

RECEIVED

By Alameda County Environmental Health at 2:39 pm, Dec 13, 2013

Xtra OIL COMPANY

2307 PACIFIC AVENUE
ALAMEDA, CA 94501
(510) 865-9503 FAX (510) 865-1889

December 10, 2013

Ms. Karel Detterman
Alameda County Environmental Health Department
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

SUBJECT: SEMI-ANNUAL GROUNDWATER MONITORING AND SAMPLING REPORT
CERTIFICATION
County Case # RO 191
Xtra Oil Company
1701 Park Street
Alameda, CA

Dear Ms. Detterman:

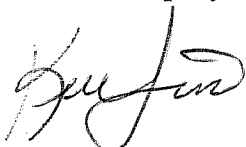
P&D Environmental, Inc. has prepared the following document for the subject site:

- Semi-Annual Groundwater Monitoring and Sampling Report (July Through December 2013) dated December 10, 2013 (document 0058.R24).

I declare under penalty of perjury that the contents and conclusions in the document are true and correct to the best of my knowledge.

Should you have any questions, please do not hesitate to contact me at (510) 865-9506.

Sincerely,
Xtra Oil Company



Keith Simas

0058.L53

P&D ENVIRONMENTAL, INC.

55 Santa Clara Avenue, Suite 240

Oakland, CA 94610

(510) 658-6916

December 10, 2013

Report 0058.R24

Mr. Ted Simas
Mr. Keith Simas
Xtra Oil Company
2307 Pacific Ave.
Alameda, CA 94501

**SUBJECT: SEMI-ANNUAL GROUNDWATER MONITORING AND SAMPLING REPORT
(JULY THROUGH DECEMBER 2013)**
County Case # RO 191
Xtra Oil Company
1701 Park Street
Alameda, CA

Gentlemen:

P&D Environmental, Inc. (P&D) has prepared this report documenting the semi-annual monitoring and sampling of the four historical groundwater monitoring wells (MW1 through MW4), and the four wells installed for proposed site remediation (EW2, EW4, EW5, and OW2) at the subject site. Well monitoring and sampling was performed for all of the wells on November 19, 2013. The reporting period is for July through December 2013.

In a letter from the Alameda County Department of Environmental Health (ACDEH) dated July 24, 2009 P&D was asked to review historical monitoring and sampling results, determine during which quarters contaminant concentrations were at their highest, and conduct semi-annual monitoring and sampling during those quarters (during either the first and third or the second and fourth quarters). Based on our review, semi-annual monitoring and sampling events are to be scheduled during the second and fourth quarters starting in 2009. Also at the request of the ACDEH analysis of the groundwater samples was performed for fuel oxygenates including TBA and lead scavengers using EPA Method 8260B. A Site Location Map (Figure 1) and Site Vicinity Map (Figure 2) are attached with this report. In the second half of 2011 the case was assigned to caseworker Karel Detterman.

BACKGROUND

A detailed discussion of the site background, historical monitoring and sampling, and historical investigations are provided in P&D's Remedial Action Work Plan (RAWP) dated October 24, 2007 (document 0058.W2), P&D's Corrective Action Plan (CAP) dated October 11, 2010 (document 0058.W3), and P&D's Site Conceptual Model Report dated October 8, 2010 (document 0058.R10). As an interim step for implementation of the CAP, P&D prepared a Groundwater Extraction Feasibility Work Plan dated April 15, 2011 (document 0058.W4) to verify the feasibility of groundwater extraction at the site with a selected number of wells

identified in the RAWP. On May 18 and 19, 2011 P&D oversaw the installation of dual phase extraction wells EW2, EW4, and EW5 and observation well OW2 at the subject site. The wells were installed in accordance with procedures identified in P&D's October 24, 2007 RAWP and P&D's April 15, 2011 Groundwater Extraction Feasibility Work Plan. P&D subsequently submitted a Chemical Oxidation Injection Feasibility Test Work Plan dated December 19, 2011 (document 0058.W5).

