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By Alameda County Environmental Health 12:07 pm, May 16, 201

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**RE: 461 8th Street, Oakland, California
PlaNNet Site ID USF04642
PlaNNet Project ID 27481
ACEH Case No. RO0000343**

Dear Ms. Roe:

I am informed and believe that, based on a reasonably diligent inquiry undertaken by AECOM on behalf of Equilon Enterprises LLC dba Shell Oil Products US, the information and/or recommendations contained in the attached document is true, and on that ground I declare under penalty of perjury in accordance with Water Code section 13267 that this statement is true and correct.

As always, please feel free to contact me directly at (714) 731-1050 with any questions or concerns.

Sincerely,
Shell Oil Products US


Andrea A. Wing
Principal Program Manager

May 15, 2017

Kit Soo
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Re: Subsurface Investigation Report and
First Quarter 2017 Groundwater Monitoring Report
Former Shell Service Station
461 8th Street, Oakland, California
Shell PlaNet Site ID: USF04642 / Project ID: 27481
Agency No. RO0000343

Dear Ms. Soo:

On behalf of Equilon Enterprises LLC dba Shell Oil Products US, AECOM Technical Services Inc. is pleased to submit this subsurface investigation report detailing well installations and groundwater monitoring performed during the first quarter of 2017 for the Former Shell Service Station located at 461 8th Street in Oakland, California.

If you have any questions regarding this submittal, please contact Shane Olton at (916) 414-5849 or Shane.Olton@aecom.com.

Sincerely,



Helen Hild
Geologist



Shane Olton, P.G.
Project Manager



Enclosures: Subsurface Investigation Report and First Quarter 2017 Groundwater Monitoring Report

cc: Andrea Wing, Equilon Enterprises LLC dba Shell Oil Products US
Leroy Griffin, Fire Prevention Bureau
St. Regis Properties, Attn: Sam Remcho,
655 Redwood Highway, Suite 285, Mill Valley, California 94941 (property owner)

Subsurface Investigation Report and First Quarter 2017 Groundwater Monitoring Report

Former Shell Service Station
461 8th Street
Oakland, California

May 2017

Subsurface Investigation Report and First Quarter 2017 Groundwater Monitoring Report

Former Shell Service Station
461 8th Street, Oakland, California

PlaNNet Site ID USF04642
PlaNNet Project ID 27481
Agency No. RO0000343

Submitted to:

Kit Soo
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Submitted by:

AECOM Technical Services, Inc.
300 Lakeside Drive, Suite 400
Oakland, California 94612

On Behalf of

Equilon Enterprises, LLC dba Shell Oil Products US

May 15, 2017

Table of Contents

1	Introduction.....	1-1
1.1	Site Description	1-1
2	Subsurface Investigation	2-1
2.1	Redevelopment.....	2-1
2.2	Permits and Pre-Drilling Procedures	2-1
2.3	Drilling Activities	2-1
2.3.1	Drilling and Groundwater Monitoring Well Installation	2-1
2.3.2	Soil Sampling.....	2-2
2.3.3	Sampling Analyses.....	2-2
2.4	Well Development.....	2-2
2.5	Survey Activities.....	2-2
2.6	Waste Disposal	2-2
3	First Quarter 2017 Groundwater Monitoring.....	3-1
3.1	Site Summary.....	3-1
3.2	Current Activities.....	3-1
3.3	Current Findings	3-1
3.4	Proposed Activities	3-1
4	Discussion of Results	4-1
4.1	Soil.....	4-1
4.1.1	Lithology	4-1
4.1.2	Soil Analytical Summary.....	4-1
4.2	Groundwater	4-2
5	Conclusions and Recommendations	5-1
6	References	6-1

List of Figures

Figure 1 Site Vicinity Map

Figure 2 Site Map

Figure 3 Soil Chemical Concentration Map, February 27, 2017

Figure 4 Groundwater Contour and Chemical Concentration Map, March 17, 2017

List of Tables

Table 1 Historical Soil Analytical Data

Table 2 Historical Groundwater Analytical Data

List of Appendices

Appendix A Regulatory Correspondence

Appendix B Permits

Appendix C Boring Logs

Appendix D Certified Laboratory Analytical Reports

Appendix E Blaine Tech Field Data Sheets

Appendix F Survey Data

Appendix G Waste Manifest

Acronyms and Abbreviations

ACDEH	Alameda County Department of Environmental Health
AECOM	AECOM Technical Services, Inc.
Blaine Tech	Blaine Tech Services, Inc.
BTEX	benzene, toluene, ethylbenzene, total xylenes
DWR	Department of Water Resources
EPA	United States Environmental Protection Agency
Equilon	Equilon Enterprises LLC dba Shell Oil Products US
bgs	below ground surface
GHD	GHD Services Inc.
HASP	health and safety plan
mg/kg	milligrams per kilogram
PES	PES Environmental, Inc.
PID	photoionization detector
the Site	461 8 th Street, Oakland, California
TestAmerica	TestAmerica Laboratories Inc.
TPHg	total petroleum hydrocarbons as gasoline
Work Plan	GHD's <i>Subsurface Investigation Work Plan, Former Shell Service Station, 461 8th Street, Oakland, California. August 31, 2015.</i>
µg/L	micrograms per liter

1 Introduction

AECOM Technical Services, Inc. (AECOM) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Equilon) documenting the installation of two groundwater monitoring wells, S-24 and S-25, and first quarter 2017 groundwater monitoring at the Former Shell Service Station located at 461 8th Street in Oakland, California (the Site).

In GHD Services, Inc. (GHD)'s August 31, 2015, *Subsurface Investigation Work Plan*, (Work Plan), GHD proposed the installation of two on-Site groundwater monitoring wells (S-24 and S-25) and one off-Site groundwater monitoring well (S-26) concurrent with site redevelopment. The Alameda County Department of Environmental Health (ACDEH) provided approval of the Work Plan on September 1, 2015 (Appendix A). GHD installed off-Site well S-26 on September 14 and 15, 2015 (GHD, 2015). Installation of wells S-24 and S-25 were postponed until after the final pour of the building foundation.

This report discusses the analytical results from the installation of the two groundwater monitoring wells, S-24 and S-25 in February 2017, and groundwater monitoring conducted in March of 2017.

1.1 Site Description

The Site is a former Shell service station located on the southwest corner of 8th Street and Broadway in Oakland, California (Figure 1). The service station layout included a station building, underground storage tank complex, and four dispenser islands. The Site is currently being redeveloped into a five-story building with a parking garage, and commercial and residential spaces (Figure 2). The Site is surrounded by mixed commercial and residential areas. The majority of the Site redevelopment was completed near the existing grade with exception to the area designated for car stackers and subsurface utility corridors (Figure 2) (PES Environmental, Inc. [PES], 2016). The area designated for the car stackers was excavated to approximately 14 feet below grade between July 12, 2016 and September 18, 2016.

2 Subsurface Investigation

2.1 Redevelopment

The Site is being redeveloped by 459 8th Street, LLC. The Developer's Contractor placed the 12-inch polyvinyl chloride (PVC) conductor casing to approximately 9 and 10 feet below grade for wells S-24 and S-25, respectively, in August 2016 while constructing the building foundation. The conductor casing was capped with concrete until commencement of remaining well installation activities on February 27, 2017.

2.2 Permits and Pre-Drilling Procedures

AECOM extended the drilling permits that GHD obtained from Alameda County Public Works Agency (ACPWA; Appendix B).

AECOM notified Underground Service Alert at least 48 hours before initiating field activities. AECOM did not complete a private utility survey as the locations of the new well installations were being completed within the 12 inch conductor casing and was not necessary.

AECOM updated the health and safety plan (HASP) to include the potential hazards associated with the concurrent field activities on-Site. A copy of the HASP was available on-Site at all times, and was reviewed and signed by all site workers and visitors prior to the start of work each day. The AECOM site supervisor held tailgate safety meetings each morning to discuss the relevant safety aspects for the days' scheduled work.

2.3 Drilling Activities

2.3.1 Drilling and Groundwater Monitoring Well Installation

All drilling and well construction activities were overseen by an AECOM California Professional Geologist. AECOM subcontracted Gregg Drilling & Testing of Martinez, California (C-57 #485165) to advance two on-Site groundwater monitoring wells (S-24 and S-25) on February 27, 2017 (Figure 2). Both wells were constructed through the 12-inch PVC conductor casing previously installed to 9 (S-24) and 10 (S-25) feet bgs.

The well boring locations S-24 and S-25 were advanced using an 8-inch hollow stem auger within the 12-inch conductor casing to respective total depths of 35 feet bgs. Additionally, the S-25 boring was continuously cored to 37 feet bgs to obtain full recovery of the final core interval. Well S-24 and S-25 were constructed using 2-inch Schedule 40 PVC casing, with a 0.010 inch slotted screen from 20 feet bgs to 35 feet bgs. The wells were backfilled with #3 sand from their respective boring total depths to 18 feet bgs, sealed with hydrated bentonite chips from 18 to 15 feet bgs and cement grout from 15 feet bgs to approximately 1 foot bgs. Surface completions consisted of 8-inch diameter traffic-rated well boxes. Department of Water Resources (DWR) well completion reports were completed and submitted to the ACPWA for forwarding to DWR. The boring logs and well completion schematics for S-24 and S-25 are located in Appendix C.

2.3.2 Soil Sampling

Soil samples were obtained via continuous core from each well boring at 4-foot intervals and logged in the field using the Unified Soil Classification System. Headspace analysis was completed by placing soil in a sealed plastic Ziploc® bag, compositing by hand, and then analyzing with a portable photoionization detector (PID) to measure volatile hydrocarbon vapor concentrations in the Ziploc® bag's headspace. AECOM submitted select soil samples for chemical analyses based on field observations (visual, odors) and PID readings. Soil samples collected from S-24 at 22, 26, and 27 feet bgs were submitted for analysis. Soil samples collected from S-25 at 24, 27, 28, 31, and 35 feet bgs were submitted for analysis. Soil samples for analysis were collected in acetate liners, cut, capped, labelled, entered onto a chain-of-custody record, and placed into a cooler with ice.

2.3.3 Sampling Analyses

Select soil samples were submitted for analysis to TestAmerica Laboratories Inc. (TestAmerica) of Irvine, California, a California-certified laboratory and analyzed for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and total xylenes (BTEX) by United States Environmental Protection Agency (EPA) Method 8260B. The certified laboratory analytical reports are included in Appendix D.

2.4 Well Development

On March 7, 2017, Blaine Tech Services, Inc. (Blaine Tech) of San Jose, California developed groundwater monitoring wells S-24 and S-25 by surging and bailing the well to remove fine-grained sediments from the wells' filter pack. A minimum of 10-casing volumes were removed from each well. Blaine Tech's field notes and well development sheets are presented in Appendix E.

2.5 Survey Activities

AECOM surveyor Brian Coleson (License No. 8367) surveyed the newly installed groundwater monitoring wells on March 23, 2017. Survey data is presented in Appendix F.

2.6 Waste Disposal

A soil waste characterization sample was collected for chemical analysis from the soil cuttings, composited in the field, and placed into one laboratory-provided, 8-ounce glass jar with a Teflon® coated lid. The soil sample was labeled, entered onto a chain-of-custody record, placed into a cooler with ice, and submitted to TestAmerica for analysis. Analytical results are provided in Appendix D.

Soil cuttings and decontamination water were generated during drilling activities. The waste was stored in four appropriately labelled 55-gallon drums on-Site and profiled for disposal. The drums were removed from the Site on March 7, 2017, and sent to Soil Safe's non-hazardous waste disposal facility in Adelanto, California. The waste manifest is included in Appendix G.

3 First Quarter 2017 Groundwater Monitoring

3.1 Site Summary

Frequency of Groundwater Monitoring:	<u>Semiannual, (Annual S-4, Quarterly S-24 and S-25)</u>
Wells Water Level Gauged:	<u>5</u>
Wells Sampled:	<u>5</u>
Is there any Free Product Present in On-Site Monitoring Wells:	<u>No</u>
Current Remediation Activity:	<u>None</u>

3.2 Current Activities

On March 17, 2017, Blaine Tech gauged and sampled the wells according to the established monitoring program for this Site. TestAmerica of Irvine, California, a certified California laboratory, completed the analyses of the groundwater samples.

AECOM prepared a groundwater contour and chemical concentration map (Figure 4), and a groundwater data table (Table 2). Blaine Tech's field notes are presented in Appendix E, and the laboratory report is presented in Appendix D.

3.3 Current Findings

Groundwater Elevation:	<u>7.90 to 10.97 feet above mean sea level</u>
Groundwater Gradient (direction):	<u>0.01 feet per foot</u>
Groundwater Gradient (magnitude):	<u>South</u>

3.4 Proposed Activities

Blaine Tech will gauge and sample wells according to the established monitoring program for this Site. Groundwater monitoring wells S-24 and S-25 will be monitored quarterly for four quarters. This Site is monitored semiannually, and AECOM will issue groundwater monitoring reports semiannually following the monitoring events.

4 Discussion of Results

4.1 Soil

4.1.1 Lithology

Soil encountered during this investigation from 10 feet bgs to the total depth of investigation was predominantly coarse-grained sediments. Soil encountered during drilling of S-24 included fill material from approximately 10 to 24 feet bgs, and clayey sand from approximately 24 feet bgs to the total depth of the boring (35 feet bgs). The encountered fill material is most likely due to backfill from previous 1996 excavation in this area. Soil encountered during the drilling of S-25 included sand with clay and clayey sand from approximately 10 to 36.5 feet bgs and clay from 36.5 feet bgs to total depth of the boring (37 feet bgs). Note that soil was not logged in either boring over the conductor casing interval from ground surface to approximately 10 feet bgs (S-24) and 9 feet bgs (S-25).

Groundwater was first encountered in both borings at a depth of approximately 25 feet bgs.

4.1.2 Soil Analytical Summary

Eight soil samples were analyzed, with the following detections above their respective laboratory reporting limits:

- TPHg was detected in six soil samples at concentrations ranging from 130 milligrams per kilogram (mg/kg) (S-25-35) to 5,400 mg/kg (S-24-26).
- Benzene was detected in six soil samples at concentrations ranging from 0.0015 mg/kg (S-25-27) to 22 mg/kg (S-24-26).
- Toluene was detected in eight soil samples at concentrations ranging from 0.0074 mg/kg (S-25-27) to 120 mg/kg (S-24-26).
- Ethylbenzene was detected in eight soil samples at concentrations ranging from 0.0066 mg/kg (S-25-27) to 130 mg/kg (S-24-26).
- Total xylenes were detected in eight soil samples at concentrations ranging from 0.0340 mg/kg (S-25-27) to 120 mg/kg (S-24-26).

Soil concentrations are similar to historical concentrations detected in this area.

AECOM prepared a soil chemical concentration map (Figure 3), and a soil analytical data table (Table 1).

4.2 Groundwater

Wells S-5, S-6, and S-24 through S-26 were gauged, sampled and analyzed for TPHg and BTEX by EPA Method 8260B, with the following detections above their respective laboratory reporting limits:

- TPHg was detected in five wells at concentrations ranging from of 1,600 micrograms per liter ($\mu\text{g/L}$) (S-26) to 34,000 $\mu\text{g/L}$ (S-5).
- Benzene was detected in five wells at concentrations ranging from 99 $\mu\text{g/L}$ (S-26) to 1,200 $\mu\text{g/L}$ (S-6).
- Toluene was detected in five wells at concentrations ranging from 46 $\mu\text{g/L}$ (S-26) to 1,700 $\mu\text{g/L}$ (S-5).
- Ethylbenzene was detected in five wells at concentrations ranging from 93 $\mu\text{g/L}$ (S-6) to 1,200 $\mu\text{g/L}$ (S-5).
- Total xylenes were detected in five wells at concentrations ranging from 260 $\mu\text{g/L}$ (S-26) to 3,400 $\mu\text{g/L}$ (S-5).

Groundwater concentrations detected in newly installed wells S-24 and S-25 are similar to groundwater concentrations detected in this area historically.

SPH was not detected in measurable quantities during the first quarter groundwater monitoring event. The SPH sock in S-5 was checked and redeployed.

5 Conclusions and Recommendations

- Wells S-24 and S-25 were installed during this investigation to replace previously destroyed on-site wells due to site redevelopment activities.
- Soil and groundwater concentrations reported for newly installed well S-24 and S-25 are similar to historical concentrations in this area.
- AECOM recommends up to one year of quarterly groundwater monitoring for wells S-24 and S-25. The remaining wells will be sampled according to the monitoring and reporting program for the Site.

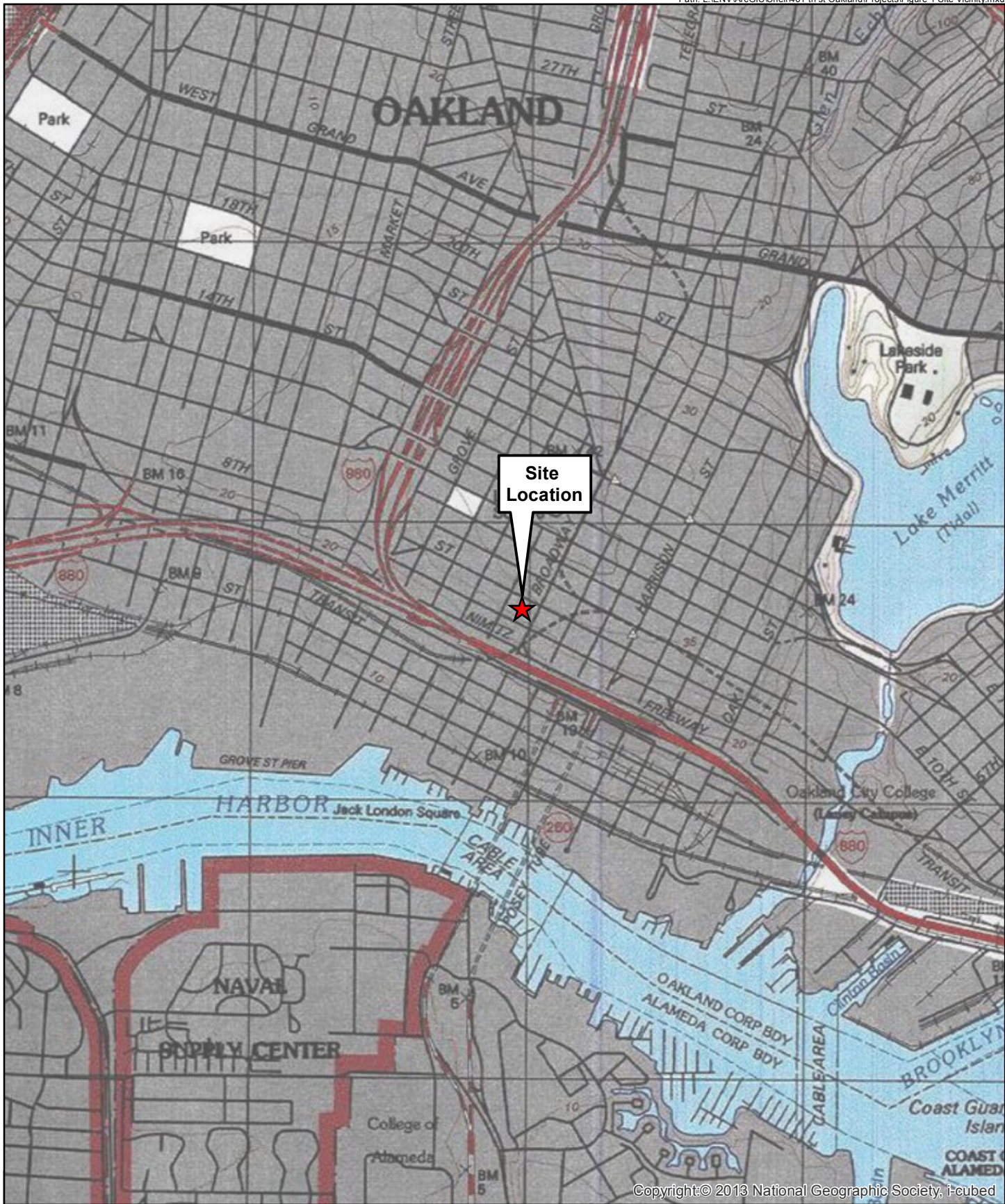
6 References

GHD 2015a. *Subsurface Investigation Work Plan, Former Shell Service Station, 461 8th Street, Oakland, California.* August 31.

GHD 2015b. *Subsurface Investigation and Third Quarter 2015 Groundwater Monitoring Report, 461 8th Street, Oakland, California.* November 9.

PES 2016. *Record Report of Construction Progress Report, 459 8th Street, Oakland, California.* October 28.

Figures



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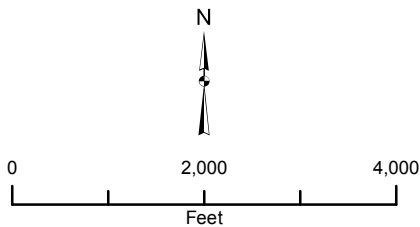


Figure 1
Site Vicinity Map

AECOM

Former Shell Service Station
461 8th Street, Oakland, California

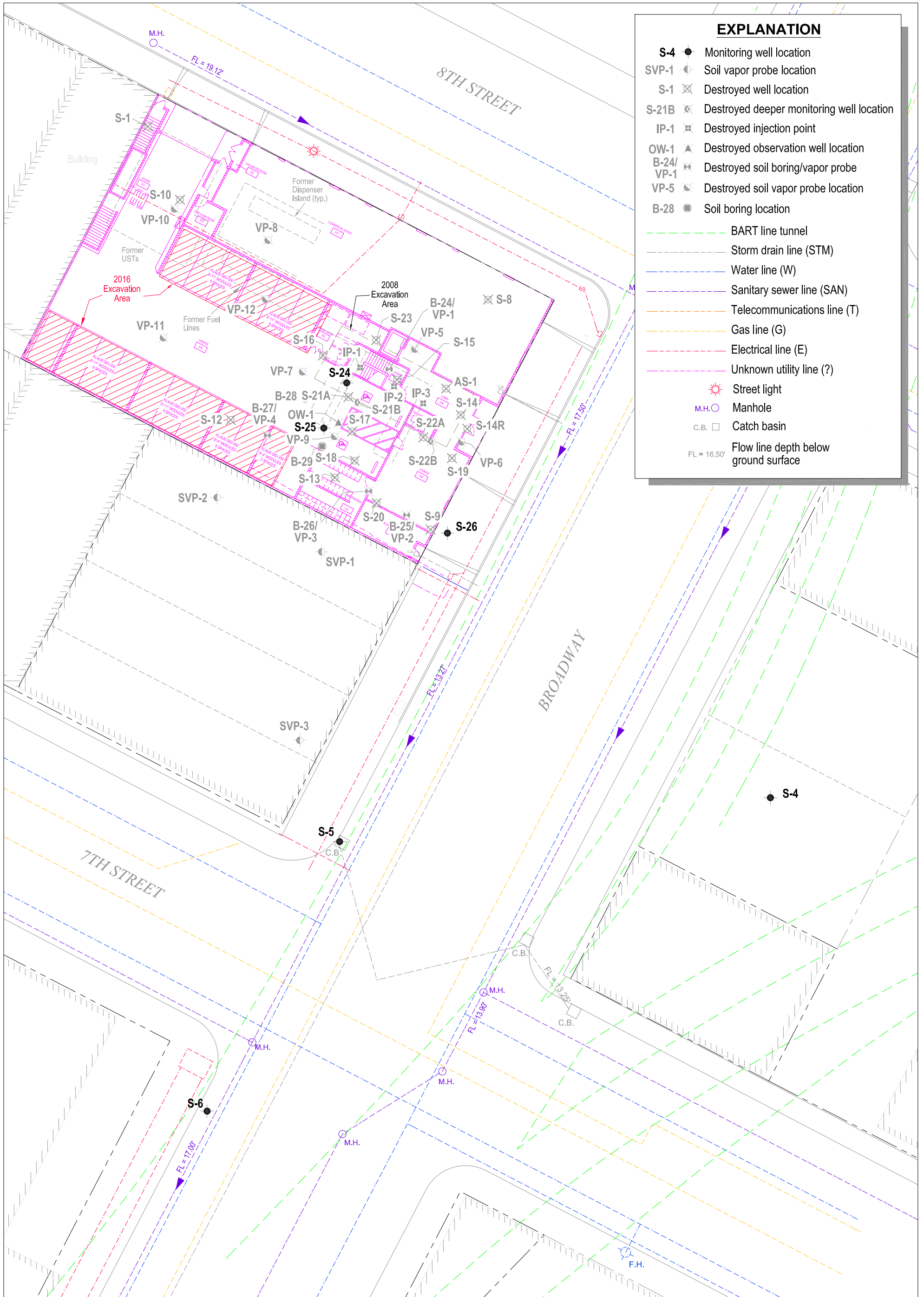
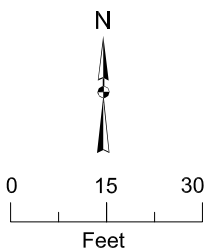


Figure 2
Site Map

Former Shell Service Station
461 8th Street, Oakland, California



SOURCE: GHD BASEMAP

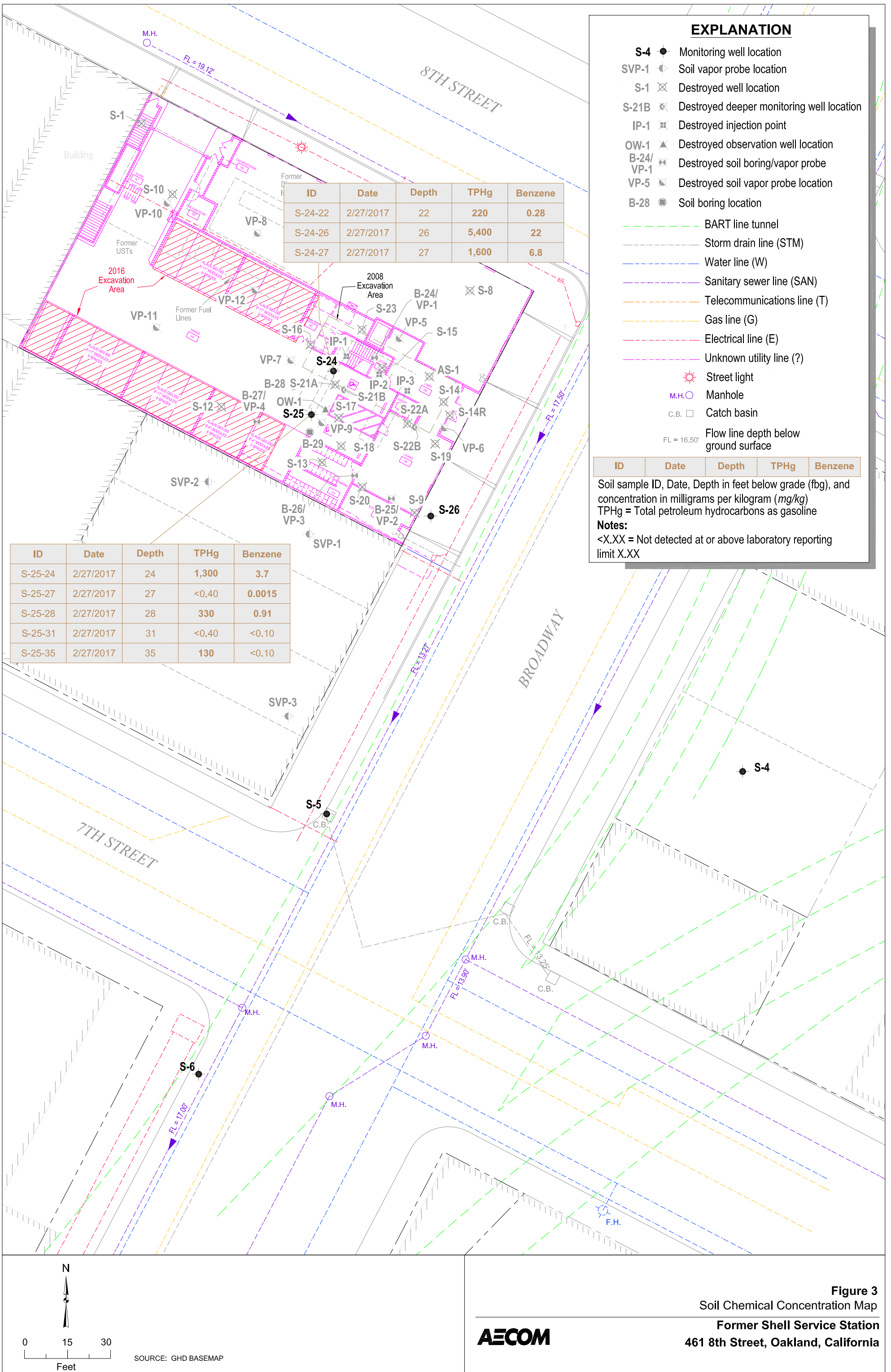
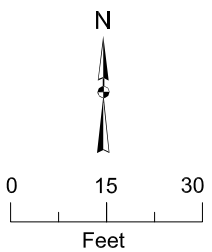


Figure 3

Soil Chemical Concentration Map

Former Shell Service Station
 461 8th Street, Oakland, California



SOURCE: GHD BASEMAP

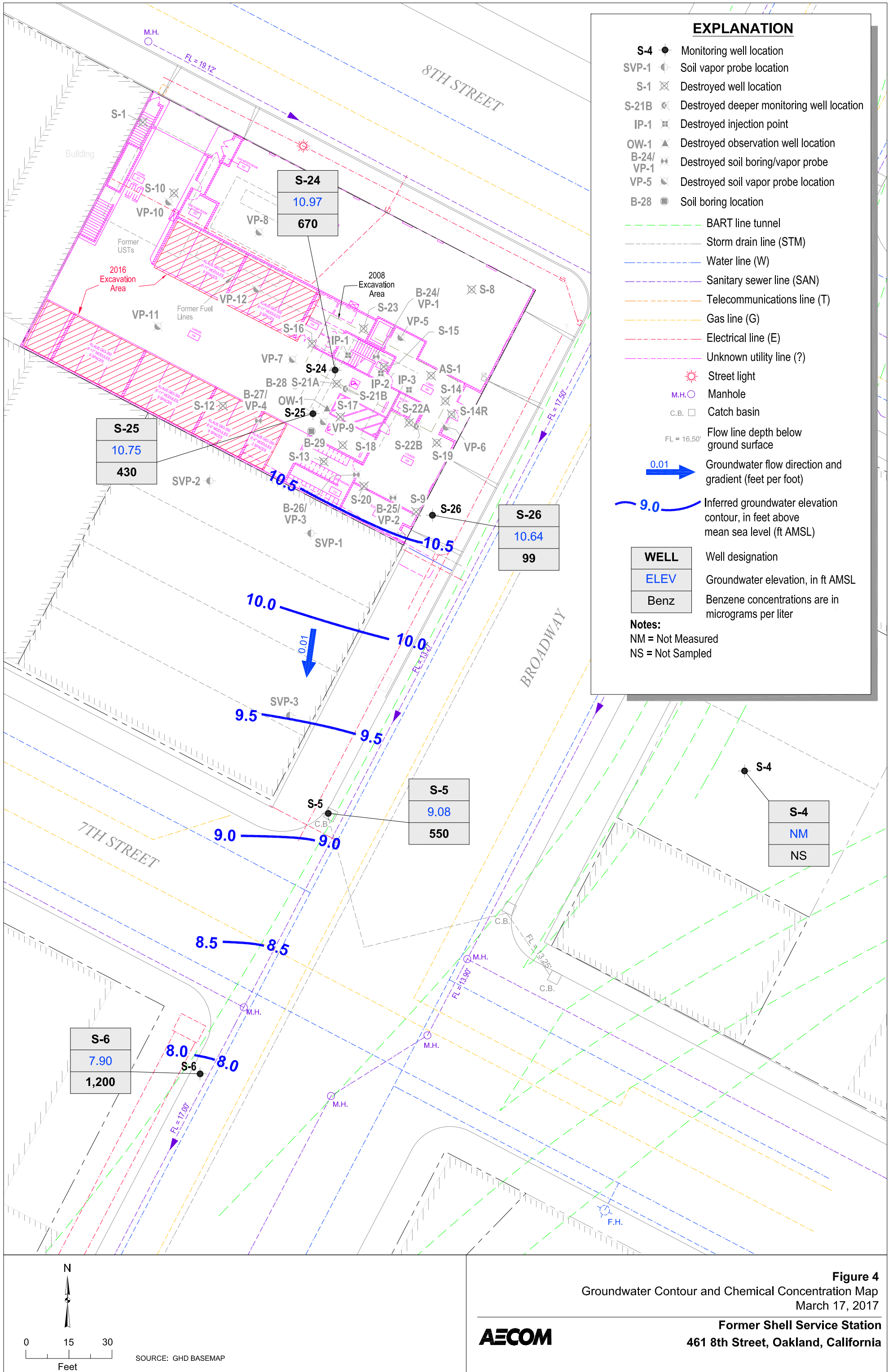


Figure 4
 Groundwater Contour and Chemical Concentration Map
 March 17, 2017

Tables

Table 1
Historical Soil Analytical Data
Former Shell Service Station 461 8th Street, Oakland, California

Sample ID	Date	Depth (fbg)	TPHd (mg/kg)	TPHg (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)
B1-5.0	07/06/1994	5	28 a	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---
B1-10.0	07/06/1994	10	<2	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---
B2-5.0	07/06/1994	5	<2	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---
B2-15.0	07/06/1994	15	<2	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---
B2-20.0	07/06/1994	20	<2	<1	<0.0025	0.0028	<0.0025	0.003	---	---	---	---	---	---	---
B3-10.0	07/06/1994	10	50 a	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---
B3-15.0	07/06/1994	15	4.1	<1	<0.0025	<0.0025	<0.0025	0.025	---	---	---	---	---	---	---
B4-5.0	07/06/1994	5	<2	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---
B4-10.0	07/06/1994	10	13 b	15	<0.0025	0.037	0.027	0.21	---	---	---	---	---	---	---
B5-5.0	07/07/1994	5	<2	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---
B5-9.75	07/07/1994	9.75	<2	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---
B6-5.0	07/07/1994	5	<2	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---
B6-18.5	07/07/1994	18.5	<2	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---
B7-5.0	07/07/1994	5	31 a	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---
B7-10.0	07/07/1994	10	410 b	14	0.24	0.89	0.31	2.0	---	---	---	---	---	---	---
B8-5.0	07/07/1994	5	<2	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---
B8-9.0	07/07/1994	9	<4	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---
B9-5.0	07/07/1994	5	<1	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---
B9-14.5	07/07/1994	14.5	<2	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---
S-8-6.5	12/07/1994	6.5	---	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---
S-8-11.5	12/07/1994	11.5	---	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---
S-8-21.5	12/07/1994	21.5	---	<1	0.014	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---

Table 1
Historical Soil Analytical Data
Former Shell Service Station 461 8th Street, Oakland, California

Sample ID	Date	Depth (fbg)	TPHd (mg/kg)	TPHg (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)
S-9-6.5	12/07/1994	6.5	---	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---
S-9-11.5	12/07/1994	11.5	---	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---
S-9-21.5	12/07/1994	21.5	---	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---
S-10-6.5	12/07/1994	6.5	---	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---
S-10-11.5	12/07/1994	11.5	---	760	0.0032	0.028	6.4	6.9	---	---	---	---	---	---	---
S-10-16.5	12/07/1994	16.5	---	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---
S-10-21.5	12/07/1994	21.5	---	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---	---	---	---	---	---
HA-1-10.0	10/14/2003	10.0	---	< 1.0 d	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---
HA-1-16.5	10/14/2003	16.5	---	< 1.0 d	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---
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TR-1-5.0	05/20/2005	5	---	<1.1	---	---	---	---	---	---	---	---	---	---	---
TR-1-8.0	05/20/2005	8	---	<1.1	---	---	---	---	---	---	---	---	---	---	---
TR-2-0.5	05/20/2005	0.5	---	<1.0	---	---	---	---	---	---	---	---	---	---	---
TR-2-5.0	05/20/2005	5	---	<0.97	---	---	---	---	---	---	---	---	---	---	---
TR-2-8.0	05/20/2005	8	---	<1.1	---	---	---	---	---	---	---	---	---	---	---
TR-3-0.5	05/20/2005	0.5	---	<0.93	---	---	---	---	---	---	---	---	---	---	---
TR-3-5.0	05/20/2005	5	---	<1.0	---	---	---	---	---	---	---	---	---	---	---
TR-4-0.5	05/20/2005	0.5	---	<1.0	---	---	---	---	---	---	---	---	---	---	---
TR-4-5.0	05/20/2005	5	---	<1.0	---	---	---	---	---	---	---	---	---	---	---
B-10-5	12/13/2006	5	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-10-10	12/13/2006	10	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-10-15	12/13/2006	15	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-10-20	12/13/2006	20	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050

Table 1
Historical Soil Analytical Data
Former Shell Service Station 461 8th Street, Oakland, California

Sample ID	Date	Depth (fbg)	TPHd (mg/kg)	TPHg (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)
B-10-25	12/13/2006	25	---	7,800	49	290	160	800	<0.50	<5.0	<2.0	<2.0	<2.0	<0.50	<0.50
B-11-5	12/13/2006	5	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-11-10	12/13/2006	10	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-11-15	12/13/2006	15	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-11-20	12/13/2006	20	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-11-25	12/13/2006	25	---	3,500	30	200	97	510	<0.50	<5.0	<2.0	<2.0	<2.0	<0.50	<0.50
B-12-5	12/11/2006	5	---	<1.0	0.028	0.018	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-12-10	12/11/2006	10	---	2,300	0.54	7.5	<0.50	180	<0.50	<5.0	<2.0	<2.0	<2.0	<0.50	<0.50
B-12-15	12/11/2006	15	---	1,700	2.9	35	22	190	<0.50	<5.0	<2.0	<2.0	<2.0	<0.50	<0.50
B-12-20	12/11/2006	20	---	5,900	30	250	100	570	<0.50	<5.0	<2.0	<2.0	<2.0	<0.50	<0.50
B-12-25	12/11/2006	25	---	750	0.70	8.3	13	73	<0.12	<1.2	<0.50	<0.50	<0.50	<0.12	<0.12
B-13-5	12/11/2006	5	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-13-10	12/11/2006	10	---	<1.0	0.022	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-13-15	12/11/2006	15	---	<1.0	0.028	<0.0050	<0.0050	<0.010	<0.0050	0.053	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-13-20	12/11/2006	20	---	4.5	0.12	0.18	0.070	0.54	<0.0050	0.083	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-13-25	12/11/2006	25	---	1,400	1.2	19	17	97	<0.12	<1.2	<0.50	<0.50	<0.50	<0.12	<0.12
B-14-5	12/11/2006	5	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-14-10	12/11/2006	10	---	<2.0	<0.010	<0.010	<0.010	<0.020	<0.010	<0.10	<0.020	<0.010	<0.010	<0.010	<0.010
B-14-15	12/11/2006	15	---	<1.0	0.039	<0.0050	<0.0050	<0.010	<0.0050	0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-14-20	12/11/2006	20	---	<2.0	0.019	<0.010	<0.010	<0.020	<0.010	<0.10	<0.020	<0.010	<0.010	<0.010	<0.010
B-14-25	12/11/2006	25	---	<2.0	0.017	<0.010	0.016	0.023	<0.010	<0.10	<0.020	<0.010	<0.010	<0.010	<0.010
B-15-5	12/12/2006	5	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-15-10	12/12/2006	10	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-15-15	12/12/2006	15	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-15-20	12/12/2006	20	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-15-25	12/12/2006	25	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050

