	mg/Kg	0.50	**5.8**
Benzene	EPA 8260B	mg/Kg	0.0050	ND
Ethylbenzene	EPA 8260B	mg/Kg	0.0050	ND
Toluene	EPA 8260B	mg/Kg	0.0050	ND
Total Xylenes	EPA 8260B	mg/Kg	0.0050	ND
Methyl-t-butyl ether (MTBE)	EPA 8260B	mg/Kg	0.0050	ND
TPH as Gasoline	EPA 8260B	mg/Kg	1.0	ND
1,2-Dichloroethane-d4 (Surr)	EPA 8260B	%		103
Toluene - d8 (Surr)	EPA 8260B	%		98.8

MRL = Method Reporting Limit
ND = Not Detected

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800
ELAP # 2236

KIFF Analytical LLC

Analysis Summary

Report Number : 85535

Date : 08/01/13

Attention : Dennis Dettloff
Antea Group
11050 White Rock Rd. Suite 110
Rancho Cordova, CA 95670

Project Name :I42705191
Project Number :

			Sample Name	Waste Water
			Sample Date	07/26/13
Analyte	Method	Units	MRL	Results
Lead	EPA 6010B	mg/L	0.0050	**0.0052**
Benzene	EPA 8260B	ug/L	9.0	ND
Ethylbenzene	EPA 8260B	ug/L	9.0	**72**
Toluene	EPA 8260B	ug/L	9.0	**64**
Total Xylenes	EPA 8260B	ug/L	9.0	**320**
Methyl-t-butyl ether (MTBE)	EPA 8260B	ug/L	9.0	ND
TPH as Gasoline	EPA 8260B	ug/L	900	**6200**
1,2-Dichloroethane-d4 (Surr)	EPA 8260B	%		100
Toluene - d8 (Surr)	EPA 8260B	%		103

MRL = Method Reporting Limit
ND = Not Detected

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800
ELAP # 2236

KIFF Analytical LLC

Report Number : 85535

Date : 08/01/13

Project Name : **I42705191**

Project Number :

Sample : **Waste Soil** Matrix : Soil Lab Number : 85535-01

Sample Date :07/26/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Lead	**5.8**	0.50	mg/Kg	EPA 6010B	07/30/13 14:41
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/29/13 21:55
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/29/13 21:55
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/29/13 21:55
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/29/13 21:55
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/29/13 21:55
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	07/29/13 21:55
1,2-Dichloroethane-d4 (Surr)	103		% Recovery	EPA 8260B	07/29/13 21:55
Toluene - d8 (Surr)	98.8		% Recovery	EPA 8260B	07/29/13 21:55

KIFF Analytical LLC

Report Number : 85535
Date : 08/01/13

Project Name : **I42705191**
Project Number :

Sample : **Waste Water** Matrix : Water Lab Number : 85535-02
Sample Date :07/26/13

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Lead	**0.0052**	0.0050	mg/L	EPA 6010B	07/31/13 11:50
Benzene	< 9.0	9.0	ug/L	EPA 8260B	07/30/13 09:59
Toluene	**64**	9.0	ug/L	EPA 8260B	07/30/13 09:59
Ethylbenzene	**72**	9.0	ug/L	EPA 8260B	07/30/13 09:59
Total Xylenes	**320**	9.0	ug/L	EPA 8260B	07/30/13 09:59
Methyl-t-butyl ether (MTBE)	< 9.0	9.0	ug/L	EPA 8260B	07/30/13 09:59
TPH as Gasoline	**6200**	900	ug/L	EPA 8260B	07/30/13 09:59
(Note: Primarily compounds not found in typical Gasoline)					
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	07/30/13 09:59
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	07/30/13 09:59

Report Number : 85535

QC Report : Method Blank Data

Date : 08/01/13

Project Name : **I42705191**

Project Number :

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Lead	< 0.50	0.50	mg/Kg	EPA 6010B	07/30/13
Lead	< 0.0050	0.0050	mg/L	EPA 6010B	07/30/13
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/29/13
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/29/13
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/29/13
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/29/13
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	07/29/13
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	07/29/13
1,2-Dichloroethane-d4 (Surr)	102		%	EPA 8260B	07/29/13
Toluene - d8 (Surr)	99.3		%	EPA 8260B	07/29/13
Benzene	< 0.50	0.50	ug/L	EPA 8260B	07/29/13
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	07/29/13
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/29/13
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	07/29/13
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	07/29/13
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	07/29/13
1,2-Dichloroethane-d4 (Surr)	103		%	EPA 8260B	07/29/13
Toluene - d8 (Surr)	103		%	EPA 8260B	07/29/13