FIELD ACTIVITIES

Water levels were measured in monitoring wells MW1 through MW4, and wells EW2, EW4, EW5, and OW2 once during the reporting period. The wells were monitored for depth to water to the nearest 0.01 foot using an electric water level indicator. Monitoring and sampling were performed on November 19, 2013. The monitoring data obtained during the reporting period is summarized in Table 1. Historical monitoring and sampling data obtained by others for the subject site are attached with this report as Appendix A.

Prior to sampling, wells MW1 through MW4, EW2, EW4, EW5, and OW2 were purged using low flow purge procedures in accordance with U.S. EPA 1996 guidelines. Purging was performed with a peristaltic pump and new polyethylene tubing at each well for a minimum of fifteen minutes at each sampling location. New silicone tubing was used in the pump rollers at each well. The bottom of the tubing was set at a depth of approximately three to five feet above the bottom of each well, with the exception of MW4, where it was set near the bottom of the well because the well has historically dewatered during purging. Purging was performed at a low flow rate of approximately 300 milliliters per minute to minimize turbulence and to minimize the likelihood of sediments in the samples. During purging operations, the field parameters of electrical conductivity, temperature, pH, dissolved oxygen, oxidation/reduction potential, turbidity, and depth to water were monitored and recorded on a groundwater monitoring/well purging data sheet for each well.

Petroleum hydrocarbon sheen was detected on the purge water from wells MW2 and EW4. Strong petroleum hydrocarbon odors were detected on the purge water from wells MW1 and EW5; moderate to strong petroleum hydrocarbon odors were detected on the purge water from wells MW2 and EW4; moderate petroleum hydrocarbon odors were detected on the purge water from well MW4; very slight petroleum hydrocarbon odors were detected on the purge water from well OW2; and no petroleum hydrocarbon odors were detected on the purge water from wells MW3 and EW2.

Once the wells had been purged for a minimum of fifteen minutes and the field parameters were observed to have stabilized, water samples were collected directly from the discharge tubing of the pump into 40-milliliter glass Volatile Organic Analysis (VOA) vials which were sealed with Teflon-lined screw caps. The VOA vials were overturned and tapped to ensure that no air bubbles were present, and were then labeled and transferred to a cooler with ice, pending transport to the laboratory. Chain of custody documentation accompanied the samples to the laboratory. Records of the field parameters measured during well purging are attached with this report.

HYDROGEOLOGY

Water levels were measured in monitoring wells MW1 through MW4, and wells EW2, EW4, EW5, and OW2 once during the reporting period. The measured depth to water for groundwater monitoring wells MW1 through MW4 on November 19, 2013 ranged from 8.03 to 8.35 feet. The measured depth to groundwater on November 19, 2013 in wells EW2, EW4, EW5, and OW2 was 7.64, 6.71, 6.82, and 7.01 feet, respectively. Groundwater level data collected during the monitoring period are presented in Table 1.

Monitoring wells MW1, MW2, and MW3 were installed in 1994, and well MW4 was installed in 1997. These four wells were surveyed in 1997, however the datum used for the survey is unknown. In June 2011 these four wells were resurveyed relative to the North American Vertical Datum of 1988 (NAVD 88) along with the new wells (EW2, EW4, EW5, and OW2). All of the calculated groundwater surface elevations in Table 1 beginning in 2011 are relative to the NAVD 88 datum. All of the calculated groundwater surface elevations for wells MW1 through MW4 prior to 2011 are relative to the unknown datum, which is presumed to be relative to the North American Geodetic Vertical Datum of 1929 (NGVD 29).

Based on the water levels measured in wells MW1, MW2 and MW3 on November 19, 2013 the calculated groundwater flow direction was to the east-northeast with a gradient of 0.0062. Since the previous monitoring and sampling event on May 16, 2013 the groundwater flow direction has shifted north and the gradient has decreased from 0.0076. The calculated groundwater surface elevation contours based on the measured depth to the water surface in all of the wells at the subject site and the calculated groundwater flow direction based on the groundwater surface elevations in wells MW1, MW2 and MW3 are shown on Figure 2. The calculated groundwater flow direction on November 19, 2013 was consistent with the historical northeasterly groundwater flow direction obtained using the groundwater surface elevation information from the nearby 1725 Park Street Exxon/Valero site in conjunction with groundwater surface elevation data from the subject site.