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Sample ID	Date	Depth (fbg)	TPHd (mg/kg)	TPHg (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)
B-16-5	12/12/2006	5	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-16-10	12/12/2006	10	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-16-15	12/12/2006	15	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-16-20	12/12/2006	20	---	1.6	0.054	0.11	0.043	0.26	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-16-25	12/12/2006	25	---	2.5	0.19	0.17	0.12	0.54	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-17-5	12/12/2006	5	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-17-10	12/12/2006	10	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-17-15	12/12/2006	15	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-17-20	12/12/2006	20	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-17-25	12/12/2006	25	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-18-5	12/12/2006	5	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-18-10	12/12/2006	10	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-18-15	12/12/2006	15	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-18-20	12/12/2006	20	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-18-25	12/12/2006	25	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-19-5	12/12/2006	5	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-19-10	12/12/2006	10	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-19-15	12/12/2006	15	---	<1.0	0.028	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-19-20	12/12/2006	20	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-19-25	12/12/2006	25	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-20-5	12/11/2006	5	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-20-10	12/11/2006	10	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-20-15	12/11/2006	15	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-20-20	12/11/2006	20	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-20-25	12/11/2006	25	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050

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Sample ID	Date	Depth (fbg)	TPHd (mg/kg)	TPHg (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)
B-21-5	12/11/2006	5	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-21-10	12/11/2006	10	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-21-15	12/11/2006	15	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-21-20	12/11/2006	20	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-21-24	12/11/2006	24	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-21-28	12/11/2006	28	---	<1.0	<0.0050	0.0087	0.011	0.060	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-22-5	12/13/2006	5	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-22-10	12/13/2006	10	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-22-15	12/13/2006	15	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-22-20	12/13/2006	20	---	1,800	0.81	10	26	180	<0.50	<5.0	<2.0	<2.0	<2.0	<0.50	<0.50
B-22-25	12/13/2006	25	---	3,000	14	140	85	470	<0.50	<5.0	<2.0	<2.0	<2.0	<0.50	<0.50
B-23-5	12/12/2006	5	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-23-10	12/12/2006	10	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-23-15	12/12/2006	15	---	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-23-20	12/12/2006	20	---	1.7	<0.0050	0.0053	0.010	0.075	<0.0050	<0.050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
B-23-25	12/12/2006	25	---	4,900	7.0	78	60	450	<0.25	<2.5	<1.0	<1.0	<1.0	<0.25	<0.25
B-24-5	11/30/2007	5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
B-24-11.5	11/30/2007	11.5	---	0.51	0.043	0.021	0.0094	0.116	---	---	---	---	---	---	---
B-24-15	11/30/2007	15	---	<0.50	0.020	0.0064	<0.0050	0.0140	---	---	---	---	---	---	---
B-24-20	11/30/2007	20	---	1.3	0.036	0.049	0.016	0.102	---	---	---	---	---	---	---
B-24-25	11/30/2007	25	---	12	<0.0050	0.039	0.040	0.308	---	---	---	---	---	---	---
B-24-30	11/30/2007	30	---	3,000	2.2	23	26	140	---	---	---	---	---	---	---
B-24-32	11/30/2007	32	---	220	<0.12	0.73	1.3	6.14	---	---	---	---	---	---	---
B-25-5	12/03/2007	5	---	0.76 J	<0.0050	0.31	0.011	0.070	---	---	---	---	---	---	---
B-25-10	12/03/2007	10	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
B-26-5	11/30/2007	5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---

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B-26-10	11/30/2007	10	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
B-26-15	11/30/2007	15	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
B-27-5	12/03/2007	5	---	<0.50	<0.0050	0.015	<0.0050	<0.0100	---	---	---	---	---	---	---
B-27-10	12/03/2007	10	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
S-12-5.5	12/13/2007	5.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
S-12-9.5	12/13/2007	9.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
S-12-14.5	12/13/2007	14.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
S-12-19.5	12/13/2007	19.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
S-12-24.5	12/13/2007	24.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
S-12-29.5	12/13/2007	29.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
S-12-34.5	12/13/2007	34.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
S-13-5.5	12/12/2007	5.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
S-13-10	12/12/2007	10	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
S-13-15	12/12/2007	15	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
S-13-20.5	12/12/2007	20.5	---	340	<0.0050	0.48	1.1	8.7	---	---	---	---	---	---	---
S-13-25	12/12/2007	25	---	62	0.017	0.053	0.030	0.146	---	---	---	---	---	---	---
S-13-31	12/12/2007	31	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
S-13-35	12/12/2007	35	---	1.2	<0.0050	0.0069	<0.0050	0.0077	---	---	---	---	---	---	---
S-14-5	12/12/2007	5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
S-14-10	12/12/2007	10	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
S-14-15.5	12/12/2007	15.5	---	<0.50	0.014	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
S-14-20	12/12/2007	20	---	3,100	6.7	42	66	308	---	---	---	---	---	---	---
S-14-25.5	12/12/2007	25.5	---	2.9	0.0050	0.0074	0.037	0.091	---	---	---	---	---	---	---
S-14-30	12/12/2007	30	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
S-14-35	12/12/2007	35	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
S-15-4.5*	12/11/2007	4.5	---	6.5	<0.0050	0.0058	<0.0050	0.044	---	---	---	---	---	---	---

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S-15-9.5	12/11/2007	9.5	---	5,000	93	350	100	660	---	---	---	---	---	---	---
S-15-14.5	12/11/2007	14.5	---	1,900	34	290	72	460	---	---	---	---	---	---	---
S-15-19.5	12/11/2007	19.5	---	220	4.0	19	5.8	33.8	---	---	---	---	---	---	---
S-15-24.5	12/11/2007	24.5	---	66	0.020	0.054	0.027	0.163	---	---	---	---	---	---	---
S-15-29.5	12/11/2007	29.5	---	1.6	<0.0050	0.0062	<0.0050	<0.0100	---	---	---	---	---	---	---
S-15-34.5	12/11/2007	34.5	---	1.6	<0.0050	0.0062	<0.0050	0.0078	---	---	---	---	---	---	---
S-16-4.5*	12/11/2007	4.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
S-16-9.5	12/11/2007	9.5	---	<0.50	0.048	0.013	<0.0050	0.0171	---	---	---	---	---	---	---
S-16-14.5	12/11/2007	14.5	---	1.6	0.31	0.25	0.039	0.233	---	---	---	---	---	---	---
S-16-19.5	12/11/2007	19.5	---	230	0.042	0.21	0.18	1.28	---	---	---	---	---	---	---
S-16-24.5	12/11/2007	24.5	---	0.59	<0.0050	0.017	0.014	0.083	---	---	---	---	---	---	---
S-16-29.5	12/11/2007	29.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
S-16-34.5	12/11/2007	34.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
AS-1-5.5	12/13/2007	5.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
AS-1-9.5	12/13/2007	9.5	---	1,800	<0.0050	0.59	0.88	29	---	---	---	---	---	---	---
AS-1-14.5	12/13/2007	14.5	---	150	<0.12	0.27	0.29	1.93	---	---	---	---	---	---	---
AS-1-19.5	12/13/2007	19.5	---	3,400	38	210	110	610	---	---	---	---	---	---	---
AS-1-25.5	12/13/2007	25.5	---	91	0.26	0.99	1.1	5.1	---	---	---	---	---	---	---
AS-1-30	12/13/2007	30	---	<0.50	<0.0050	<0.0050	<0.0050	<0.0100	---	---	---	---	---	---	---
AS-1-34.5	12/13/2007	34.5	---	7.6	0.099	0.16	0.058	0.220	---	---	---	---	---	---	---
S-17-6	05/30/2008	6	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-17-11	05/30/2008	11	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-17-16	05/30/2008	16	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-17-21	05/30/2008	21	---	0.63	<0.0050	0.008	0.0086	0.043	---	---	---	---	---	---	---
S-17-26	05/30/2008	26	---	3,000	3.7	40	40	193	---	---	---	---	---	---	---
S-17-31	05/30/2008	31	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-17-34.5	05/30/2008	34.5	---	210	0.83	6.3	3.1	17.5	---	---	---	---	---	---	---

Table 1
Historical Soil Analytical Data
Former Shell Service Station 461 8th Street, Oakland, California

Sample ID	Date	Depth (fbg)	TPHd (mg/kg)	TPHg (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)
S-18-6	05/30/2008	6	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-18-11	05/30/2008	11	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-18-15.5	05/30/2008	15.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-18-21	05/30/2008	21	---	5,200	5.3	96	120	630	---	---	---	---	---	---	---
S-18-26	05/30/2008	26	---	1.3	0.021	0.080	0.026	0.158	---	---	---	---	---	---	---
S-18-31	05/30/2008	31	---	<0.50	<0.0050	0.0055	0.0234	<0.010	---	---	---	---	---	---	---
S-18-34.5	05/30/2008	34.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
OW-1-6.5	05/30/2008	6.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
OW-1-11	05/30/2008	11	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
OW-1-16	05/30/2008	16	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
OW-1-19.5	05/30/2008	19.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
EB-1	06/11/2008	23	---	190	<0.12	<0.12	<0.12	1.17	---	---	---	---	---	---	---
EB-2	06/11/2008	23	---	2,500	5.0	48	41	220	---	---	---	---	---	---	---
EB-3	06/11/2008	23	---	13	0.42	2.5	0.33	2.26	---	---	---	---	---	---	---
EB-4	06/11/2008	23	---	2,900	11	170	69	430	---	---	---	---	---	---	---
EB-5	06/11/2008	23	---	2,100	7.4	98	47	298	---	---	---	---	---	---	---
EB-6	06/11/2008	23	---	3,300	4.7	62	56	339	---	---	---	---	---	---	---
EB-7	06/11/2008	23	---	100	0.90	2.6	1.2	7.7	---	---	---	---	---	---	---
EB-8	06/11/2008	23	---	3,300	22	230	63	470	---	---	---	---	---	---	---
EB-9	06/11/2008	23	---	3,900	16	230	85	540	---	---	---	---	---	---	---
EB-10	06/11/2008	23	---	3,600	6.3	120	74	470	---	---	---	---	---	---	---
B-28-5.5	09/26/2008	5.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
B-28-10.5	09/26/2008	10.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
B-28-15.5	09/26/2008	15.5	---	<0.50	0.0059	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
B-28-20.5	09/26/2008	20.5	---	<0.50	0.0051	0.0054	<0.0050	0.013	---	---	---	---	---	---	---
B-28-25.5	09/26/2008	25.5	---	1,500	<2.5	7.0	17	72	---	---	---	---	---	---	---
B-28-30.5	09/26/2008	30.5	---	62	<0.50	<0.50	<0.50	2.6	---	---	---	---	---	---	---
B-28-35.5	09/26/2008	35.5	---	<50	<0.50	0.51	<0.50	1.4	---	---	---	---	---	---	---

Table 1
Historical Soil Analytical Data
Former Shell Service Station 461 8th Street, Oakland, California

Sample ID	Date	Depth (fbg)	TPHd (mg/kg)	TPHg (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)
B-28-40.5	09/26/2008	40.5	---	<0.50	<0.0050	0.013	0.0074	0.044	---	---	---	---	---	---	---
B-28-45.5	09/26/2008	45.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
B-29-5.5	09/26/2008	5.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
B-29-10.5	09/26/2008	10.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
B-29-15.5	09/26/2008	15.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
B-29-20.5	09/26/2008	20.5	---	<0.50	<0.0050	0.0055	<0.0050	0.020	---	---	---	---	---	---	---
B-29-25.5	09/26/2008	25.5	---	5,800	14	260	82	600	---	---	---	---	---	---	---
B-29-30.5	09/26/2008	30.5	---	0.69	0.0063	0.033	0.0087	0.058	---	---	---	---	---	---	---
B-29-35.5	09/26/2008	35.5	---	<0.50	<0.0050	0.0089	<0.0050	0.030	---	---	---	---	---	---	---
B-29-40.5	09/26/2008	40.5	---	<0.50	<0.0050	0.031	0.011	0.073	---	---	---	---	---	---	---
B-29-45.5	09/26/2008	45.5	---	<0.50	<0.0050	0.0064	<0.0050	0.020	---	---	---	---	---	---	---
S-14R-5.5	09/23/2008	5.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-14R-10.5	09/23/2008	10.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-14R-15.5	09/23/2008	15.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-14R-20.5	09/23/2008	20.5	---	99	<0.50	<0.50	0.66	2.8	---	---	---	---	---	---	---
S-14R-25.5	09/23/2008	25.5	---	<0.50	<0.0050	<0.0050	<0.0050	0.023	---	---	---	---	---	---	---
S-14R-30.5	09/23/2008	30.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-14R-34.5	09/23/2008	34.5	---	56	<0.50	0.73	0.60	3.2	---	---	---	---	---	---	---
S-19-5.5	09/22/2008	5.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-19-10.5	09/22/2008	10.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-19-15.5	09/22/2008	15.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-19-20.5	09/22/2008	20.5	---	<0.50	0.019	<0.0050	<0.0050	0.0064	---	---	---	---	---	---	---
S-19-25.5	09/22/2008	25.5	---	<0.50	0.0086	0.028	0.014	0.073	---	---	---	---	---	---	---
S-19-30.5	09/22/2008	30.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-19-35.5	09/22/2008	35.5	---	<0.50	<0.0050	<0.0050	<0.0050	0.0054	---	---	---	---	---	---	---
S-19-40.5	09/22/2008	40.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-19-45.5	09/22/2008	45.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---

Table 1
Historical Soil Analytical Data
Former Shell Service Station 461 8th Street, Oakland, California

Sample ID	Date	Depth (fbg)	TPHd (mg/kg)	TPHg (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)
S-20-5.5	09/22/2008	5.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-20-10.5	09/22/2008	10.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-20-15.5	09/22/2008	15.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-20-20.5	09/22/2008	20.5	---	28	0.0088	0.018	0.15	0.66 f	---	---	---	---	---	---	---
S-20-25.5	09/22/2008	25.5	---	0.58	0.012	0.023	0.015	0.073	---	---	---	---	---	---	---
S-20-30.5	09/22/2008	30.5	---	58	<0.50	<0.50	<0.50	1.4	---	---	---	---	---	---	---
S-20-35.5	09/22/2008	35.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-20-40.5	09/22/2008	40.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-20-45.5	09/22/2008	45.5	---	<0.50	<0.0050	0.0067	<0.0050	0.012	---	---	---	---	---	---	---
S-21A-5.5	09/25/2008	5.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-21A-10.5	09/25/2008	10.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-21A-15.5	09/25/2008	15.5	---	<0.50	<0.0050	<0.0050	<0.0050	0.041	---	---	---	---	---	---	---
S-21A-20.5	09/25/2008	20.5	---	3,000	12	140	61	360	---	---	---	---	---	---	---
S-21A-26.5	09/25/2008	26.5	---	3,500	4.8	29	38	170	---	---	---	---	---	---	---
S-21B-5.5	09/23/2008	5.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-21B-15.5	09/23/2008	15.5	---	1.9	0.028	0.11	0.030	0.38	---	---	---	---	---	---	---
S-21B-20.5	09/23/2008	20.5	---	2,300	<5.0	88	52	360	---	---	---	---	---	---	---
S-21B-25.5	09/23/2008	25.5	---	7,100	37	250	130	760	---	---	---	---	---	---	---
S-21B-30.5	09/23/2008	30.5	---	0.51	<0.0050	<0.0050	<0.0050	0.028	---	---	---	---	---	---	---
S-21B-35.5	09/23/2008	35.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-21B-40.5	09/23/2008	40.5	---	<0.50	<0.0050	0.012	<0.0050	0.028	---	---	---	---	---	---	---
S-21B-45.5	09/23/2008	45.5	---	<0.50	<0.0050	0.013	0.0063	0.039	---	---	---	---	---	---	---
S-22A-5.5	09/25/2008	5.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-22A-10.5	09/25/2008	10.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-22A-15.5	09/25/2008	15.5	---	3.5	<0.0050	<0.0050	<0.0050	0.013	---	---	---	---	---	---	---
S-22A-20.5	09/25/2008	20.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-22A-26.5	09/25/2008	26.5	---	3,900	11	70	55	310	---	---	---	---	---	---	---

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Former Shell Service Station 461 8th Street, Oakland, California

Sample ID	Date	Depth (fbg)	TPHd (mg/kg)	TPHg (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)
S-22B-5.5	09/22/2008	5.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-22B-10.5	09/22/2008	10.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-22B-15.5	09/22/2008	15.5	---	1.9	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-22B-20.5	09/22/2008	20.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-22B-25.5	09/22/2008	25.5	---	1,200	2.6	13	17	81	---	---	---	---	---	---	---
S-22B-30.5	09/22/2008	30.5	---	<0.50	<0.0050	<0.0050	<0.0050	0.0063	---	---	---	---	---	---	---
S-22B-35.5	09/22/2008	35.5	---	56	<0.50	0.83	0.69	3.7	---	---	---	---	---	---	---
S-22B-40.5	09/22/2008	40.5	---	14 J	0.012	<0.0050	<0.0050	0.290 J	---	---	---	---	---	---	---
S-22B-45.5	09/22/2008	45.5	---	<0.50	<0.0050	<0.0050	<0.0050	0.0079	---	---	---	---	---	---	---
S-23-5.5	09/24/2008	5.5	---	<0.50	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-23-10.5	09/24/2008	10.5	---	1.3	<0.0050	<0.0050	<0.0050	<0.010	---	---	---	---	---	---	---
S-23-15.5	09/24/2008	15.5	---	<0.50	0.0078	<0.0050	<0.0050	0.0082	---	---	---	---	---	---	---
S-23-20.5	09/24/2008	20.5	---	3,700	17	170	86	480	---	---	---	---	---	---	---
S-23-25.5	09/24/2008	25.5	---	1,600	1.5	15	16	87	---	---	---	---	---	---	---
S-23-30.5	09/24/2008	30.5	---	<0.50	<0.0050	<0.0050	<0.0050	0.0072	---	---	---	---	---	---	---
S-23-34.5	09/24/2008	34.5	---	68	<0.0050	<0.0050	<0.0050	0.014	---	---	---	---	---	---	---
S-26-5	09/14/2015	5	---	<0.099	<0.00099	<0.00099	<0.00099	<0.0020	---	---	---	---	---	---	---
S-26-10	09/14/2015	10	---	<0.10	<0.0010	<0.0010	<0.0010	<0.0020	---	---	---	---	---	---	---
S-26-15	09/14/2015	15	---	<0.10	<0.0010	<0.0010	<0.0010	<0.0020	---	---	---	---	---	---	---
S-26-20	09/14/2015	20	---	<0.10	<0.0010	<0.0010	<0.0010	<0.0020	---	---	---	---	---	---	---
S-26-25	09/14/2015	25	---	3.7	0.041	0.027	0.024	0.13	---	---	---	---	---	---	---
S-26-26	09/14/2015	26	---	0.17	0.011	0.0061	0.0055	0.026	---	---	---	---	---	---	---
S-26-30	09/14/2015	30	---	<0.10	<0.0010	<0.0010	<0.0010	<0.0020	---	---	---	---	---	---	---
S-26-34.5	09/14/2015	34.5	---	<0.099	<0.00099	<0.00099	<0.00099	<0.0020	---	---	---	---	---	---	---
S-24-22	02/27/2017	22	---	220	0.28	4.0	3.9	24	---	---	---	---	---	---	---
S-24-26	02/27/2017	26	---	5,400	22	120	130	120	---	---	---	---	---	---	---
S-24-27	02/27/2017	27	---	1,600	6.8	21	20	42	---	---	---	---	---	---	---

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Historical Soil Analytical Data
Former Shell Service Station 461 8th Street, Oakland, California

Sample ID	Date	Depth (fbg)	TPHd (mg/kg)	TPHg (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)
S-25-24	02/27/2017	24	---	1,300	3.7	32	33	75	---	---	---	---	---	---	---
S-25-27	02/27/2017	27	---	<0.40	0.0015	0.0074	0.0066	0.034	---	---	---	---	---	---	---
S-25-28	02/27/2017	28	---	330	0.91	4.4	3.4	14	---	---	---	---	---	---	---
S-25-31	02/27/2017	31	---	<0.40	<0.10	0.23	0.14	0.60	---	---	---	---	---	---	---
S-25-35	02/27/2017	35	---	130 J	<0.10	0.37	0.18	0.83	---	---	---	---	---	---	---

Abbreviations and Comments:

ft bgs = Feet below ground surface

mg/kg = Milligrams per kilogram

TPHd = Total petroleum hydrocarbons as diesel analyzed by EPA Method 8015

TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B; before 12/11/06, analyzed by EPA Method 8015 unless otherwise noted.

BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B; before 10/14/2003, analyzed by EPA Method 8020

MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B

TBA = Tertiary-butyl alcohol analyzed by EPA Method 8260B

DIPE = Di-isopropyl ether analyzed by EPA Method 8260B

ETBE = Ethyl tertiary-butyl ether analyzed by EPA Method 8260B

TAME = Tertiary-amyl methyl ether analyzed by EPA Method 8260B

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

EDB = 1,2-Dibromoethane analyzed by EPA Method 8260B

< X.XX = Not detected at or above laboratory reporting limit X.XX

--- = Not analyzed

* = Sample may have contained backfilled soil from air-knife clearance activities.

Results in **bold** are detections above laboratory reporting limits

Shading indicates that soil sample location was subsequently excavated; results are not representative of residual soil.

a = Positive result appears to be a heavier hydrocarbon than diesel

b = Positive result appears to be a lighter hydrocarbon than diesel

c = Analyzed by EPA Method 7421

d = Analyzed by EPA Method 8260B

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-4	10/26/1988	130	3.8	13	4.0	30	---	---	---	---	---	---	---	---	93.51	---	---	---	---	---
S-4	02/14/1989	<50	0.50	<1.0	<1.0	3.0	---	---	---	---	---	---	---	---	93.51	12.82	---	80.69	---	---
S-4	05/01/1989	Well dry	---	---	---	---	---	---	---	---	---	---	---	---	93.51	16.48	---	77.03	---	---
S-4	07/27/1989	Well dry	---	---	---	---	---	---	---	---	---	---	---	---	93.51	15.84	---	77.67	---	---
S-4	10/05/1989	Well dry	---	---	---	---	---	---	---	---	---	---	---	---	93.51	15.98	---	77.53	---	---
S-4	01/09/1990	Well dry	---	---	---	---	---	---	---	---	---	---	---	---	93.51	15.86	---	77.65	---	---
S-4	04/30/1990	<50	<0.50	<0.50	<0.50	<1.0	---	---	---	---	---	---	---	---	93.51	14.48	---	79.03	---	---
S-4	07/31/1990	Well dry	---	---	---	---	---	---	---	---	---	---	---	---	93.51	---	---	---	---	---
S-4	10/30/1990	Well dry	---	---	---	---	---	---	---	---	---	---	---	---	93.51	---	---	---	---	---
S-4	05/06/1991	Well dry	---	---	---	---	---	---	---	---	---	---	---	---	93.51	15.23	---	78.28	---	---
S-4	06/27/1991	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	---	---	93.51	13.54	---	79.97	---	---
S-4	09/24/1991	Well dry	---	---	---	---	---	---	---	---	---	---	---	---	93.51	15.85	---	77.66	---	---
S-4	11/07/1991	Well dry	---	---	---	---	---	---	---	---	---	---	---	---	93.51	15.60	---	77.91	---	---
S-4	02/13/1992	<50	<0.50	<0.50	<0.50	3.0	---	---	---	---	---	---	---	---	93.51	14.27	---	79.24	---	---
S-4	05/11/1992	Well dry	---	---	---	---	---	---	---	---	---	---	---	---	93.51	---	---	---	---	---
S-4	12/03/1992	Well inaccessible	---	---	---	---	---	---	---	---	---	---	---	---	93.51	---	---	---	---	---
S-4	05/13/1993	Well inaccessible	---	---	---	---	---	---	---	---	---	---	---	---	93.51	14.81	---	78.70	---	---
S-4	07/22/1993	Well inaccessible	---	---	---	---	---	---	---	---	---	---	---	---	93.51	14.42	---	79.09	---	---
S-4	10/20/1993	Well inaccessible	---	---	---	---	---	---	---	---	---	---	---	---	93.51	---	---	---	---	---
S-4	01/25/1994	Well inaccessible	---	---	---	---	---	---	---	---	---	---	---	---	93.51	14.60	---	78.91	---	---
S-4	04/25/1994	Well inaccessible	---	---	---	---	---	---	---	---	---	---	---	---	93.51	14.39	---	79.12	---	---
S-4	07/21/1994	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	---	---	93.51	22.29	---	71.22	---	---
S-4	10/24/1994	<500	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	---	---	93.51	22.72	---	70.79	---	---
S-4	12/22/1994	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	---	---	25.77	22.25	---	3.52	---	---
S-4	04/20/1995	<50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	---	---	25.77	21.16	---	4.61	---	---
S-4	10/04/1995	<50	1.2	0.70	<0.50	<0.50	---	---	---	---	---	---	---	---	25.77	22.25	---	3.52	---	---
S-4	01/03/1996	<50	0.60	<0.50	<0.50	1.7	---	---	---	---	---	---	---	---	25.77	23.28	---	2.49	---	---
S-4	04/11/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	---	---	25.77	21.58	---	4.19	---	---
S-4	07/11/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	---	---	25.77	21.60	---	4.17	---	---
S-4	10/02/1996	<50	<0.50	<0.50	<0.50	<0.50	2.6	---	---	---	---	---	---	---	25.77	22.46	---	3.31	---	---
S-4	01/22/1997	<50	0.73	<0.50	<0.50	0.63	<2.5	---	---	---	---	---	---	---	25.77	20.06	---	5.71	---	---
S-4	07/21/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	---	---	25.77	22.10	---	3.67	---	---
S-4	01/22/1998	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	---	---	25.77	20.50	---	5.27	---	---
S-4	07/08/1998	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	---	---	25.77	20.86	---	4.91	---	---

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-4	10/26/1998	---	---	---	---	---	---	---	---	---	---	---	---	---	25.77	21.41	---	4.36	---	---
S-4	01/28/1999	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	---	---	25.77	22.34	---	3.43	---	---
S-4	04/23/1999	---	---	---	---	---	---	---	---	---	---	---	---	---	25.77	21.43	---	4.34	---	---
S-4	07/29/1999	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	---	---	---	---	---	---	---	25.77	21.45	---	4.32	---	---
S-4	11/01/1999	---	---	---	---	---	---	---	---	---	---	---	---	---	25.77	22.08	---	3.69	---	---
S-4	01/07/2000	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	---	---	25.77	22.29	---	3.48	---	---
S-4	04/11/2000	---	---	---	---	---	---	---	---	---	---	---	---	---	25.77	21.11	---	4.66	---	---
S-4	07/19/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	---	---	---	---	---	---	---	25.77	21.19	---	4.58	---	---
S-4	10/12/2000	---	---	---	---	---	---	---	---	---	---	---	---	---	25.77	22.22	---	3.55	---	---
S-4	01/09/2001	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	---	---	---	---	---	---	---	25.77	22.17	---	3.60	---	---
S-4	04/06/2001	---	---	---	---	---	---	---	---	---	---	---	---	---	25.77	21.50	---	4.27	---	---
S-4	07/25/2001	<50	2.0	0.52	<0.50	1.0	---	<5.0	---	---	---	---	---	---	25.77	21.50	---	4.27	---	---
S-4	11/01/2001	---	---	---	---	---	---	---	---	---	---	---	---	---	25.77	21.95	---	3.82	---	---
S-4	01/17/2002	<50 d	<0.50 d	<0.50 d	<0.50 d	<0.50 d	---	<5.0 d	---	---	---	---	---	---	25.77	21.13	---	4.64	---	---
S-4	05/08/2002	---	---	---	---	---	---	---	---	---	---	---	---	---	25.77	21.35	---	4.42	---	---
S-4	07/18/2002	<50	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	---	---	34.41	21.19	---	13.22	---	---
S-4	10/15/2002	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	21.42	---	12.99	---	---
S-4	01/02/2003	<50	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	---	---	34.41	20.75	---	13.66	---	---
S-4	04/15/2003	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	21.08	---	13.33	---	---
S-4	07/14/2003	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	19.93	---	14.48	---	---
S-4	10/20/2003	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	19.56	---	14.85	---	---
S-4	01/22/2004	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	---	---	34.41	19.12	---	15.29	---	---
S-4	04/19/2004	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	19.15	---	15.26	---	---
S-4	07/13/2004	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	20.48	---	13.93	---	---
S-4	10/28/2004	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	21.00	---	13.41	---	---
S-4	01/17/2005	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	---	---	34.41	20.17	---	14.24	---	---
S-4	04/14/2005	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	19.82	---	14.59	---	---
S-4	07/28/2005	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	20.71	---	13.70	---	---
S-4	10/05/2005	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	20.85	---	13.56	---	---
S-4	02/09/2006	<50.0	<0.500	<0.500	<0.500	<0.500	---	<0.500	---	---	---	---	---	---	34.41	19.47	---	14.94	---	---
S-4	05/15/2006	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	19.52	---	14.89	---	---
S-4	08/23/2006	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	20.75	---	13.66	---	---
S-4	11/15/2006	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	20.03	---	14.38	---	---
S-4	01/30/2007	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	---	---	34.41	21.30	---	13.11	---	---

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-4	05/29/2007	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	21.15	---	13.26	---	---
S-4	08/15/2007	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	21.38	---	13.03	---	---
S-4	11/28/2007	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	21.55	---	12.86	---	---
S-4	02/08/2008	64 f	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	<0.50	<1.0	34.41	22.75	---	11.66	---	---
S-4	05/08/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	22.18	---	12.23	---	---
S-4	08/14/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	21.77	---	12.64	---	---
S-4	11/11/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	20.68	---	13.73	---	---
S-4	01/05/2009	250	1.8	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	<0.50	<1.0	34.41	20.92	---	13.49	---	---
S-4	04/09/2009	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	21.10	---	13.31	---	---
S-4	07/23/2009	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	21.76	---	12.65	---	---
S-4	10/01/2009	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	22.10	---	12.31	---	---
S-4	01/28/2010	<50	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	34.41	21.75	---	12.66	---	---
S-4	05/20/2010	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	21.44	---	12.97	---	---
S-4	08/31/2010	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	21.72	---	12.69	---	---
S-4	12/29/2010	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	20.91	---	13.50	---	---
S-4	02/01/2011	<50	<0.50	<0.50	<0.50	1.1	---	---	---	---	---	---	---	---	34.41	21.19	---	13.22	1.84	157
S-4	04/25/2011	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	17.32	---	17.09	---	---
S-4	07/28/2011	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	20.92	---	13.49	---	---
S-4	10/28/2011	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	21.35	---	13.06	---	---
S-4	05/07/2012	240	86	22	9.5	25	---	---	---	---	---	---	---	---	34.41	20.65	---	13.76	2.52	119
S-4	05/02/2013	55	<0.50	<0.50	<0.50	<1.0	---	---	---	---	---	---	---	---	34.41	21.45	---	12.96	---	---
S-4	04/21/2014	380	88	58	14	42	---	---	---	---	---	---	---	---	34.41	21.70	---	12.71	---	---
S-4	07/17/2015	6,300	23	1.0	<1.0	15	---	---	---	---	---	---	---	---	34.41	18.49	---	15.92	---	---
S-4	05/31/2016	52	11	2.0	2.3	3.9	---	---	---	---	---	---	---	---	34.41	21.62	---	12.79	---	---
S-4	12/16/2016	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	---	---	---	---	---
S-4	03/17/2017	---	---	---	---	---	---	---	---	---	---	---	---	---	34.41	---	---	---	---	---
S-5	04/16/1987	130,000	15,000	16,000	a	14,000	---	---	---	---	---	---	---	---	99.36	---	---	---	---	---
S-5	10/26/1988	110,000	20,000	25,000	2,300	10,000	---	---	---	---	---	---	---	---	99.36	---	---	---	---	---
S-5	02/14/1989	94,000	16,000	21,000	1,800	10,000	---	---	---	---	---	---	---	---	99.36	19.87	---	79.49	---	---
S-5	05/01/1989	120,000	29,000	35,000	3,100	15,000	---	---	---	---	---	---	---	---	99.36	21.23	---	78.13	---	---
S-5	07/27/1989	110,000	20,000	29,000	2,400	14,000	---	---	---	---	---	---	---	---	99.36	20.41	---	78.95	---	---
S-5	10/05/1989	---	---	---	---	---	---	---	---	---	---	---	---	---	99.36	20.43	0.01	78.94	---	---
S-5	01/09/1990	---	---	---	---	---	---	---	---	---	---	---	---	---	99.36	21.16	0.01	78.21	---	---

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-5	04/30/1990	100,000	13,000	22,000	2,100	11,000	---	---	---	---	---	---	---	---	99.36	20.96	---	78.40	---	---
S-5	07/31/1990	53,000	8,300	14,000	1,200	7,400	---	---	---	---	---	---	---	---	99.36	20.88	---	78.48	---	---
S-5	10/30/1990	---	---	---	---	---	---	---	---	---	---	---	---	---	99.36	21.96	0.03	77.42	---	---
S-5	05/06/1991	---	---	---	---	---	---	---	---	---	---	---	---	---	99.36	23.00	0.13	76.46	---	---
S-5	06/27/1991	---	---	---	---	---	---	---	---	---	---	---	---	---	99.36	20.53	0.03	78.85	---	---
S-5	09/24/1991	---	---	---	---	---	---	---	---	---	---	---	---	---	99.36	21.40	0.06	78.01	---	---
S-5	11/07/1991	---	---	---	---	---	---	---	---	---	---	---	---	---	99.36	21.33	0.25	78.23	---	---
S-5	02/13/1992	---	---	---	---	---	---	---	---	---	---	---	---	---	99.36	22.52	0.31	77.09	---	---
S-5	05/11/1992	---	---	---	---	---	---	---	---	---	---	---	---	---	99.36	22.46	0.58	77.36	---	---
S-5	12/03/1992	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	99.36	---	---	---	---	---
S-5	05/13/1993	---	---	---	---	---	---	---	---	---	---	---	---	---	99.36	22.22	0.27	77.36	---	---
S-5	07/22/1993	---	---	---	---	---	---	---	---	---	---	---	---	---	99.36	21.68	0.25	77.88	---	---
S-5	10/20/1993	---	---	---	---	---	---	---	---	---	---	---	---	---	99.36	20.51	0.23	79.03	---	---
S-5	01/25/1994	---	---	---	---	---	---	---	---	---	---	---	---	---	99.36	21.93	0.18	77.57	---	---
S-5	04/25/1994	---	---	---	---	---	---	---	---	---	---	---	---	---	99.36	21.97	0.35	77.67	---	---
S-5	05/26/1994	---	---	---	---	---	---	---	---	---	---	---	---	---	99.36	20.84	0.35	78.80	---	---
S-5	06/10/1994	---	---	---	---	---	---	---	---	---	---	---	---	---	99.36	21.01	0.32	78.61	---	---
S-5	07/21/1994	---	---	---	---	---	---	---	---	---	---	---	---	---	99.36	22.18	0.47	77.56	---	---
S-5	08/25/1994	---	---	---	---	---	---	---	---	---	---	---	---	---	99.36	22.01	0.44	77.70	---	---
S-5	09/22/1994	---	---	---	---	---	---	---	---	---	---	---	---	---	99.36	22.00	0.15	77.48	---	---
S-5	10/24/1994	---	---	---	---	---	---	---	---	---	---	---	---	---	99.36	22.28	0.56	77.53	---	---
S-5	12/22/1994	---	---	---	---	---	---	---	---	---	---	---	---	---	22.94	22.88	0.99	0.85	---	---
S-5	04/20/1995	---	---	---	---	---	---	---	---	---	---	---	---	---	22.94	21.66	0.33	1.54	---	---
S-5	10/04/1995	---	---	---	---	---	---	---	---	---	---	---	---	---	22.94	22.18	---	0.76	---	---
S-5	01/03/1996	---	---	---	---	---	---	---	---	---	---	---	---	---	22.94	22.80	0.83	0.80	---	---
S-5	04/11/1996	---	---	---	---	---	---	---	---	---	---	---	---	---	22.94	21.15	0.67	2.33	---	---
S-5	07/11/1996	---	---	---	---	---	---	---	---	---	---	---	---	---	22.94	22.62	0.90	1.04	---	---
S-5	10/02/1996	---	---	---	---	---	---	---	---	---	---	---	---	---	22.94	23.07	0.64	0.38	---	---
S-5	01/22/1997	---	---	---	---	---	---	---	---	---	---	---	---	---	22.94	20.83	0.16	2.24	---	---
S-5	07/21/1997	---	---	---	---	---	---	---	---	---	---	---	---	---	22.94	21.16	0.05	1.82	---	---
S-5	01/22/1998	---	---	---	---	---	---	---	---	---	---	---	---	---	22.94	20.04	0.04	2.93	---	---
S-5	07/08/1998	220	14	40	5.8	34	3.3	---	---	---	---	---	---	---	22.94	18.61	---	4.33	---	---
S-5	10/26/1998	---	---	---	---	---	---	---	---	---	---	---	---	---	22.94	17.31	---	5.63	---	---
S-5	01/28/1999	51,000	13,000	1,200	1,200	2,400	2,400	---	---	---	---	---	---	---	22.94	20.11	---	2.83	---	---