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 85535

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 08/01/13

Project Name : **I42705191**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Lead														
	85535-01	5.8	46.3	46.3	48.6	48.0	mg/Kg	EPA 6010B	7/30/13	92.5	91.1	1.37	75-125	20
Lead														
	85485-01	0.0071	0.400	0.400	0.385	0.376	mg/L	EPA 6010B	7/30/13	94.5	92.2	2.42	75-125	20
Benzene														
	85535-01	<0.0050	0.0394	0.0397	0.0387	0.0383	mg/Kg	EPA 8260B	7/29/13	98.4	96.6	1.79	70.0-130	25
Ethylbenzene														
	85535-01	<0.0050	0.0394	0.0397	0.0365	0.0364	mg/Kg	EPA 8260B	7/29/13	92.6	91.6	1.09	70.0-130	25
Methyl-t-butyl ether														
	85535-01	<0.0050	0.0392	0.0396	0.0381	0.0427	mg/Kg	EPA 8260B	7/29/13	97.1	108	10.7	60.0-130	25
P + M Xylene														
	85535-01	<0.0050	0.0394	0.0397	0.0352	0.0349	mg/Kg	EPA 8260B	7/29/13	89.4	87.9	1.74	70.0-130	25
Toluene														
	85535-01	<0.0050	0.0394	0.0397	0.0372	0.0370	mg/Kg	EPA 8260B	7/29/13	94.5	93.2	1.32	70.0-130	25
Benzene														
	85532-01	190	39.8	39.8	221	216	ug/L	EPA 8260B	7/30/13	75.4	**60.8**	21.5	70.0-130	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 85535

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 08/01/2013

Project Name : **I42705191**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Ethylbenzene														
	85532-01	11	39.8	39.8	50.4	50.2	ug/L	EPA 8260B	7/30/13	99.7	99.2	0.438	70.0-130	25
Methyl-t-butyl ether														
	85532-01	42	39.7	39.7	84.0	85.1	ug/L	EPA 8260B	7/30/13	107	109	2.52	70.0-130	25
P + M Xylene														
	85532-01	21	39.8	39.8	60.5	59.8	ug/L	EPA 8260B	7/30/13	100	98.3	1.78	70.0-130	25
Toluene														
	85532-01	5.0	39.8	39.8	44.8	45.0	ug/L	EPA 8260B	7/30/13	100	100	0.401	70.0-130	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Laboratory Control Sample (LCS)

Project Name : **I42705191**

Project Number :

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Lead	50.0	mg/Kg	EPA 6010B	7/30/13	97.9	85-115
Lead	0.400	mg/L	EPA 6010B	7/30/13	100	85-115
Benzene	0.0399	mg/Kg	EPA 8260B	7/29/13	97.8	70.0-130
Ethylbenzene	0.0399	mg/Kg	EPA 8260B	7/29/13	101	70.0-130
Methyl-t-butyl ether	0.0398	mg/Kg	EPA 8260B	7/29/13	102	60.0-130
P + M Xylene	0.0399	mg/Kg	EPA 8260B	7/29/13	96.9	70.0-130
Toluene	0.0399	mg/Kg	EPA 8260B	7/29/13	98.1	70.0-130
Benzene	40.0	ug/L	EPA 8260B	7/29/13	98.9	70.0-130
Ethylbenzene	40.0	ug/L	EPA 8260B	7/29/13	104	70.0-130
Methyl-t-butyl ether	39.9	ug/L	EPA 8260B	7/29/13	113	70.0-130
P + M Xylene	40.0	ug/L	EPA 8260B	7/29/13	105	70.0-130
Toluene	40.0	ug/L	EPA 8260B	7/29/13	103	70.0-130

KIFF ANALYTICAL, LLC
2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

KIFF Analytical LLC

2795 2nd Street Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

SRG # / Lab No. 85535

Page 1 of 1

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): Dennis Dettloff	California EDF Report? ☐ Yes ☐ No
Company / Address: Antea Group 11050 White Rock Road, Suite 110 Rancho Cordova, CA 95670	Sampling Company Log Code:
Phone #: (916) 503-1261 / Fax #:	Global ID: T0520121476
Project #: Cummins2 0002 / P.O. #:	EDF Deliverable To (Email Address): dennis.dettloff@anteagroup.com; jonathan.fillingame@anteagroup.com
Project Name: I42705191 0004	Sampler Signature: Jonathan Fillingame
Project Address: 449 Hegenberger Road, Oakland, CA	