The locations of the subject site and the nearby 1725 Park Street Exxon/Valero site are shown in Figure 3. Historical groundwater flow direction information for both sites is shown in rose diagrams in the figure. In addition, the approximate historical northeasterly groundwater flow direction obtained using the groundwater surface elevation information from the 1725 Park Street Exxon/Valero site in conjunction with groundwater surface elevation data from the subject site is shown in Figure 3.

Comparison of the November 19, 2013 and May 16, 2013 water levels in the wells shows that the water levels were higher on May 16, 2013 in all of the wells by amounts ranging from 0.93 to 1.34 feet. Well MW4 is located in the landscaping on the north-northeast side of the property along the fence line. Historical smaller changes in water level in well MW4 relative to the other wells may have been the result of landscape irrigation water preferentially draining to groundwater in the immediate vicinity of the well MW4 location.

LABORATORY RESULTS

The groundwater samples collected from wells MW1, MW2, MW3, MW4, EW2, EW4, EW5, and OW2 at the subject site were analyzed for Total Petroleum Hydrocarbons as Diesel (TPH-D) and Total Petroleum Hydrocarbons as Motor Oil (TPH-MO) using EPA Method 3510C and EPA Method 3630C in conjunction with EPA Method 8015B with silica gel cleanup; Total Petroleum Hydrocarbons as Gasoline (TPH-G) and methyl tertiary-butyl ether (MTBE), benzene, toluene, ethylbenzene, total xylenes (BTEX) using EPA Method 5030B in conjunction with modified EPA Method 8015B and EPA Method 8021B; and for Fuel Oxygenates and Lead Scavengers by EPA Method 5030B in conjunction with EPA Method 8260B.

No analytes were detected in the groundwater sample collected from well MW3. In the remaining wells, TPH-D was detected in the groundwater samples collected from wells MW1, MW2, MW4, EW2, EW4, EW5, and OW2 at concentrations of 3,300, 3,000, 2,100, 1,400, 3,000, 2,600, and 370 micrograms per liter (ug/L), respectively; TPH-G was detected in the groundwater samples collected from the same wells at concentrations of 25,000, 6,600, 9,400, 11,000, 18,000, 17,000, and 610 ug/L, respectively; and benzene was detected in the same wells at concentrations of 5,800, 160, 1,100, 3,300, 4,200, 2,400, and 2.2 ug/L, respectively. The remaining BTEX compounds were detected at concentrations ranging from 1.5 to 1,700 ug/L. MTBE was not detected using EPA Method 8021B in any of the groundwater samples but was detected using EPA Method 8260B in the groundwater samples collected from wells MW1, MW4, EW2, EW4, EW5, and OW2 at concentrations of 1,000, 83, 89, 270, 330, and 2.1 ug/L, respectively. Tert-Butyl Alcohol (TBA) was detected in the groundwater samples collected from wells MW1, MW4, EW2, EW4, EW5, and OW2 at concentrations of 1,600, 82, 190, 320, 420, and 5.1 ug/L, respectively.

Review of the laboratory analytical report shows that the laboratory described the detected TPH-D results for the samples from wells MW4, EW2, EW4, EW5 and OW2 as consisting of gasoline-range compounds, and the samples from wells MW1 and MW2 as consisting of both gasoline-range compounds and diesel-range compounds with no recognizable pattern. The laboratory analytical results are summarized in Table 2. Copies of the laboratory analytical reports and chain of custody documentation are attached with this report.

Since the previous sampling event on May 16, 2013 all analyte concentrations in well MW3 have remained not detected, all analyte concentrations in wells EW2 and EW4 remained not detected or increased, and all analyte concentrations have increased or remained not detected in wells MW1, MW4, EW5, and OW2 with the following exceptions that decreased:

- in well MW1 toluene,
- in well MW4 toluene and ethylbenzene,
- in well EW5 TPH-G, ethylbenzene, and total xylenes,
- in well OW2 TBA (by EPA Method 8260B).