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-5	04/23/1999	65,600	2,540	7,300	1,790	9,840	<1,000	---	---	---	---	---	---	---	22.94	19.21	---	3.73	---	---
S-5	07/29/1999	61,400	3,320	6,980	1,520	7,700	<1,000	---	---	---	---	---	---	---	22.94	14.77	---	8.17	---	---
S-5	11/01/1999	48,200	2,700	5,740	1,290	7,850	<500	<40.0	---	---	---	---	---	---	22.94	15.56	---	7.38	---	---
S-5	01/07/2000	39,000	3,900	8,500	790	8,300	1,500	---	---	---	---	---	---	---	22.94	15.82	---	7.12	---	---
S-5	04/11/2000	29,300	1,680	5,060	1,130	6,220	<250	---	---	---	---	---	---	---	22.94	18.19	---	4.75	---	---
S-5	07/19/2000	6,420	2,110	207	252	681	355	253 b	---	---	---	---	---	---	22.94	19.01	---	3.93	---	---
S-5	10/12/2000	41,500	2,940	4,940	1,520	7,770	<250	<66.7	---	---	---	---	---	---	22.94	19.62	---	3.32	---	---
S-5	01/09/2001	142,000	7,030	9,550	2,340	12,600	779	---	---	---	---	---	---	---	22.94	19.94	---	3.00	---	---
S-5	04/06/2001	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	22.94	---	---	---	---	---
S-5	04/13/2001	59,800	4,810	10,800	1,950	10,100	842	<10.0	---	---	---	---	---	---	22.94	14.72	---	8.22	---	---
S-5	07/25/2001	71,000	2,900	6,800	1,700	9,100	---	<250	---	---	---	---	---	---	22.94	14.91	---	8.03	---	---
S-5	08/13/2001	---	---	---	---	---	---	---	---	---	---	---	---	---	22.94	19.43	---	3.51	---	---
S-5	11/01/2001	Unable to locate		---	---	---	---	---	---	---	---	---	---	---	22.94	---	---	---	---	---
S-5	01/17/2002	58,000 d	460 d	3,300 d	1,900 d	8,400 d	---	<200 d	---	---	---	---	---	---	c	14.27	---	---	---	---
S-5	05/08/2002	60,000 d	d	2,700 d	1,800 d	8,800 d	---	<100 d	---	---	---	---	---	---	22.94	18.40	---	4.54	---	---
S-5	07/18/2002	53,000	240	1,200	1,500	6,400	---	<100	---	---	---	---	---	---	27.36	14.25	---	13.11	---	---
S-5	10/15/2002	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	27.36	---	---	---	---	---
S-5	10/17/2002	42,000	420	1,100	1,200	5,500	---	<10	---	---	---	---	---	---	27.36	14.90	---	12.46	---	---
S-5	01/02/2003	26,000	680	1,500	780	3,800	---	<5.0	---	---	---	---	---	---	27.36	14.72	---	12.64	---	---
S-5	04/15/2003	3,600	29	38	65	370	---	<5.0	---	---	---	---	---	---	e	14.45	---	---	---	---
S-5	07/14/2003	21,000	210	460	650	2,900	---	<10	---	---	---	---	---	---	e	14.10	---	---	---	---
S-5	10/20/2003	37,000	390	590	870	3,500	---	<13	---	---	---	---	---	---	e	14.63	---	---	---	---
S-5	01/22/2004	29,000	200	210	710	2,400	---	<13	---	---	---	---	---	---	e	14.08	---	---	---	---
S-5	04/19/2004	25,000	490	460	750	2,400	---	19	---	---	---	---	---	---	e	13.43	---	---	---	---
S-5	07/13/2004	28,000	300	280	690	2,400	---	<13	---	---	---	---	---	---	e	14.88	---	---	---	---
S-5	08/14/2008	31,000	1,700	1,600	1,400	3,350	---	<10	---	---	---	---	<5.0	<10	e	16.65	---	---	---	---
S-5	11/11/2008	37,000 i	2,500 i	1,300 i	2,000 i	3,490 i	---	<50 i	---	---	---	---	<25 i	<50 i	e	16.81	---	---	---	---
S-5	11/11/2008	40,000 j	2,300 j	1,400 j	1,900 j	3,630 j	---	<50 j	---	---	---	---	<25 j	<50 j	e	16.81	---	---	---	---
S-5	01/05/2009	57,000	2,300	1,400	1,500	2,900	---	<10	---	---	---	---	<5.0	<10	e	16.71	---	---	---	---
S-5	04/09/2009	52,000	2,100	3,500	1,900	5,400	---	<20	---	---	---	---	<10	<20	e	16.31	---	---	0.3	163
S-5	07/23/2009	37,000	1,800	1,900	1,400	3,800	---	---	---	---	---	---	---	---	e	16.62	---	---	1.48	-84
S-5	10/01/2009	36,000	1,800	1,900	1,400	3,700	---	---	---	---	---	---	---	---	27.24	16.35	---	10.89	0.86	-52
S-5	01/28/2010	35,000	1,200	1,900	1,500	3,600	---	---	---	---	---	---	---	---	27.24	16.35	---	10.89	---	---
S-5	05/20/2010	36,000	1,600	2,500	1,700	4,500	---	---	---	---	---	---	---	---	27.24	16.50	---	10.74	1.22	227

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-5	08/31/2010	32,000	1,300	1,100	1,600	3,400	---	---	---	---	---	---	---	---	27.24	16.95	---	10.29	0.58	-102
S-5	12/29/2010	26,000	970	1,500	1,500	3,200	---	---	---	---	---	---	---	---	27.24	16.25	---	10.99	1.18	233
S-5	02/01/2011	27,000	1,100	1,500	1,400	3,100	---	---	---	---	---	---	---	---	27.24	15.38	---	11.86	1.65	-83
S-5	04/25/2011	70,000	380	440	720	1,200	---	---	---	---	---	---	---	---	27.24	13.98	---	13.26	0.95	-109
S-5	07/28/2011	21,000	340	430	570	1,000	---	---	---	---	---	---	---	---	27.24	13.80	---	13.44	0.71	-95
S-5	10/28/2011	23,000	430	480	570	1,300	---	---	---	---	---	---	---	---	27.24	14.28	---	12.96	6.05	190
S-5	05/07/2012	16,000	150	200	350	760	---	---	---	---	---	---	---	---	27.24	13.82	---	13.42	3.61	120
S-5	08/31/2012	12,000	330	300	330	850	---	---	---	---	---	---	---	---	27.24	14.68	---	12.56	1.38	253
S-5	12/11/2012	14,000	420	700	550	1,500	---	---	---	---	---	---	---	---	27.24	16.00	---	11.24	1.07/1.29	162/63
S-5	01/24/2013	29,000	910	1,700	1,200	2,700	---	---	---	---	---	---	---	---	27.24	16.46	---	10.78	---	---
S-5	05/02/2013	35,000	650	1,500	1,400	4,500	---	---	---	---	---	---	---	---	27.24	18.59	---	8.65	---	---
S-5	08/09/2013	350,000	820	9,800	6,900	34,000	---	---	---	---	---	---	---	---	27.24	19.12	---	8.12	---	---
S-5	11/07/2013	---	---	---	---	---	---	---	---	---	---	---	---	---	27.24	k	k	k	---	---
S-5	01/31/2014	---	---	---	---	---	---	---	---	---	---	---	---	---	27.24	19.87	0.91	8.10	---	---
S-5	03/14/2014	---	---	---	---	---	---	---	---	---	---	---	---	---	27.24	19.98	1.15	8.18	---	---
S-5	04/21/2014	---	---	---	---	---	---	---	---	---	---	---	---	---	27.24	19.80	1.14	8.35	---	---
S-5	07/31/2014	---	---	---	---	---	---	---	---	---	---	---	---	---	27.24	18.58	0.29	8.89	---	---
S-5	09/22/2014	---	---	---	---	---	---	---	---	---	---	---	---	---	27.24	18.55	0.15	8.81	---	---
S-5	10/03/2014	---	---	---	---	---	---	---	---	---	---	---	---	---	27.24	18.45	---	8.79	---	---
S-5	10/10/2014	---	---	---	---	---	---	---	---	---	---	---	---	---	27.24	10.48	---	16.76	---	---
S-5	10/17/2014	---	---	---	---	---	---	---	---	---	---	---	---	---	27.24	18.44	---	8.80	---	---
S-5	10/24/2014	---	---	---	---	---	---	---	---	---	---	---	---	---	27.24	18.54	---	8.70	---	---
S-5	11/21/2014	34,000	350	830	1,400	14,000	---	---	---	---	---	---	---	---	27.24	18.58	---	8.66	---	---
S-5	12/23/2014	---	---	---	---	---	---	---	---	---	---	---	---	---	27.24	25.19	---	2.05	---	---
S-5	01/22/2015	56,000 m	690	740	2,600	9,400	---	---	---	---	---	---	---	---	27.24	18.24	---	9.00	---	---
S-5	07/17/2015	32,000	540	240	1,300	3,700	---	---	---	---	---	---	---	---	27.24	18.67	---	8.57	---	---
S-5	09/29/2015	43,000	460	260	1,300	2,900	---	---	---	---	---	---	---	---	27.24	18.49	---	8.75	---	---
S-5	11/25/2015	36,000	490	210	1,300	3,100	---	---	---	---	---	---	---	---	27.24	18.64	---	8.60	---	---
S-5	03/17/2016	32,000	450	230	790	1,800	---	---	---	---	---	---	---	---	27.24	18.52	---	8.72	---	---
S-5	05/31/2016	25,000	460	230	710	1,300	---	---	---	---	---	---	---	---	27.24	18.62	---	8.62	---	---
S-5	09/23/2016	35,000	530	510	1,400	3,200	---	---	---	---	---	---	---	---	27.24	18.94	---	8.30	---	---
S-5	12/16/2016	75,000	650	3,300	2,700	12,000	---	---	---	---	---	---	---	---	27.24	18.92	---	8.32	---	---
S-5	03/17/2017	34,000	550	1,700	1,200	3,400	---	---	---	---	---	---	---	---	27.24	18.16	---	9.08	---	---

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-6	04/16/1987	81,000	16,000	9,000	a	6,400	---	---	---	---	---	---	---	---	100.58	---	---	---	---	---
S-6	10/26/1988	110,000	29,000	18,000	2,500	8,200	---	---	---	---	---	---	---	---	100.58	---	---	---	---	---
S-6	02/14/1989	54,000	18,000	4,500	1,400	4,000	---	---	---	---	---	---	---	---	100.58	20.87	---	79.71	---	---
S-6	05/01/1989	93,000	43,000	9,900	3,000	8,000	---	---	---	---	---	---	---	---	100.58	20.49	---	80.09	---	---
S-6	07/27/1989	52,000	20,000	3,200	1,700	5,500	---	---	---	---	---	---	---	---	100.58	21.01	---	79.57	---	---
S-6	10/05/1989	55,000	20,000	2,900	1,600	5,500	---	---	---	---	---	---	---	---	100.58	21.24	---	79.34	---	---
S-6	01/09/1990	76,000	35,000	9,100	2,300	8,600	---	---	---	---	---	---	---	---	100.58	22.62	Sheen	77.96	---	---
S-6	04/30/1990	39,000	13,000	2,300	900	2,800	---	---	---	---	---	---	---	---	100.58	22.10	---	78.48	---	---
S-6	07/31/1990	48,000	20,000	4,600	1,500	4,900	---	---	---	---	---	---	---	---	100.58	22.00	---	78.58	---	---
S-6	10/30/1990	27,000	7,400	900	600	1,400	---	---	---	---	---	---	---	---	100.58	22.14	---	78.44	---	---
S-6	05/06/1991	35,000	3,900	2,700	2,300	3,500	---	---	---	---	---	---	---	---	100.58	22.40	---	78.18	---	---
S-6	06/27/1991	51,000	19,000	5,600	1,700	6,300	---	---	---	---	---	---	---	---	100.58	21.21	---	79.37	---	---
S-6	09/24/1991	42,000	14,000	4,300	1,200	4,000	---	---	---	---	---	---	---	---	100.58	22.26	---	78.32	---	---
S-6	11/07/1991	39,000	11,000	2,000	800	2,300	---	---	---	---	---	---	---	---	100.58	22.35	---	78.23	---	---
S-6	02/13/1992	64,000	21,000	6,200	1,600	5,100	---	---	---	---	---	---	---	---	100.58	22.28	---	78.30	---	---
S-6	05/11/1992	57,000	22,000	7,600	2,200	7,700	---	---	---	---	---	---	---	---	100.58	22.10	---	78.48	---	---
S-6	12/03/1992	110,000	26,000	9,400	2,100	8,700	---	---	---	---	---	---	---	---	100.58	22.14	---	78.44	---	---
S-6	05/13/1993	58,000	21,000	6,800	2,500	9,800	---	---	---	---	---	---	---	---	100.58	22.16	---	78.42	---	---
S-6	07/22/1993	70,000	31,000	14,000	3,000	13,000	---	---	---	---	---	---	---	---	100.58	21.64	---	78.94	---	---
S-6	10/20/1993	48,000	28,000	9,800	3,200	12,000	---	---	---	---	---	---	---	---	100.58	21.62	---	78.96	---	---
S-6	01/25/1994	70,000	23,000	7,500	2,500	8,000	---	---	---	---	---	---	---	---	100.58	21.80	---	78.78	---	---
S-6	04/25/1994	61,000	16,000	4,000	1,800	5,100	---	---	---	---	---	---	---	---	100.58	21.68	---	78.90	---	---
S-6	07/21/1994	44,000	8,200	3,600	1,400	3,900	---	---	---	---	---	---	---	---	100.58	21.78	---	78.80	---	---
S-6 (D)	07/21/1994	32,000	7,800	3,400	1,300	3,700	---	---	---	---	---	---	---	---	100.58	---	---	---	---	---
S-6	10/24/1994	2,936	1,184	440.6	163.4	648.4	---	---	---	---	---	---	---	---	100.58	22.06	---	78.52	---	---
S-6 (D)	10/24/1994	2,968	770.8	325.3	144.1	622	---	---	---	---	---	---	---	---	22.08	---	---	---	---	---
S-6	12/22/1994	32,000	7,000	2,900	790	2,400	---	---	---	---	---	---	---	---	22.08	21.91	---	0.17	---	---
S-6 (D)	12/22/1994	32,000	8,000	3,800	1,100	3,400	---	---	---	---	---	---	---	---	22.08	---	---	---	---	---
S-6	04/20/1995	56,000	15,000	3,800	1,900	4,900	---	---	---	---	---	---	---	---	22.08	21.38	---	0.70	---	---
S-6 (D)	04/20/1995	49,000	13,000	3,500	1,800	4,700	---	---	---	---	---	---	---	---	22.08	---	---	---	---	---
S-6	10/04/1995	49,000	8,400	4,700	1,800	4,800	---	---	---	---	---	---	---	---	22.08	21.80	---	0.28	---	---
S-6 (D)	10/04/1995	41,000	8,400	4,100	1,400	4,400	---	---	---	---	---	---	---	---	22.08	---	---	---	---	---
S-6	01/03/1996	52,000	9,100	7,100	1,800	5,800	---	---	---	---	---	---	---	---	22.08	21.70	---	0.38	---	---
S-6	04/11/1996	59,000	11,000	7,100	2,100	6,400	<500	---	---	---	---	---	---	---	22.08	21.62	---	0.46	---	---

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-6 (D)	04/11/1996	59,000	11,000	6,800	1,900	6,400	<500	---	---	---	---	---	---	---	22.08	---	---	---	---	---
S-6	07/11/1996	72,000	18,000	6,600	2,500	8,400	<1,000	---	---	---	---	---	---	---	22.08	21.65	---	0.43	---	---
S-6	10/02/1996	57,000	11,000	6,500	1,500	5,100	<500	---	---	---	---	---	---	---	22.08	21.80	---	0.28	---	---
S-6	01/22/1997	67,000	15,000	5,000	1,800	5,400	<1,000	---	---	---	---	---	---	---	22.08	19.95	---	2.13	---	---
S-6 (D)	01/22/1997	63,000	15,000	4,800	1,800	5,200	<1,000	---	---	---	---	---	---	---	22.08	---	---	---	---	---
S-6	07/21/1997	61,000	15,000	2,100	1,100	3,500	1,900	---	---	---	---	---	---	---	22.08	20.61	---	1.47	---	---
S-6	01/22/1998	46,000	14,000	3,200	1,300	3,400	<500	---	---	---	---	---	---	---	22.08	19.82	---	2.26	---	---
S-6	07/08/1998	74,000	26,000	7,500	2,200	6,200	<1,000	---	---	---	---	---	---	---	22.08	18.20	---	3.88	---	---
S-6	10/26/1998	---	---	---	---	---	---	---	---	---	---	---	---	---	22.08	18.81	---	3.27	---	---
S-6	01/28/1999	120,000	9,000	14,000	2,700	14,000	3,700	---	---	---	---	---	---	---	22.08	19.73	---	2.35	---	---
S-6	04/23/1999	58,500	15,900	1,360	1,640	3,030	<2500	---	---	---	---	---	---	---	22.08	17.58	---	4.50	---	---
S-6	07/29/1999	36,200	10,300	760	930	1,360	<1,000	---	---	---	---	---	---	---	22.08	21.35	---	0.73	---	---
S-6	11/01/1999	36,000	11,700	767	865	1,670	<1,250	<40.0	---	---	---	---	---	---	22.08	19.23	---	2.85	---	---
S-6	01/07/2000	36,000	7,600	4,600	840	3,600	<1,000	---	---	---	---	---	---	---	22.08	19.53	---	2.55	---	---
S-6	04/11/2000	14,600	7,540	205	306	609	621	---	---	---	---	---	---	---	22.08	18.16	---	3.92	---	---
S-6	07/19/2000	2,590	629	63.9	99.6	267	124	72.7 b	---	---	---	---	---	---	22.08	18.40	---	3.68	---	---
S-6	10/12/2000	32,900	14,200	966	1,060	1,790	<500	<100	---	---	---	---	---	---	22.08	19.52	---	2.56	---	---
S-6	01/09/2001	27,600	11,200	675	666	1,580	1,430	<10.0 b	---	---	---	---	---	---	22.08	19.69	---	2.39	---	---
S-6	02/05/2001	---	---	---	---	---	---	---	---	---	---	---	---	---	22.08	19.20	---	2.88	---	---
S-6	04/06/2001	16,900	7,800	343	172	966	809	<20.0	---	---	---	---	---	---	22.08	18.25	---	3.83	---	---
S-6	07/25/2001	29,000	9,800	1,700	1,000	1,800	---	<250	---	---	---	---	---	---	22.08	18.27	---	3.81	---	---
S-6	11/01/2001	41,000	15,000	2,400	1,100	2,500	---	<500	---	---	---	---	---	---	22.08	19.30	---	2.78	---	---
S-6	01/17/2002	38,000 d	11,000 d	1,700 d	990 d	2,200 d	---	<500 d	---	---	---	---	---	---	22.08	18.51	---	3.57	---	---
S-6	05/08/2002	72,000	21,000	4,400	2,200	5,300	---	<1,000	---	---	---	---	---	---	22.08	18.30	---	3.78	---	---
S-6	07/18/2002	71,000	17,000	4,300	1,700	4,800	---	<1,000	---	---	---	---	---	---	30.56	18.19	---	12.37	---	---
S-6	10/15/2002	55,000	16,000	4,600	1,500	4,600	---	<100	---	---	---	---	---	---	30.56	18.77	---	11.79	---	---
S-6	01/02/2003	75,000	21,000	5,000	2,400	6,400	---	<50	---	---	---	---	---	---	30.56	18.60	---	11.96	---	---
S-6	04/15/2003	64,000	29,000	6,400	2,700	5,600	---	<1,000	---	---	---	---	---	---	30.56	18.27	---	12.29	---	---
S-6	07/14/2003	47,000	19,000	4,300	1,500	4,300	---	<100	---	---	---	---	---	---	30.56	18.05	---	12.51	---	---
S-6	10/20/2003	63,000	21,000	5,800	1,900	5,200	---	<130	---	---	---	---	---	---	30.56	18.55	Sheen	12.01	---	---
S-6	01/22/2004	41,000	21,000	4,300	1,800	4,000	---	<130	---	---	---	---	---	---	30.56	18.18	Sheen	12.38	---	---
S-6	04/19/2004	58,000	23,000	4,200	2,200	3,900	---	<130	---	---	---	---	---	---	30.56	17.32	---	13.24	---	---
S-6	05/03/2004	---	---	---	---	---	---	---	---	---	---	---	---	---	30.56	17.30	---	13.26	---	---
S-6	06/17/2004	---	---	---	---	---	---	---	---	---	---	---	---	---	30.56	17.70	---	12.86	---	---

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-6	07/13/2004	---	---	---	---	---	---	---	---	---	---	---	---	---	30.56	17.85	---	12.71	---	---
S-6	10/28/2004	45,000	21,000	3,600	1,700	3,300	---	<130	---	---	---	---	---	---	30.56	18.45	---	12.11	---	---
S-6	01/17/2005	61,000	21,000	3,500	1,600	3,200	---	<130	---	---	---	---	---	---	30.56	17.52	---	13.04	---	---
S-6	04/14/2005	36,000	12,000	6,200	850	4,800	---	<50	---	---	---	---	---	---	30.56	22.49	---	8.07	---	---
S-6	07/28/2005	54,000	16,000	9,100	1,800	5,900	---	<130	---	---	---	---	---	---	30.56	19.38	---	11.18	---	---
S-6	10/05/2005	59,000	14,000	7,500	1,400	5,000	---	<50	---	---	---	---	---	---	30.56	18.32	---	12.24	---	---
S-6	02/09/2006	41,100	7,060	3,900	673	2,380	---	<0.500	---	---	---	---	---	---	30.56	17.11	---	13.45	---	---
S-6	05/15/2006	188,000	24,800	20,700	2,540	12,400	---	<25.0	---	---	---	---	---	---	30.56	19.80	---	10.76	---	---
S-6	08/23/2006	133,000	24,900	16,100	2,280	10,500	---	<0.500	---	---	---	---	---	---	30.56	20.45	---	10.11	---	---
S-6	11/15/2006	66,000	19,000	8,400	1,900	7,400	---	<400	---	---	---	---	---	---	30.56	20.41	---	10.15	---	---
S-6	01/30/2007	88,000	18,000	9,600	1,900	7,200	---	<100	---	---	---	---	---	---	30.56	20.47	---	10.09	---	---
S-6	05/29/2007	56,000 f	17,000	6,700	1,700	5,400	---	<20	---	---	---	---	---	---	30.56	20.40	---	10.16	---	---
S-6	08/15/2007	57,000 f,g	15,000	6,800	1,600	6,100	---	<100	---	---	---	---	---	---	30.56	20.49	---	10.07	---	---
S-6	11/28/2007	42,000 f	13,000	5,000	1,300	5,000	---	<100	---	---	---	---	---	---	30.56	20.65	---	9.91	---	---
S-6	02/08/2008	35,000 f	12,000	5,000	1,200	4,050	---	<100	---	---	---	---	<50	<100	30.56	20.31	---	10.25	---	---
S-6	05/08/2008	45,000 f	15,000	6,100	1,400	5,000	---	<100	---	---	---	---	<50	<100	30.56	20.63	---	9.93	---	---
S-6	08/14/2008	37,000	11,000	5,200	1,200	4,600	---	<100	---	---	---	---	<50	<100	30.56	20.65	---	9.91	---	---
S-6	11/11/2008	37,000 i	15,000 i	6,200 i	1,200 i	3,390 i	---	<10 i	---	---	---	---	<5.0 i	<10 i	30.56	20.79	---	9.77	---	---
S-6	11/11/2008	14,000 j	5,200 j	680 j	400 j	1,060 j	---	<50 j	---	---	---	---	<25 j	<50 j	30.56	20.79	---	9.77	---	---
S-6	01/05/2009	53,000	9,400	3,600	890	3,100	---	<100	---	---	---	---	<50	<100	30.56	21.66	---	8.90	---	---
S-6	04/09/2009	Unable to sample		---	---	---	---	---	---	---	---	---	---	---	30.56	---	---	---	---	---
S-6	04/21/2009	13,000	3,700	1,100	270	750	---	<100	---	---	---	---	<50	<100	30.56	20.20	---	10.36	---	---
S-6	07/23/2009	15,000	4,400	1,100	360	1,000	---	---	---	---	---	---	---	---	30.56	20.66	---	9.90	1.13	-73
S-6	10/01/2009	21,000	5,100	1,300	420	1,200	---	---	---	---	---	---	---	---	30.56	20.86	---	9.70	0.58	16
S-6	01/28/2010	8,700	2,600	250	200	400	---	---	---	---	---	---	---	---	30.56	20.36	---	10.20	---	---
S-6	05/20/2010	4,400	1,600	82	85	150	---	---	---	---	---	---	---	---	30.56	20.68	---	9.88	1.08	64
S-6	08/31/2010	19,000	4,700	1,300	560	1,600	---	---	---	---	---	---	---	---	30.56	20.78	---	9.78	1.55	-88
S-6	12/29/2010	15,000	3,900	1,500	520	1,800	---	---	---	---	---	---	---	---	30.56	19.92	---	10.64	2.35	123
S-6	02/01/2011	16,000	4,000	1,700	600	1,800	---	---	---	---	---	---	---	---	30.56	19.05	---	11.51	0.61	-143
S-6	04/25/2011	23,000	7,800	3,500	960	3,000	---	---	---	---	---	---	---	---	30.56	17.73	---	12.83	0.76	-112
S-6	07/28/2011	17,000	5,500	1,500	600	1,600	---	---	---	---	---	---	---	---	30.56	17.62	---	12.94	0.77	-26
S-6	10/28/2011	42,000	11,000	4,500	1,600	5,900	---	---	---	---	---	---	---	---	30.56	18.12	---	12.44	4.64	-9
S-6	05/07/2012	38,000	14,000	4,800	1,300	4,400	---	---	---	---	---	---	---	---	30.56	17.50	---	13.06	2.32	116
S-6	08/31/2012	96,000	6,700	2,500	1,900	6,200	---	---	---	---	---	---	---	---	30.56	18.42	---	12.14	0.62	146

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-6	12/11/2012	31,000	8,300	3,700	1,000	3,700	---	---	---	---	---	---	---	---	30.56	20.00	---	10.56	0.92/0.65	102/-16
S-6	01/24/2013	29,000	9,100	2,500	950	2,600	---	---	---	---	---	---	---	---	30.56	20.43	---	10.13	---	---
S-6	05/02/2013	10,000	1,800	1,100	430	1,100	---	---	---	---	---	---	---	---	30.56	22.98	---	7.58	---	---
S-6	08/09/2013	45,000	3,800	8,000	1,800	6,500	---	---	---	---	---	---	---	---	30.56	23.21	---	7.35	---	---
S-6	11/07/2013	33,000	3,600	3,800	1,000	3,700	---	---	---	---	---	---	---	---	30.56	25.24	---	5.32	---	---
S-6	01/31/2014	16,000	1,200	2,700	710	2,500	---	---	---	---	---	---	---	---	30.56	23.30	---	7.26	---	---
S-6	04/21/2014	15,000	1,100	3,100	650	2,300	---	---	---	---	---	---	---	---	30.56	22.98	---	7.58	---	---
S-6	07/31/2014	40,000 l	4,200	7,300	1,300	5,400	---	---	---	---	---	---	---	---	30.56	22.49	---	8.07	---	---
S-6	11/21/2014	48,000	3,600	8,900	1,700	7,000	---	---	---	---	---	---	---	---	30.56	22.49	---	8.07	---	---
S-6	01/22/2015	40,000 n	7,100	4,600	1,500	5,100	---	---	---	---	---	---	---	---	30.56	22.27	---	8.29	---	---
S-6	07/17/2015	<50 b	<0.50 b	<0.50 b	<0.50 b	<1.0 b	---	---	---	---	---	---	---	---	30.56	22.70	---	7.86	---	---
S-6	09/29/2015	13,000	730	1,700	550	2,000	---	---	---	---	---	---	---	---	30.56	22.67	---	7.89	---	---
S-6	11/25/2015	13,000	1,400	1,200	610	1,900	---	---	---	---	---	---	---	---	30.56	22.50	---	8.06	---	---
S-6	03/17/2016	6,100 o	650	200	240	640	---	---	---	---	---	---	---	---	30.56	22.80	---	7.76	---	---
S-6	05/31/2016	16,000	4,300	750	830	1,600	---	---	---	---	---	---	---	---	30.56	22.71	---	7.85	---	---
S-6	09/23/2016	4500 p	1400 p	85 p	210 p	220 p	---	---	---	---	---	---	---	---	30.56	22.93	---	7.63	---	---
S-6	12/16/2016	9,200	2,900	200	340	420	---	---	---	---	---	---	---	---	30.56	22.90	---	7.66	---	---
S-6	03/17/2017	5,100	1,200	280	170	330	---	---	---	---	---	---	---	---	30.16	22.26	---	7.90	---	---
S-8	12/22/1994	600	120	32	5.2	34	---	---	---	---	---	---	---	---	27.21	24.87	---	2.34	---	---
S-8	04/20/1995	460	180	23	5.2	21	---	---	---	---	---	---	---	---	27.21	23.90	---	3.31	---	---
S-8	10/04/1995	830	210	38	11	42	---	---	---	---	---	---	---	---	27.21	24.48	---	2.73	---	---
S-8	01/03/1996	350	61	12	2.5	12	---	---	---	---	---	---	---	---	27.21	24.62	---	2.59	---	---
S-8 (D)	01/03/1996	340	54	12	2.4	12	---	---	---	---	---	---	---	---	27.21	---	---	---	---	---
S-8	04/11/1996	570	140	37	12	47	<6.2	---	---	---	---	---	---	---	27.21	24.32	---	2.89	---	---
S-8	07/11/1996	980	98	32	9.1	160	<12	---	---	---	---	---	---	---	27.21	24.10	---	3.11	---	---
S-8	10/02/1996	280	62	13	3.3	25	15	---	---	---	---	---	---	---	27.21	25.38	---	1.83	---	---
S-8 (D)	10/02/1996	490	110	24	7.0	45	22	<2.0	---	---	---	---	---	---	27.21	---	---	---	---	---
S-8	01/22/1997	400	90	13	4.9	25	12	---	---	---	---	---	---	---	27.21	23.91	---	3.30	---	---
S-8	07/21/1997	2,900	380	110	26	260	85	---	---	---	---	---	---	---	27.21	23.62	---	3.59	---	---
S-8 (D)	07/21/1997	3,200	420	120	32	300	130	---	---	---	---	---	---	---	27.21	---	---	---	---	---
S-8	01/22/1998	3,800	790	140	42	330	160	---	---	---	---	---	---	---	27.21	23.52	---	3.69	---	---
S-8 (D)	01/22/1998	3,500	780	120	33	300	160	---	---	---	---	---	---	---	27.21	---	---	---	---	---
S-8	07/08/1998	3,600	1,800	<25	<25	<25	<125	---	---	---	---	---	---	---	27.21	21.52	---	5.69	---	---

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-8 (D)	07/08/1998	4,000	1,800	<25	<25	31	<125	---	---	---	---	---	---	---	27.21	---	---	---	---	---
S-8	10/26/1998	---	---	---	---	---	---	---	---	---	---	---	---	---	27.21	22.01	---	5.20	---	---
S-8	01/28/1999	2,000	630	6.2	24	51	43	---	---	---	---	---	---	---	27.21	23.03	---	4.18	---	---
S-8	04/23/1999	1,050	408	<5.00	<5.00	6.65	<50.0	---	---	---	---	---	---	---	27.21	22.15	---	5.06	---	---
S-8	07/29/1999	955	344	<2.50	6.90	16.2	<25.0	---	---	---	---	---	---	---	27.21	21.95	---	5.26	---	---
S-8	11/01/1999	1,800	550	6.45	15.0	40.4	<50.0	---	---	---	---	---	---	---	27.21	22.55	---	4.66	---	---
S-8	01/07/2000	1,300	600	11	29	48	<13	---	---	---	---	---	---	---	27.21	22.87	---	4.34	---	---
S-8	04/11/2000	342	101	4.42	4.24	14.7	21.4	---	---	---	---	---	---	---	27.21	21.86	---	5.35	---	---
S-8	07/19/2000	579	228	6.37	6.45	25	<12.5	---	---	---	---	---	---	---	27.21	21.93	---	5.28	---	---
S-8	10/12/2000	947	340	8.64	3.26	38.3	<12.5	<2.00	---	---	---	---	---	---	27.21	22.92	---	4.29	---	---
S-8	01/09/2001	1,090	394	<10.0	<10.0	33.3	57.6	---	---	---	---	---	---	---	27.21	23.19	---	4.02	---	---
S-8	04/06/2001	671	182	12.5	16.4	47.1	42.5	---	---	---	---	---	---	---	27.21	22.46	---	4.75	---	---
S-8	07/25/2001	500	70	6.7	11	23	---	<5.0	---	---	---	---	---	---	27.21	22.50	---	4.71	---	---
S-8	11/01/2001	1,900	250	28	39	180	---	<5.0	---	---	---	---	---	---	27.21	22.44	---	4.77	---	---
S-8	01/17/2002	830 d	140 d	11 d	12 d	89 d	---	<5.0 d	---	---	---	---	---	---	27.21	21.82	---	5.39	---	---
S-8	05/08/2002	210 d	34 d	1.7 d	4.1 d	15 d	---	<5.0 d	---	---	---	---	---	---	27.21	21.35	---	5.86	---	---
S-8	07/18/2002	650	68	2.8	9.7	42	---	<5.0	---	---	---	---	---	---	35.85	21.53	---	14.32	---	---
S-8	10/15/2002	1,000	160	4.2	7.7	74	---	<0.50	---	---	---	---	---	---	35.85	21.97	---	13.88	---	---
S-8	01/02/2003	440	55	1.8	2.9	31	---	<0.50	---	---	---	---	---	---	35.85	21.95	---	13.90	---	---
S-8	04/15/2003	---	---	---	---	---	---	---	---	---	---	---	---	---	35.85	21.73	---	14.12	---	---
S-8	07/14/2003	60	6.8	<0.50	0.98	4.9	---	<0.50	---	---	---	---	---	---	35.85	21.40	---	14.45	---	---
S-8	10/20/2003	---	---	---	---	---	---	---	---	---	---	---	---	---	35.85	21.94	---	13.91	---	---
S-8	01/22/2004	210	19	0.52	3.6	17	---	<0.50	---	---	---	---	---	---	35.85	21.40	---	14.45	---	---
S-8	04/19/2004	---	---	---	---	---	---	---	---	---	---	---	---	---	35.85	20.83	---	15.02	---	---
S-8	07/13/2004	420	77	0.82	14	31	---	<0.50	---	---	---	---	---	---	35.85	21.05	---	14.80	---	---
S-8	10/28/2004	---	---	---	---	---	---	---	---	---	---	---	---	---	35.85	21.77	---	14.08	---	---
S-8	01/17/2005	490	85	0.89	13	28	---	<0.50	---	---	---	---	---	---	35.85	20.92	---	14.93	---	---
S-8	04/14/2005	---	---	---	---	---	---	---	---	---	---	---	---	---	35.85	21.57	---	14.28	---	---
S-8	07/28/2005	64	12	<0.50	1.5	1.6	---	<0.50	---	---	---	---	---	---	35.85	21.62	---	14.23	---	---
S-8	10/05/2005	---	---	---	---	---	---	---	---	---	---	---	---	---	35.85	21.11	---	14.74	---	---
S-8	02/09/2006	<50.0	2.79	<0.500	<0.500	<0.500	---	<0.500	---	---	---	---	---	---	35.85	20.18	---	15.67	---	---
S-8	05/15/2006	---	---	---	---	---	---	---	---	---	---	---	---	---	35.85	20.53	---	15.32	---	---
S-8	08/23/2006	<50.0	<0.500	<0.500	<0.500	<0.500	---	<0.500	---	---	---	---	---	---	35.85	21.49	---	14.36	---	---
S-8	11/15/2006	---	---	---	---	---	---	---	---	---	---	---	---	---	35.85	22.05	---	13.80	---	---

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-8	01/30/2007	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	---	---	35.85	22.41	---	13.44	---	---
S-8	05/29/2007	---	---	---	---	---	---	---	---	---	---	---	---	---	35.85	22.65	---	13.20	---	---
S-8	08/15/2007	65 f,g	7.4	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	---	---	35.85	22.88	---	12.97	---	---
S-8	11/28/2007	---	---	---	---	---	---	---	---	---	---	---	---	---	35.85	23.20	---	12.65	---	---
S-8	02/08/2008	350 f	22	<1.0	4.8	2.6	---	1.2	---	---	---	---	<0.50	<1.0	35.85	22.72	---	13.13	---	---
S-8	05/08/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	35.85	22.91	---	12.94	---	---
S-8	08/14/2008	420	28	<1.0	6.3	1.4	---	<1.0	---	---	---	---	<0.50	<1.0	35.85	23.12	---	12.73	---	---
S-8	11/11/2008	330 i	37 i	<1.0 i	5.1 i	<1.0 i	---	<1.0 i	---	---	---	---	<0.50 i	<1.0 i	35.85	23.37	---	12.48	1.6	28
S-8	11/11/2008	480 j	29 j	<1.0 j	5.4 j	<1.0 j	---	---	---	---	---	---	---	---	35.85	23.37	---	12.48	2.2	103
S-8	12/18/2008	340	38	<1.0	5.4	<1.0	---	---	---	---	---	---	---	---	35.83	23.31	---	12.52	---	---
S-8	01/05/2009	170	15	<1.0	1.2	<1.0	---	---	---	---	---	---	---	---	35.83	23.28	---	12.55	---	---
S-8	01/15/2009	260	45	<1.0	3.2	<1.0	---	---	---	---	---	---	---	---	35.83	23.05	---	12.78	---	---
S-8	02/12/2009	88	7.2	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	35.83	23.34	---	12.49	---	---
S-8	03/12/2009	12,000	1,700	2,100	200	2,400	---	---	---	---	---	---	---	---	35.83	22.90	---	12.93	---	---
S-8	04/09/2009	170	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	35.83	23.10	---	12.73	---	594
S-8	07/23/2009	140	0.55	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	35.83	23.02	---	12.81	2.38	-54
S-8	10/01/2009	140	0.68	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	35.83	23.31	---	12.52	4.34	359
S-8	01/28/2010	<50	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	35.83	22.80	---	13.03	---	---
S-8	05/20/2010	<50	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	35.83	23.55	---	12.28	0.64	42
S-8	08/31/2010	<50	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	35.83	23.48	---	12.35	0.54	-72
S-8	12/29/2010	79	0.83	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	35.83	23.18	---	12.65	0.74	133
S-8	02/01/2011	<50	<0.50	<0.50	<0.50	<1.0	---	---	---	---	---	---	---	---	35.83	22.57	---	13.26	1.68	104
S-8	04/25/2011	<50	1.1	<0.50	<0.50	<1.0	---	---	---	---	---	---	---	---	35.83	21.26	---	14.57	1.78	12
S-8	07/28/2011	50	2.4	<0.50	<0.50	<1.0	---	---	---	---	---	---	---	---	35.83	20.94	---	14.89	0.89	186
S-8	10/28/2011	<50	0.61	<0.50	<0.50	<1.0	---	---	---	---	---	---	---	---	35.83	21.09	---	14.74	2.78	349
S-8	05/07/2012	<50	4.3	1.4	0.59	1.0	---	---	---	---	---	---	---	---	35.83	21.23	---	14.60	2.42	209
S-8	05/02/2013	53	<0.50	<0.50	<0.50	<1.0	---	---	---	---	---	---	---	---	35.83	24.65	---	11.18	---	---
S-8	04/21/2014	<50	<0.50	<0.50	<0.50	<1.0	---	---	---	---	---	---	---	---	35.83	25.28	---	10.55	---	---
S-8	Well destroyed																			
S-9	12/22/1994	2,600	400	150	42	310	---	---	---	---	---	---	---	---	26.06	24.37	---	1.69	---	---
S-9	04/20/1995	1,900	400	130	51	200	---	---	---	---	---	---	---	---	26.06	23.49	---	2.57	---	---
S-9	10/04/1995	3,200	590	260	68	280	---	---	---	---	---	---	---	---	26.06	24.01	---	2.05	---	---
S-9	01/03/1996	Well inaccessible					---	---	---	---	---	---	---	---	26.06	---	---	---	---	---