Sample Designation	Field Point Name	Sampling Date	Sampling Time	Container: 40 ml VOA	Container: Sleeve	Container: Poly	Container: Glass	Container: Tedlar	Preservative: HCl	Preservative: HNO_3	Preservative: None	Matrix: Water	Matrix: Soil	EPA 8260B TPHg, Btex, MTBE, naphthalene	EPA 8015M TPHd - Silica Gel			BTEX TPHg MTBE	total Lead				TAT	For Lab Use Only
Waste Soil		7/26/13	12:30		X						X		X					X	X				☐ 12 hr ☐ 24 hr ☐ 48hr ☐ 72 hr ☒ 1 wk	01
Waste Water		7/26/13	13:45	X		X			X	X		X						X	X					02

Relinquished by:	Date	Time	Received by:
Jonathan Fillingame	7/26/13	17:00	
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by Laboratory:
	072613	1709	Analyst

For Lab Use Only: Sample Receipt

Temp °C	Initials	Date	Time	herm. ID	Coolant Present
					Yes / No

KIFF Analytical LLC

SAMPLE RECEIPT CHECKLIST

SRG #: 85535

Sample Receipt	Initials/Date: Eag 072613	Storage Time: 1709	Sample Login	Initials/Date: Eag 072613

TAT: ☒ Standard ☐ Rush ☐ Split ☐ None | Method of Receipt: ☐ Courier ☒ Over-the-counter ☐ Shipped

Temp °C 5.4 ☐ N/A | Therm ID IR-3 | Time 1700 | Coolant present ☒ Yes ☐ No ☐ Water | ☐ Temp Excursion

For Shipments Only: Cooler Receipt Initials/Date/Time: | Custody Seals ☐ N/A ☐ Intact ☐ Broken

Chain-of-Custody:	Yes	No
Is COC present?	✓	
Is COC signed by relinquisher?	✓	
Is COC dated by relinquisher?	✓	
Is the sampler's name on the COC?	✓	
Are there analyses or hold for all samples?	✓	

Documented on	COC	Labels	Discrepancies:
Sample ID	✓	✓	
Project ID	✓		
Sample Date	✓	✓	
Sample Time	✓	✓	
Does COC match project history?	☒ N/A ☐ Yes ☐ No		

Samples:	N/A	Yes	No
Are sample custody seals intact?	✓		
Are sample containers intact?		✓	
Is preservation documented?		✓	
In-house Analysis:	**N/A**	**Yes**	**No**
Are preservatives acceptable?		✓	
Are samples within holding time?		✓	
Are sample container types correct?		✓	
Is there adequate sample volume?		✓	

Comments: The COC has a date of 7/2/13 and Lead by 6010 for the analyses request. SR logged the date in per the containers which is 7/26/13 and the method as by 200.7 until further clarification from Client Services. Eag 072613 1910
Correction to previous note - SR will log in Total Lead by 6010 as requested on COC.
MAS 072913 1110

Receipt Details:

Matrix	Container Type	# of Containers
WA	Voa	03
WA	poly	01
SO	sleeve	01

CS Required: ☒

Proceed With Analysis: ☒ YES ☐ NO Init/Date: SAM 072913
Client Communication:

Is the Data Valid? (circle) Yes / No	Preservation Temperature (if Known): 5.4 °C

Antea Group Lab Validation Sheet

Project/Client: COP/ELT
Project #: I42705191
Date of Validation: 12/12/13 **Date of Analysis:** 7/30/13 **Sample Date:** 7/26/13
Completed By: Jon F. **Signature:** Jonathon Fillingame
Analytical Lab Used and Report # (if any): Kiff Analytical LLC 85535

	Circle or Highlight Yes/No below	
1. Was the analysis the one requested?	Yes / No	
2. Do the sample number(s) on the chain-of-custody (COC) match the one(s) that appear on the laboratory data sheet?	Yes / No	
3. Were samples prepared (extracted, filtered, etc.) within EPA holding times?	Yes / No	
4. Once prepared/extracted, were the samples analyzed within the EPA holding times?	Yes / No	
5. Were Laboratory blanks performed, if so, were they below non-detect?	Yes / No	
6. Are the units correct? (i.e., soil samples in mg/kg or ug/g, water samples mg/L, ug/L, and air samples in volume mg/m^3,etc.)	Yes / No	
7. Were appropriate Matrix Spike (MS) and Matrix Spike Duplicate (MSD) samples included in the laboratory batch sample?	Yes / No	
8. In lieu of MS/ MSD, were surrogate spike (SS) or surrogate spike duplicate (SSD) samples included in the laboratory batch samples?	Yes / No	N/a
9. Were MS/ MSD (or SS/SSD) within the acceptable range of % recovery (i.e., approx 80-120% depending on analyte)?	Yes / No	
10. Were MS/MSD (or SS/SSD) values used to calculate Relative Percent Difference (RPD)?	Yes / No	
11. Were Relative Percent Difference values within the acceptable range (i.e. ± 25%)?	Yes / No	

If any answer is no, explain why and what corrective action was taken:

9. MS/MSD results associated with sample Waste Water for the analyte benzene were affected by the analyte concentrations already present in the un-spiked sample.