Since the previous sampling event on May 16, 2013 all analyte concentrations have increased in well MW2 with the following exceptions which decreased:

- TPH-MO, benzene, toluene, total xylenes (by EPA Method 8021B), and MTBE and TBA (by EPA Method 8260B),

DISCUSSION AND RECOMMENDATIONS

The four historical groundwater monitoring wells at the subject site (MW1, MW2, MW3, and MW4) and the four wells related to proposed site remediation (EW2, EW4, EW5, and OW2) were monitored and sampled on November 19, 2013. Monitoring and sampling historically was performed at the subject site in conjunction with the monitoring and sampling event performed by ERI for the Exxon/Valero facility located at 1725 Park Street. However the case for the Exxon/Valero facility located at 1725 Park Street was closed October 25, 2012.

Based on a comparison of historical investigation results for the site with the SWRCB 2012 Low Threat Closure Policy (LTCP), it is P&D's opinion that the general criteria for case closure have been satisfied. However, the groundwater-specific criteria of benzene concentrations less than 3,000 ug/L and MTBE concentrations less than 1,000 ug/L have not been met. In addition, LTCP Table 1 direct contact and outdoor air exposure criteria have not been met in the vicinity of the former UST pit for residential, commercial/industrial, or utility worker exposure for benzene and ethylbenzene, and naphthalene analysis was not performed for the soil samples at the time of UST removal.

Based on LTCP case closure criteria that have not been met for the site, P&D recommends that P&D's December 19, 2011 Chemical Oxidation Injection Feasibility Test Work Plan be approved to reduce benzene and MTBE concentrations in groundwater. Following completion of the feasibility test P&D recommends that an assessment be made of steps necessary to move the case to closure.

DISTRIBUTION

A copy of this report will be uploaded to the ACDEH website, in accordance with ACDEH requirements. In addition, a copy of this report will be uploaded to the GeoTracker database.

LIMITATIONS

This report was prepared solely for the use of Xtra Oil Company. The content and conclusions provided by P&D in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections; interviews with the site owner, regulatory agencies and other pertinent individuals; review of available public documents; subsurface exploration and our professional judgment based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between borings and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly revealed conditions must be evaluated and may invalidate the findings of this report.

This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the

December 10, 2013
Report 0058.R24

appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. P&D is not responsible for the accuracy or completeness of information provided by other individuals or entities, which are used in this report.

This report presents our professional judgment based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

Should you have any questions or comments, please do not hesitate to contact us at (510) 658-6916.

Sincerely,

P&D Environmental, Inc.



Paul H. King
Professional Geologist #5901
Expires 12/31/13

Attachments:

Table 1 - Well Monitoring Data
Table 2 - Summary of Laboratory Analytical Results
Figure 1 - Site Location Map
Figure 2 - Site Plan Showing Well Locations and Groundwater Surface Elevations
Figure 3 - Site Vicinity Map Showing Groundwater Surface Elevations
Groundwater Monitoring/Well Purging Data Sheets
Laboratory Analytical Reports and Chain of Custody Documentation
Appendix A - Historical Water Level and Water Quality Data for the Subject Site