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-9	04/11/1996	2,100	440	1,500	42	210	<25	---	---	---	---	---	---	---	26.06	23.61	---	2.45	---	---
S-9	07/11/1996	5,200	940	450	120	520	<50	---	---	---	---	---	---	---	26.06	23.78	---	2.28	---	---
S-9 (D)	07/11/1996	4,800	890	430	110	500	<50	---	---	---	---	---	---	---	26.06	---	---	---	---	---
S-9	10/02/1996	3,000	680	220	56	270	<62	---	---	---	---	---	---	---	26.06	24.31	---	1.75	---	---
S-9	01/22/1997	1,500	230	71	36	130	<12	---	---	---	---	---	---	---	26.06	23.08	---	2.98	---	---
S-9	07/21/1997	3,400	590	57	19	210	96	---	---	---	---	---	---	---	26.06	22.83	---	3.23	---	---
S-9	01/22/1998	2,600	300	46	<10	270	62	---	---	---	---	---	---	---	26.06	21.96	---	4.10	---	---
S-9	07/08/1998	820	150	6.2	7.5	57	<10	---	---	---	---	---	---	---	26.06	20.85	---	5.21	---	---
S-9	10/26/1998	---	---	---	---	---	---	---	---	---	---	---	---	---	26.06	21.39	---	4.67	---	---
S-9	01/28/1999	<50	1.0	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	---	---	26.06	22.32	---	3.74	---	---
S-9	04/23/1999	---	---	---	---	---	---	---	---	---	---	---	---	---	26.06	21.41	---	4.65	---	---
S-9	07/29/1999	117	7.77	0.817	0.683	5.05	<5.00	---	---	---	---	---	---	---	26.06	21.25	---	4.81	---	---
S-9	11/01/1999	---	---	---	---	---	---	---	---	---	---	---	---	---	26.06	21.92	---	4.14	---	---
S-9	01/07/2000	<50	1.2	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	---	---	26.06	22.11	---	3.95	---	---
S-9	04/11/2000	---	---	---	---	---	---	---	---	---	---	---	---	---	26.06	21.14	---	4.92	---	---
S-9	07/19/2000	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	26.06	---	---	---	---	---
S-9	10/12/2000	---	---	---	---	---	---	---	---	---	---	---	---	---	26.06	22.24	---	3.82	---	---
S-9	01/09/2001	<50.0	1.45	<0.500	<0.500	<0.500	<2.50	---	---	---	---	---	---	---	26.06	22.52	---	3.54	---	---
S-9	04/06/2001	---	---	---	---	---	---	---	---	---	---	---	---	---	26.06	23.61	---	2.45	---	---
S-9	07/25/2001	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	26.06	---	---	---	---	---
S-9	08/13/2001	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	26.06	---	---	---	---	---
S-9	11/01/2001	---	---	---	---	---	---	---	---	---	---	---	---	---	26.06	21.78	---	4.28	---	---
S-9	01/17/2002	<50 d	<0.50 d	<0.50 d	<0.50 d	<0.50 d	---	<5.0 d	---	---	---	---	---	---	26.06	21.15	---	4.91	---	---
S-9	05/08/2002	---	---	---	---	---	---	---	---	---	---	---	---	---	26.06	20.56	---	5.50	---	---
S-9	07/18/2002	<50	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	---	---	34.70	20.88	---	13.82	---	---
S-9	10/15/2002	---	---	---	---	---	---	---	---	---	---	---	---	---	34.70	21.41	---	13.29	---	---
S-9	01/02/2003	<50	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	---	---	34.70	21.35	---	13.35	---	---
S-9	04/15/2003	---	---	---	---	---	---	---	---	---	---	---	---	---	34.70	21.14	---	13.56	---	---
S-9	07/14/2003	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	---	---	34.70	20.80	---	13.90	---	---
S-9	10/20/2003	---	---	---	---	---	---	---	---	---	---	---	---	---	34.70	21.33	---	13.37	---	---
S-9	01/22/2004	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	---	---	34.70	20.77	---	13.93	---	---
S-9	04/19/2004	---	---	---	---	---	---	---	---	---	---	---	---	---	34.70	20.06	---	14.64	---	---
S-9	07/13/2004	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	---	---	34.70	20.44	---	14.26	---	---
S-9	10/28/2004	---	---	---	---	---	---	---	---	---	---	---	---	---	34.70	21.02	---	13.68	---	---

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-9	01/17/2005	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	---	---	34.70	20.18	---	14.52	---	---
S-9	04/14/2005	---	---	---	---	---	---	---	---	---	---	---	---	---	34.70	21.85	---	12.85	---	---
S-9	07/28/2005	360	190	1.8	1.1	3.9	---	<0.50	<5.0	<2.0	<2.0	<2.0	---	---	34.70	21.22	---	13.48	---	---
S-9	10/05/2005	---	---	---	---	---	---	---	---	---	---	---	---	---	34.70	20.63	---	14.07	---	---
S-9	02/09/2006	<50.0	0.94	<0.500	<0.500	<0.500	---	<0.500	---	---	---	---	---	---	34.70	19.23	---	15.47	---	---
S-9	05/15/2006	---	---	---	---	---	---	---	---	---	---	---	---	---	34.70	20.28	---	14.42	---	---
S-9	08/23/2006	7,000	1,740	55.6	193	278	---	<0.500	<10.0	<0.500	<0.500	<0.500	---	---	34.70	21.31	---	13.39	---	---
S-9	11/15/2006	---	---	---	---	---	---	---	---	---	---	---	---	---	34.70	21.79	---	12.91	---	---
S-9	01/30/2007	12,000	2,200	250	480	980	---	<0.50	---	---	---	---	---	---	34.70	22.08	---	12.62	---	---
S-9	05/29/2007	---	---	---	---	---	---	---	---	---	---	---	---	---	34.70	22.22	---	12.48	---	---
S-9	08/15/2007	9,800 f,g	2,400	100	410	602	---	<10	<100	<20	<20	<20	---	---	34.70	22.43	---	12.27	---	---
S-9	11/28/2007	---	---	---	---	---	---	---	---	---	---	---	---	---	34.70	22.75	---	11.95	---	---
S-9	02/08/2008	69 f	2.2	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	<0.50	<1.0	34.70	22.31	---	12.39	---	---
S-9	05/08/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	34.70	22.49	---	12.21	---	---
S-9	08/14/2008	<50	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	<0.50	<1.0	34.70	22.70	---	12.00	---	---
S-9	11/11/2008	<50 i	2.4 i	<1.0 i	<1.0 i	<1.0 i	---	<1.0 i	---	---	---	---	<0.50 i	<1.0 i	34.70	22.90	---	11.80	1.1	92
S-9	11/11/2008	550 j	74 j	12 j	22 j	55.3 j	---	---	---	---	---	---	---	---	34.70	22.90	---	11.80	3.6	98
S-9	12/18/2008	1,500	280	43	71	182	---	---	---	---	---	---	---	---	34.34	22.81	---	11.53	---	---
S-9	01/05/2009	1,000	230	24	45	64	---	---	---	---	---	---	---	---	34.34	22.75	---	11.59	---	---
S-9	01/15/2009	2,100	560	75	100	245	---	---	---	---	---	---	---	---	34.34	22.37	---	11.97	---	---
S-9	02/12/2009	500	120	19	26	50	---	---	---	---	---	---	---	---	34.34	22.61	---	11.73	---	---
S-9	03/12/2009	810	200	30	50	110	---	---	---	---	---	---	---	---	34.34	22.22	---	12.12	---	---
S-9	04/09/2009	2,300	450	60	110	260	---	---	---	---	---	---	---	---	34.34	22.12	---	12.22	0.65	79
S-9	05/18/2009	1,500	200	35	61	180	---	---	---	---	---	---	---	---	34.34	22.09	---	12.25	2.71	173
S-9	07/23/2009	1,700	430	49	110	190	---	---	---	---	---	---	---	---	34.34	22.48	---	11.86	0.21	346
S-9	10/01/2009	1,200	180	12	58	93	---	---	---	---	---	---	---	---	34.34	22.84	---	11.50	1.37	146
S-9	11/09/2009	1,400	260	21	67	81	---	---	---	---	---	---	---	---	34.34	22.63	---	11.71	0.42	---
S-9	12/01/2009	1,100	110	11	26	59	---	---	---	---	---	---	---	---	34.34	22.44	---	11.90	1.09	133
S-9	01/28/2010	860	130	9.3	38	79	---	---	---	---	---	---	---	---	34.34	22.35	---	11.99	1.95	---
S-9	05/20/2010	1,900	340	27	100	210	---	---	---	---	---	---	---	---	34.34	22.40	---	11.94	0.17	138
S-9	06/22/2010	1,400	240	30	65	130	---	---	---	---	---	---	---	---	34.34	22.64	---	11.70	2.16	577
S-9	08/31/2010	760	130	13	54	110	---	<1.0	<10	<2.0	<2.0	<2.0	---	---	34.34	22.92	---	11.42	1.53	415
S-9	12/29/2010	290	55	3.3	18	41	---	---	---	---	---	---	---	---	34.34	22.62	---	11.72	1.64	163
S-9	02/01/2011	640	99	7.8	38	72	---	---	---	---	---	---	---	---	34.34	21.88	---	12.46	1.34	0

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-9	04/25/2011	590	120	9.1	29	77	---	---	---	---	---	---	---	---	34.34	20.34	---	14.00	0.62	98
S-9	07/28/2011	1,700	280	47	88	230	---	<1.0	<10	<1.0	<1.0	<1.0	---	---	34.34	20.10	---	14.24	2.17	73
S-9	10/28/2011	1,900	370	32	110	260	---	---	---	---	---	---	---	---	34.34	20.54	---	13.80	2.18	122
S-9	05/07/2012	970	200	14	46	100	---	<2.5	<50	<2.5	<2.5	<2.5	---	---	34.34	20.49	---	13.85	0.91	78
S-9	12/11/2012	610	160	22	32	95	---	---	---	---	---	---	---	---	34.34	22.28	---	12.06	1.28/1.53	93/76
S-9	05/02/2013	1,400	230	53	65	160	---	<2.5	<50	<2.5	<2.5	<2.5	---	---	34.34	24.36	---	9.98	---	---
S-9	11/07/2013	1,200	150	15	32	84	---	---	---	---	---	---	---	---	34.34	24.92	---	9.42	---	---
S-9	04/21/2014	1,100	120	25	33	83	---	<1.3	<25	<1.3	<1.3	<1.3	---	---	34.34	24.90	---	9.44	---	---
S-9	11/21/2014	1,600	250	15	64	89	---	---	---	---	---	---	---	---	34.34	24.55	---	9.79	---	---
S-9	Well destroyed																			
S-10	12/22/1994	420	27	8.0	18	45	---	---	---	---	---	---	---	---	28.04	25.84	---	2.20	---	---
S-10	04/20/1995	820	49	3.7	97	52	---	---	---	---	---	---	---	---	28.04	24.92	---	3.12	---	---
S-10	10/04/1995	240	6.5	1.1	16	12	---	---	---	---	---	---	---	---	28.04	25.47	---	2.57	---	---
S-10	01/03/1996	1,100	27	4.9	110	70	---	---	---	---	---	---	---	---	28.04	25.60	---	2.44	---	---
S-10	04/11/1996	530	19	1.6	82	52	<5.0	---	---	---	---	---	---	---	28.04	25.27	---	2.77	---	---
S-10	07/11/1996	570	16	3.2	53	53	<2.5	---	---	---	---	---	---	---	28.04	25.46	---	2.58	---	---
S-10	10/02/1996	270	8.2	0.77	24	23	3.3	---	---	---	---	---	---	---	28.04	25.81	---	2.23	---	---
S-10	01/22/1997	160	4.8	0.73	16	11	<2.5	---	---	---	---	---	---	---	28.04	24.74	---	3.30	---	---
S-10	07/21/1997	530	5.7	0.70	29	69	<2.5	---	---	---	---	---	---	---	28.04	24.50	---	3.54	---	---
S-10	01/22/1998	1,500	15	<5.0	88	130	<25	---	---	---	---	---	---	---	28.04	24.44	---	3.60	---	---
S-10	07/08/1998	530	4.8	1.1	47	51	<2.5	---	---	---	---	---	---	---	28.04	22.36	---	5.68	---	---
S-10	10/26/1998	---	---	---	---	---	---	---	---	---	---	---	---	---	28.04	22.81	---	5.23	---	---
S-10	01/28/1999	630	4.6	0.98	<0.50	59	<2.5	---	---	---	---	---	---	---	28.04	23.82	---	4.22	---	---
S-10	04/23/1999	---	---	---	---	---	---	---	---	---	---	---	---	---	28.04	22.96	---	5.08	---	---
S-10	07/29/1999	728	3.4	<1.00	41.8	38.0	<10.0	---	---	---	---	---	---	---	28.04	22.63	---	5.41	---	---
S-10	11/01/1999	---	---	---	---	---	---	---	---	---	---	---	---	---	28.04	23.02	---	5.02	---	---
S-10	01/07/2000	870	8.5	1.3	110	110	<2.5	---	---	---	---	---	---	---	28.04	23.33	---	4.71	---	---
S-10	04/11/2000	---	---	---	---	---	---	---	---	---	---	---	---	---	28.04	22.64	---	5.40	---	---
S-10	07/19/2000	612	3.75	<0.500	41.6	43.6	<2.50	---	---	---	---	---	---	---	28.04	23.04	---	5.00	---	---
S-10	10/12/2000	---	---	---	---	---	---	---	---	---	---	---	---	---	28.04	23.92	---	4.12	---	---
S-10	01/09/2001	647	7.62	1.01	66.2	42.4	<2.50	---	---	---	---	---	---	---	28.04	24.13	---	3.91	---	---
S-10	04/06/2001	---	---	---	---	---	---	---	---	---	---	---	---	---	28.04	25.37	---	2.67	---	---
S-10	07/25/2001	340	1.5	<0.50	42	19	---	<5.0	---	---	---	---	---	---	28.04	25.35	---	2.69	---	---

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-10	11/01/2001	---	---	---	---	---	---	---	---	---	---	---	---	---	28.04	23.22	---	4.82	---	---
S-10	01/17/2002	1,100 d	3.5 d	<0.50 d	55 d	46 d	---	<5.0 d	---	---	---	---	---	---	28.04	22.72	---	5.32	---	---
S-10	05/08/2002	---	---	---	---	---	---	---	---	---	---	---	---	---	28.04	22.35	---	5.69	---	---
S-10	07/18/2002	750	1.8	<0.50	42	26	---	<5.0	---	---	---	---	---	---	36.35	22.05	---	14.30	---	---
S-10	10/15/2002	---	---	---	---	---	---	---	---	---	---	---	---	---	36.35	22.51	---	13.84	---	---
S-10	01/02/2003	440	1.8	<0.50	14	24	---	<5.0	---	---	---	---	---	---	36.35	22.50	---	13.85	---	---
S-10	04/15/2003	---	---	---	---	---	---	---	---	---	---	---	---	---	36.35	22.32	---	14.03	---	---
S-10	07/14/2003	210	0.86	<0.50	13	12	---	<0.50	---	---	---	---	---	---	36.35	21.99	---	14.36	---	---
S-10	10/20/2003	---	---	---	---	---	---	---	---	---	---	---	---	---	36.35	22.53	---	13.82	---	---
S-10	01/22/2004	280	0.88	<0.50	10	11	---	<0.50	---	---	---	---	---	---	36.35	22.02	---	14.33	---	---
S-10	04/19/2004	---	---	---	---	---	---	---	---	---	---	---	---	---	36.35	21.43	---	14.92	---	---
S-10	07/13/2004	770	1.5	<0.50	70	42	---	<0.50	---	---	---	---	---	---	36.35	21.68	---	14.67	---	---
S-10	10/28/2004	---	---	---	---	---	---	---	---	---	---	---	---	---	36.35	22.37	---	13.98	---	---
S-10	01/17/2005	1,100	1.5	<0.50	73	51	---	<0.50	---	---	---	---	---	---	36.35	21.45	---	14.90	---	---
S-10	04/14/2005	---	---	---	---	---	---	---	---	---	---	---	---	---	36.35	22.18	---	14.17	---	---
S-10	07/28/2005	260	<0.50	<0.50	19	9.7	---	<0.50	<5.0	<2.0	<2.0	<2.0	---	---	36.35	22.25	---	14.10	---	---
S-10	10/05/2005	---	---	---	---	---	---	---	---	---	---	---	---	---	36.35	21.70	---	14.65	---	---
S-10	02/09/2006	630	<0.500	<0.500	13.8	13.8	---	<0.500	---	---	---	---	---	---	36.35	20.37	---	15.98	---	---
S-10	05/15/2006	---	---	---	---	---	---	---	---	---	---	---	---	---	36.35	21.31	---	15.04	---	---
S-10	08/23/2006	<50.0	<0.500	<0.500	14.5	3.4	---	<0.500	<10.0	<0.500	<0.500	<0.500	---	---	36.35	22.12	---	14.23	---	---
S-10	11/15/2006	---	---	---	---	---	---	---	---	---	---	---	---	---	36.35	22.68	---	13.67	---	---
S-10	01/30/2007	120	<0.50	<0.50	7.0	3.3	---	<0.50	---	---	---	---	---	---	36.35	23.09	---	13.26	---	---
S-10	05/29/2007	---	---	---	---	---	---	---	---	---	---	---	---	---	36.35	23.20	---	13.15	---	---
S-10	08/15/2007	64 f,g	0.15 h	<1.0	1.4	0.72 h	---	<1.0	<10	<2.0	<2.0	<2.0	---	---	36.35	23.48	---	12.87	---	---
S-10	11/28/2007	---	---	---	---	---	---	---	---	---	---	---	---	---	36.35	23.82	---	12.53	---	---
S-10	02/08/2008	61 f	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	<0.50	<1.0	36.35	23.31	---	13.04	---	---
S-10	05/08/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	36.35	23.55	---	12.80	---	---
S-10	08/14/2008	58	<0.50	<1.0	2.7	<1.0	---	<1.0	---	---	---	---	<0.50	<1.0	36.35	23.75	---	12.60	---	---
S-10	11/11/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	36.35	23.08	---	13.27	---	---
S-10	12/18/2008	<50	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	36.35	24.00	---	12.35	---	---
S-10	01/05/2009	<50	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	36.35	23.87	---	12.48	---	---
S-10	01/15/2009	<50	<0.50	<1.0	1.1	<1.0	---	---	---	---	---	---	---	---	36.35	23.66	---	12.69	---	---
S-10	02/12/2009	56	<0.50	<1.0	3.4	<1.0	---	---	---	---	---	---	---	---	36.35	23.96	---	12.39	---	---
S-10	03/12/2009	53	<0.50	<1.0	4.9	<1.0	---	---	---	---	---	---	---	---	36.35	23.44	---	12.91	---	---

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-10	04/09/2009	---	---	---	---	---	---	---	---	---	---	---	---	---	36.35	23.26	---	13.09	---	---
S-10	07/23/2009	66	<0.50	<1.0	5.7	<1.0	---	---	---	---	---	---	---	---	36.35	23.56	---	12.79	0.06	112
S-10	10/01/2009	76	<0.50	<1.0	4.6	<1.0	---	---	---	---	---	---	---	---	36.35	23.80	---	12.55	1.26	206
S-10	01/28/2010	100	<0.50	<1.0	3.6	<1.0	---	---	---	---	---	---	---	---	36.35	23.30	---	13.05	---	---
S-10	05/20/2010	52	<0.50	<1.0	1.9	<1.0	---	---	---	---	---	---	---	---	36.35	24.04	---	12.31	0.68	59
S-10	08/31/2010	<50	0.69	<1.0	1.4	<1.0	---	<1.0	<10	<2.0	<2.0	<2.0	---	---	36.35	24.24	---	12.11	0.51	-3
S-10	12/29/2010	95	<0.50	<1.0	3.4	1.4	---	---	---	---	---	---	---	---	36.35	23.89	---	12.46	0.43	87
S-10	02/01/2011	69	<0.50	<0.50	2.2	<1.0	---	---	---	---	---	---	---	---	36.35	23.25	---	13.10	2.08	117
S-10	04/25/2011	55	0.51	<0.50	2.9	<1.0	---	---	---	---	---	---	---	---	36.35	21.87	---	14.48	1.32	21
S-10	07/28/2011	<50	<0.50	<1.0	0.92	<1.0	---	<1.0	<10	<1.0	<1.0	<1.0	---	---	36.35	21.39	---	14.96	0.32	227
S-10	10/28/2011	52	<0.50	<0.50	2.7	<1.0	---	---	---	---	---	---	---	---	36.35	21.68	---	14.67	2.68	327
S-10	05/07/2012	50	0.84	<0.50	1.5	<1.0	---	<0.50	<10	<0.50	<0.50	<0.50	---	---	36.35	22.00	---	14.35	2.51	220
S-10	05/02/2013	100	<0.50	<0.50	0.77	<1.0	---	<0.50	<10	<0.50	<0.50	<0.50	---	---	36.35	25.53	---	10.82	---	---
S-10	04/21/2014	180	<0.50	<0.50	0.71	<1.0	---	<0.50	<10	<0.50	<0.50	<0.50	---	---	36.35	26.20	---	10.15	---	---
S-10	Well destroyed																			
S-12	12/17/2007	---	---	---	---	---	---	---	---	---	---	---	---	---	36.44	24.58	---	11.86	---	---
S-12	02/08/2008	55 f	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	<0.50	<1.0	36.44	24.32	---	12.12	---	---
S-12	05/08/2008	<50 f	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	<0.50	<1.0	36.44	24.51	---	11.93	---	---
S-12	08/14/2008	<50	1.0	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	<0.50	<1.0	36.44	24.63	---	11.81	---	---
S-12	11/11/2008	<50 i	0.95 i	<1.0 i	<1.0 i	<1.0 i	---	<1.0 i	---	---	---	---	<0.50 i	<1.0 i	36.44	24.85	---	11.59	0.2	37
S-12	11/11/2008	65 j	8.1 j	2.2 j	4.8 j	1.5 j	---	---	---	---	---	---	---	---	36.44	24.85	---	11.59	0.2	45
S-12	12/18/2008	<50	8.3	<1.0	1.8	<1.0	---	---	---	---	---	---	---	---	36.44	24.81	---	11.63	---	---
S-12	01/05/2009	95	16	<1.0	3.2	<1.0	---	---	---	---	---	---	---	---	36.44	24.75	---	11.69	---	---
S-12	01/15/2009	140	36	<1.0	12	<1.0	---	---	---	---	---	---	---	---	36.44	24.54	---	11.90	---	---
S-12	02/12/2009	<50	5.0	<1.0	1.6	<1.0	---	---	---	---	---	---	---	---	36.44	24.81	---	11.63	---	---
S-12	03/12/2009	<50	4.8	<1.0	1.5	<1.0	---	---	---	---	---	---	---	---	36.44	24.41	---	12.03	---	---
S-12	04/09/2009	59	6.0	<1.0	1.6	<1.0	---	---	---	---	---	---	---	---	36.44	24.23	---	12.21	0.50	-3
S-12	07/23/2009	130	29	<1.0	13	<1.0	---	---	---	---	---	---	---	---	36.44	24.50	---	11.94	0.07	142
S-12	10/01/2009	130	25	<1.0	15	<1.0	---	---	---	---	---	---	---	---	36.44	24.76	---	11.68	0.74	135
S-12	01/28/2010	110	14	<1.0	19	<1.0	---	---	---	---	---	---	---	---	36.44	24.28	---	12.16	---	---
S-12	05/20/2010	75	8.5	<1.0	7.0	<1.0	---	---	---	---	---	---	---	---	36.44	24.71	---	11.73	0.14	740
S-12	08/31/2010	<50	0.56	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	36.44	25.08	---	11.36	1.18	180
S-12	12/29/2010	<50	0.98	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	36.44	24.60	---	11.84	1.27	121

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-12	02/01/2011	<50	1.8	<0.50	2.8	<1.0	---	---	---	---	---	---	---	---	36.44	23.94	---	12.50	2.06	-2
S-12	04/25/2011	<50	0.82	<0.50	1.7	<1.0	---	---	---	---	---	---	---	---	36.44	22.53	---	13.91	0.28	196
S-12	07/28/2011	<50	0.96	<0.50	2.8	<1.0	---	---	---	---	---	---	---	---	36.44	22.05	---	14.39	3.01	163
S-12	10/28/2011	99	15	<0.50	14	<1.0	---	---	---	---	---	---	---	---	36.44	22.50	---	13.94	3.67	91
S-12	05/07/2012	180	25	<0.50	19	1.0	---	---	---	---	---	---	---	---	36.44	22.50	---	13.94	0.88	66
S-12	05/02/2013	190	1.2	0.64	0.71	3.8	---	---	---	---	---	---	---	---	36.44	26.48	---	9.96	---	---
S-12	04/21/2014	1,100	5.0	3.3	9.5	38	---	---	---	---	---	---	---	---	36.44	27.08	---	9.36	---	---
S-12	Well destroyed																			
S-13	12/17/2007	---	---	---	---	---	---	---	---	---	---	---	---	---	35.16	23.33	---	11.83	---	---
S-13	02/08/2008	14,000 f	1,900	1,300	280	3,000	---	<10	---	---	---	---	<5.0	<10	35.16	23.01	---	12.15	---	---
S-13	05/08/2008	18,000 f	2,800	3,400	550	3,500	---	<10	---	---	---	---	<5.0	<10	35.16	23.31	---	11.85	---	---
S-13	08/14/2008	16,000	2,400	3,100	580	3,100	---	<20	---	---	---	---	<10	<20	35.16	23.31	---	11.85	---	---
S-13	11/11/2008	16,000 i	2,400 i	2,800 i	270 i	2,500 i	---	<50 i	---	---	---	---	<25 i	<50 i	35.16	23.60	---	11.56	0.8	-48
S-13	11/11/2008	4,400 j	560 j	630 j	88 j	530 j	---	---	---	---	---	---	---	---	35.16	23.60	---	11.56	1.2	-60
S-13	12/18/2008	3,900	530	560	76	510	---	---	---	---	---	---	---	---	35.05	23.61	---	11.44	---	---
S-13	01/05/2009	8,200	700	670	67	1,000	---	---	---	---	---	---	---	---	35.05	23.54	---	11.51	---	---
S-13	01/15/2009	5,400	610	610	48	950	---	---	---	---	---	---	---	---	35.05	23.10	---	11.95	---	---
S-13	02/12/2009	6,300	800	1,000	110	870	---	---	---	---	---	---	---	---	35.05	22.36	---	12.69	---	---
S-13	03/12/2009	14,000	1,700	2,300	190	2,400	---	---	---	---	---	---	---	---	35.05	23.20	---	11.85	---	---
S-13	04/09/2009	35,000	510	7,800	1,000	4,300	---	---	---	---	---	---	---	---	35.05	23.02	---	12.03	25.9	433
S-13	05/18/2009	35,000	820	7,000	1,100	6,600	---	---	---	---	---	---	---	---	35.05	23.07	---	11.98	5.21	83
S-13	07/23/2009	18,000	1,800	3,000	480	2,500	---	---	---	---	---	---	---	---	35.05	23.51	---	11.54	1.23	148
S-13	10/01/2009	2,000	330	87	33	5.2	---	---	---	---	---	---	---	---	35.05	23.61	---	11.44	1.23	413
S-13	11/09/2009	15,000	1,100	1,500	300	1,800	---	---	---	---	---	---	---	---	35.05	23.41	---	11.64	0.71	---
S-13	12/01/2009	1,600	210	190	34	36	---	---	---	---	---	---	---	---	35.05	23.15	---	11.90	16.3	231
S-13	01/28/2010	5,900	370	930	100	680	---	---	---	---	---	---	---	---	35.05	22.94	---	12.11	2.18	---
S-13	05/20/2010	400	35	120	9.5	52	---	---	---	---	---	---	---	---	35.05	23.36	---	11.69	0.31	211
S-13	06/22/2010	16,000	570	3,000	260	2,000	---	---	---	---	---	---	---	---	35.05	23.20	---	11.85	1.10	412
S-13	08/31/2010	3,000	140	490	83	540	---	---	---	---	---	---	---	---	35.05	24.00	---	11.05	0.90	400
S-13	12/29/2010	8,700	600	1,700	260	1,700	---	---	---	---	---	---	---	---	35.05	23.48	---	11.57	0.69	231
S-13	02/01/2011	2,100	170	390	75	410	---	---	---	---	---	---	---	---	35.05	22.71	---	12.34	1.10	248
S-13	04/25/2011	6,000	600	1,800	270	1,300	---	---	---	---	---	---	---	---	35.05	21.15	---	13.90	0.19	69
S-13	07/28/2011	3,700	320	430	160	790	---	---	---	---	---	---	---	---	35.05	20.64	---	14.41	2.65	44

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-13	10/28/2011	8,100	600	830	380	1,700	---	---	---	---	---	---	---	---	35.05	21.47	---	13.58	3.67	1
S-13	05/07/2012	5,100	540	670	320	1,100	---	---	---	---	---	---	---	---	35.05	21.35	---	13.70	0.60	-176
S-13	12/11/2012	5,900	420	580	260	950	---	---	---	---	---	---	---	---	35.05	22.91	---	12.14	1.07/0.80	-70/-63
S-13	05/02/2013	1,300	130	95	49	85	---	---	---	---	---	---	---	---	35.05	25.24	---	9.81	---	---
S-13	11/07/2013	---	---	---	---	---	---	---	---	---	---	---	---	---	35.05	k	k	k	---	---
S-13	03/14/2014	---	---	---	---	---	---	---	---	---	---	---	---	---	35.05	26.22	0.25	9.03	---	---
S-13	04/21/2014	---	---	---	---	---	---	---	---	---	---	---	---	---	35.05	26.09	0.39	9.27	---	---
S-13	07/31/2014	---	---	---	---	---	---	---	---	---	---	---	---	---	35.05	25.25	---	9.80	---	---
S-13	09/22/2014	---	---	---	---	---	---	---	---	---	---	---	---	---	35.05	25.31	---	9.74	---	---
S-13	10/03/2014	---	---	---	---	---	---	---	---	---	---	---	---	---	35.05	25.35	---	9.70	---	---
S-13	10/10/2014	---	---	---	---	---	---	---	---	---	---	---	---	---	35.05	25.33	---	9.72	---	---
S-13	10/17/2014	---	---	---	---	---	---	---	---	---	---	---	---	---	35.05	25.31	---	9.74	---	---
S-13	10/24/2014	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	35.05	---	---	---	---	---
S-13	11/21/2014	7,000	330	270	120	590	---	---	---	---	---	---	---	---	35.05	25.35	---	9.70	---	---
S-13	11/21/2014	7,000	330	270	120	590	---	---	---	---	---	---	---	---	35.05	18.33	---	16.72	---	---
S-13	01/22/2015	---	---	---	---	---	---	---	---	---	---	---	---	---	35.05	25.01	---	10.04	---	---
S-13	Well destroyed																			
S-14	12/17/2007	---	---	---	---	---	---	---	---	---	---	---	---	---	34.94	22.68	---	12.26	---	---
S-14	02/08/2008	5,300 f	380	300	34	970	---	<10	---	---	---	---	<5.0	<10	34.94	22.82	---	12.12	---	---
S-14	05/08/2008	4,300 f	750	270	30	520	---	<10	---	---	---	---	<5.0	<10	34.94	22.41	---	12.53	---	---
S-14	Well destroyed																			
S-14R	11/07/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	35.19	22.91	---	12.28	---	---
S-14R	11/11/2008	8,500 i	680 i	270 i	<25 i	1,110 i	---	---	---	---	---	---	---	---	35.19	23.13	---	12.06	0.60	115
S-14R	11/11/2008	4,300 j	270 j	190 j	43 j	470 j	---	---	---	---	---	---	---	---	35.19	23.13	---	12.06	1.5	116
S-14R	12/18/2008	7,800	530	640	79	1,010	---	---	---	---	---	---	---	---	34.95	22.80	---	12.15	---	---
S-14R	01/05/2009	2,100	89	86	19	140	---	---	---	---	---	---	---	---	34.95	22.80	---	12.15	---	---
S-14R	01/15/2009	4,800	430	540	83	730	---	---	---	---	---	---	---	---	34.95	22.57	---	12.38	---	---
S-14R	02/12/2009	1,000	40	29	7.3	55	---	---	---	---	---	---	---	---	34.95	22.89	---	12.06	---	---
S-14R	03/12/2009	350	22	18	3.3	29	---	---	---	---	---	---	---	---	34.95	22.39	---	12.56	---	---
S-14R	04/09/2009	2,300	230	240	47	250	---	---	---	---	---	---	---	---	34.95	22.35	---	12.60	0.30	430
S-14R	05/18/2009	750	51	48	17	67	---	---	---	---	---	---	---	---	34.95	22.20	---	12.75	5.63	93
S-14R	07/23/2009	600	81	57	19	47	---	---	---	---	---	---	---	---	34.95	22.56	---	12.39	0.05	246

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-14R	10/01/2009	230	12	10	5.3	23	---	---	---	---	---	---	---	---	34.95	22.90	---	12.05	2.22	201
S-14R	11/09/2009	330	47	21	11	39	---	---	---	---	---	---	---	---	34.95	22.68	---	12.27	0.75	---
S-14R	12/01/2009	420	38	27	12	39	---	---	---	---	---	---	---	---	34.95	22.62	---	12.33	0.45	110
S-14R	01/28/2010	270	45	27	11	32	---	---	---	---	---	---	---	---	34.95	22.38	---	12.57	3.75	---
S-14R	05/20/2010	330	17	10	2.7	13	---	---	---	---	---	---	---	---	34.95	22.72	---	12.23	0.96	102
S-14R	08/31/2010	130	5.8	3.5	1.4	6.1	---	---	---	---	---	---	---	---	34.95	23.12	---	11.83	1.55	-13
S-14R	12/29/2010	480	56	30	13	52	---	---	---	---	---	---	---	---	34.95	22.75	---	12.20	0.48	375
S-14R	02/01/2011	570	56	32	20	59	---	---	---	---	---	---	---	---	34.95	22.10	---	12.85	0.58	143
S-14R	04/25/2011	860	100	59	41	97	---	---	---	---	---	---	---	---	34.95	20.80	---	14.15	0.81	-37
S-14R	07/28/2011	970	100	80	51	110	---	---	---	---	---	---	---	---	34.95	20.36	---	14.59	0.56	151
S-14R	10/28/2011	420	47	38	25	67	---	---	---	---	---	---	---	---	34.95	20.68	---	14.27	3.97	321
S-14R	05/07/2012	630	68	62	40	120	---	---	---	---	---	---	---	---	34.95	20.77	---	14.18	2.47	238
S-14R	05/02/2013	3,200	200	130	95	200	---	---	---	---	---	---	---	---	34.95	24.49	---	10.46	---	---
S-14R	04/21/2014	3,700	190	160	99	290	---	---	---	---	---	---	---	---	34.95	24.99	---	9.96	---	---
S-14R	Well destroyed																			
S-15	12/17/2007	---	---	---	---	---	---	---	---	---	---	---	---	---	35.34	23.00	---	12.34	---	---
S-15	02/08/2008	55,000 f	6,700	13,000	1,100	9,800	---	<10	---	---	---	---	<5.0	<10	35.34	22.71	---	12.63	---	---
S-15	05/08/2008	53,000 f	6,300	13,000	1,500	7,500	---	<200	---	---	---	---	<100	<200	35.34	22.91	---	12.43	---	---
S-15	Well destroyed																			
S-16	12/17/2007	---	---	---	---	---	---	---	---	---	---	---	---	---	36.08	23.88	---	12.20	---	---
S-16	02/08/2008	6,000 f	670	730	88	1,290	---	<5.0	---	---	---	---	<2.5	<5.0	36.08	23.52	---	12.56	---	---
S-16	05/08/2008	3,200 f	670	320	18	580	---	<10	---	---	---	---	<5.0	<10	36.08	23.69	---	12.39	---	---
S-16	Well destroyed																			
S-17	06/19/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	35.49	23.30	---	12.19	---	---
S-17	06/25/2008	21,000	1,300	1,300	160	2,850	---	<5.0	---	---	---	---	<2.5	<5.0	35.49	23.33	---	12.16	---	---
S-17	08/14/2008	14,000	1,700	1,700	310	2,250	---	<10	---	---	---	---	<5.0	<10	35.49	23.50	---	11.99	---	---
S-17	11/11/2008	7,200 i	1,600 i	820 i	140 i	760 i	---	<5.0 i	---	---	---	---	<2.5 i	<5.0 i	35.49	23.70	---	11.79	---	---
S-17	11/11/2008	32,000 j	2,500 j	3,100 j	820 j	4,000 j	---	<25 j	---	---	---	---	<12 j	<25 j	35.49	23.70	---	11.79	---	---
S-17	01/05/2009	15,000	790	700	150	1,200	---	<10	---	---	---	---	<5.0	<10	35.50	23.66	---	11.84	---	---
S-17	01/15/2009	2,300	220	170	19	300	---	---	---	---	---	---	---	---	35.50	23.37	---	12.13	---	---
S-17	02/12/2009	4,700	750	200	37	23	---	---	---	---	---	---	---	---	35.50	23.66	---	11.84	---	---

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-17	03/12/2009	3,300	640	370	81	290	---	---	---	---	---	---	---	---	35.50	23.24	---	12.26	---	---
S-17	04/09/2009	1,300	200	110	37	100	---	---	---	---	---	---	---	---	35.50	23.20	---	12.30	0.69	429
S-17	05/18/2009	630	97	44	17	25	---	---	---	---	---	---	---	---	35.50	23.21	---	12.29	5.93	442
S-17	07/23/2009	3,900	480	410	160	480	---	---	---	---	---	---	---	---	35.50	23.70	---	11.80	0.15	34
S-17	10/01/2009	1,300	32	24	3.1	72	---	---	---	---	---	---	---	---	35.50	23.64	---	11.86	1.30	204
S-17	11/09/2009	5,300	260	330	56	500	---	---	---	---	---	---	---	---	35.50	23.52	---	11.98	0.18	---
S-17	12/01/2009	3,300	190	210	52	240	---	---	---	---	---	---	---	---	35.50	23.41	---	12.09	0.95	450
S-17	01/28/2010	3,500	260	250	85	310	---	---	---	---	---	---	---	---	35.50	23.21	---	12.29	1.93	---
S-17	05/20/2010	370	18	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	35.50	23.65	---	11.85	1.31	544
S-17	08/31/2010	1,900	120	110	52	260	---	---	---	---	---	---	---	---	35.50	23.92	---	11.58	1.32	370
S-17	12/29/2010	2,600	200	150	91	280	---	---	---	---	---	---	---	---	35.50	23.60	---	11.90	1.37	131
S-17	02/01/2011	950	100	72	47	130	---	---	---	---	---	---	---	---	35.50	22.91	---	12.59	1.40	136
S-17	04/25/2011	2,000	150	71	77	210	---	---	---	---	---	---	---	---	35.50	21.44	---	14.06	0.23	82
S-17	07/28/2011	3,400	270	98	170	370	---	---	---	---	---	---	---	---	35.50	21.06	---	14.44	1.45	70
S-17	10/28/2011	270	58	5.3	23	28	---	---	---	---	---	---	---	---	35.50	21.51	---	13.99	1.19	221
S-17	05/07/2012	980	110	3.6	66	100	---	---	---	---	---	---	---	---	35.50	21.50	---	14.00	0.62	84
S-17	05/02/2013	570	62	20	19	49	---	---	---	---	---	---	---	---	35.50	25.49	---	10.01	---	---
S-17	04/21/2014	2,500	140	120	98	310	---	---	---	---	---	---	---	---	35.50	25.91	---	9.59	---	---
S-17	Well destroyed																			
S-18	06/19/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	35.04	22.94	---	12.10	---	---
S-18	06/25/2008	58,000	2,200	5,600	880	10,200	---	<10	---	---	---	---	<5.0	<10	35.04	22.92	---	12.12	---	---
S-18	08/14/2008	25,000	2,500	4,500	860	5,800	---	<50	---	---	---	---	<25	<50	35.04	23.08	---	11.96	---	---
S-18	11/11/2008	24,000 i	2,400 i	3,300 i	820 i	3,800 i	---	<25 i	---	---	---	---	<12 i	<25 i	35.04	23.30	---	11.74	---	---
S-18	11/11/2008	43,000 j	3,900 j	5,500 j	1,300 j	6,500 j	---	<50 j	---	---	---	---	<25 j	<50 j	35.04	23.30	---	11.74	---	---
S-18	01/05/2009	20,000	830	1,000	290	1,400	---	<50	---	---	---	---	<25	<50	35.03	23.16	---	11.87	---	---
S-18	01/15/2009	8,200	690	790	150	1,230	---	---	---	---	---	---	---	---	35.03	22.97	---	12.06	---	---
S-18	02/12/2009	13,000	1,200	1,400	330	940	---	---	---	---	---	---	---	---	35.03	23.29	---	11.74	---	---
S-18	03/12/2009	52,000	5,300	9,000	1,600	10,000	---	---	---	---	---	---	---	---	35.03	22.85	---	12.18	---	---
S-18	04/09/2009	Insufficient water	---	---	---	---	---	---	---	---	---	---	---	---	35.03	22.79	---	12.24	---	---
S-18	05/18/2009	6,700	320	1,100	200	1,000	---	---	---	---	---	---	---	---	35.03	22.81	---	12.22	6.51	377
S-18	07/23/2009	8,900	500	890	290	1,600	---	---	---	---	---	---	---	---	35.03	22.91	---	12.12	0.20	---
S-18	10/01/2009	1,800	49	5.5	5.3	<5.0	---	---	---	---	---	---	---	---	35.03	23.65	---	11.38	6.25	557
S-18	11/09/2009	1,100	79	8.9	5.3	1.1	---	---	---	---	---	---	---	---	35.03	23.19	---	11.84	0.26	---