Appendix D

Waste Manifests

NO. 708848

NON-HAZARDOUS WASTE DATA FORM

BES# 226256

GENERATOR

Generator's Name and Mailing Address
PG&E
ATTENTION: LINDA GARCIA
7160 KOLL CENTER PARKWAY, SUITE 100
PLEASANTON, CA 94566

Generator's Site Address (if different than mailing address)
76 STATION NO. 5191
449 HEGENBERGER RD.
OAKLAND, CA 94621

Generator's Phone: 925-931-5733

Container type removed from site:
☒ Drums ☐ Vacuum Truck ☐ Roll-off Truck ☐ Dump Truck
☐ Other _____
Quantity 1

Container type transported to receiving facility:
☐ Drums ☒ Vacuum Truck ☐ Roll-off Truck ☐ Dump Truck
☐ Other _____
Quantity 1 Volume 55 gallons

WASTE DESCRIPTION NON-HAZARDOUS WATER
GENERATING PROCESS WELL PURGING / DECON WATER

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. WATER		99-100%	3.		
2. TPH		<1%	4.		

Waste Profile _____ PROPERTIES: pH 7-10 ☐ SOLID ☒ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER _____

HANDLING INSTRUCTIONS: _____

Generator Printed/Typed Name JAN WITKOWSKI Signature _____ Month 10 Day 10 Year 13
Arterra Group, Agent for PG&E
The Generator certifies that the waste as described is 100% non-hazardous

TRANSPORTER

Transporter 1 Company Name: BELSHIRE Phone#: 949-460-5200
Transporter 1 Printed/Typed Name: Larry Matthart Signature _____ Month 10 Day 13 Year 13
Transporter Acknowledgment of Receipt of Materials

Transporter 2 Company Name: NIETO & SONS TRUCKING, INC. Phone#: 714-990-6855
Transporter 2 Printed/Typed Name: Miguel Gamez Signature _____ Month 11 Day 12 Year 13
Transporter Acknowledgment of Receipt of Materials

RECEIVING FACILITY

Designated Facility Name and Site Address: DEMENNO KERDOON, 2000 N. ALAMEDA ST., COMPTON, CA 90222 Phone#: 310-537-7100

Printed/Typed Name: Alfredo Ramos Signature _____ Month 11 Day 13 Year 13
Designated Facility Owner or Operator: Certification of receipt of materials covered by this data form.

Manifest

SOIL SAFE OF CA – TPST
Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment:	Responsible for Payment:	Transport Truck #:	Facility #:	Approval Number:	Load #
		393/733	A07	41758	0011

Generator and/or Consultant

Generator's Name and Billing Address: PC&F ATTENTION: LINDA GARCIA 7180 KOLL CENTER PARKWAY, SUITE 100 PLEASANTON, CA 94566	Generator's Phone #: 925-931-5733	CAL000337983
	Person to Contact:	
	FAX#:	Customer Account Number
Consultant's Name and Billing Address:	Consultant's Phone #:	
	Person to Contact:	
	FAX#:	Customer Account Number
Generation Site (Transport from): *(name & address)* 76 STATION NO. 5191 449 HEGENBERGER RD. OAKLAND, CA 94621	Site Phone #:	
	Person to Contact:	
	FAX#:	
Designated Facility (Transport to): *(name & address)* SOIL SAFE 12328 HIBISCUS AVENUE ADELANTO, CA 92301	Facility Phone #: (800) 962-8001	
	Person to Contact: DELLENA JEFFREY	
	FAX#: (760) 246-8004	
Transporter Name and Mailing Address: BELSHIRE 25971 TOWNE CENTRE DRIVE FOOTHILL RANCH, CA 92610 BESI: 226256	Transporter's Phone #: 949-460-5200	CAR000183913
	Person to Contact: LARRY MOOTHART	450647
	FAX#: 949-460-5210	Customer Account Number

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐	1 dm		38100	37600	500
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					.25

List any exception to items listed above: Scale Ticket # 111452

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils descried in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Generator ☐ Consultant ☑	Signature and date:	Month	Day	Year
SA - Belshire - Anti-Group - A soil to Pit		10	10	13

Transporter

Transporter's certification: I/We acknowledge receipt of the soil referenced above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that the soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name:	Signature and date:	Month	Day	Year
Kevin Dunlap		10	31	13

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above.

Print or Type Name:	Signature and date:
D. JEFFREY/J. PROVANSAL	11-14-13

Please print or type.

GENERATOR/CONSULTANTS COPY