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-18	12/01/2009	570	50	7.5	2.7	1.2	---	---	---	---	---	---	---	---	35.03	23.12	---	11.91	4.07	460
S-18	01/28/2010	1,200	170	91	18	68	---	---	---	---	---	---	---	---	35.03	22.86	---	12.17	1.90	---
S-18	05/20/2010	3,900	500	690	79	240	---	---	---	---	---	---	---	---	35.03	23.12	---	11.91	1.77	169
S-18	06/22/2010	13,000	1,700	2,800	200	1,000	---	---	---	---	---	---	---	---	35.03	23.10	---	11.93	0.58	499
S-18	08/31/2010	6,600	970	1,100	230	1,000	---	---	---	---	---	---	---	---	35.03	23.55	---	11.48	1.23	258
S-18	12/29/2010	8,500	1,000	750	410	1,800	---	---	---	---	---	---	---	---	35.03	23.23	---	11.80	0.79	70
S-18	02/01/2011	2,100	210	190	87	180	---	---	---	---	---	---	---	---	35.03	22.52	---	12.51	1.13	220
S-18	04/25/2011	13,000	2,100	2,000	470	2,300	---	---	---	---	---	---	---	---	35.03	21.00	---	14.03	0.52	85
S-18	07/28/2011	8,200	1,200	1,000	290	1,200	---	---	---	---	---	---	---	---	35.03	20.56	---	14.47	1.57	27
S-18	10/28/2011	9,000	1,200	480	430	1,900	---	---	---	---	---	---	---	---	35.03	21.11	---	13.92	1.45	147
S-18	05/07/2012	4,700	710	310	310	870	---	---	---	---	---	---	---	---	35.03	21.20	---	13.83	0.55	-68
S-18	05/02/2013	5,000	720	280	220	480	---	---	---	---	---	---	---	---	35.03	24.95	---	10.08	---	---
S-18	04/21/2014	1,400	240	190	70	230	---	---	---	---	---	---	---	---	35.03	25.61	---	9.42	---	---
S-18	Well destroyed																			
S-19	11/07/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	34.78	22.73	---	12.05	---	---
S-19	11/11/2008	7,100 i	500 i	600 i	25 i	1,010 i	---	---	---	---	---	---	---	---	34.78	22.87	---	11.91	1.0	62
S-19	11/11/2008	2,300 j	110 j	160 j	43 j	280 j	---	---	---	---	---	---	---	---	34.78	22.87	---	11.91	1.3	71
S-19	12/18/2008	2,900	190	300	41	420	---	---	---	---	---	---	---	---	34.57	22.60	---	11.97	---	---
S-19	01/05/2009	3,400	230	250	50	380	---	---	---	---	---	---	---	---	34.57	22.56	---	12.01	---	---
S-19	01/15/2009	3,100	340	540	70	440	---	---	---	---	---	---	---	---	34.57	22.31	---	12.26	---	---
S-19	02/12/2009	1,300	130	180	37	190	---	---	---	---	---	---	---	---	34.57	22.58	---	11.99	---	---
S-19	03/12/2009	880	110	150	30	160	---	---	---	---	---	---	---	---	34.57	22.44	---	12.13	---	---
S-19	04/09/2009	1,300	140	190	32	190	---	---	---	---	---	---	---	---	34.57	22.02	---	12.55	0.57	106
S-19	05/18/2009	780	69	87	17	100	---	---	---	---	---	---	---	---	34.57	22.04	---	12.53	6.47	75
S-19	07/23/2009	400	77	59	15	38	---	---	---	---	---	---	---	---	34.57	22.40	---	12.17	0.06	31
S-19	10/01/2009	1,500	160	170	33	120	---	---	---	---	---	---	---	---	34.57	22.66	---	11.91	0.52	301
S-19	11/09/2009	1,600	140	160	41	160	---	---	---	---	---	---	---	---	34.57	22.44	---	12.13	0.26	---
S-19	12/01/2009	1,600	150	180	45	170	---	---	---	---	---	---	---	---	34.57	22.62	---	11.95	0.79	161
S-19	01/28/2010	2,600	230	280	71	300	---	---	---	---	---	---	---	---	34.57	22.29	---	12.28	1.71	---
S-19	05/20/2010	850	110	55	11	4.6	---	---	---	---	---	---	---	---	34.57	22.49	---	12.08	1.77	118
S-19	08/31/2010	580	79	92	22	50	---	---	---	---	---	---	---	---	34.57	22.86	---	11.71	1.02	297
S-19	12/29/2010	920	120	120	54	150	---	---	---	---	---	---	---	---	34.57	22.48	---	12.09	1.12	150
S-19	02/01/2011	1,800	210	270	100	320	---	---	---	---	---	---	---	---	34.57	21.78	---	12.79	1.08	21

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-19	04/25/2011	2,100	290	360	140	470	---	---	---	---	---	---	---	---	34.57	20.42	---	14.15	0.25	115
S-19	07/28/2011	2,400	240	380	140	450	---	---	---	---	---	---	---	---	34.57	20.16	---	14.41	1.17	80
S-19	10/28/2011	3,600	210	420	190	750	---	---	---	---	---	---	---	---	34.57	20.41	---	14.16	1.73	160
S-19	05/07/2012	3,400	220	480	210	880	---	---	---	---	---	---	---	---	34.57	20.51	---	14.06	2.54	244
S-19	12/11/2012	1,700	110	240	100	440	---	---	---	---	---	---	---	---	34.57	22.05	---	12.52	0.89/2.21	81/52
S-19	05/02/2013	1,500	88	89	55	160	---	---	---	---	---	---	---	---	34.57	24.15	---	10.42	---	---
S-19	11/07/2013	170,000	1,200	7,300	3,800	22,000	---	---	---	---	---	---	---	---	34.57	k	k	k	---	---
S-19	04/21/2014	32,000	580	1,400	940	4,300	---	---	---	---	---	---	---	---	34.57	24.95	---	9.62	---	---
S-19	07/31/2014	---	---	---	---	---	---	---	---	---	---	---	---	---	34.57	24.22	0.20	10.51	---	---
S-19	11/21/2014	25,000	420	880	550	2,500	---	---	---	---	---	---	---	---	34.57	24.40	---	10.17	---	---
S-19	Well destroyed																			
S-20	11/07/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	34.50	22.80	---	11.70	---	---
S-20	11/11/2008	13,000 i	1,300 i	1,600 i	80 i	1,920 i	---	---	---	---	---	---	---	---	34.50	22.90	---	11.60	0.8	-39
S-20	11/11/2008	16,000 j	1,100 j	1,800 j	220 j	1,930 j	---	---	---	---	---	---	---	---	34.50	22.90	---	11.60	2.6	-64
S-20	01/05/2009	17,000	1,500	1,700	320	1,900	---	---	---	---	---	---	---	---	34.50	22.78	---	11.72	---	---
S-20	02/12/2009	11,000	1,300	1,400	230	1,600	---	---	---	---	---	---	---	---	34.50	22.80	---	11.70	2.6	-64
S-20	03/12/2009	19,000	2,700	3,200	390	3,100	---	---	---	---	---	---	---	---	34.50	22.40	---	12.10	---	---
S-20	04/09/2009	8,200	80	480	220	490	---	---	---	---	---	---	---	---	34.50	22.90	---	11.60	13.80	578
S-20	05/18/2009	21,000	970	1,500	630	4,800	---	---	---	---	---	---	---	---	34.50	22.42	---	12.08	4.58	197
S-20	07/23/2009	41,000	4,900	2,900	990	7,300	---	---	---	---	---	---	---	---	34.50	22.73	---	11.77	0.27	419
S-20	10/01/2009	1,800	140	39	33	39	---	---	---	---	---	---	---	---	34.50	23.00	---	11.50	0.85	533
S-20	11/09/2009	21,000	1,600	740	300	2,500	---	---	---	---	---	---	---	---	34.50	22.72	---	11.78	1.67	---
S-20	12/01/2009	12,000	1,100	450	160	1,200	---	---	---	---	---	---	---	---	34.50	22.61	---	11.89	1.38	347
S-20	01/28/2010	20,000	2,000	1,600	260	2,000	---	---	---	---	---	---	---	---	34.50	22.51	---	11.99	4.40	---
S-20	05/20/2010	4,300	1,100	110	26	61	---	---	---	---	---	---	---	---	34.50	22.90	---	11.60	8.96	555
S-20	06/22/2010	7,100	1,300	550	120	550	---	---	---	---	---	---	---	---	34.50	23.19	---	11.31	11.64	637
S-20	08/31/2010	9,600	1,800	1,400	230	580	---	---	---	---	---	---	---	---	34.50	23.13	---	11.37	0.94	529
S-20	12/29/2010	19,000	2,000	3,100	860	3,200	---	---	---	---	---	---	---	---	34.50	22.72	---	11.78	0.92	193
S-20	02/01/2011	26,000	3,900	7,100	1,300	5,800	---	---	---	---	---	---	---	---	34.50	22.04	---	12.46	1.03	390
S-20	04/25/2011	41,000	6,600	11,000	2,000	9,800	---	---	---	---	---	---	---	---	34.50	20.60	---	13.90	0.43	156
S-20	07/28/2011	34,000	4,200	5,300	1,400	6,300	---	---	---	---	---	---	---	---	34.50	20.30	---	14.20	1.25	-15
S-20	10/28/2011	17,000	1,500	1,900	1,000	3,400	---	---	---	---	---	---	---	---	34.50	20.78	---	13.72	1.28	431
S-20	05/07/2012	9,900	760	1,200	790	2,000	---	---	---	---	---	---	---	---	34.50	20.54	---	13.96	1.92	-106

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-20	12/11/2012	9,700	630	1,000	720	1,500	---	---	---	---	---	---	---	---	34.50	22.29	---	12.21	0.82/1.67	-11/-43
S-20	05/02/2013	4,500	380	220	240	300	---	---	---	---	---	---	---	---	34.50	24.50	---	10.00	---	---
S-20	11/07/2013	4,000	420	290	60	330	---	---	---	---	---	---	---	---	34.50	25.24	---	9.26	---	---
S-20	04/21/2014	3,800	480	350	50	350	---	---	---	---	---	---	---	---	34.50	25.15	---	9.35	---	---
S-20	11/21/2014	4,800	560	340	98	430	---	---	---	---	---	---	---	---	34.50	24.54	---	9.96	---	---
S-20	Well destroyed																			
S-21A	11/07/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	35.81	23.73	---	12.08	---	---
S-21A	11/11/2008	96,000 i	6,100 i	11,000 i	1,700 i	10,500 i	---	---	---	---	---	---	---	---	35.81	23.86	---	11.95	1.6	-42
S-21A	11/11/2008	87,000 j	6,300 j	13,000 j	1,700 j	10,300 j	---	---	---	---	---	---	---	---	35.81	23.86	---	11.95	1.8	-51
S-21A	12/18/2008	17,000	3,700	1,200	170	47	---	---	---	---	---	---	---	---	35.80	23.91	---	11.89	---	---
S-21A	01/05/2009	28,000	3,100	2,900	450	1,100	---	---	---	---	---	---	---	---	35.80	23.78	---	12.02	---	---
S-21A	01/15/2009	9,700	2,100	290	45	<25	---	---	---	---	---	---	---	---	35.80	23.53	---	12.27	---	---
S-21A	02/12/2009	19,000	3,100	2,500	330	500	---	---	---	---	---	---	---	---	35.80	23.83	---	11.97	---	---
S-21A	03/12/2009	31,000	2,600	3,800	810	3,700	---	---	---	---	---	---	---	---	35.80	23.35	---	12.45	---	---
S-21A	04/09/2009	7,800	700	750	130	<25	---	---	---	---	---	---	---	---	35.80	24.00	---	11.80	0.91	304
S-21A	05/18/2009	15,000	1,800	2,200	390	1,900	---	---	---	---	---	---	---	---	35.80	23.46	---	12.34	2.37	529
S-21A	07/23/2009	51,000	4,800	7,100	1,100	7,000	---	---	---	---	---	---	---	---	35.80	23.85	---	11.95	0.14	-3
S-21A	10/01/2009	18,000	2,300	2,200	310	2,400	---	---	---	---	---	---	---	---	35.80	24.06	---	11.74	7.92	575
S-21A	11/09/2009	41,000	3,500	5,800	600	4,800	---	---	---	---	---	---	---	---	35.80	23.73	---	12.07	0.34	---
S-21A	12/01/2009	43,000	3,100	6,700	640	4,900	---	---	---	---	---	---	---	---	35.80	23.60	---	12.20	2.55	350
S-21A	01/28/2010	65,000	3,900	9,900	970	6,600	---	---	---	---	---	---	---	---	35.80	23.54	---	12.26	1.43	---
S-21A	05/20/2010	6,000	670	760	110	150	---	---	---	---	---	---	---	---	35.80	23.92	---	11.88	1.37	541
S-21A	06/22/2010	16,000	690	2,000	370	2,300	---	---	---	---	---	---	---	---	35.80	23.87	---	11.93	2.33	439
S-21A	08/31/2010	5,000	230	420	190	990	---	---	---	---	---	---	---	---	35.80	24.13	---	11.67	0.73	392
S-21A	12/29/2010	5,100	500	430	230	810	---	---	---	---	---	---	---	---	35.80	23.84	---	11.96	0.95	464
S-21A	02/01/2011	9,200	840	750	370	1,300	---	---	---	---	---	---	---	---	35.80	23.18	---	12.62	0.84	110
S-21A	04/25/2011	22,000	3,800	4,000	960	4,800	---	---	---	---	---	---	---	---	35.80	21.71	---	14.09	0.36	336
S-21A	07/28/2011	27,000	3,400	3,600	1,000	4,300	---	---	---	---	---	---	---	---	35.80	21.48	---	14.32	1.02	223
S-21A	10/28/2011	20,000	2,400	3,000	840	3,600	---	---	---	---	---	---	---	---	35.80	21.65	---	14.15	2.06	213
S-21A	05/07/2012	12,000	2,200	1,900	510	2,100	---	---	---	---	---	---	---	---	35.80	21.90	---	13.90	1.01	107
S-21A	12/11/2012	13,000	3,300	2,200	610	1,300	---	---	---	---	---	---	---	---	35.80	22.60	---	13.20	1.35/1.49	82/80
S-21A	05/02/2013	6,800	1,000	470	270	480	---	---	---	---	---	---	---	---	35.80	25.48	---	10.32	---	---
S-21A	11/07/2013	32,000	4,100	3,000	940	2,900	---	---	---	---	---	---	---	---	35.80	26.28	---	9.52	---	---

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-21A	04/21/2014	Insufficient water		---	---	---	---	---	---	---	---	---	---	---	35.80	26.29	---	9.51	---	---
S-21A	11/21/2014	37,000	6,000	3,900	1,100	3,500	---	---	---	---	---	---	---	---	35.80	25.81	---	9.99	---	---
S-21A	Well destroyed																			
S-21B	11/07/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	35.79	23.68	---	12.11	---	---
S-21B	11/11/2008	3,200 i	49 i	300 i	93 i	510 i	---	---	---	---	---	---	---	---	35.79	23.80	---	11.99	0.4	-108
S-21B	11/11/2008	7,500 j	67 j	470 j	150 j	960 j	---	---	---	---	---	---	---	---	35.79	23.80	---	11.99	5.6	-135
S-21B	12/18/2008	5,300	36	310	120	770	---	---	---	---	---	---	---	---	35.76	23.72	---	12.04	---	---
S-21B	01/05/2009	5,400	35	200	93	600	---	---	---	---	---	---	---	---	35.76	23.70	---	12.06	---	---
S-21B	01/15/2009	3,300	30	150	78	470	---	---	---	---	---	---	---	---	35.76	23.43	---	12.33	---	---
S-21B	02/12/2009	2,800	12	100	69	450	---	---	---	---	---	---	---	---	35.76	23.81	---	11.95	---	---
S-21B	03/12/2009	2,300	9.4	72	50	320	---	---	---	---	---	---	---	---	35.76	23.32	---	12.44	---	---
S-21B	04/09/2009	890	14	55	19	140	---	---	---	---	---	---	---	---	35.76	23.20	---	12.56	0.56	453
S-21B	05/18/2009	390	6.8	14	12	27	---	---	---	---	---	---	---	---	35.76	23.24	---	12.52	1.62	458
S-21B	06/17/2009	---	---	---	---	---	---	---	---	---	---	---	---	---	35.76	23.40	---	12.36	---	---
S-21B	07/23/2009	920	5.0	17	28	120	---	---	---	---	---	---	---	---	35.76	23.52	---	12.24	0.26	37
S-21B	10/01/2009	820	2.6	10	17	89	---	---	---	---	---	---	---	---	35.76	23.95	---	11.81	0.96	353
S-21B	01/28/2010	810	11	6.2	10	51	---	---	---	---	---	---	---	---	35.76	23.30	---	12.46	---	---
S-21B	05/20/2010	120	1.4	2.6	2.0	2.7	---	---	---	---	---	---	---	---	35.76	23.46	---	12.30	1.63	206
S-21B	08/31/2010	500	0.81	3.4	6.9	32	---	---	---	---	---	---	---	---	35.76	24.04	---	11.72	0.72	45
S-21B	12/29/2010	310	<0.50	1.9	4.5	21	---	---	---	---	---	---	---	---	35.76	23.59	---	12.17	0.40	191
S-21B	02/01/2011	270	<0.50	2.0	4.0	16	---	---	---	---	---	---	---	---	35.76	23.08	---	12.68	0.51	10
S-21B	04/25/2011	250	<0.50	1.9	4.6	16	---	---	---	---	---	---	---	---	35.76	21.86	---	13.90	1.43	72
S-21B	07/28/2011	270	<0.50	0.84	3.0	11	---	---	---	---	---	---	---	---	35.76	21.32	---	14.44	2.86	127
S-21B	10/28/2011	220	<0.50	0.53	2.3	9.2	---	---	---	---	---	---	---	---	35.76	21.52	---	14.24	0.96	153
S-21B	05/07/2012	170	<0.50	0.62	1.5	7.6	---	---	---	---	---	---	---	---	35.76	22.04	---	13.72	0.75	100
S-21B	05/02/2013	<50	<0.50	<0.50	<0.50	<1.0	---	---	---	---	---	---	---	---	35.76	25.59	---	10.17	---	---
S-21B	04/21/2014	52	1.7	2.4	0.80	4.7	---	---	---	---	---	---	---	---	35.76	26.14	---	9.62	---	---
S-21B	Well destroyed																			
S-22A	11/07/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	35.08	22.91	---	12.17	---	---
S-22A	11/11/2008	84,000 i	8,500 i	11,000 i	2,200 i	13,900 i	---	---	---	---	---	---	---	---	35.08	23.15	---	11.93	1.0	117
S-22A	11/11/2008	85,000 j	7,600 j	10,000 j	2,500 j	12,400 j	---	---	---	---	---	---	---	---	35.08	23.15	---	11.93	1.6	100
S-22A	12/18/2008	42,000	6,300	6,600	1,200	4,400	---	---	---	---	---	---	---	---	35.06	23.03	---	12.03	---	---

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-22A	01/05/2009	56,000	4,500	5,300	1,200	6,400	---	---	---	---	---	---	---	---	35.06	23.03	---	12.03	---	---
S-22A	01/15/2009	25,000	5,900	4,400	740	1,570	---	---	---	---	---	---	---	---	35.06	22.84	---	12.22	---	---
S-22A	02/12/2009	43,000	6,700	6,600	1,200	5,000	---	---	---	---	---	---	---	---	35.06	23.15	---	11.91	---	---
S-22A	03/12/2009	35,000	4,600	4,600	980	4,600	---	---	---	---	---	---	---	---	35.06	22.65	---	12.41	---	---
S-22A	04/09/2009	22,000	120	1,900	680	3,400	---	---	---	---	---	---	---	---	35.06	22.88	---	12.18	8.41	556
S-22A	05/18/2009	25,000	4,700	1,300	590	3,700	---	---	---	---	---	---	---	---	35.06	22.83	---	12.23	2.46	539
S-22A	07/23/2009	40,000	5,100	4,800	700	4,900	---	---	---	---	---	---	---	---	35.06	23.01	---	12.05	0.18	167
S-22A	10/01/2009	12,000	1,400	600	88	500	---	---	---	---	---	---	---	---	35.06	23.06	---	12.00	4.08	523
S-22A	11/09/2009	18,000	2,700	2,000	190	1,300	---	---	---	---	---	---	---	---	35.06	23.14	---	11.92	1.74	---
S-22A	12/01/2009	24,000	2,300	2,300	270	2,000	---	---	---	---	---	---	---	---	35.06	23.10	---	11.96	1.06	393
S-22A	01/28/2010	44,000	3,600	5,000	620	4,300	---	---	---	---	---	---	---	---	35.06	22.92	---	12.14	1.40	---
S-22A	05/20/2010	3,100	38	<10	<10	<10	---	---	---	---	---	---	---	---	35.06	23.22	---	11.84	0.48	423
S-22A	06/22/2010	2,400	110	15	4.3	6.6	---	---	---	---	---	---	---	---	35.06	23.51	---	11.55	6.10	542
S-22A	08/31/2010	5,000	690	600	78	350	---	---	---	---	---	---	---	---	35.06	23.52	---	11.54	1.03	553
S-22A	12/29/2010	13,000	1,300	1,800	490	2,100	---	---	---	---	---	---	---	---	35.06	23.17	---	11.89	0.70	476
S-22A	02/01/2011	13,000	1,800	3,100	640	2,800	---	---	---	---	---	---	---	---	35.06	22.45	---	12.61	0.89	453
S-22A	04/25/2011	23,000	2,600	5,500	1,200	6,200	---	---	---	---	---	---	---	---	35.06	21.37	---	13.69	0.40	506
S-22A	07/28/2011	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	35.06	---	---	---	---	---
S-22A	10/28/2011	31,000	1,800	4,700	1,600	8,100	---	---	---	---	---	---	---	---	35.06	20.98	---	14.08	1.33	342
S-22A	05/07/2012	40,000	2,000	7,200	2,000	12,000	---	---	---	---	---	---	---	---	35.06	20.96	---	14.10	2.50	230
S-22A	12/11/2012	54,000	1,800	8,900	2,400	14,000	---	---	---	---	---	---	---	---	35.06	23.42	---	11.64	0.99/1.96	-14/-21
S-22A	05/02/2013	53,000	1,800	6,800	2,200	11,000	---	---	---	---	---	---	---	---	35.06	24.71	---	10.35	---	---
S-22A	11/07/2013	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	35.06	---	---	---	---	---
S-22A	04/21/2014	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	35.06	---	---	---	---	---
S-22A	11/21/2014	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	35.06	---	---	---	---	---
S-22A	Well destroyed																			
S-22B	11/07/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	35.15	23.06	---	12.09	---	---
S-22B	11/11/2008	<50 i	<0.50 i	<1.0 i	<1.0 i	1.2 i	---	---	---	---	---	---	---	---	35.15	23.20	---	11.95	0.9	92
S-22B	11/11/2008	360 j	3.3 j	12 j	5.8 j	38 j	---	---	---	---	---	---	---	---	35.15	23.20	---	11.95	1.6	90
S-22B	12/18/2008	150	2.9	6.1	2.9	17.5	---	---	---	---	---	---	---	---	35.24	23.26	---	11.98	---	---
S-22B	01/05/2009	110	1.9	5.0	2.6	11	---	---	---	---	---	---	---	---	35.24	28.12	---	7.12	---	---
S-22B	01/15/2009	59	1.3	1.9	1.6	<1.0	---	---	---	---	---	---	---	---	35.24	22.90	---	12.34	---	---
S-22B	02/12/2009	290	11	6.8	7.9	19	---	---	---	---	---	---	---	---	35.24	23.02	---	12.22	---	---

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-22B	03/12/2009	390	4.4	4.6	3.8	12	---	---	---	---	---	---	---	---	35.24	22.86	---	12.38	---	---
S-22B	04/09/2009	280	5.3	2.5	4.0	6.8	---	---	---	---	---	---	---	---	35.24	22.62	---	12.62	2.24	164
S-22B	05/18/2009	170	3.7	2.9	2.4	8.6	---	---	---	---	---	---	---	---	35.24	22.62	---	12.62	1.42	-171
S-22B	07/23/2009	160	8.9	5.7	3.8	12	---	---	---	---	---	---	---	---	35.24	22.65	---	12.59	0.15	28
S-22B	10/01/2009	300	2.4	1.0	1.2	<1.0	---	---	---	---	---	---	---	---	35.24	23.18	---	12.06	2.62	173
S-22B	01/28/2010	<50	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	35.24	22.73	---	12.51	---	---
S-22B	05/20/2010	230	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	35.24	22.88	---	12.36	6.14	584
S-22B	08/31/2010	<50	0.57	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	35.24	23.51	---	11.73	0.92	377
S-22B	12/29/2010	<50	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	35.24	23.04	---	12.20	1.07	391
S-22B	02/01/2011	<50	0.55	<0.50	<0.50	<1.0	---	---	---	---	---	---	---	---	35.24	22.70	---	12.54	1.07	-3
S-22B	04/25/2011	<50	<0.50	0.62	<0.50	1.1	---	---	---	---	---	---	---	---	35.24	21.38	---	13.86	1.37	416
S-22B	07/28/2011	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	35.24	---	---	---	---	---
S-22B	10/28/2011	<50	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	35.24	20.62	---	14.62	4.83	-12
S-22B	05/07/2012	<50	1.4	<0.50	<0.50	<1.0	---	---	---	---	---	---	---	---	35.24	21.08	---	14.16	2.84	127
S-22B	05/02/2013	<50	<0.50	<0.50	<0.50	<1.0	---	---	---	---	---	---	---	---	35.24	24.68	---	10.56	---	---
S-22B	04/21/2014	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	35.24	---	---	---	---	---
S-22B	Well destroyed																			
S-23	11/07/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	35.77	23.28	---	12.49	---	---
S-23	11/11/2008	8,800 i	640 i	610 i	82 i	1,260 i	---	---	---	---	---	---	---	---	35.77	23.58	---	12.19	---	---
S-23	11/11/2008	6,400 j	520 j	640 j	34 j	760 j	---	---	---	---	---	---	---	---	35.77	23.58	---	12.19	---	---
S-23	01/05/2009	830	63	98	14	58	---	---	---	---	---	---	---	---	35.75	23.51	---	12.24	---	---
S-23	02/12/2009	3,400	160	320	55	430	---	---	---	---	---	---	---	---	35.75	23.62	---	12.13	---	---
S-23	03/12/2009	4,600	210	460	71	610	---	---	---	---	---	---	---	---	35.75	23.03	---	12.72	---	---
S-23	04/09/2009	2,700	180	95	33	<5.0	---	---	---	---	---	---	---	---	35.75	22.98	---	12.77	1.24	567
S-23	05/18/2009	3,000	350	440	79	300	---	---	---	---	---	---	---	---	35.75	23.18	---	12.57	19.77	503
S-23	07/23/2009	2,900	180	400	67	340	---	---	---	---	---	---	---	---	35.75	23.48	---	12.27	0.21	133
S-23	10/01/2009	790	40	24	5.4	<1.0	---	---	---	---	---	---	---	---	35.75	23.82	---	11.93	8.64	428
S-23	11/09/2009	3,200	84	330	90	400	---	---	---	---	---	---	---	---	35.75	23.51	---	12.24	0.28	---
S-23	12/01/2009	1,800	47	180	50	190	---	---	---	---	---	---	---	---	35.75	23.31	---	12.44	2.49	472
S-23	01/28/2010	3,000	100	450	110	650	---	---	---	---	---	---	---	---	35.75	23.25	---	12.50	1.74	---
S-23	05/20/2010	900	8.2	<5.0	<5.0	<5.0	---	---	---	---	---	---	---	---	35.75	23.80	---	11.95	3.76	607
S-23	06/22/2010	640	11	22	9.0	11	---	---	---	---	---	---	---	---	35.75	24.40	---	11.35	12.96	572
S-23	08/31/2010	710	14	45	34	110	---	---	---	---	---	---	---	---	35.75	23.95	---	11.80	1.25	322

Table 2
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDC (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)	DO (mg/L)	ORP (mV)
S-23	12/29/2010	1,300	45	82	56	240	---	---	---	---	---	---	---	---	35.75	23.61	---	12.14	1.39	313
S-23	02/01/2011	1,300	51	110	72	270	---	---	---	---	---	---	---	---	35.75	22.92	---	12.83	1.30	107
S-23	04/25/2011	1,300	53	110	81	400	---	---	---	---	---	---	---	---	35.75	21.62	---	14.13	0.96	321
S-23	07/28/2011	1,400	43	79	74	320	---	---	---	---	---	---	---	---	35.75	21.28	---	14.47	0.92	209
S-23	10/28/2011	1,600	43	83	92	370	---	---	---	---	---	---	---	---	35.75	21.50	---	14.25	1.82	161
S-23	05/07/2012	870	50	40	66	220	---	---	---	---	---	---	---	---	35.75	21.59	---	14.16	2.20	254
S-23	05/02/2013	540	24	15	5.6	25	---	---	---	---	---	---	---	---	35.75	25.04	---	10.71	---	---
S-23	04/21/2014	1,700	110	47	8.4	95	---	---	---	---	---	---	---	---	35.75	25.67	---	10.08	---	---
S-23	Well destroyed																			
S-24	03/17/2017	11,000	670	760	260	1,000	---	---	---	---	---	---	---	---	34.99	24.02	---	10.97	---	---
S-25	03/17/2017	6,300	430	400	160	870	---	---	---	---	---	---	---	---	35.10	24.35	---	10.75	---	---
S-26	09/20/2015	---	---	---	---	---	---	---	---	---	---	---	---	---	34.39	23.94	---	10.45	---	---
S-26	09/29/2015	<50	3.0	1.4	1.7	5.0	---	---	---	---	---	---	---	---	34.39	24.00	---	10.39	---	---
S-26	11/25/2015	180	16	8.2	8.7	30	---	---	---	---	---	---	---	---	34.39	24.15	---	10.24	---	---
S-26	03/17/2016	770	43	17	25	66	---	---	---	---	---	---	---	---	34.39	24.04	---	10.35	---	---
S-26	05/31/2016	400	36	7.3	19	35	---	---	---	---	---	---	---	---	34.39	24.20	---	10.19	---	---
S-26	09/23/2016	Well Inaccessible		---	---	---	---	---	---	---	---	---	---	---	34.39	24.20	---	---	---	---
S-26	12/16/2016	Well Inaccessible		---	---	---	---	---	---	---	---	---	---	---	34.39	24.20	---	---	---	---
S-26	03/17/2017	1,600	99	46	93	260	---	---	---	---	---	---	---	---	34.39	23.75	---	10.64	---	---
AS-1	12/17/2007	---	---	---	---	---	---	---	---	---	---	---	---	---	35.33	22.91	---	12.42	---	---
AS-1	02/08/2008	130 f	1.1	3.4	<1.0	5.4	---	<1.0	---	---	---	---	<0.50	<1.0	35.33	22.62	---	12.71	---	---
AS-1	05/08/2008	<50 f	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	<0.50	<1.0	35.33	27.78	---	7.55	---	---
AS-1	Well destroyed																			
OW-1	04/09/2009	Well dry		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
OW-1	05/18/2009	Well dry		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
OW-1	Well destroyed																			

Notes: See following page for Table 1 notes.

Table 1
Groundwater Data
Former Shell Service Station, 461 8th Street, Oakland, California

Notes:

- TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B; prior to July 25, 2001, analyzed by EPA Method 8015 unless otherwise noted.
- BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B; prior to July 25, 2001, analyzed by EPA Method 8020.
- MTBE = Methyl tertiary-butyl ether analyzed by method noted
- TBA = Tertiary-butyl alcohol analyzed by EPA Method 8260B
- DIPE = Di-isopropyl ether analyzed by EPA Method 8260B
- ETBE = Ethyl tertiary-butyl ether analyzed by EPA Method 8260B
- TAME = Tertiary-amyl methyl ether analyzed by EPA Method 8260B
- EDC = 1,2-Dichloroethane analyzed by EPA Method 8260B.
- EDB = 1,2-Dibromoethane analyzed by EPA Method 8260B.
- TOC = Top of casing elevation, in feet relative to mean sea level
- SPH = Separate-phase hydrocarbon
- GW = Groundwater
- DO = Dissolved oxygen (pre-purge/post purge reading)
- ORP = Oxygen redox potential (pre-purge/post purge reading)
- µg/L = Micrograms per liter
- ft = Feet
- MSL = Mean sea level
- mg/L = Milligrams per liter
- mV = Millivolts
- <x.xx = Not detected at or above reporting limit x.xx
- = Not analyzed or available
- (D) = Duplicate sample
- a = Included in xylenes analysis
- b = Analyzed outside of EPA recommended holding time
- c = Depth to water measured from TOC; elevation unknown.
- d = Grab sampled
- e = Casing broken; TOC unknown.
- f = Analyzed by EPA Method 8015B (M)
- g = The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard. Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.
- h = Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
- i = Pre-purge sample
- j = Post-purge sample
- k = SPH present; well purged prior to gauging with interface probe
- l = Concentration reported is partially due to the presence of discrete peak of toluene.
- m = Concentration reported is partially due to the presence of discrete peak of m,p-xylenes.
- n = Concentration reported is partially due to the presence of discrete peaks of benzene, toluene, m,p-xylenes.
- o = Concentration reported is due to the presence of discrete peaks of benzene and m,p-xylenes

When SPHs are present, groundwater elevation is adjusted using the relation: Corrected groundwater elevation = TOC - Depth to Water + (0.8 x Hydrocarbon Thickness).

Beginning July 18, 2002, well elevations measured from TOC.

Site wells surveyed March 5, 2002 by Virgil Chavez Land Surveying.

Site wells surveyed December 18, 2007 by Virgil Chavez Land Surveying.

Wells S-14R and S-19 through S-23 surveyed on November 11, 2008 by Virgil Chavez Land Surveying.

Well S-5 surveyed on November 11, 2008 by Virgil Chavez Land Surveying.

Well S-5 surveyed on October 8, 2009 by Virgil Chavez Land Surveying.

GHD destroyed wells S-8, S-9, S-10, S-12, S-13, S-14R, S-17 through S-20, S-21A, S-21B, S-22A, S-22B, S-23, IP-1, IP-2, IP-3, and OW-1.

Appendix A

Regulatory Correspondence



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

September 1, 2015

Mr. Perry Pineda
Shell Oil Products US
20945 S. Wilmington Ave.
Carson, CA 90810-1039
(Sent via E-mail to: perry.pineda@shell.com)

Broadway Oak Partners, LLC
c/o Terry Wolf, Sr.
5165 Brandin Court
Fremont, CA 94538

Mr. Scott Zengel
Signature Development Group
2335 Broadway, Suite 200
Oakland, CA 94612
(Sent via E-mail to: szengel@signaturedevelopment.com)

Mr. John Ward, Trust Real Estate
Wells Fargo Bank
P.O. Box 693939
San Francisco, CA 94163

AFE Broadway 8 LLC
Address Unknown

Subject: Work Plan Approval for Fuel Leak Case No. RO0000343 and GeoTracker Global ID T0600101263, Shell, 461 8th Street, Oakland, CA 94607

Dear Responsible Parties:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site including the most recent document entitled, "*Subsurface Investigation Work Plan*," dated August 31, 2015 (Work Plan). The Work Plan, which was prepared on Shell's behalf by GHD Services, Inc., presents plans to destroy monitoring wells and soil vapor probes to allow site redevelopment and to install three new monitoring wells to monitor groundwater quality following redevelopment.

The proposed scope of work in the August 31, 2015 Work Plan is acceptable and may be implemented as proposed. Please present the results of the monitoring well and soil vapor probe destruction and well installation in the Well Destruction and Installation Report requested below.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACEH ftp site (Attention: Jerry Wickham), and to the State Water Resources Control Board's GeoTracker website according to the following schedule and file-naming convention:

- **February 1, 2016** – Well Destruction and Installation Report
File to be named: WELL_DCM_SWI_R_yyyy-mm-dd RO343

Responsible Parties
RO0000343
September 1, 2015
Page 2

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org. Online case files are available for review at the following website: <http://www.acgov.org/aceh/index.htm>. As your email address does not appear on the cover page of this notification ACEH is requesting you provide your email address so that we can correspond with you quickly and efficiently regarding your case.

Sincerely,

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Attachment: Responsible Party(ies) Legal Requirements/Obligations

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Peter Schaefer, Conestoga-Rovers & Associates, 5900 Hollis Street, Suite A
Emeryville, CA 94608 (Sent via E-mail to: pschaefer@croworld.com)

Aubrey Cool, Conestoga-Rovers & Associates, 5900 Hollis Street, Suite A
Emeryville, CA 94608 (Sent via E-mail to: acool@croworld.com)

Kyle Flory, PES Environmental, Inc. (Sent via E-mail to: kflory@pesenv.com)

Jerry Wickham, ACEH (Sent via E-mail to: jerry.wickham@acgov.org)

GeoTracker, eFile

Attachment 1

Responsible Party(ies) Legal Requirements / Obligations

REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and [other](#) data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	REVISION DATE: May 15, 2014
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010, July 25, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection.**
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

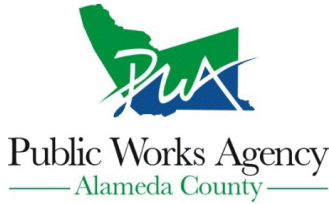
Submission Instructions

- 1) Obtain User Name and Password
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to deh.loptoxic@acgov.org
 - b) In the subject line of your request, be sure to include "**ftp PASSWORD REQUEST**" and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
 - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
 - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
 - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

Appendix B

Permits

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: 08/13/2015 By jamesy

Permit Numbers: W2015-0767 to W2015-0769
Permits Valid from 02/27/2017 to 02/27/2017

Application Id: 1438278519776
Site Location: 461 8th Street, Oakland CA

City of Project Site:Oakland

Project Start Date: 09/07/2015
Assigned Inspector: Contact Marcelino Vialpando at (510) 670-5760 or Marcelino@acpwa.org
Extension Start Date: 02/27/2017
Extension Count: 2

Completion Date:09/30/2015
Extension End Date: 02/27/2017
Extended By: marcelino2

Applicant: AECOM - Sara Heikkila
300 South Grand Avenue, Suite 200, Los Angeles, CA 90071

Property Owner: Signature Land Advisors, Inc.
2201 Broadway, Suite 604, Oakland, CA 94612

Client: Equilon Enterprises dba Shell Oil Products US
(Perry Pineda)
20945 S Wilmington Ave, Carson, CA 90815

Phone: 213-996-2200
Phone: --
Phone: --

	Total Due:	\$1191.00
Receipt Number: WR2015-0401	Total Amount Paid:	\$1191.00
Payer Name : GHD Services, Inc.	Paid By: CHECK	PAID IN FULL

Works Requesting Permits:

Well Construction-Monitoring-Monitoring - 3 Wells
Driller: Cascade Drilling L.P. - Lic #: 938110 - Method: hstem

Work Total: \$1191.00

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2015-0767	08/13/2015	12/06/2015	S-24	8.00 in.	2.00 in.	16.00 ft	35.00 ft
W2015-0768	08/13/2015	12/06/2015	S-25	8.00 in.	2.00 in.	16.00 ft	35.00 ft
W2015-0769	08/13/2015	12/06/2015	S-26	8.00 in.	2.00 in.	16.00 ft	35.00 ft

Specific Work Permit Conditions

1. 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.

2. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

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

Alameda County Public Works Agency - Water Resources Well Permit

or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 30 days. Include permit number and site map.
 5. Applicant shall submit the copies of the approved encroachment permit to this office within 10 days.
 6. 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.
 7. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.
 8. Minimum surface seal thickness is two inches of cement grout placed by tremie.
 9. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.
 10. 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.
 11. Electronic Reporting Regulations (Chapter 30, Division 3 of Title 23 & Division 3 of Title 27, CCR) require electronic submission of any report or data required by a regulatory agency from a cleanup site. Submission dates are set by a Regional Water Board or by a regulatory agency. Once a report/data is successfully uploaded, as required, you have met the reporting requirement (i.e. the compliance measure for electronic submittals is the actual upload itself). The upload date should be on or prior to the regulatory due date.
-

Appendix C

Boring Logs

ENV_SEA_WELL_2_L:\PROJECTS\LEGACY\NLSHELL_RETAIL_461_8TH_ST_OAKLAND_CAI7000 DRAFT DELIVERABLES\2017_10_GWM & SUBSURFACE INVESTIGATION REPORT\APPENDIX C - GINT\PROJECTS\461_8TH_ST_HH_GP_J_URSOAK-ENVIRONMENTAL_GL

Project: 461 8th Street
Project Location: Oakland, CA
Project Number: 60528873

Log of Boring S-24
 Sheet 1 of 2

Date(s) Drilled and Installed 2/27/17	Logged By H.Hild	Checked By S. Olton, P.G.
Drilling Method Hollow Stem Auger	Drilling Contractor Gregg Drilling & Testing (C57 485165)	Total Depth of Borehole 35 feet
Sampling Method Continuous Core	Borehole Diameter 0-10 ft: 12 inches; 10-35 ft: 8 in	Top of Casing Elevation 34.99 ft above msl
Size and Type of Well Casing 2-inch diameter Schedule 40 PVC	First Encountered Groundwater 25 ft bgs	Modal Analysis (Clay, Silt, Sand, Gravel)
Seal or Backfill See Well Completion Schematic		

Depth, feet	SAMPLES					USCS	MATERIAL DESCRIPTION	Well Completion Schematic	REMARKS AND WELL DETAILS
	Type	Number	Recovery, %	PID (ppm)	Graphic Log				
0							Not Logged		-Traffic-rated christy box -Neat cement grout.
2									
4									Conductor casing installed by 459 8th Street LLC to 10 ft, concurrent with site redevelopment.
6									
8									
10			50	3.7			[Fill] SAND with clay and gravel, and trace silt (25, 5, 60, 10): Reddish brown (5YR 4/4); moist; poorly graded, rounded sand; poorly graded, angular gravel.		8 inch borehole
12									
14			10	0.4			@ 13.5 ft: Decrease in sand, increase in gravel (0, 0, 50, 50): decrease in moisture, dry.		-Bentonite chips.
16									
18									-#3 sand.
20									

Project: 461 8th Street
Project Location: Oakland, CA
Project Number: 60528873

Log of Boring S-24

Sheet 2 of 2

Depth, feet	SAMPLES				USCS	MATERIAL DESCRIPTION	Well Completion Schematic	REMARKS AND WELL DETAILS
	Type Number	Recovery, %	PID (ppm)	Graphic Log				
20								2"-diameter, 0.010" Slotted Schedule 40 PVC
22	S-24-22	100						
24					SC	Clayey SAND with silt (SC) (20, 10, 70, 0): Light olive brown (2.5Y 5/3); dry; poorly graded, rounded sand. @ 25 ft: Color change to black (2.5Y 2.5/1); increase in moisture, wet.		
26	S-24-26	100	1337					
27	S-24-27	100	1215					
28								
29						@ 29 ft: Color change to light olive brown (2.5 Y 5/3)		
30		100	14.5					
31						@ 31 ft: Decrease in moisture, moist.		
32								
34								
35						End of boring at 35 ft bgs.		
36								
38								
40								
42								

ENV_SEA_WELL_2_L:\PROJECTS\LEGACY\BESHELL_RETAIL_461_8TH_ST_OAKLAND_CAI7000 DRAFT DELIVERABLES\2017_10_GWM & SUBSURFACE INVESTIGATION REPORT\APPENDIX C - GINT\PROJECTS\461_8TH_HH.GPJ_URSOAK-ENVIRONMENTAL_GI

Project: 461 8th Street
Project Location: Oakland, CA
Project Number: 60528873

Log of Boring S-25

Sheet 1 of 2

Date(s) Drilled and Installed 2/27/17	Logged By H.Hild	Checked By S. Olton, P.G.
Drilling Method Hollow Stem Auger	Drilling Contractor Gregg Drilling & Testing (C57 485165)	Total Depth of Borehole 37 feet
Sampling Method Continous Core	Borehole Diameter 0-9 ft: 12 inches; 9-35 ft: 8 in	Top of Casing Elevation 35.10 ft above msl
Size and Type of Well Casing 2-inch diameter Schedule 40 PVC	First Encountered Groundwater 25 ft bgs	Modal Analysis (Clay, Silt, Sand, Gravel)
Seal or Backfill See Well Completion Schematic		

Depth, feet	SAMPLES				USCS	MATERIAL DESCRIPTION	Well Completion Schematic	REMARKS AND WELL DETAILS
	Type	Number	Recovery, %	PID (ppm)				
0						Not Logged		-Traffic-rated christy box -Neat cement grout.
2								
4								Conductor casing installed by 459 8th Street LLC to 10 ft, concurrent with site redevelopment.
6								
8								
10			0.6		SC	Clayey SAND with silt (SC) (20, 10, 70, 0): Reddish brown (5YR 5/3); moist; poorly graded, rounded sand.		8 inch borehole
12					SC	SAND with clay and trace silt (SC) (15, 5, 80, 0): Strong brown (7.5 YR 4/6); dry; poorly graded, rounded sand; iron oxides present.		
14			0.4					-Bentonite chips.
16								
18			1.1			@ 17 ft: Color change to olive gray (5Y 4/2); increase in moisture, moist.		
20			1.4			@ 19 ft: Color change to brown (7.5YR 4/3).		-#3 sand.

ENV_SEA_WELL_2_L:\PROJECTS\LEGACY\BESHELL_RETAIL_4618TH_ST_OAKLAND, CA\7000 DRAFT DELIVERABLES\2017_10_GWM & SUBSURFACE INVESTIGATION REPORT\APPENDIX C - GINT\PROJECTS\461_8TH_HH.GPJ_URSOAK-ENVIRONMENTAL.GI

Project: 461 8th Street
Project Location: Oakland, CA
Project Number: 60528873

Log of Boring S-25

Sheet 2 of 2

Depth, feet	SAMPLES				USCS	MATERIAL DESCRIPTION	Well Completion Schematic	REMARKS AND WELL DETAILS
	Type	Number	Recovery, %	PID (ppm)				
20								2" diameter, 0.010" Slotted Schedule 40 PVC
22					SC	Clayey SAND (SC) (20, 10, 70, 0): Dark olive gray (5Y 3/2); moist; poorly graded, rounded sand.		
24	S-25-24	100	114.3			@ 24 ft: Color change to dusky red (10R 3/2).		
26						@ 25.5 ft: Color change to greenish black (GLEY 1 2.5/10Y); increase in moisture, wet.	25 ft ▼	
28	S-25-27	100	105					
	S-25-28	100	126			@ 29 ft: Color change to olive (5Y 4/3).		
30								
32	S-25-31	100	264			@ 31 ft: Iron oxides present.		
34								
36	S-25-35	100	380.7					#3 sand.
					CH	CLAY with silt and sand (CH) (80, 10, 10, 0): Olive gray (5Y 4/2); wet; stiff; high plasticity.		
38						Bottom of boring at 37 ft.		
40								
42								

Appendix D

Certified Laboratory Analytical Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Irvine

17461 Derian Ave

Suite 100

Irvine, CA 92614-5817

Tel: (949)261-1022

TestAmerica Job ID: 440-178433-1

Client Project/Site: Shell- 461 8th St., Oakland

For:

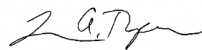
AECOM Technical Services Inc.

300 Lakeside Drive

Suite 400

Oakland, California 94612

Attn: Christine Pilachowski



Authorized for release by:

3/6/2017 5:23:33 PM

Laura Turpen, Project Manager I

(916)374-4414

laura.turpen@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Table of Contents

Cover Page	1
Table of Contents	2
Sample Summary	3
Case Narrative	4
Client Sample Results	5
Method Summary	6
Lab Chronicle	7
QC Sample Results	8
QC Association Summary	13
Definitions/Glossary	15
Certification Summary	16
Chain of Custody	17

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178433-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-178433-1	Waste 1	Solid	02/27/17 14:32	03/01/17 09:45

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Case Narrative

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178433-1

Job ID: 440-178433-1

Laboratory: TestAmerica Irvine

Narrative

**Job Narrative
440-178433-1**

Comments

No additional comments.

Receipt

The sample was received on 3/1/2017 9:45 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.6° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

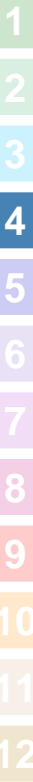
Metals

Method(s) 6020: The serial dilution performed for the following sample associated with batch 440-391871 was outside control limits: (440-178433-A-1-A SD)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178433-1

Client Sample ID: Waste 1

Lab Sample ID: 440-178433-1

Date Collected: 02/27/17 14:32

Matrix: Solid

Date Received: 03/01/17 09:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	40		2.5		ug/Kg			03/02/17 15:50	1
Ethylbenzene	200		2.5		ug/Kg			03/02/17 15:50	1
m,p-Xylene	700		4.9		ug/Kg			03/02/17 15:50	1
Methyl-t-Butyl Ether (MTBE)	ND		4.9		ug/Kg			03/02/17 15:50	1
o-Xylene	210		2.5		ug/Kg			03/02/17 15:50	1
Toluene	190		2.5		ug/Kg			03/02/17 15:50	1
Xylenes, Total	910		4.9		ug/Kg			03/02/17 15:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		79 - 120		03/02/17 15:50	1
Dibromofluoromethane (Surr)	100		60 - 120		03/02/17 15:50	1
Toluene-d8 (Surr)	107		79 - 123		03/02/17 15:50	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	110000		79000		ug/Kg		03/03/17 15:29	03/04/17 19:46	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		65 - 140	03/03/17 15:29	03/04/17 19:46	200

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50		mg/Kg		03/01/17 20:42	03/03/17 09:05	20
Arsenic	2.1		0.50		mg/Kg		03/01/17 20:42	03/03/17 09:05	20
Barium	39		0.50		mg/Kg		03/01/17 20:42	03/03/17 09:05	20
Beryllium	ND	F1	0.30		mg/Kg		03/01/17 20:42	03/03/17 09:05	20
Cadmium	ND		0.50		mg/Kg		03/01/17 20:42	03/03/17 09:05	20
Chromium	45		0.99		mg/Kg		03/01/17 20:42	03/03/17 09:05	20
Cobalt	5.1	F1	0.50		mg/Kg		03/01/17 20:42	03/03/17 09:05	20
Copper	5.4	F1	0.99		mg/Kg		03/01/17 20:42	03/03/17 09:05	20
Lead	1.9		0.50		mg/Kg		03/01/17 20:42	03/03/17 09:05	20
Molybdenum	ND		0.99		mg/Kg		03/01/17 20:42	03/03/17 09:05	20
Nickel	30	F1	0.99		mg/Kg		03/01/17 20:42	03/03/17 09:05	20
Selenium	ND		0.99		mg/Kg		03/01/17 20:42	03/03/17 09:05	20
Thallium	ND		0.50		mg/Kg		03/01/17 20:42	03/03/17 09:05	20
Vanadium	26		0.99		mg/Kg		03/01/17 20:42	03/03/17 09:05	20
Zinc	21		9.9		mg/Kg		03/01/17 20:42	03/03/17 09:05	20
Antimony	ND	F1	0.99		mg/Kg		03/01/17 20:42	03/03/17 09:05	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		03/02/17 22:45	03/03/17 18:19	1

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178433-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8015B	Gasoline Range Organics - (GC)	SW846	TAL IRV
6020	Metals (ICP/MS)	SW846	TAL IRV
7471A	Mercury (CVAA)	SW846	TAL IRV

Protocol References:

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

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022



Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178433-1

Client Sample ID: Waste 1

Date Collected: 02/27/17 14:32

Date Received: 03/01/17 09:45

Lab Sample ID: 440-178433-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	2.04 g	10 mL	391532	03/02/17 15:50	HR	TAL IRV
Total/NA	Prep	5030B			10.13 g	10 mL	391925	03/03/17 15:29	JB	TAL IRV
Total/NA	Analysis	8015B		200	10 mL	10 mL	392060	03/04/17 19:46	IM	TAL IRV
Total/NA	Prep	3050B			2.02 g	50 mL	391497	03/01/17 20:42	JL	TAL IRV
Total/NA	Analysis	6020		20			391871	03/03/17 09:05	IH1	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	391753	03/02/17 22:45	DB	TAL IRV
Total/NA	Analysis	7471A		1			392304	03/03/17 18:19	DB	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178433-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-391532/4

Matrix: Solid

Analysis Batch: 391532

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/Kg			03/02/17 08:23	1
Ethylbenzene	ND		1.0		ug/Kg			03/02/17 08:23	1
m,p-Xylene	ND		2.0		ug/Kg			03/02/17 08:23	1
Methyl-t-Butyl Ether (MTBE)	ND		2.0		ug/Kg			03/02/17 08:23	1
o-Xylene	ND		1.0		ug/Kg			03/02/17 08:23	1
Toluene	ND		1.0		ug/Kg			03/02/17 08:23	1
Xylenes, Total	ND		2.0		ug/Kg			03/02/17 08:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		79 - 120		03/02/17 08:23	1
Dibromofluoromethane (Surr)	103		60 - 120		03/02/17 08:23	1
Toluene-d8 (Surr)	105		79 - 123		03/02/17 08:23	1

Lab Sample ID: LCS 440-391532/5

Matrix: Solid

Analysis Batch: 391532

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	53.3		ug/Kg		107	65 - 120
Ethylbenzene	50.0	48.6		ug/Kg		97	70 - 125
m,p-Xylene	50.0	50.6		ug/Kg		101	70 - 125
Methyl-t-Butyl Ether (MTBE)	50.0	56.0		ug/Kg		112	60 - 140
o-Xylene	50.0	50.8		ug/Kg		102	70 - 125
Toluene	50.0	48.2		ug/Kg		96	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		79 - 120
Dibromofluoromethane (Surr)	105		60 - 120
Toluene-d8 (Surr)	99		79 - 123

Lab Sample ID: 440-177205-A-5 MS

Matrix: Solid

Analysis Batch: 391532

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		50.0	54.7		ug/Kg		108	65 - 130
Ethylbenzene	ND		50.0	51.2		ug/Kg		101	70 - 135
m,p-Xylene	ND		50.0	54.0		ug/Kg		106	70 - 130
Methyl-t-Butyl Ether (MTBE)	ND		50.0	54.1		ug/Kg		108	55 - 155
o-Xylene	ND		50.0	53.4		ug/Kg		105	65 - 130
Toluene	ND		50.0	50.6		ug/Kg		101	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		79 - 120
Dibromofluoromethane (Surr)	104		60 - 120
Toluene-d8 (Surr)	100		79 - 123

TestAmerica Irvine

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178433-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-177205-A-5 MSD

Matrix: Solid

Analysis Batch: 391532

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		50.0	56.1		ug/Kg		111	65 - 130	2	20
Ethylbenzene	ND		50.0	52.0		ug/Kg		103	70 - 135	2	25
m,p-Xylene	ND		50.0	56.7		ug/Kg		111	70 - 130	5	25
Methyl-t-Butyl Ether (MTBE)	ND		50.0	54.0		ug/Kg		108	55 - 155	0	35
o-Xylene	ND		50.0	54.5		ug/Kg		108	65 - 130	2	25
Toluene	ND		50.0	50.9		ug/Kg		102	70 - 130	0	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		79 - 120
Dibromofluoromethane (Surr)	104		60 - 120
Toluene-d8 (Surr)	101		79 - 123

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 440-392060/26

Matrix: Solid

Analysis Batch: 392060

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		40000		ug/Kg			03/04/17 18:23	100

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		65 - 140		03/04/17 18:23	100

Lab Sample ID: LCS 440-392060/25

Matrix: Solid

Analysis Batch: 392060

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
GRO (C4-C12)	160000	144000		ug/Kg		90	70 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		65 - 140

Lab Sample ID: LCSD 440-392060/27

Matrix: Solid

Analysis Batch: 392060

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)	160000	141000		ug/Kg		88	70 - 135	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		65 - 140

TestAmerica Irvine

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178433-1

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 440-391497/1-A ^20
Matrix: Solid
Analysis Batch: 391871

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 391497

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50		mg/Kg		03/01/17 20:42	03/03/17 09:00	20
Arsenic	ND		0.50		mg/Kg		03/01/17 20:42	03/03/17 09:00	20
Barium	ND		0.50		mg/Kg		03/01/17 20:42	03/03/17 09:00	20
Beryllium	ND		0.30		mg/Kg		03/01/17 20:42	03/03/17 09:00	20
Cadmium	ND		0.50		mg/Kg		03/01/17 20:42	03/03/17 09:00	20
Chromium	ND		0.99		mg/Kg		03/01/17 20:42	03/03/17 09:00	20
Cobalt	ND		0.50		mg/Kg		03/01/17 20:42	03/03/17 09:00	20
Copper	ND		0.99		mg/Kg		03/01/17 20:42	03/03/17 09:00	20
Lead	ND		0.50		mg/Kg		03/01/17 20:42	03/03/17 09:00	20
Molybdenum	ND		0.99		mg/Kg		03/01/17 20:42	03/03/17 09:00	20
Nickel	ND		0.99		mg/Kg		03/01/17 20:42	03/03/17 09:00	20
Selenium	ND		0.99		mg/Kg		03/01/17 20:42	03/03/17 09:00	20
Thallium	ND		0.50		mg/Kg		03/01/17 20:42	03/03/17 09:00	20
Vanadium	ND		0.99		mg/Kg		03/01/17 20:42	03/03/17 09:00	20
Zinc	ND		9.9		mg/Kg		03/01/17 20:42	03/03/17 09:00	20
Antimony	ND		0.99		mg/Kg		03/01/17 20:42	03/03/17 09:00	20

Lab Sample ID: LCS 440-391497/2-A ^20
Matrix: Solid
Analysis Batch: 391871

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 391497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Silver	24.9	23.2		mg/Kg		93	80 - 120
Arsenic	49.8	45.8		mg/Kg		92	80 - 120
Barium	49.8	47.4		mg/Kg		95	80 - 120
Beryllium	49.8	45.3		mg/Kg		91	80 - 120
Cadmium	49.8	46.6		mg/Kg		94	80 - 120
Chromium	49.8	47.3		mg/Kg		95	80 - 120
Cobalt	49.8	47.7		mg/Kg		96	80 - 120
Copper	49.8	47.9		mg/Kg		96	80 - 120
Lead	49.8	47.2		mg/Kg		95	80 - 120
Molybdenum	49.8	46.1		mg/Kg		93	80 - 120
Nickel	49.8	46.9		mg/Kg		94	80 - 120
Selenium	49.8	44.9		mg/Kg		90	80 - 120
Thallium	49.8	46.4		mg/Kg		93	80 - 120
Vanadium	49.8	46.8		mg/Kg		94	80 - 120
Zinc	49.8	46.7		mg/Kg		94	80 - 120
Antimony	49.8	47.8		mg/Kg		96	80 - 120

Lab Sample ID: 440-178433-1 MS
Matrix: Solid
Analysis Batch: 391871

Client Sample ID: Waste 1
Prep Type: Total/NA
Prep Batch: 391497

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Silver	ND		24.6	21.9		mg/Kg		89	80 - 120
Arsenic	2.1		49.3	45.0		mg/Kg		87	80 - 120
Barium	39		49.3	98.7		mg/Kg		120	80 - 120
Beryllium	ND	F1	49.3	39.2		mg/Kg		80	80 - 120

TestAmerica Irvine

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178433-1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 440-178433-1 MS
Matrix: Solid
Analysis Batch: 391871

Client Sample ID: Waste 1
Prep Type: Total/NA
Prep Batch: 391497

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
Cadmium	ND		49.3	44.4		mg/Kg		90	80 - 120
Chromium	45		49.3	90.8		mg/Kg		92	80 - 120
Cobalt	5.1	F1	49.3	46.6		mg/Kg		84	80 - 120
Copper	5.4	F1	49.3	45.0		mg/Kg		80	80 - 120
Lead	1.9		49.3	46.5		mg/Kg		91	80 - 120
Molybdenum	ND		49.3	44.7		mg/Kg		91	80 - 120
Nickel	30	F1	49.3	69.8		mg/Kg		81	80 - 120
Selenium	ND		49.3	41.7		mg/Kg		84	80 - 120
Thallium	ND		49.3	44.6		mg/Kg		91	80 - 120
Vanadium	26		49.3	71.2		mg/Kg		91	80 - 120
Zinc	21		49.3	62.4		mg/Kg		85	80 - 120
Antimony	ND	F1	49.3	33.5	F1	mg/Kg		68	80 - 120

Lab Sample ID: 440-178433-1 MSD
Matrix: Solid
Analysis Batch: 391871

Client Sample ID: Waste 1
Prep Type: Total/NA
Prep Batch: 391497

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Silver	ND		25.0	21.6		mg/Kg		86	80 - 120	2	20
Arsenic	2.1		50.0	44.7		mg/Kg		85	80 - 120	0	20
Barium	39		50.0	96.9		mg/Kg		115	80 - 120	2	20
Beryllium	ND	F1	50.0	38.5	F1	mg/Kg		77	80 - 120	2	20
Cadmium	ND		50.0	44.1		mg/Kg		88	80 - 120	1	20
Chromium	45		50.0	92.3		mg/Kg		94	80 - 120	2	20
Cobalt	5.1	F1	50.0	44.7	F1	mg/Kg		79	80 - 120	4	20
Copper	5.4	F1	50.0	44.3	F1	mg/Kg		78	80 - 120	1	20
Lead	1.9		50.0	45.9		mg/Kg		88	80 - 120	1	20
Molybdenum	ND		50.0	44.3		mg/Kg		89	80 - 120	1	20
Nickel	30	F1	50.0	69.0	F1	mg/Kg		78	80 - 120	1	20
Selenium	ND		50.0	40.7		mg/Kg		81	80 - 120	2	20
Thallium	ND		50.0	43.6		mg/Kg		87	80 - 120	2	20
Vanadium	26		50.0	70.0		mg/Kg		88	80 - 120	2	20
Zinc	21		50.0	61.7		mg/Kg		82	80 - 120	1	20
Antimony	ND	F1	50.0	32.8	F1	mg/Kg		66	80 - 120	2	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 440-391753/1-A
Matrix: Solid
Analysis Batch: 392304

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 391753

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.020		mg/Kg		03/02/17 22:45	03/03/17 18:14	1

TestAmerica Irvine

QC Sample Results

Client: AECOM Technical Services Inc.
 Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178433-1

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 440-391753/2-A
Matrix: Solid
Analysis Batch: 392304

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 391753

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.800	0.860		mg/Kg		107	80 - 120

Lab Sample ID: 440-178433-1 MS
Matrix: Solid
Analysis Batch: 392304

Client Sample ID: Waste 1
Prep Type: Total/NA
Prep Batch: 391753

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	ND		0.784	0.767		mg/Kg		98	70 - 130

Lab Sample ID: 440-178433-1 MSD
Matrix: Solid
Analysis Batch: 392304

Client Sample ID: Waste 1
Prep Type: Total/NA
Prep Batch: 391753

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	ND		0.800	0.748		mg/Kg		94	70 - 130	2	20

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178433-1

GC/MS VOA

Analysis Batch: 391532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-178433-1	Waste 1	Total/NA	Solid	8260B	
MB 440-391532/4	Method Blank	Total/NA	Solid	8260B	
LCS 440-391532/5	Lab Control Sample	Total/NA	Solid	8260B	
440-177205-A-5 MS	Matrix Spike	Total/NA	Solid	8260B	
440-177205-A-5 MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	

GC VOA

Prep Batch: 391925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-178433-1	Waste 1	Total/NA	Solid	5030B	

Analysis Batch: 392060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-178433-1	Waste 1	Total/NA	Solid	8015B	391925
MB 440-392060/26	Method Blank	Total/NA	Solid	8015B	
LCS 440-392060/25	Lab Control Sample	Total/NA	Solid	8015B	
LCSD 440-392060/27	Lab Control Sample Dup	Total/NA	Solid	8015B	

Metals

Prep Batch: 391497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-178433-1	Waste 1	Total/NA	Solid	3050B	
MB 440-391497/1-A ^20	Method Blank	Total/NA	Solid	3050B	
LCS 440-391497/2-A ^20	Lab Control Sample	Total/NA	Solid	3050B	
440-178433-1 MS	Waste 1	Total/NA	Solid	3050B	
440-178433-1 MSD	Waste 1	Total/NA	Solid	3050B	

Prep Batch: 391753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-178433-1	Waste 1	Total/NA	Solid	7471A	
MB 440-391753/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 440-391753/2-A	Lab Control Sample	Total/NA	Solid	7471A	
440-178433-1 MS	Waste 1	Total/NA	Solid	7471A	
440-178433-1 MSD	Waste 1	Total/NA	Solid	7471A	

Analysis Batch: 391871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-178433-1	Waste 1	Total/NA	Solid	6020	391497
MB 440-391497/1-A ^20	Method Blank	Total/NA	Solid	6020	391497
LCS 440-391497/2-A ^20	Lab Control Sample	Total/NA	Solid	6020	391497
440-178433-1 MS	Waste 1	Total/NA	Solid	6020	391497
440-178433-1 MSD	Waste 1	Total/NA	Solid	6020	391497

Analysis Batch: 392304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-178433-1	Waste 1	Total/NA	Solid	7471A	391753
MB 440-391753/1-A	Method Blank	Total/NA	Solid	7471A	391753
LCS 440-391753/2-A	Lab Control Sample	Total/NA	Solid	7471A	391753

TestAmerica Irvine

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178433-1

Metals (Continued)

Analysis Batch: 392304 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-178433-1 MS	Waste 1	Total/NA	Solid	7471A	391753
440-178433-1 MSD	Waste 1	Total/NA	Solid	7471A	391753

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Definitions/Glossary

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178433-1

Qualifiers

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178433-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-14-17
California	LA Cty Sanitation Districts	9	10256	06-30-18
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 16-001r	01-23-17 *
Hawaii	State Program	9	N/A	01-29-18
Kansas	NELAP Secondary AB	7	E-10420	07-31-17
Nevada	State Program	9	CA015312016-2	07-31-17
New Mexico	State Program	6	N/A	01-29-17 *
Northern Mariana Islands	State Program	9	MP0002	01-29-17 *
Oregon	NELAP	10	4028	01-29-18
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-17

* Certification renewal pending - certification considered valid.

TestAmerica Irvine



Equilon Enterprises LLC dba Shell Oil Products US Chain of Custody Record



LAB (LOCATION)
 ACQUEST ()
 CALSCIENCE ()
 TESTAMERICA ()
 Other ()

Lab Vendor # 1364589 (TestAmerica)
 AECOM

Print Bill To: Contact Name: **Shane Olton**
 PlanNet Site or Project ID: **USF03642**
 DATE: 2/27/2017
 PAGE: 1 of 1

Check appropriate box:
 PIPELINE RETAIL
 CHEMICALS LUBES
 TRANSPORTATION OTHER

USPC/00226, USRT/01259
 State: **CA**
 AECOM Project/Task Number: _____
 AECOM Other ID: _____
 E-MAIL: **Shane.Olton@AECOM.com**
 helen.hiid@aecom.com
 PHONE NO: **916-414-5849**
 SHANE OLTON, AECOM, OAKLAND
 SAMPLER NAME(S) (Print): **Helen Hiid**
 r j bsw fox

300 Lakeside Drive, Oakland, CA
 SHANE OLTON
 Bill to Contact E-MAIL: **USAP.imaging@aecom.com**
 TURNAROUND TIME (CALENDAR DAYS):
 STANDARD (14 DAY) 3 DAYS 5 DAYS 24 HOURS RESULTS NEEDED ON WEEKEND
 LA - RWQCB REPORT FORMAT INST. AGENCY:
 LEVEL 1 LEVEL 2 LEVEL 3 LEVEL 4 OTHER (SPECIFY) _____
 DELIVERABLES: COOLER #1 COOLER #2 COOLER #3

SPECIAL INSTRUCTIONS OR NOTES:
 CONTRACT RATE APPLIES
 STATE REIMBURSEMENT RATE APPLIES
 EDD NOT NEEDED
 RECEIPT VERIFICATION REQUESTED
 PROVIDE LEDD DISK

LAB USE ONLY	SAMPLING		MATRIX	PRESERVATIVE			NO. OF CONT.
	DATE	TIME		HCL	HN03	H2SO4	
Waste 1	12/27/2017	1437	solid			X	1

UNIT COST	REQUESTED ANALYSIS	NON-UNIT COST	FIELD NOTES:
			TEMPERATURE ON RECEIPT C°
			Container PID Readings or Laboratory Notes

440-178433 Chain of Custody

Relinquished by (Signature)	Date	Time
<i>John Fox</i>	2/28/17	0816
<i>[Signature]</i>	2/28/17	1024
<i>[Signature]</i>	2/28/17	1130

3/1/17 9:45
 1R-5C6
 33/3.6



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Irvine

17461 Derian Ave

Suite 100

Irvine, CA 92614-5817

Tel: (949)261-1022

TestAmerica Job ID: 440-178459-1

Client Project/Site: Shell- 461 8th St., Oakland

Revision: 2

For:

AECOM Technical Services Inc.

300 Lakeside Drive

Suite 400

Oakland, California 94612

Attn: Christine Pilachowski



Authorized for release by:

5/9/2017 2:47:44 PM

Laura Turpen, Project Manager I

(916)374-4414

laura.turpen@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Results relate only to the items tested and the sample(s) as received by the laboratory.

1

2

3

4

5

6

7

8

9

10

11

12

13



Table of Contents

Cover Page	1
Table of Contents	2
Sample Summary	3
Case Narrative	4
Client Sample Results	5
Method Summary	9
Lab Chronicle	10
QC Sample Results	12
QC Association Summary	18
Definitions/Glossary	20
Certification Summary	21
Chain of Custody	22
Receipt Checklists	23

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178459-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-178459-1	S-25-24	Solid	02/27/17 09:03	03/01/17 09:45
440-178459-2	S-25-27	Solid	02/27/17 09:21	03/01/17 09:45
440-178459-3	S-25-28	Solid	02/27/17 09:28	03/01/17 09:45
440-178459-4	S-25-31	Solid	02/27/17 09:40	03/01/17 09:45
440-178459-5	S-25-35	Solid	02/27/17 09:53	03/01/17 09:45
440-178459-6	S-24-22	Solid	02/27/17 13:10	03/01/17 09:45
440-178459-7	S-24-26	Solid	02/27/17 13:20	03/01/17 09:45
440-178459-8	S-24-27	Solid	02/27/17 13:28	03/01/17 09:45



Case Narrative

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178459-1

Job ID: 440-178459-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative 440-178459-1

Revision

This report and the associated EDDs were revised May 9, 2017 to remove an LCS flag in batch 393473. No data changed as a result of this revision.

This report and the associated EDDs were revised May 9, 2017 to provide results in units of mg/Kg at the request of the client. No other data changed as a result of this revision.

Receipt

The samples were received on 3/1/2017 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.6° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC VOA

Method(s) 8015B: Surrogate recovery for the following sample was outside control limits: S-25-35 (440-178459-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8015B: The following sample was diluted to bring the concentration of target analytes within the calibration range: S-25-35 (440-178459-5). The 1g run was above calibration range and contained saturated peak(s) for GRO, while the 100ul extract run was below the reporting limit. Both analyses are being reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178459-1

Client Sample ID: S-25-24

Date Collected: 02/27/17 09:03

Date Received: 03/01/17 09:45

Lab Sample ID: 440-178459-1

Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	3.7		0.25		mg/Kg		03/06/17 14:24	03/07/17 01:29	250
o-Xylene	21		0.25		mg/Kg		03/06/17 14:24	03/07/17 01:29	250
Xylenes, Total	75		0.50		mg/Kg		03/06/17 14:24	03/07/17 01:29	250
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		65 - 140				03/06/17 14:24	03/07/17 01:29	250
Dibromofluoromethane (Surr)	107		55 - 140				03/06/17 14:24	03/07/17 01:29	250
Toluene-d8 (Surr)	111		60 - 140				03/06/17 14:24	03/07/17 01:29	250

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	33		1.0		mg/Kg		03/06/17 14:24	03/10/17 17:51	1000
m,p-Xylene	110		2.0		mg/Kg		03/06/17 14:24	03/10/17 17:51	1000
Toluene	32		1.0		mg/Kg		03/06/17 14:24	03/10/17 17:51	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		65 - 140				03/06/17 14:24	03/10/17 17:51	1000
Dibromofluoromethane (Surr)	106		55 - 140				03/06/17 14:24	03/10/17 17:51	1000
Toluene-d8 (Surr)	115		60 - 140				03/06/17 14:24	03/10/17 17:51	1000

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	1300		400		mg/Kg		03/06/17 14:24	03/11/17 12:59	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		65 - 140				03/06/17 14:24	03/11/17 12:59	1000

Client Sample ID: S-25-27

Date Collected: 02/27/17 09:21

Date Received: 03/01/17 09:45

Lab Sample ID: 440-178459-2

Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0015		0.0010		mg/Kg			03/11/17 17:26	1
Ethylbenzene	0.0066		0.0010		mg/Kg			03/11/17 17:26	1
m,p-Xylene	0.027		0.0020		mg/Kg			03/11/17 17:26	1
o-Xylene	0.0073		0.0010		mg/Kg			03/11/17 17:26	1
Toluene	0.0074		0.0010		mg/Kg			03/11/17 17:26	1
Xylenes, Total	0.034		0.0020		mg/Kg			03/11/17 17:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		79 - 120					03/11/17 17:26	1
Dibromofluoromethane (Surr)	107		60 - 120					03/11/17 17:26	1
Toluene-d8 (Surr)	104		79 - 123					03/11/17 17:26	1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		0.40		mg/Kg			03/11/17 19:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		65 - 140					03/11/17 19:12	1

TestAmerica Irvine

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178459-1

Client Sample ID: S-25-28

Date Collected: 02/27/17 09:28

Date Received: 03/01/17 09:45

Lab Sample ID: 440-178459-3

Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.91		0.10		mg/Kg		03/06/17 14:24	03/07/17 02:26	100
Ethylbenzene	3.4		0.10		mg/Kg		03/06/17 14:24	03/07/17 02:26	100
m,p-Xylene	11		0.20		mg/Kg		03/06/17 14:24	03/07/17 02:26	100
o-Xylene	2.5		0.10		mg/Kg		03/06/17 14:24	03/07/17 02:26	100
Toluene	4.4		0.10		mg/Kg		03/06/17 14:24	03/07/17 02:26	100
Xylenes, Total	14		0.20		mg/Kg		03/06/17 14:24	03/07/17 02:26	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		65 - 140	03/06/17 14:24	03/07/17 02:26	100
Dibromofluoromethane (Surr)	109		55 - 140	03/06/17 14:24	03/07/17 02:26	100
Toluene-d8 (Surr)	111		60 - 140	03/06/17 14:24	03/07/17 02:26	100

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	330		80		mg/Kg		03/06/17 14:24	03/11/17 13:54	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		65 - 140	03/06/17 14:24	03/11/17 13:54	200

Client Sample ID: S-25-31

Date Collected: 02/27/17 09:40

Date Received: 03/01/17 09:45

Lab Sample ID: 440-178459-4

Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.10		mg/Kg		03/06/17 14:24	03/07/17 02:54	100
Ethylbenzene	0.14		0.10		mg/Kg		03/06/17 14:24	03/07/17 02:54	100
m,p-Xylene	0.50		0.20		mg/Kg		03/06/17 14:24	03/07/17 02:54	100
o-Xylene	0.10		0.10		mg/Kg		03/06/17 14:24	03/07/17 02:54	100
Toluene	0.23		0.10		mg/Kg		03/06/17 14:24	03/07/17 02:54	100
Xylenes, Total	0.60		0.20		mg/Kg		03/06/17 14:24	03/07/17 02:54	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		65 - 140	03/06/17 14:24	03/07/17 02:54	100
Dibromofluoromethane (Surr)	107		55 - 140	03/06/17 14:24	03/07/17 02:54	100
Toluene-d8 (Surr)	112		60 - 140	03/06/17 14:24	03/07/17 02:54	100

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		0.40		mg/Kg			03/13/17 15:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		65 - 140		03/13/17 15:33	1

Client Sample ID: S-25-35

Date Collected: 02/27/17 09:53

Date Received: 03/01/17 09:45

Lab Sample ID: 440-178459-5

Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.10		mg/Kg		03/06/17 14:24	03/07/17 03:23	100

TestAmerica Irvine

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178459-1

Client Sample ID: S-25-35

Date Collected: 02/27/17 09:53

Date Received: 03/01/17 09:45

Lab Sample ID: 440-178459-5

Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.18		0.10		mg/Kg		03/06/17 14:24	03/07/17 03:23	100
m,p-Xylene	0.69		0.20		mg/Kg		03/06/17 14:24	03/07/17 03:23	100
o-Xylene	0.14		0.10		mg/Kg		03/06/17 14:24	03/07/17 03:23	100
Toluene	0.37		0.10		mg/Kg		03/06/17 14:24	03/07/17 03:23	100
Xylenes, Total	0.83		0.20		mg/Kg		03/06/17 14:24	03/07/17 03:23	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		65 - 140	03/06/17 14:24	03/07/17 03:23	100
Dibromofluoromethane (Surr)	109		55 - 140	03/06/17 14:24	03/07/17 03:23	100
Toluene-d8 (Surr)	111		60 - 140	03/06/17 14:24	03/07/17 03:23	100

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		40		mg/Kg		03/06/17 14:24	03/11/17 14:50	100
GRO (C4-C12)	130	E	1.8		mg/Kg			03/11/17 20:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		65 - 140	03/06/17 14:24	03/11/17 14:50	100
4-Bromofluorobenzene (Surr)	364	X	65 - 140		03/11/17 20:08	1

Client Sample ID: S-24-22

Date Collected: 02/27/17 13:10

Date Received: 03/01/17 09:45

Lab Sample ID: 440-178459-6

Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.28		0.20		mg/Kg		03/06/17 14:24	03/07/17 03:51	200
Ethylbenzene	3.9		0.20		mg/Kg		03/06/17 14:24	03/07/17 03:51	200
m,p-Xylene	17		0.40		mg/Kg		03/06/17 14:24	03/07/17 03:51	200
o-Xylene	6.7		0.20		mg/Kg		03/06/17 14:24	03/07/17 03:51	200
Toluene	4.0		0.20		mg/Kg		03/06/17 14:24	03/07/17 03:51	200
Xylenes, Total	24		0.40		mg/Kg		03/06/17 14:24	03/07/17 03:51	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		65 - 140	03/06/17 14:24	03/07/17 03:51	200
Dibromofluoromethane (Surr)	111		55 - 140	03/06/17 14:24	03/07/17 03:51	200
Toluene-d8 (Surr)	111		60 - 140	03/06/17 14:24	03/07/17 03:51	200

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	220		80		mg/Kg		03/06/17 14:24	03/11/17 15:18	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	138		65 - 140	03/06/17 14:24	03/11/17 15:18	200

TestAmerica Irvine

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178459-1

Client Sample ID: S-24-26

Date Collected: 02/27/17 13:20

Date Received: 03/01/17 09:45

Lab Sample ID: 440-178459-7

Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	22		1.0		mg/Kg		03/06/17 14:24	03/07/17 04:20	1000
m,p-Xylene	100		2.0		mg/Kg		03/06/17 14:24	03/07/17 04:20	1000
o-Xylene	21		1.0		mg/Kg		03/06/17 14:24	03/07/17 04:20	1000
Xylenes, Total	120		2.0		mg/Kg		03/06/17 14:24	03/07/17 04:20	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		65 - 140	03/06/17 14:24	03/07/17 04:20	1000
Dibromofluoromethane (Surr)	109		55 - 140	03/06/17 14:24	03/07/17 04:20	1000
Toluene-d8 (Surr)	115		60 - 140	03/06/17 14:24	03/07/17 04:20	1000

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	130		5.0		mg/Kg		03/06/17 14:24	03/10/17 18:19	5000
Toluene	120		5.0		mg/Kg		03/06/17 14:24	03/10/17 18:19	5000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		65 - 140	03/06/17 14:24	03/10/17 18:19	5000
Dibromofluoromethane (Surr)	106		55 - 140	03/06/17 14:24	03/10/17 18:19	5000
Toluene-d8 (Surr)	112		60 - 140	03/06/17 14:24	03/10/17 18:19	5000

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	5400		2000		mg/Kg		03/06/17 14:24	03/11/17 15:46	5000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		65 - 140	03/06/17 14:24	03/11/17 15:46	5000

Client Sample ID: S-24-27

Date Collected: 02/27/17 13:28

Date Received: 03/01/17 09:45

Lab Sample ID: 440-178459-8

Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	6.8		0.50		mg/Kg		03/06/17 14:24	03/07/17 04:48	500
Ethylbenzene	20		0.50		mg/Kg		03/06/17 14:24	03/07/17 04:48	500
m,p-Xylene	37		1.0		mg/Kg		03/06/17 14:24	03/07/17 04:48	500
o-Xylene	4.6		0.50		mg/Kg		03/06/17 14:24	03/07/17 04:48	500
Toluene	21		0.50		mg/Kg		03/06/17 14:24	03/07/17 04:48	500
Xylenes, Total	42		1.0		mg/Kg		03/06/17 14:24	03/07/17 04:48	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		65 - 140	03/06/17 14:24	03/07/17 04:48	500
Dibromofluoromethane (Surr)	109		55 - 140	03/06/17 14:24	03/07/17 04:48	500
Toluene-d8 (Surr)	112		60 - 140	03/06/17 14:24	03/07/17 04:48	500

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	1600		800		mg/Kg		03/06/17 14:24	03/11/17 16:14	2000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		65 - 140	03/06/17 14:24	03/11/17 16:14	2000

TestAmerica Irvine

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178459-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8015B	Gasoline Range Organics - (GC)	SW846	TAL IRV

Protocol References:

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

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022



Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178459-1

Client Sample ID: S-25-24

Date Collected: 02/27/17 09:03

Date Received: 03/01/17 09:45

Lab Sample ID: 440-178459-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			10.01 g	10 mL	392269	03/06/17 14:24	HR	TAL IRV
Total/NA	Analysis	8260B		250	10 mL	10 mL	392301	03/07/17 01:29	WK	TAL IRV
Total/NA	Prep	5030B	DL		10.01 g	10 mL	392269	03/06/17 14:24	HR	TAL IRV
Total/NA	Analysis	8260B	DL	1000	10 mL	10 mL	393172	03/10/17 17:51	AYL	TAL IRV
Total/NA	Prep	5030B			10.01 g	10 mL	392269	03/06/17 14:24	HR	TAL IRV
Total/NA	Analysis	8015B		1000	10 mL	10 mL	393437	03/11/17 12:59	IM	TAL IRV

Client Sample ID: S-25-27

Date Collected: 02/27/17 09:21

Date Received: 03/01/17 09:45

Lab Sample ID: 440-178459-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5.01 g	10 mL	393428	03/11/17 17:26	K1S	TAL IRV
Total/NA	Analysis	8015B		1	5.01 g	10 mL	393435	03/11/17 19:12	IM	TAL IRV

Client Sample ID: S-25-28

Date Collected: 02/27/17 09:28

Date Received: 03/01/17 09:45

Lab Sample ID: 440-178459-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			10.02 g	10 mL	392269	03/06/17 14:24	HR	TAL IRV
Total/NA	Analysis	8260B		100	10 mL	10 mL	392301	03/07/17 02:26	WK	TAL IRV
Total/NA	Prep	5030B			10.02 g	10 mL	392269	03/06/17 14:24	HR	TAL IRV
Total/NA	Analysis	8015B		200	10 mL	10 mL	393437	03/11/17 13:54	IM	TAL IRV

Client Sample ID: S-25-31

Date Collected: 02/27/17 09:40

Date Received: 03/01/17 09:45

Lab Sample ID: 440-178459-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			10.02 g	10 mL	392269	03/06/17 14:24	HR	TAL IRV
Total/NA	Analysis	8260B		100	10 mL	10 mL	392301	03/07/17 02:54	WK	TAL IRV
Total/NA	Analysis	8015B		1	5.06 g	10 mL	393573	03/13/17 15:33	EI	TAL IRV

Client Sample ID: S-25-35

Date Collected: 02/27/17 09:53

Date Received: 03/01/17 09:45

Lab Sample ID: 440-178459-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			10.00 g	10 mL	392269	03/06/17 14:24	HR	TAL IRV
Total/NA	Analysis	8260B		100	10 mL	10 mL	392301	03/07/17 03:23	WK	TAL IRV
Total/NA	Analysis	8015B		1	1.09 g	10 mL	393435	03/11/17 20:08	IM	TAL IRV

TestAmerica Irvine

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178459-1

Client Sample ID: S-25-35

Lab Sample ID: 440-178459-5

Date Collected: 02/27/17 09:53

Matrix: Solid

Date Received: 03/01/17 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			10.00 g	10 mL	392269	03/06/17 14:24	HR	TAL IRV
Total/NA	Analysis	8015B		100	10 mL	10 mL	393437	03/11/17 14:50	IM	TAL IRV

Client Sample ID: S-24-22

Lab Sample ID: 440-178459-6

Date Collected: 02/27/17 13:10

Matrix: Solid

Date Received: 03/01/17 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			10.02 g	10 mL	392269	03/06/17 14:24	HR	TAL IRV
Total/NA	Analysis	8260B		200	10 mL	10 mL	392301	03/07/17 03:51	WK	TAL IRV
Total/NA	Prep	5030B			10.02 g	10 mL	392269	03/06/17 14:24	HR	TAL IRV
Total/NA	Analysis	8015B		200	10 mL	10 mL	393437	03/11/17 15:18	IM	TAL IRV

Client Sample ID: S-24-26

Lab Sample ID: 440-178459-7

Date Collected: 02/27/17 13:20

Matrix: Solid

Date Received: 03/01/17 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			10.05 g	10 mL	392269	03/06/17 14:24	HR	TAL IRV
Total/NA	Analysis	8260B		1000	10 mL	10 mL	392301	03/07/17 04:20	WK	TAL IRV
Total/NA	Prep	5030B	DL		10.05 g	10 mL	392269	03/06/17 14:24	HR	TAL IRV
Total/NA	Analysis	8260B	DL	5000	10 mL	10 mL	393172	03/10/17 18:19	AYL	TAL IRV
Total/NA	Prep	5030B			10.05 g	10 mL	392269	03/06/17 14:24	HR	TAL IRV
Total/NA	Analysis	8015B		5000	10 mL	10 mL	393437	03/11/17 15:46	IM	TAL IRV

Client Sample ID: S-24-27

Lab Sample ID: 440-178459-8

Date Collected: 02/27/17 13:28

Matrix: Solid

Date Received: 03/01/17 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			10.04 g	10 mL	392269	03/06/17 14:24	HR	TAL IRV
Total/NA	Analysis	8260B		500	10 mL	10 mL	392301	03/07/17 04:48	WK	TAL IRV
Total/NA	Prep	5030B			10.04 g	10 mL	392269	03/06/17 14:24	HR	TAL IRV
Total/NA	Analysis	8015B		2000	10 mL	10 mL	393437	03/11/17 16:14	IM	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178459-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-392301/3

Matrix: Solid

Analysis Batch: 392301

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.10		mg/Kg			03/06/17 19:15	100
Ethylbenzene	ND		0.10		mg/Kg			03/06/17 19:15	100
m,p-Xylene	ND		0.20		mg/Kg			03/06/17 19:15	100
o-Xylene	ND		0.10		mg/Kg			03/06/17 19:15	100
Toluene	ND		0.10		mg/Kg			03/06/17 19:15	100
Xylenes, Total	ND		0.20		mg/Kg			03/06/17 19:15	100

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		65 - 140		03/06/17 19:15	100
Dibromofluoromethane (Surr)	111		55 - 140		03/06/17 19:15	100
Toluene-d8 (Surr)	110		60 - 140		03/06/17 19:15	100

Lab Sample ID: LCS 440-392301/4

Matrix: Solid

Analysis Batch: 392301

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.50	2.64		mg/Kg		106	65 - 120
Ethylbenzene	2.50	2.47		mg/Kg		99	80 - 120
m,p-Xylene	2.50	2.51		mg/Kg		101	70 - 125
o-Xylene	2.50	2.53		mg/Kg		101	70 - 125
Toluene	2.50	2.50		mg/Kg		100	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		65 - 140
Dibromofluoromethane (Surr)	112		55 - 140
Toluene-d8 (Surr)	107		60 - 140

Lab Sample ID: LCSD 440-392301/5

Matrix: Solid

Analysis Batch: 392301

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	2.50	2.56		mg/Kg		102	65 - 120	3	20
Ethylbenzene	2.50	2.40		mg/Kg		96	80 - 120	3	20
m,p-Xylene	2.50	2.46		mg/Kg		98	70 - 125	2	20
o-Xylene	2.50	2.46		mg/Kg		98	70 - 125	3	20
Toluene	2.50	2.43		mg/Kg		97	80 - 120	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		65 - 140
Dibromofluoromethane (Surr)	112		55 - 140
Toluene-d8 (Surr)	105		60 - 140

TestAmerica Irvine

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178459-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-393172/4

Matrix: Solid

Analysis Batch: 393172

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.10		mg/Kg			03/10/17 08:50	100
Ethylbenzene	ND		0.10		mg/Kg			03/10/17 08:50	100
m,p-Xylene	ND		0.20		mg/Kg			03/10/17 08:50	100
o-Xylene	ND		0.10		mg/Kg			03/10/17 08:50	100
Toluene	ND		0.10		mg/Kg			03/10/17 08:50	100
Xylenes, Total	ND		0.20		mg/Kg			03/10/17 08:50	100

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		65 - 140		03/10/17 08:50	100
Dibromofluoromethane (Surr)	116		55 - 140		03/10/17 08:50	100
Toluene-d8 (Surr)	107		60 - 140		03/10/17 08:50	100

Lab Sample ID: LCS 440-393172/5

Matrix: Solid

Analysis Batch: 393172

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.50	2.87		mg/Kg		115	65 - 120
Ethylbenzene	2.50	2.60		mg/Kg		104	80 - 120
m,p-Xylene	2.50	2.67		mg/Kg		107	70 - 125
o-Xylene	2.50	2.73		mg/Kg		109	70 - 125
Toluene	2.50	2.66		mg/Kg		107	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		65 - 140
Dibromofluoromethane (Surr)	114		55 - 140
Toluene-d8 (Surr)	104		60 - 140

Lab Sample ID: LCSD 440-393172/6

Matrix: Solid

Analysis Batch: 393172

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	2.50	2.87		mg/Kg		115	65 - 120	0	20
Ethylbenzene	2.50	2.57		mg/Kg		103	80 - 120	1	20
m,p-Xylene	2.50	2.64		mg/Kg		106	70 - 125	1	20
o-Xylene	2.50	2.62		mg/Kg		105	70 - 125	4	20
Toluene	2.50	2.58		mg/Kg		103	80 - 120	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		65 - 140
Dibromofluoromethane (Surr)	113		55 - 140
Toluene-d8 (Surr)	102		60 - 140

TestAmerica Irvine

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178459-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-393428/4

Matrix: Solid

Analysis Batch: 393428

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00050		mg/Kg			03/11/17 09:38	1
Ethylbenzene	ND		0.00050		mg/Kg			03/11/17 09:38	1
m,p-Xylene	ND		0.0010		mg/Kg			03/11/17 09:38	1
o-Xylene	ND		0.00050		mg/Kg			03/11/17 09:38	1
Toluene	ND		0.00050		mg/Kg			03/11/17 09:38	1
Xylenes, Total	ND		0.0010		mg/Kg			03/11/17 09:38	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		79 - 120		03/11/17 09:38	1
Dibromofluoromethane (Surr)	103		60 - 120		03/11/17 09:38	1
Toluene-d8 (Surr)	104		79 - 123		03/11/17 09:38	1

Lab Sample ID: LCS 440-393428/5

Matrix: Solid

Analysis Batch: 393428

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0250	0.0227		mg/Kg		91	65 - 120
Ethylbenzene	0.0250	0.0247		mg/Kg		99	70 - 125
m,p-Xylene	0.0250	0.0269		mg/Kg		108	70 - 125
o-Xylene	0.0250	0.0260		mg/Kg		104	70 - 125
Toluene	0.0250	0.0245		mg/Kg		98	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		79 - 120
Dibromofluoromethane (Surr)	103		60 - 120
Toluene-d8 (Surr)	104		79 - 123

Lab Sample ID: 440-179056-A-1 MS

Matrix: Solid

Analysis Batch: 393428

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		0.0494	0.0495		mg/Kg		100	65 - 130
Ethylbenzene	ND		0.0494	0.0505		mg/Kg		102	70 - 135
m,p-Xylene	ND		0.0494	0.0539		mg/Kg		109	70 - 130
o-Xylene	ND		0.0494	0.0537		mg/Kg		109	65 - 130
Toluene	ND		0.0494	0.0520		mg/Kg		105	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		79 - 120
Dibromofluoromethane (Surr)	104		60 - 120
Toluene-d8 (Surr)	102		79 - 123

TestAmerica Irvine

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178459-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-179056-A-1 MSD

Matrix: Solid

Analysis Batch: 393428

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		0.0496	0.0511		mg/Kg		103	65 - 130	3	20
Ethylbenzene	ND		0.0496	0.0520		mg/Kg		105	70 - 135	3	25
m,p-Xylene	ND		0.0496	0.0570		mg/Kg		115	70 - 130	6	25
o-Xylene	ND		0.0496	0.0566		mg/Kg		114	65 - 130	5	25
Toluene	ND		0.0496	0.0525		mg/Kg		106	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		79 - 120
Dibromofluoromethane (Surr)	105		60 - 120
Toluene-d8 (Surr)	100		79 - 123

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 440-393435/5

Matrix: Solid

Analysis Batch: 393435

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		0.40		mg/Kg			03/11/17 13:10	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		65 - 140		03/11/17 13:10	1

Lab Sample ID: LCS 440-393435/3

Matrix: Solid

Analysis Batch: 393435

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
GRO (C4-C12)	1.60	1.43		mg/Kg		89	70 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		65 - 140

Lab Sample ID: LCSD 440-393435/4

Matrix: Solid

Analysis Batch: 393435

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)	1.60	1.44		mg/Kg		90	70 - 135	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		65 - 140

TestAmerica Irvine

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178459-1

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: 440-179176-A-2 MS
Matrix: Solid
Analysis Batch: 393435

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
GRO (C4-C12)	ND		1.57	1.17		mg/Kg		75	60 - 140
Surrogate	%Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	89		65 - 140						

Lab Sample ID: 440-179176-A-2 MSD
Matrix: Solid
Analysis Batch: 393435

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)	ND		1.57	1.19		mg/Kg		76	60 - 140	1	30
Surrogate	%Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	90		65 - 140								

Lab Sample ID: MB 440-393437/5
Matrix: Solid
Analysis Batch: 393437

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		40		mg/Kg			03/11/17 12:11	100
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		65 - 140					03/11/17 12:11	100

Lab Sample ID: LCS 440-393437/3
Matrix: Solid
Analysis Batch: 393437

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
GRO (C4-C12)	160	139		mg/Kg		87	70 - 135
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	107		65 - 140				

Lab Sample ID: LCSD 440-393437/4
Matrix: Solid
Analysis Batch: 393437

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)	160	140		mg/Kg		87	70 - 135	1	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	108		65 - 140						

TestAmerica Irvine

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178459-1

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: MB 440-393573/5

Matrix: Solid

Analysis Batch: 393573

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		0.40		mg/Kg			03/13/17 11:11	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		65 - 140					03/13/17 11:11	1

Lab Sample ID: LCS 440-393573/13

Matrix: Solid

Analysis Batch: 393573

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
GRO (C4-C12)	1.60	1.45		mg/Kg		91	70 - 135
Surrogate	%Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	90		65 - 140				

Lab Sample ID: LCSD 440-393573/7

Matrix: Solid

Analysis Batch: 393573

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)	1.60	1.44		mg/Kg		90	70 - 135	1	20
Surrogate	%Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	92		65 - 140						

Lab Sample ID: 440-178907-A-4 MS

Matrix: Solid

Analysis Batch: 393573

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
GRO (C4-C12)	ND		1.58	0.957		mg/Kg		60	60 - 140
Surrogate	%Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	84		65 - 140						

Lab Sample ID: 440-178907-A-4 MSD

Matrix: Solid

Analysis Batch: 393573

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)	ND		1.60	1.26		mg/Kg		79	60 - 140	27	30
Surrogate	%Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	101		65 - 140								

TestAmerica Irvine

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178459-1

GC/MS VOA

Prep Batch: 392269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-178459-1 - DL	S-25-24	Total/NA	Solid	5030B	
440-178459-1	S-25-24	Total/NA	Solid	5030B	
440-178459-3	S-25-28	Total/NA	Solid	5030B	
440-178459-4	S-25-31	Total/NA	Solid	5030B	
440-178459-5	S-25-35	Total/NA	Solid	5030B	
440-178459-6	S-24-22	Total/NA	Solid	5030B	
440-178459-7 - DL	S-24-26	Total/NA	Solid	5030B	
440-178459-7	S-24-26	Total/NA	Solid	5030B	
440-178459-8	S-24-27	Total/NA	Solid	5030B	

Analysis Batch: 392301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-178459-1	S-25-24	Total/NA	Solid	8260B	392269
440-178459-3	S-25-28	Total/NA	Solid	8260B	392269
440-178459-4	S-25-31	Total/NA	Solid	8260B	392269
440-178459-5	S-25-35	Total/NA	Solid	8260B	392269
440-178459-6	S-24-22	Total/NA	Solid	8260B	392269
440-178459-7	S-24-26	Total/NA	Solid	8260B	392269
440-178459-8	S-24-27	Total/NA	Solid	8260B	392269
MB 440-392301/3	Method Blank	Total/NA	Solid	8260B	
LCS 440-392301/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 440-392301/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

Analysis Batch: 393172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-178459-1 - DL	S-25-24	Total/NA	Solid	8260B	392269
440-178459-7 - DL	S-24-26	Total/NA	Solid	8260B	392269
MB 440-393172/4	Method Blank	Total/NA	Solid	8260B	
LCS 440-393172/5	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 440-393172/6	Lab Control Sample Dup	Total/NA	Solid	8260B	

Analysis Batch: 393428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-178459-2	S-25-27	Total/NA	Solid	8260B	
MB 440-393428/4	Method Blank	Total/NA	Solid	8260B	
LCS 440-393428/5	Lab Control Sample	Total/NA	Solid	8260B	
440-179056-A-1 MS	Matrix Spike	Total/NA	Solid	8260B	
440-179056-A-1 MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	

GC VOA

Prep Batch: 392269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-178459-1	S-25-24	Total/NA	Solid	5030B	
440-178459-3	S-25-28	Total/NA	Solid	5030B	
440-178459-5	S-25-35	Total/NA	Solid	5030B	
440-178459-6	S-24-22	Total/NA	Solid	5030B	
440-178459-7	S-24-26	Total/NA	Solid	5030B	
440-178459-8	S-24-27	Total/NA	Solid	5030B	

TestAmerica Irvine

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178459-1

GC VOA (Continued)

Analysis Batch: 393435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-178459-2	S-25-27	Total/NA	Solid	8015B	
440-178459-5	S-25-35	Total/NA	Solid	8015B	
MB 440-393435/5	Method Blank	Total/NA	Solid	8015B	
LCS 440-393435/3	Lab Control Sample	Total/NA	Solid	8015B	
LCSD 440-393435/4	Lab Control Sample Dup	Total/NA	Solid	8015B	
440-179176-A-2 MS	Matrix Spike	Total/NA	Solid	8015B	
440-179176-A-2 MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	

Analysis Batch: 393437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-178459-1	S-25-24	Total/NA	Solid	8015B	392269
440-178459-3	S-25-28	Total/NA	Solid	8015B	392269
440-178459-5	S-25-35	Total/NA	Solid	8015B	392269
440-178459-6	S-24-22	Total/NA	Solid	8015B	392269
440-178459-7	S-24-26	Total/NA	Solid	8015B	392269
440-178459-8	S-24-27	Total/NA	Solid	8015B	392269
MB 440-393437/5	Method Blank	Total/NA	Solid	8015B	
LCS 440-393437/3	Lab Control Sample	Total/NA	Solid	8015B	
LCSD 440-393437/4	Lab Control Sample Dup	Total/NA	Solid	8015B	

Analysis Batch: 393573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-178459-4	S-25-31	Total/NA	Solid	8015B	
MB 440-393573/5	Method Blank	Total/NA	Solid	8015B	
LCS 440-393573/13	Lab Control Sample	Total/NA	Solid	8015B	
LCSD 440-393573/7	Lab Control Sample Dup	Total/NA	Solid	8015B	
440-178907-A-4 MS	Matrix Spike	Total/NA	Solid	8015B	
440-178907-A-4 MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	

Definitions/Glossary

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178459-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
E	Result exceeded calibration range.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-178459-1

Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-14-17
California	LA Cty Sanitation Districts	9	10256	06-30-18
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 17-003R	01-23-18
Hawaii	State Program	9	N/A	01-29-18
Kansas	NELAP Secondary AB	7	E-10420	07-31-17
Nevada	State Program	9	CA015312016-2	07-31-17
New Mexico	State Program	6	N/A	01-29-17 *
Northern Mariana Islands	State Program	9	MP0002	01-29-17 *
Oregon	NELAP	10	4028	01-29-18
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-17

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

- 1
- 2
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- 9
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- 11
- 12
- 13

LAB (LOCATION)



Equilon Enterprises LLC dba Shell Oil Products US Chain Of Custody Record



ACCOUNT # _____
 GASCIENCE ()
 TESTAMERICA () none
 Other ()
 Lab Vendor # _____
 Dropdown _____

Please Check Appropriate Box:
 SOILS
 PIPELINE
 CHEMICALS
 CONSULTANT
 TRANSPORTATION
 METAL
 LIBRES
 OTHER _____

SAMPLING COMPANY: AECOM LOG CODE _____

ADDRESS: 300 Lakeside Drive, Suite 400

PROJECT CONTACT (Name, Phone or Fax): Shane O'ten

TELEPHONE: _____ FAX: _____
 BILL TO CONTACT E-MAIL: USAPimaging@aecom.com

TURNAROUND TIME (CALENDAR DAYS):
 STANDARD (14 DAY) 5 DAYS 3 DAYS 2 DAYS 24 HOURS RESULTS NEEDED ON WEEKEND
 LA - RMQGB REPORT FORMAT DEF AGENCY:

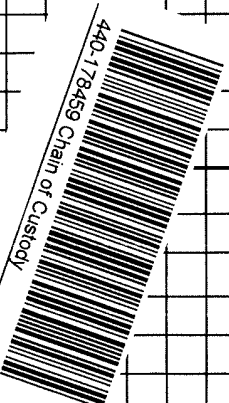
DELIVERABLES: LEVEL 1 LEVEL 2 LEVEL 3 LEVEL 4 OTHER (SPECIFY) _____
 TEMPERATURE ON RECEIPT °C: _____ Cooler #1: _____ Cooler #2: _____ Cooler #3: _____

SPECIAL INSTRUCTIONS OR NOTES:
 CONTRACT RATE APPLIES
 STATE REASSESSMENT RATE APPLIES
 EDD NOT NEEDED
 RECEIPT VERIFICATION REQUESTED
 PROVIDE LEDD DISK

Print Bill To Contact Name: Shane O'ten Planet Site or Project ID: USP63412
 PO #: _____ GSAP Project ID: _____
 DATE: 2/27/17
 CHECK IF NO INCIDENT # APPLIES _____
 PAGE: 1 of 1

SITE ADDRESS, Street and City: 60528873.04 State: CA
4161 8th St, Oakland
 EDD DELIVERABLE TO (Name, Company, Other Location): Shane O'ten PHONE NO.: _____
 SAMPLE NAME(S) (Print): Heaven Hill & Josh Fox EMAIL: Shane.oten@aecom.com
 REQUESTED ANALYSIS: _____ NON-UNIT COST: _____
 AECOM Project / Task Number: _____

UNIT COST: _____ REQUESTED ANALYSIS: _____ NON-UNIT COST: _____
 FIELD NOTES:
 TEMPERATURE ON RECEIPT °C: _____
 Container PID Readings or Laboratory Notes



LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	PRESERVATIVE			NO. OF CONT.	UNIT COST	REQUESTED ANALYSIS	NON-UNIT COST	FIELD NOTES:
		DATE	TIME		HCL	HNO3	H2SO4					
	S-25-24	2/27	0903	Soil				X				
	S-25-27	2/27	0921	Soil				X				
	S-25-28	2/27	0928	Soil				X				
	S-25-31	2/27	0940	Soil				X				
	S-25-35	2/27	0953	Soil				X				
	S-24-22	2/27	1310	Soil				X				
	S-24-26	2/27	1320	Soil				X				
	S-24-27	2/27	1328	Soil				X				

Relinquished by (Signature): Josh Fox Received by (Signature): [Signature] Date: 2.28.17 Time: 0818

Relinquished by (Signature): [Signature] Received by (Signature): [Signature] Date: 2/20/17 Time: 1130

Relinquished by (Signature): [Signature] Received by (Signature): [Signature] Date: 2/28/17 Time: 1130

TEL-7190 0726 8302

3/1/17 9:45 IK-SC 6
 3.37/3.6 3/1/17

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 440-178459-1

Login Number: 178459

List Source: TestAmerica Irvine

List Number: 1

Creator: Escalante, Maria I

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Irvine

17461 Derian Ave

Suite 100

Irvine, CA 92614-5817

Tel: (949)261-1022

TestAmerica Job ID: 440-180099-1

Client Project/Site: Shell- 461 8th St., Oakland

For:

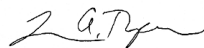
AECOM Technical Services Inc.

300 Lakeside Drive

Suite 400

Oakland, California 94612

Attn: Christine Pilachowski



Authorized for release by:

3/29/2017 2:20:40 PM

Laura Turpen, Project Manager I

(916)374-4414

laura.turpen@testamericainc.com

LINKS

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results through

Total Access

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Results relate only to the items tested and the sample(s) as received by the laboratory.

1

2

3

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5

6

7

8

9

10

11

12

13



Table of Contents

Cover Page	1
Table of Contents	2
Sample Summary	3
Case Narrative	4
Client Sample Results	5
Method Summary	8
Lab Chronicle	9
QC Sample Results	10
QC Association Summary	13
Definitions/Glossary	14
Certification Summary	15
Chain of Custody	16
Receipt Checklists	17

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-180099-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-180099-1	S-5	Ground Water	03/17/17 09:50	03/21/17 09:50
440-180099-2	S-6	Ground Water	03/17/17 10:45	03/21/17 09:50
440-180099-3	S-24	Water	03/17/17 11:25	03/21/17 09:50
440-180099-4	S-25	Water	03/17/17 11:30	03/21/17 09:50
440-180099-5	S-26	Water	03/17/17 11:45	03/21/17 09:50

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Case Narrative

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-180099-1

Job ID: 440-180099-1

Laboratory: TestAmerica Irvine

Narrative

**Job Narrative
440-180099-1**

Comments

No additional comments.

Receipt

The samples were received on 3/21/2017 9:50 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.4° C.

GC/MS VOA

Method(s) 8260B/CA_LUFTMS: Due to the high concentration of C4-C12, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 440-396637 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-180099-1

Client Sample ID: S-5

Date Collected: 03/17/17 09:50

Date Received: 03/21/17 09:50

Lab Sample ID: 440-180099-1

Matrix: Ground Water

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	34000		2500		ug/L			03/29/17 01:39	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	100		76 - 132					03/29/17 01:39	50
4-Bromofluorobenzene (Surr)	91		80 - 120					03/29/17 01:39	50
Toluene-d8 (Surr)	103		80 - 128					03/29/17 01:39	50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	550		25		ug/L			03/29/17 01:39	50
Ethylbenzene	1200		25		ug/L			03/29/17 01:39	50
m,p-Xylene	2800		50		ug/L			03/29/17 01:39	50
o-Xylene	550		25		ug/L			03/29/17 01:39	50
Toluene	1700		25		ug/L			03/29/17 01:39	50
Xylenes, Total	3400		50		ug/L			03/29/17 01:39	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		80 - 120					03/29/17 01:39	50
Dibromofluoromethane (Surr)	100		76 - 132					03/29/17 01:39	50
Toluene-d8 (Surr)	103		80 - 128					03/29/17 01:39	50

Client Sample ID: S-6

Date Collected: 03/17/17 10:45

Date Received: 03/21/17 09:50

Lab Sample ID: 440-180099-2

Matrix: Ground Water

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	5100		1300		ug/L			03/29/17 02:09	25
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	100		76 - 132					03/29/17 02:09	25
4-Bromofluorobenzene (Surr)	93		80 - 120					03/29/17 02:09	25
Toluene-d8 (Surr)	102		80 - 128					03/29/17 02:09	25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1200		13		ug/L			03/29/17 02:09	25
Ethylbenzene	170		13		ug/L			03/29/17 02:09	25
m,p-Xylene	270		25		ug/L			03/29/17 02:09	25
o-Xylene	55		13		ug/L			03/29/17 02:09	25
Toluene	280		13		ug/L			03/29/17 02:09	25
Xylenes, Total	330		25		ug/L			03/29/17 02:09	25
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		80 - 120					03/29/17 02:09	25
Dibromofluoromethane (Surr)	100		76 - 132					03/29/17 02:09	25
Toluene-d8 (Surr)	102		80 - 128					03/29/17 02:09	25

TestAmerica Irvine

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-180099-1

Client Sample ID: S-24

Lab Sample ID: 440-180099-3

Date Collected: 03/17/17 11:25

Matrix: Water

Date Received: 03/21/17 09:50

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	11000		1000		ug/L			03/29/17 02:39	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	97		76 - 132					03/29/17 02:39	20
4-Bromofluorobenzene (Surr)	93		80 - 120					03/29/17 02:39	20
Toluene-d8 (Surr)	104		80 - 128					03/29/17 02:39	20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	670		10		ug/L			03/29/17 02:39	20
Ethylbenzene	260		10		ug/L			03/29/17 02:39	20
m,p-Xylene	810		20		ug/L			03/29/17 02:39	20
o-Xylene	200		10		ug/L			03/29/17 02:39	20
Toluene	760		10		ug/L			03/29/17 02:39	20
Xylenes, Total	1000		20		ug/L			03/29/17 02:39	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		80 - 120					03/29/17 02:39	20
Dibromofluoromethane (Surr)	97		76 - 132					03/29/17 02:39	20
Toluene-d8 (Surr)	104		80 - 128					03/29/17 02:39	20

Client Sample ID: S-25

Lab Sample ID: 440-180099-4

Date Collected: 03/17/17 11:30

Matrix: Water

Date Received: 03/21/17 09:50

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	6300		500		ug/L			03/29/17 03:09	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	96		76 - 132					03/29/17 03:09	10
4-Bromofluorobenzene (Surr)	94		80 - 120					03/29/17 03:09	10
Toluene-d8 (Surr)	104		80 - 128					03/29/17 03:09	10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	430		5.0		ug/L			03/29/17 03:09	10
Ethylbenzene	160		5.0		ug/L			03/29/17 03:09	10
m,p-Xylene	690		10		ug/L			03/29/17 03:09	10
o-Xylene	180		5.0		ug/L			03/29/17 03:09	10
Toluene	400		5.0		ug/L			03/29/17 03:09	10
Xylenes, Total	870		10		ug/L			03/29/17 03:09	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		80 - 120					03/29/17 03:09	10
Dibromofluoromethane (Surr)	96		76 - 132					03/29/17 03:09	10
Toluene-d8 (Surr)	104		80 - 128					03/29/17 03:09	10

TestAmerica Irvine

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-180099-1

Client Sample ID: S-26

Lab Sample ID: 440-180099-5

Date Collected: 03/17/17 11:45

Matrix: Water

Date Received: 03/21/17 09:50

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	1600		100		ug/L			03/29/17 03:38	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>Dibromofluoromethane (Surr)</i>	98		76 - 132					03/29/17 03:38	2
<i>4-Bromofluorobenzene (Surr)</i>	94		80 - 120					03/29/17 03:38	2
<i>Toluene-d8 (Surr)</i>	103		80 - 128					03/29/17 03:38	2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	99		1.0		ug/L			03/29/17 03:38	2
Ethylbenzene	93		1.0		ug/L			03/29/17 03:38	2
m,p-Xylene	200		2.0		ug/L			03/29/17 03:38	2
o-Xylene	61		1.0		ug/L			03/29/17 03:38	2
Toluene	46		1.0		ug/L			03/29/17 03:38	2
Xylenes, Total	260		2.0		ug/L			03/29/17 03:38	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>4-Bromofluorobenzene (Surr)</i>	94		80 - 120					03/29/17 03:38	2
<i>Dibromofluoromethane (Surr)</i>	98		76 - 132					03/29/17 03:38	2
<i>Toluene-d8 (Surr)</i>	103		80 - 128					03/29/17 03:38	2

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-180099-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8260B/CA_LUFTM S	Volatile Organic Compounds by GC/MS	SW846	TAL IRV

Protocol References:

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

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022



Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-180099-1

Client Sample ID: S-5

Date Collected: 03/17/17 09:50

Date Received: 03/21/17 09:50

Lab Sample ID: 440-180099-1

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		50	10 mL	10 mL	396636	03/29/17 01:39	K1S	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTV S		50	10 mL	10 mL	396637	03/29/17 01:39	K1S	TAL IRV

Client Sample ID: S-6

Date Collected: 03/17/17 10:45

Date Received: 03/21/17 09:50

Lab Sample ID: 440-180099-2

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		25	10 mL	10 mL	396636	03/29/17 02:09	K1S	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTV S		25	10 mL	10 mL	396637	03/29/17 02:09	K1S	TAL IRV

Client Sample ID: S-24

Date Collected: 03/17/17 11:25

Date Received: 03/21/17 09:50

Lab Sample ID: 440-180099-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	10 mL	10 mL	396636	03/29/17 02:39	K1S	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTV S		20	10 mL	10 mL	396637	03/29/17 02:39	K1S	TAL IRV

Client Sample ID: S-25

Date Collected: 03/17/17 11:30

Date Received: 03/21/17 09:50

Lab Sample ID: 440-180099-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	10 mL	10 mL	396636	03/29/17 03:09	K1S	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTV S		10	10 mL	10 mL	396637	03/29/17 03:09	K1S	TAL IRV

Client Sample ID: S-26

Date Collected: 03/17/17 11:45

Date Received: 03/21/17 09:50

Lab Sample ID: 440-180099-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	10 mL	10 mL	396636	03/29/17 03:38	K1S	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTV S		2	10 mL	10 mL	396637	03/29/17 03:38	K1S	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TestAmerica Irvine

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-180099-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-396636/4

Matrix: Water

Analysis Batch: 396636

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			03/28/17 20:40	1
Ethylbenzene	ND		0.50		ug/L			03/28/17 20:40	1
m,p-Xylene	ND		1.0		ug/L			03/28/17 20:40	1
o-Xylene	ND		0.50		ug/L			03/28/17 20:40	1
Toluene	ND		0.50		ug/L			03/28/17 20:40	1
Xylenes, Total	ND		1.0		ug/L			03/28/17 20:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		80 - 120		03/28/17 20:40	1
Dibromofluoromethane (Surr)	99		76 - 132		03/28/17 20:40	1
Toluene-d8 (Surr)	102		80 - 128		03/28/17 20:40	1

Lab Sample ID: LCS 440-396636/5

Matrix: Water

Analysis Batch: 396636

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	23.6		ug/L		94	68 - 130
Ethylbenzene	25.0	25.2		ug/L		101	70 - 130
m,p-Xylene	25.0	27.4		ug/L		110	70 - 130
o-Xylene	25.0	26.5		ug/L		106	70 - 130
Toluene	25.0	25.3		ug/L		101	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	91		80 - 120
Dibromofluoromethane (Surr)	98		76 - 132
Toluene-d8 (Surr)	101		80 - 128

Lab Sample ID: 440-180094-A-1 MS

Matrix: Water

Analysis Batch: 396636

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.9		25.0	25.6		ug/L		91	66 - 130
Ethylbenzene	ND		25.0	23.7		ug/L		95	70 - 130
m,p-Xylene	ND		25.0	25.2		ug/L		101	70 - 133
o-Xylene	ND		25.0	24.6		ug/L		98	70 - 133
Toluene	ND		25.0	23.9		ug/L		95	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	89		80 - 120
Dibromofluoromethane (Surr)	102		76 - 132
Toluene-d8 (Surr)	98		80 - 128

TestAmerica Irvine

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-180099-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-180094-A-1 MSD

Matrix: Water

Analysis Batch: 396636

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	2.9		25.0	26.8		ug/L		96	66 - 130	5	20
Ethylbenzene	ND		25.0	24.8		ug/L		99	70 - 130	5	20
m,p-Xylene	ND		25.0	26.4		ug/L		106	70 - 133	5	25
o-Xylene	ND		25.0	25.6		ug/L		102	70 - 133	4	20
Toluene	ND		25.0	24.6		ug/L		98	70 - 130	3	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	89		80 - 120
Dibromofluoromethane (Surr)	102		76 - 132
Toluene-d8 (Surr)	97		80 - 128

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 440-396637/4

Matrix: Water

Analysis Batch: 396637

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		50		ug/L			03/28/17 20:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	99		76 - 132		03/28/17 20:40	1
4-Bromofluorobenzene (Surr)	93		80 - 120		03/28/17 20:40	1
Toluene-d8 (Surr)	102		80 - 128		03/28/17 20:40	1

Lab Sample ID: LCS 440-396637/6

Matrix: Water

Analysis Batch: 396637

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	500	507		ug/L		101	55 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	98		76 - 132
4-Bromofluorobenzene (Surr)	94		80 - 120
Toluene-d8 (Surr)	104		80 - 128

Lab Sample ID: 440-180094-A-1 MS

Matrix: Water

Analysis Batch: 396637

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Volatile Fuel Hydrocarbons (C4-C12)	6200	E F1	1730	1890	F1	ug/L		-251	50 - 145

TestAmerica Irvine

QC Sample Results

Client: AECOM Technical Services Inc.
 Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-180099-1

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 440-180094-A-1 MS
Matrix: Water
Analysis Batch: 396637

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Dibromofluoromethane (Surr)	102		76 - 132
4-Bromofluorobenzene (Surr)	89		80 - 120
Toluene-d8 (Surr)	98		80 - 128

Lab Sample ID: 440-180094-A-1 MSD
Matrix: Water
Analysis Batch: 396637

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
				Result	Qualifier				Limits		Limit
Volatile Fuel Hydrocarbons (C4-C12)	6200	E F1	1730	2090	F1	ug/L		-240	50 - 145	10	20

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Dibromofluoromethane (Surr)	102		76 - 132
4-Bromofluorobenzene (Surr)	89		80 - 120
Toluene-d8 (Surr)	97		80 - 128

QC Association Summary

Client: AECOM Technical Services Inc.
 Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-180099-1

GC/MS VOA

Analysis Batch: 396636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180099-1	S-5	Total/NA	Ground Water	8260B	
440-180099-2	S-6	Total/NA	Ground Water	8260B	
440-180099-3	S-24	Total/NA	Water	8260B	
440-180099-4	S-25	Total/NA	Water	8260B	
440-180099-5	S-26	Total/NA	Water	8260B	
MB 440-396636/4	Method Blank	Total/NA	Water	8260B	
LCS 440-396636/5	Lab Control Sample	Total/NA	Water	8260B	
440-180094-A-1 MS	Matrix Spike	Total/NA	Water	8260B	
440-180094-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 396637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180099-1	S-5	Total/NA	Ground Water	8260B/CA_LUFT MS	
440-180099-2	S-6	Total/NA	Ground Water	8260B/CA_LUFT MS	
440-180099-3	S-24	Total/NA	Water	8260B/CA_LUFT MS	
440-180099-4	S-25	Total/NA	Water	8260B/CA_LUFT MS	
440-180099-5	S-26	Total/NA	Water	8260B/CA_LUFT MS	
MB 440-396637/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	
LCS 440-396637/6	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
440-180094-A-1 MS	Matrix Spike	Total/NA	Water	8260B/CA_LUFT MS	
440-180094-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B/CA_LUFT MS	

Definitions/Glossary

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-180099-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: AECOM Technical Services Inc.
Project/Site: Shell- 461 8th St., Oakland

TestAmerica Job ID: 440-180099-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-14-17
California	LA Cty Sanitation Districts	9	10256	06-30-18
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 17-003R	01-23-18
Hawaii	State Program	9	N/A	01-29-18
Kansas	NELAP Secondary AB	7	E-10420	07-31-17
Nevada	State Program	9	CA015312016-2	07-31-17
New Mexico	State Program	6	N/A	01-29-17 *
Northern Mariana Islands	State Program	9	MP0002	01-29-17 *
Oregon	NELAP	10	4028	01-29-18
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-17

* Certification renewal pending - certification considered valid.

TestAmerica Irvine

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 440-180099-1

Login Number: 180099

List Source: TestAmerica Irvine

List Number: 1

Creator: Garcia, Veronica G

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Appendix E

Blaine Tech Field Data Sheets

WELL DEVELOPMENT DATA SHEET

Project #: 170307-ww1	Client: SHELL
Developer: WW	Date Developed: 3-7-17
Well I.D. 5-25	Well Diameter: (circle one) (2) 3 4 6
Total Well Depth: Before 32.23 After 32.96	Depth to Water: Before 24.39 After 25.13
Reason not developed:	If Free Product, thickness:
Additional Notations: Swabbed well 10 mins prior to purge	

Volume Conversion Factor (VCF):
 $\{12 \times (d^2/4) \times \pi\} / 231$
 where
 12 = in / foot
 d = diameter (in.)
 $\pi = 3.1416$
 231 = in³/gal

Well dia.	VCF
2" =	0.16
3" =	0.37
4" =	0.65
6" =	1.47
10" =	4.08
12" =	6.87

1.3	X	10	=	3.9 13	gallons
1 Case Volume		Specified Volumes			

- Purging Device:
- Bailer
 - Electric Submersible
 - Suction Pump
 - Positive Air Displacement

Type of Installed Pump Middleberg
 Other equipment used 2" Swab

TIME	TEMP (F)	pH	Cond. (mS or μ S)	TURBIDITY (NTUs)	VOLUME REMOVED:	NOTATIONS:
0850	61.1	6.59	1632	>1000	1.3	brown;
0852	62.0	6.59	1428	>1000	2.6	brown;
0855	62.5	6.60	1240	>1000	3.9	brown;
0858	63.9	6.60	1066	>1000	5.2	brown;
0900	64.0	6.56	1031	>1000	6.5	"
0902	64.7	6.50	1002	>1000	7.8	"
0904	64.6	6.48	958	>1000	9.1	"
0906	64.9	6.53	872	>1000	10.4	"
0908	64.8	6.46	771	>1000	11.7	brown; HARD BOTTOM
0910	63.8	6.36	771	>1000	13.0	" TD: 32.96
CONTINUE PURGE PER CLIENT						
0924	62.6	6.76	766	>1000	14.3	brown; HARD BOTTOM
0925	63.9	6.43	707	>1000	15.6	brown HARD BOTTOM
Did Well Dewater? NO		If yes, note above.		Gallons Actually Evacuated:		22.3

WELL DEVELOPMENT DATA SHEET

Well I.D. <u>S-25</u>	PAGE 2 OF 2
Project #: <u>170307-ww1</u>	Client: <u>SHELL</u>

TIME	TEMP (F)	pH	Cond. (mS or US)	TURBIDITY (NTUs)	VOLUME REMOVED:	NOTATIONS:
0927	63.0	6.43	699	>1000	16.9	brown, HARD BOTTOM
0929	64.8	6.47	757	>1000	18.2	brown; HARD BOTTOM
0931	64.9	6.29	763	>1000	19.5	" "
0933	64.9	6.47	751	>1000	20.8	" "
0935	65.5	6.40	703	>1000	22.3	brown; HARD BOTTOM: TD: 3291

WELL DEVELOPMENT DATA SHEET

Project #: 170307-ww1	Client: SMELL
Developer: ww	Date Developed: 3-7-17
Well I.D. 5-24	Well Diameter: (circle one) ② 3 4 6
Total Well Depth: Before 33.34 After 33.56	Depth to Water: Before 24.02 After 24.82
Reason not developed:	If Free Product, thickness:
Additional Notations: swabbed well 10 mins prior to purge	

Volume Conversion Factor (VCF):
 $\{12 \times (d^2/4) \times \pi\} / 231$
 where
 12 = in / foot
 d = diameter (in.)
 $\pi = 3.1416$
 231 = in³/gal

Well dia.	VCF
2" =	0.16
3" =	0.37
4" =	0.65
6" =	1.47
10" =	4.08
12" =	6.87

<u>1.5</u>	X	<u>10</u>	=	<u>15</u>	gallons
1 Case Volume		Specified Volumes			

- Purging Device:
- Bailer
 - Suction Pump
 - Electric Submersible
 - Positive Air Displacement

Type of Installed Pump middle bry
 Other equipment used 2" swab

TIME	TEMP (F)	pH	Cond. (mS or μ S)	TURBIDITY (NTUs)	VOLUME REMOVED:	NOTATIONS:
1038	63.5	6.60	1514	>1000	1.5	brown; silty
1041	65.3	6.47	1555	>1000	3	" "
1043	65.4	6.42	1242	>1000	4.5	" "
1045	65.5	6.37	957	>1000	6.0	" "
1047	65.8	6.34	911	>1000	7.5	brown HARD BOTTOM
1049	66.2	6.31	873	>1000	9	brown; HARD BOTTOM
1052	66.4	6.27	901	>1000	10.5	" "
1055	65.7	6.35	929	>1000	12	" "
1057	66.9	6.28	918	>1000	13.5	" "
1059	66.8	6.43	1064	>1000	15.0	" "
1101	66.2	6.53	1035	>1000	16.5	brown, HARD BOTTOM
Did Well Dewater? <u>NO</u>	If yes, note above.		Gallons Actually Evacuated:		<u>16.5</u>	

ENVIRONMENTAL WELL, REMEDIATION COMPOUND, AND SITE INSPECTION FORM

INCIDENT #

ADDRESS 461 Bth ST,

DATE: 3-7-17

CITY & STATE OAKLAND, CA

Well ID	Observations Upon Arrival														Note Repairs Made Detailed Explanation of Maintenance Recommended and Performed	Photos of Well Condition		Repair Date and PM Initials		
	Manway Cover, Type, Condition & Size					Well Labeled / Painted Properly*		Well Cap (Gripper) Condition		Well Lock Condition			Well Pad / Surface Condition							
S-24	Standpipe	Flush	G	P	Size (inch) 8	Y	N	G	R	G	R	NL	G	P		Y	N			
S-25	Standpipe	Flush	G	P	Size (inch) 8	Y	N	G	R	G	R	NL	G	P		Y	N			
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N			
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N			
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N			
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N			
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N			
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N			
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N			
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N			
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N			
TOTAL # CAPS REPLACED = 0														= TOTAL # OF LOCKS REPLACED 2						
Condition of Soil Boring Patches or Abandoned Monitoring Wells:		G	P	(N/A)	If POOR, Borings/Well IDs or Location Description:														Y	N
Remediation Compound Type (Check boxes that apply)		Condition of Enclosure			Condition of Area Inside Enclosure			Compound Security			Emergency Contact Info Visible			Cleaning / Repairs Recommended and Conducted			Photos of Condition		Repair Date and PM Initials	
NA		G			G			G			Y									
Building		G			G			G			Y									
Building w/ Fence Comp.		G			G			G			Y									
Fenced Compound		G			G			G			Y									
Trailer		G			G			G			Y									
Number of Drums On-site	Does the Label Reveal the Source of the Contents		Labeled Correctly and Writing Legible			Drum Condition			Confirm Drums Related to Environmental		Drums Located to Min Business Interference			Detailed Explanation of Any Issues Resolved			Photos of Drum Condition		Date Drums Removed from Site and PM Initials	
0	Y	N	N/A	Y	N	N/A	G	P	N/A	Y	N	Y	N	N/A				Y	N	

G = Good (Acceptable) R = Replaced
P = Poor (needs attention) NL = No Lock Required

Note: All repairs other than locks and grippers require Shell PM approval prior to repair.

* = Groundwater monitoring well covers must be painted and labeled in accordance with applicable regulations.
Version 2.4, March 2008

All environmental wells and the remediation compound were in good condition, locked, and secured upon my departure (unless otherwise noted above).

WILLIAM WONG / BLAINE TECH SERVICES
Print or type Name of Field Personnel & Consultant Company

NON-HAZARDOUS WASTE DATA FORM

BESI # _____

GENERATOR

Generator's Name and Mailing Address

SHELL OIL PRODUCTS US
C/O AECOM
1333 BROADWAY, SUITE 800
OAKLAND, CA 94612

Generator's Site Address (if different than mailing address)

SHELL OIL USF04642
461 8TH STREET
OAKLAND, CA 94607

Generator's Phone: 510-874-3255

Container type removed from site:

- Drums
- Vacuum Truck
- Roll-off Truck
- Dump Truck
- Other _____

Quantity _____

Container type transported to receiving facility:

- Drums
- Vacuum Truck
- Roll-off Truck
- Dump Truck
- Other 1-TT

Quantity _____ Volume 39 gals

WASTE DESCRIPTION NON-HAZARDOUS WATER

GENERATING PROCESS WELL PURGING / DECON WATER

COMPONENTS OF WASTE	PPM	%
1. <u>WATER</u>		<u>99-100%</u>
2. <u>TPH</u>		<u><1%</u>

COMPONENTS OF WASTE	PPM	%
3. _____		
4. _____		

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

HANDLING INSTRUCTIONS: WEAR ALL APPROPRIATE PERSONAL PROTECTIVE CLOTHING.

WILLIAM WONG



Generator Printed/Typed Name

Signature

Month | Day | Year
3 | 7 | 17

The Generator certifies that the waste as described is 100% non-hazardous

TRANSPORTER

The Generator certifies that the waste as described is 100% non-hazardous

Transporter 1 Company Name

BLAINE TECH SERVICES, INC.

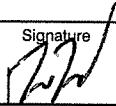
Phone#

408-673-0555

Transporter 1 Printed/Typed Name

WILLIAM WONG

Signature



Month | Day | Year
3 | 7 | 17

Transporter Acknowledgment of Receipt of Materials

Transporter 2 Company Name

Phone#

Transporter 2 Printed/Typed Name

Signature

Month | Day | Year
| | |

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

Signature

Month | Day | Year
| | |

Designated Facility Owner or Operator: Certification of receipt of materials covered by this data form.

WELL GAUGING DATA

Project # 170317-wv1 Date 3-17-17 Client SHELL

Site 461 8th ST, OAKLAND, CA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or <u>POC</u>	Notes
S-5	0910	4					18.16 18.16	23.44	↓	
S-6	1020	4				22.26	34.76			
S-24	0823	2				24.02	33.47			
S-25	0820	2				24.35	32.81			
S-26	0828	2				23.75	34.38			

Equilon Enterprises LLC dba Shell Oil Products US (Equilon) Field Data Sheet

BTS #: 170317-ww1	Site: 461 8th ST, OAKLAND, CA
Sampler: ww; MN	Date: 3-17-17
Well I.D.: S-5	Well Diameter: 2 3 (4) 6 8
Total Well Depth (TD): 23.44	Depth to Water (DTW): 18.16
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 19.22	

Purge Method: Bailer Watertra Sampling Method: **(Bailer)**
 Disposable Bailer Peristaltic **(Disposable Bailer)**
 Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other _____ Dedicated Tubing
 Other: _____

3.4 (Gals.) X	3	= 10.2 Gals.
I Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
0928	65.0	6.95	970	>1000	9.2	Grey, Silty Fine Silt
0935	65.8	6.95	902	>1000	18.4	Grey, Silty Fine Silt
0938 0938	65.4	6.99	891	>1000	20.4	Grey, Silty Fine Silt

Did well dewater? Yes No Gallons actually evacuated: 20.4

Sampling Date: 3-17-17 Sampling Time: 0950 Depth to Water: 18.17

Sample I.D.: S-5 Laboratory: **(Test America)** Other _____

Analyzed for: **(TPH-G BTEX)** MTBE TPH-D Oxygenates (5) Other: _____

EB I.D. (if applicable): @ _____ Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

Equilon Enterprises LLC dba Shell Oil Products US (Equilon) Field Data Sheet

Project #: 170317-WWI	Site: 461 8th St. OAKLAND, CA
Sampler: WWJMN	Date: 3-17-17
Well I.D.: 5-6 5-6	Well Diameter: 2 3 4 6 8
Total Well Depth (TD): 3476	Depth to Water (DTW): 22.26
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 24.76	

Purge Method: Bailer Waterra Sampling Method: Bailer
 Disposable Bailer 2" Rediflo pump Disposable Bailer
 Positive Air Displacement Extraction Pump Extraction Port
Electric Submersible Other _____ Dedicated Tubing

Start Purge: _____ Purge Rate: _____ gpm

8.1 (Gals.) X 3	=	24.3 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or μ S)	Turbidity (NTUs)	ORP (mV)	Gals. Removed	Observations
1028	65.8	7.95	453	75	—	8.1	
1030	66.2	7.40	437	36	—	16.2	
1032	66.2	7.30	431	41	—	24.3	

Did well dewater? Yes No Gallons actually evacuated: 24.3

Sampling Date: 3-17-17 Sampling Time: 1040 Depth to Water: 22.93

Sample I.D.: 5-6 Laboratory: CalScience Other: TA

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: _____

EB I.D. (if applicable): _____ @ _____ Time Duplicate I.D. (if applicable)

FB I.D. (if applicable): _____ @ _____ Time Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

Equilon Enterprises LLC dba Shell Oil Products US (Equilon) Field Data Sheet

BTS #: 170317-wwv	Site: 461 8th St, Oakland, CA
Sampler: WW WW	Date: 3-17-17
Well I.D.: S-24	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): 33.47	Depth to Water (DTW): 24.02
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 25.91	

Purge Method: <u>Bailer</u> Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: <u>Bailer</u> Disposable Bailer Extraction Port Dedicated Tubing Other: _____
---	--	--

$1.5 \text{ (Gals.)} \times 3 = 4.5 \text{ Gals.}$ 1 Case Volume Specified Volumes Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F)	pH	Cond. (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
1120	68.5	6.46	1209	>1000	1.5	Brown
1122	68.3	6.52	1246	>1000	3	"
1124	68.2	6.58	1292	>1000	4.5	"

Did well dewater? Yes No Gallons actually evacuated: 4.5

Sampling Date: 3-17-17 Sampling Time: 1125 Depth to Water: 24.06

Sample I.D.: S-24 Laboratory: Test America Other: _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: _____

EB I.D. (if applicable): @ _____ Time Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

Equilon Enterprises LLC dba Shell Oil Products US (Equilon) Field Data Sheet

BTS #: 170317-ww1	Site: 461 8th St. Oakland, CA
Sampler: MAN MN	Date: 3-17-17
Well I.D.: S-25	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): 32.81	Depth to Water (DTW): 32.81 24.35
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 26.04	

Purge Method: <u>Bailer</u>	Watterra	Sampling Method: <u>Bailer</u>
Disposable Bailer	Peristaltic	Disposable Bailer
Positive Air Displacement	Extraction Pump	Extraction Port
Electric Submersible	Other _____	Dedicated Tubing
		Other: _____

$1.4 \text{ (Gals.)} \times 3 = 4.2 \text{ Gals.}$ <p style="margin: 0;">I Case Volume Specified Volumes Calculated Volume</p>	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1119	68.0	6.82	529	>1000	1.4	Brown
1122	68.2	6.55	630	>1000	2.8	Brown
1126	68.2	6.50	613	>1000	4.2	Brown DTW = 24.55

Did well dewater? Yes No Gallons actually evacuated: 4.2

Sampling Date: 3/17/17 Sampling Time: 1130 Depth to Water: 24.55

Sample I.D.: S-25 Laboratory: Fest America Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: _____

EB I.D. (if applicable): @ _____ Time Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

Equilon Enterprises LLC dba Shell Oil Products US (Equilon) Field Data Sheet

BTS #: 170317-ww1	Site: 461 8th St, Oakland, CA
Sampler: ww	Date: 3-17-17
Well I.D.: S-26	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): 34.38	Depth to Water (DTW): 23.75
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 25.88	

Purge Method: Bailer Waterra Sampling Method: Bailer
 Disposable Bailer Peristaltic Disposable Bailer
 Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other _____ Dedicated Tubing

$1.7 \text{ (Gals.)} \times 3 = 5.1 \text{ Gals.}$ <p style="font-size: small; margin: 0;">1 Case Volume Specified Volumes Calculated Volume</p>	<table border="1" style="width: 100%; border-collapse: collapse; font-size: x-small;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F)	pH	Cond. (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
1139	65.5	7.22	359	>1000	1.7	
1141	66.0	7.07	370	>1000	3.4	
1143	66.9	7.12	368	>1000	5.1	

Did well dewater? Yes No Gallons actually evacuated: 5.1

Sampling Date: 3-17-17 Sampling Time: 1145 Depth to Water: 23.99

Sample I.D.: S-26 Laboratory: Test America Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

LAB (LOCATION)

- OCCUTEST (_____)
- CALSCIENCE (_____)
- WESTAMERICA (_____)
- Other (_____)



Equilon Enterprises LLC dba Shell Oil Products US Chain Of Custody Record



Please Check Appropriate Box: <input type="checkbox"/> GW FDG <input type="checkbox"/> PIPELINE <input type="checkbox"/> RETAIL <input type="checkbox"/> CHEMICALS <input checked="" type="checkbox"/> CONSULTANT <input type="checkbox"/> LUBES <input type="checkbox"/> TRANSPORTATION <input type="checkbox"/> OTHER _____	Print Bill To Contact Name: Shane Olton PO # _____	Plan/ Site or Project ID: 27481 GSAP Project ID: USPC/00226, USRT/01259	<input type="checkbox"/> CHECK IF NO INCIDENT # APPLIES DATE: <u>3-17-17</u> PAGE: <u>1</u> of <u>1</u>
---	---	--	---

SAMPLING COMPANY: **Blaine Tech Services, Inc.** LOG CODE: **BTSS**

ADDRESS: **1680 Rogers Ave., San Jose, CA, 95112** SITE ADDRESS: Street and City: **461 8th St., Oakland** State: **CA** AECOM Project / Task Number: **60479022**

PROJECT CONTACT (Hardcopy or PDF Report to): **Bart Gebbie**

EDF DELIVERABLE TO (Name, Company, Office Location): **Margaret Baber, AECOM, Oakland, CA** PHONE NO.: **510-893-3600** E-MAIL: **margaret.baber@aecom.com** AECOM Other ID: **USF04642**

TELEPHONE: **310-885-4455 Ext 103** FAX: **310-637-5802** E-MAIL TO CONTACT: **shane.olton@aecom.com** SAMPLER NAME(S) (Print): **WILLIAM WONG**

TURNAROUND TIME (CALENDAR DAYS): STANDARD (14 DAY) 7 DAYS 5 DAYS 3 DAYS 24 HOURS RESULTS NEEDED ON WEEKEND

LA - RWQCB REPORT FORMAT UST AGENCY:

DELIVERABLES: LEVEL 1 LEVEL 2 LEVEL 3 LEVEL 4 OTHER (SPECIFY) _____

TEMPERATURE ON RECEIPT C° Cooler #1: _____ Cooler #2: _____ Cooler #3: _____

SPECIAL INSTRUCTIONS OR NOTES: SHELL CONTRACT RATE APPLIES
 STATE REIMBURSEMENT RATE APPLIES
 LEDD NOT NEEDED
 RECEIPT VERIFICATION REQUESTED
 PROVIDE LEDD DISK

Email invoice to USAPimaging@aecom.com

LAB USE ONLY	Field Sample Identification			SAMPLING		MATRIX	PRESERVATIVE					NO. OF CONT.	REQUESTED ANALYSIS		FIELD NOTES:
				DATE	TIME		HCL	HNO3	H2SO4	NONE	OTHER				
	<u>S-5</u>	<u>3-17-17</u>	<u>0950</u>	<u>W</u>	<u>3</u>						<u>3</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
	<u>S-6</u>		<u>1040</u>		<u>3</u>						<u>3</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
	<u>S-24</u>		<u>1125</u>		<u>3</u>						<u>3</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
	<u>S-25</u>		<u>1130</u>		<u>3</u>						<u>3</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
	<u>S-26</u>		<u>1145</u>		<u>3</u>						<u>3</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

TEMPERATURE ON RECEIPT C° Container PID Readings or Laboratory Notes

Relinquished by: (Signature)	Received by: (Signature)	Date: <u>3-17-17</u>	Time: <u>1537</u>
Relinquished by: (Signature)	Received by: (Signature)	Date: <u>3-17-17</u>	Time: <u>1550</u>
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

INCIDENT # 97093399

ADDRESS 461 8th ST

DATE: 3-17-17

CITY & STATE OAKLAND, CA

Well ID	Observations Upon Arrival														Note Repairs Made Detailed Explanation of Maintenance Recommended and Performed	Photos of Well Condition		Repair Date and PM Initials	
	Manway Cover, Type, Condition & Size					Well Labeled / Painted Properly*		Well Cap (Gripper) Condition		Well Lock Condition			Well Pad / Surface Condition						
S-4	Standpipe	Flush	G	P	Size (inch) 12	Y	N	G	R	G	R	NL	G	P		Y	N		
S-5	Standpipe	Flush	G	P	Size (inch) 6-1/2	Y	N	G	R	G	R	NL	G	P		Y	N		
S-6	Standpipe	Flush	G	P	Size (inch) 8	Y	N	G	R	G	R	NL	G	P		Y	N		
S-24	Standpipe	Flush	G	P	Size (inch) 8	Y	N	G	R	G	R	NL	G	P		Y	N		
S-25	Standpipe	Flush	G	P	Size (inch) 8	Y	N	G	R	G	R	NL	G	P		Y	N		
S-26	Standpipe	Flush	G	P	Size (inch) 8	Y	N	G	R	G	R	NL	G	P		Y	N		
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N		
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N		
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N		
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N		
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N		
TOTAL # CAPS REPLACED =						TOTAL # OF LOCKS REPLACED													
Condition of Soil Boring Patches or Abandoned Monitoring Wells:		G	P	N/A		If POOR, Borings/Well IDs or Location Description:											Y	N	
Remediation Compound Type (Check boxes that apply)		Condition of Enclosure			Condition of Area Inside Enclosure			Compound Security			Emergency Contact Info Visible			Cleaning / Repairs Recommended and Conducted			Photos of Condition		Repair Date and PM Initials
NA		G			G			G			Y						Y		
Building		G			G			G			Y						Y		
Building w/ Fence Comp.		G			G			G			Y						Y		
Fenced Compound		G			G			G			Y						Y		
Trailer		G			G			G			Y						Y		
Number of Drums On-site	Does the Label Reveal the Source of the Contents		Labeled Correctly and Writing Legible			Drum Condition			Confirm Drums Related to Environmental		Drums Located to Min Business Interference			Detailed Explanation of Any Issues Resolved			Photos of Drum Condition		Date Drums Removed from Site and PM Initials
0	Y	N	N/A	Y	N	N/A	G	P	N/A	Y	N	Y	N	N/A				Y	N

G = Good (Acceptable) R = Replaced
P = Poor (needs attention) NL = No Lock Required

Note: All repairs other than locks and grippers require Shell PM approval prior to repair.

* = Groundwater monitoring well covers must be painted and labeled in accordance with applicable regulations.
Version 2.4, March 2008

All environmental wells and the remediation compound were in good condition, locked, and secured upon my departure (unless otherwise noted above).

WILLIAM WDNL / BLAIN TECH SERVICES
Print or type Name of Field Personnel & Consultant Company

NON-HAZARDOUS WASTE DATA FORM

BESI # _____

Generator's Name and Mailing Address EQUILON ENTERPRISES, LLC C/O AECOM 300 S. GRAND AVE., 8TH FLOOR LOS ANGELES, CA 90071	Generator's Site Address (if different than mailing address) EQUILON ENTERPRISES LLC USF04642 461 8TH STREET OAKLAND, CA 94607
---	--

Generator's Phone: <u>213-593-8100</u>	Container type transported to receiving facility:
--	---


Container type removed from site: <input type="checkbox"/> Drums <input type="checkbox"/> Vacuum Truck <input type="checkbox"/> Roll-off Truck <input type="checkbox"/> Dump Truck <input type="checkbox"/> Other _____	Container type transported to receiving facility: <input type="checkbox"/> Drums <input type="checkbox"/> Vacuum Truck <input type="checkbox"/> Roll-off Truck <input type="checkbox"/> Dump Truck <input type="checkbox"/> Other _____
---	---

Quantity _____	Quantity _____ Volume <u>59 gals</u>
----------------	--------------------------------------

WASTE DESCRIPTION <u>NON-HAZARDOUS WATER</u>	GENERATING PROCESS <u>WELL PURGING / DECON WATER</u>																		
<table border="1" style="width:100%"> <thead> <tr> <th>COMPONENTS OF WASTE</th> <th>PPM</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>1. <u>WATER</u></td> <td></td> <td><u>99-100%</u></td> </tr> <tr> <td>2. <u>TPH</u></td> <td></td> <td><u><1%</u></td> </tr> </tbody> </table>	COMPONENTS OF WASTE	PPM	%	1. <u>WATER</u>		<u>99-100%</u>	2. <u>TPH</u>		<u><1%</u>	<table border="1" style="width:100%"> <thead> <tr> <th>COMPONENTS OF WASTE</th> <th>PPM</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>3. _____</td> <td></td> <td></td> </tr> <tr> <td>4. _____</td> <td></td> <td></td> </tr> </tbody> </table>	COMPONENTS OF WASTE	PPM	%	3. _____			4. _____		
COMPONENTS OF WASTE	PPM	%																	
1. <u>WATER</u>		<u>99-100%</u>																	
2. <u>TPH</u>		<u><1%</u>																	
COMPONENTS OF WASTE	PPM	%																	
3. _____																			
4. _____																			


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

HANDLING INSTRUCTIONS: _____

Generator Printed/Typed Name <u>William Wong</u>	Signature 	Month Day Year 3 17 17
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The Generator certifies that the waste as described is 100% non-hazardous

Transporter 1 Company Name BLAINE TECH SERVICES, INC.	Phone# 408-573-0555
---	-------------------------------

Transporter 1 Printed/Typed Name <u>William Wong</u>	Signature 	Month Day Year 3 17 17
---	--	---------------------------------------

Transporter 2 Company Name NIETO & SONS TRUCKING, INC.	Phone# 714-990-8855
--	-------------------------------

Transporter 2 Printed/Typed Name _____	Signature _____	Month Day Year
---	--------------------	--------------------------

Transporter Acknowledgment of Receipt of Materials

Designated Facility Name and Site Address CROSBY & OVERTON 1630 W. 17TH STREET LONG BEACH, CA 90813	Phone# 562-432-5445
---	-------------------------------

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

GENERATOR

TRANSPORTER

RECEIVING FACILITY

Appendix F

Survey Data



Site Information: Former Shell Service Station (Global ID: T0600101263)

Site Address: 461 8th Street
Oakland, CA 94607

AECOM Project #: 60527222

AECOM Task #: 0200

AECOM Survey Log #: 2017-18

Field Survey Date: 03/23/2017

Report Date: 5/10/2017 Rev2

Coordinate System: United States / State Plane 1983

Zone: California Zone 3 0403

Horizontal Datum: North American Datum of 1983 (NAD83)

Vertical Datum: North American Vertical Datum of 1988 (NAVD88)

Units: US survey feet



- Survey Notes:**
- 1) Measurements to the below site features were obtained utilizing conventional survey techniques in combination with RTK and static GPS techniques. Horizontal datum stated above was determined using the GEO_XY values for monitoring wells S-4, S-6, and S-26, as published on the State Water Resources Control Board GeoTracker's (GT) website.
 - 2) Elevations reported below are based on the GEO_Z elevation for monitoring well S-4, as published on the GT website, having an elevation of 34.41 feet, and also the elevation for monitoring well S-26, as reported by Virgil Chavez Land Surveying by letter to GHD dated October 26, 2015, having an elevation of 34.39 feet, both verified by empirical measurements on 03/23/2017.
 - 3) The above-referenced letter reports the project benchmark to be CALTRANS control station, AJ-415, having an elevation of 13.49 feet (NAVD88), being a mag nail at the center of a painted photopanel, located at the southwesterly corner of the intersection of 5th and Oak Streets in Oakland. Static measurements while occupying AJ-415 confirmed the elevation to be 13.49 feet. RTK measurements from AJ-415 to monitoring wells S-4 and S-6 yield a vertical difference of approximately 0.15 feet higher than the elevations derived using conventional survey techniques. Elevation derived from conventional surveying techniques were held for this survey.
 - 4) As published on GT, the GEO_Z elevation for monitoring well S-4 is reported as a National Geodetic Vertical Datum (NGVD29) datum elevation. It should be noted that this survey confirmed, via conventional surveying techniques and reconfirmed via GPS techniques, the published elevation to be a NAVD88 datum elevation.
 - 5) It should also be noted that the GEO_Z elevation for monitoring well S-6 is reported to have an elevation of 30.56 feet on the NGVD29 datum. This survey confirmed, via conventional surveying techniques and reconfirmed via GPS techniques, the elevation to be 30.16 feet on the NAVD88 datum.
 - 6) Monitoring well measurement locations are identified by a notch cut into the north side of the PVC casing.

GEO_XY											
GLOBAL_ID	FIELD_PT_NAME	FIELD_PT_CLASS	XY_SURVEY_DATE	LATITUDE	LONGITUDE	XY_METHOD	XY_DATUM	XY_ACC_VAL	XY_SURVEY_ORG	GPS_EQUIP_TYPE	XY_SURVEY_DESC
	S-4	MW	03/23/2017	37.7997140	-122.2737372	CGPS	NAD83	45	AECOM	TR	TOP OF CASING
	S-6	MW	03/23/2017	37.7994139	-122.2743855	CGPS	NAD83	45	AECOM	TR	TOP OF CASING
	S-24	MW	03/23/2017	37.8000887	-122.2742388	CGPS	NAD83	45	AECOM	TR	TOP OF CASING
	S-25	MW	03/23/2017	37.8000467	-122.2742647	CGPS	NAD83	45	AECOM	TR	TOP OF CASING
	S-26	MW	03/23/2017	37.7999519	-122.2741183	CGPS	NAD83	45	AECOM	TR	TOP OF CASING



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AECOM Project #: 60527222

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AECOM Survey Log #: 2017-18

Field Survey Date: 03/23/2017

Report Date: 5/10/2017 Rev2

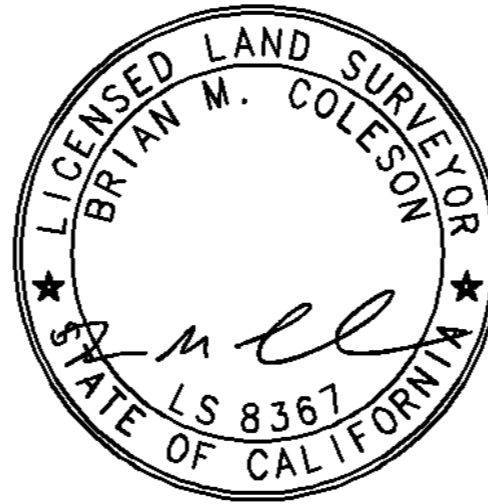
Coordinate System: United States / State Plane 1983

Zone: California Zone 3 0403

Horizontal Datum: North American Datum of 1983 (NAD83)

Vertical Datum: North American Vertical Datum of 1988 (NAVD88)

Units: US survey feet

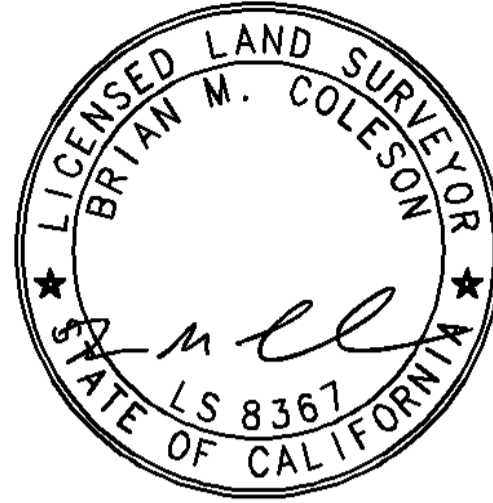


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 - 6) Monitoring well measurement locations are identified by a notch cut into the north side of the PVC casing.
 - 7) Monitoring well riser heights were determined by subtracting the center lid elevation from the top of casing elevation.

GEO_Z										
GLOBAL_ID	FIELD_PT_NAME	ELEV_SURVEY_DATE	ELEVATION	ELEV_METHOD	ELEV_DATUM	ELEV_ACC_VAL	ELEV_SURVEY_ORG	RISER_HT	ELEV_DESC	EFFECTIVE_DATE
	S-4	03/23/2017	34.41	CGPS	88	2	AECOM		BM CT AJ-415 EL=13.49 FEET	03/23/2017
	S-6	03/23/2017	30.16	CGPS	88	2	AECOM		BM CT AJ-415 EL=13.49 FEET	03/23/2017
	S-24	03/23/2017	34.99	CGPS	88	2	AECOM	-0.62	BM CT AJ-415 EL=13.49 FEET	03/23/2017
	S-25	03/23/2017	35.10	CGPS	88	2	AECOM	-0.46	BM CT AJ-415 EL=13.49 FEET	03/23/2017
	S-26	03/23/2017	34.39	CGPS	88	2	AECOM	-0.39	BM CT AJ-415 EL=13.49 FEET	03/23/2017



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Coordinate System: United States / State Plane 1983
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RAW DATA						
Point ID	Latitude	Longitude	Northing	Easting	Elevation	Raw Description
3	37.7994139	-122.2743855	2118406.56	6049030.52	30.16	S-6 TOC
5	37.7997140	-122.2737372	2118512.24	6049219.86	34.40	S-4 TOC
7	37.8000467	-122.2742647	2118636.26	6049069.77	35.10	S-25 TOC
8	37.8000478	-122.2742641	2118636.64	6049069.95	35.58	S-25 CONC
9	37.8000467	-122.2742648	2118636.25	6049069.74	35.56	S-25 LID
10	37.8000887	-122.2742388	2118651.42	6049077.55	34.99	S-24 TOC
11	37.8000897	-122.2742389	2118651.78	6049077.54	35.61	S-24 CONC
12	37.8000883	-122.2742385	2118651.27	6049077.65	35.61	S-24 LID
17	37.7999519	-122.2741183	2118600.94	6049111.42	34.39	S-26 TOC
18	37.7999519	-122.2741183	2118600.94	6049111.42	34.78	S-26 RIM

Appendix G

Waste Manifest

Manifest

SOIL SAFE OF CA - TPST Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment: 3 / 7 / 17	Responsible for Payment:	Transport Truck #: F-350	Facility #:	Approval Number: 47084	Load #: b101
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Generator's Name and Billing Address: EQUILON ENTERPRISES, LLC C/O AECOM 300 LAKESIDE DRIVE, SUITE 400 OAKLAND, CA 94612	Generator's Phone #: 510-874-3255	
	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) EQUILON ENTERPRISES LLC USF04642 461 8TH STREET OAKLAND, CA 94607	Site Phone #:	
	Person to Contact:	PLANET# USF04642
	FAX#:	RWR: 0057

Designated Facility (Transport to): (name & address) SOIL SAFE 12328 HIBISCUS AVENUE ADELANTO, CA 92301	Facility Phone #: (800) 882-8001	
	Person to Contact: JOE PROVANSAL	
	FAX#: (760) 248-8004	

Transporter Name and Mailing Address: BELSHIRE 25971 TOWNE CENTRE DRIVE FOOTHILL RANCH, CA 92610 BESI: 279138	Transporter's Phone #: 949-460-5200	CAR000183013
	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 <input type="checkbox"/> Organic <input type="checkbox"/> Clay <input type="checkbox"/> Other <input type="checkbox"/>	0 - 10% <input type="checkbox"/> 10 - 20% <input type="checkbox"/> 20% - over <input type="checkbox"/>	Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Other <input type="checkbox"/>	4 DM	Soil	40946	3840	2546
Sand <input type="checkbox"/> Organic <input type="checkbox"/> Clay <input type="checkbox"/> Other <input type="checkbox"/>	0 - 10% <input type="checkbox"/> 10 - 20% <input type="checkbox"/> 20% - over <input type="checkbox"/>	Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Other <input type="checkbox"/>					127

List any exception to items listed above: _____ Scale Ticket # 131503

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described 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 <input type="checkbox"/> Consultant <input type="checkbox"/> Larry Moothart of BESI on behalf of generator	Signature and date:	Month: 3 Day: 7 Year: 17
---	---------------------	--------------------------

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: 3 Day: 7 Year: 17
---------------------	---------------------	--------------------------

Discrepancies: _____

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:	
Print or Type Name: J. PROVANSAL	Signature and date: 3.21.17

Please print or type.

TRANSPORTER COPY

USF04642/1572611