PHK/sjc
0058.R24

TABLES

Table 1. Well Monitoring Data					
Well Number	Date Monitored	Top of Casing Elevation (ft- msl.)	Depth to Water (ft)	Water Table Elevation (ft-MSL.)	
MW1	11/19/2013	22.36*	8.06	14.30	
	5/16/2013		6.95	15.41	
	12/11/2012		6.30	16.06	
	6/21/2012		6.66	15.70	
	11/28/2011		7.11	15.25	
	6/16/2011		6.41	15.95	
	5/26/2011		5.86	16.50	
	5/24/2011		6.43	15.93	
	11/18/2010		19.60**	7.78	11.82
	4/28/2010			6.35	13.25
	12/3/2009	7.84		11.76	
	2/25/2009	6.07		13.53	
	11/25/2008	7.91		11.69	
	8/27/2008	8.03		11.57	
	5/28/2008	7.28		12.32	
	2/27/2008	6.15		13.45	
	11/29/2007	7.82		11.78	
	8/29/2007	8.29		11.31	
	5/29/2007	7.44	12.16		
	3/12/2007	6.34	13.26		
11/6/2006	7.99	11.61			
MW2	11/19/2013	23.10*	8.35	14.75	
	5/16/2013		7.42	15.68	
	12/11/2012		6.83	16.27	
	6/21/2012		7.18	15.92	
	11/28/2011		7.61	15.49	
	6/16/2011		6.89	16.21	
	5/26/2011		6.90	16.20	
	5/24/2011		6.90	16.20	
	11/18/2010		20.31**	8.17	12.14
	4/28/2010			6.76	13.55
	12/3/2009	8.23		12.08	
	2/25/2009	6.37		13.94	
	11/25/2008	8.21		12.10	
	8/27/2008	8.40		11.91	
	5/28/2008	7.72		12.59	
	2/27/2008	6.49		13.82	
	11/29/2007	8.15		12.16	
	8/29/2007	8.55		11.76	
	5/29/2007	7.79	12.52		
	3/12/2007	6.82	13.49		
11/6/2006	8.25	12.06			
MW3	11/19/2013	23.35*	8.06	15.29	
	5/16/2013		6.72	16.63	
	12/11/2012		6.03	17.32	
	6/21/2012		6.42	16.93	
	11/28/2011		7.19	16.16	
	6/16/2011		6.17	17.18	
	5/26/2011		6.19	17.16	
	5/24/2011		6.16	17.19	
	11/18/2010		20.57**	7.93	12.64
	4/28/2010			6.00	14.57
	12/3/2009	7.83		12.74	
	2/25/2009	5.42		15.15	
	11/25/2008	7.83		12.74	
	8/27/2008	8.23		12.34	
	5/28/2008	7.36		13.21	
	2/27/2008	5.75		14.82	
	11/29/2007	7.88		12.69	
	8/29/2007	8.31		12.26	
	5/29/2007	7.26	13.31		
	3/12/2007	6.03	14.54		
11/6/2006	8.09	12.48			

Table 1. Well Monitoring Data					
Well Number	Date Monitored	Top of Casing Elevation (ft- msl.)	Depth to Water (ft)	Water Table Elevation (ft-MSL.)	
MW4	11/19/2013	22.48*	8.03	14.45	
	5/16/2013		6.77	15.71	
	12/11/2012		5.86	16.62	
	6/21/2012		6.00	16.48	
	11/28/2011		6.62	15.86	
	6/16/2011		5.79	16.69	
	5/26/2011		6.41	16.07	
	5/24/2011		5.82	16.66	
	11/18/2010		19.69**	7.69	12.00
	4/28/2010			5.82	13.87
	12/3/2009	7.60		12.09	
	2/25/2009	5.32		14.37	
	11/25/2008	7.61		12.08	
	8/27/2008	7.91		11.78	
	5/28/2008	6.97		12.72	
	2/27/2008	5.38		14.31	
	11/29/2007	7.57		12.12	
	8/29/2007	8.07	11.62		
	5/29/2007	7.38	12.31		
3/12/2007	5.30	14.39			
11/6/2006	7.60	12.09			
EW2	11/19/2013	22.13*	7.64	14.49	
	5/16/2013		6.70	15.43	
	12/11/2012		6.07	16.06	
	6/21/2012		6.39	15.74	
	11/28/2011		6.75	15.38	
	6/16/2011		6.09	16.04	
	5/26/2011		6.14	15.99	
	5/24/2011***		6.12	16.01	
EW4	11/19/2013	20.95*	6.71	14.24	
	5/16/2013		5.49	15.46	
	12/11/2012		4.80	16.15	
	6/21/2012		5.10	15.85	
	11/28/2011		5.51	15.44	
	6/16/2011		4.72	16.23	
	5/26/2011		4.77	16.18	
5/24/2011***	4.75	16.20			
EW5	11/19/2013	21.20*	6.82	14.38	
	5/16/2013		5.61	15.59	
	12/11/2012		4.75	16.45	
	6/21/2012		4.91	16.29	
	11/28/2011		5.49	15.71	
	6/16/2011		4.71	16.49	
	5/26/2011		4.88	16.32	
5/24/2011***	4.74	16.46			
OW2	11/19/2013	21.55*	7.01	14.54	
	5/16/2013		5.69	15.86	
	12/11/2012		4.82	16.73	
	6/21/2012		5.15	16.40	
	11/28/2011		5.80	15.75	
	6/16/2011		4.80	16.75	
	5/26/2011		4.82	16.73	
5/24/2011***	4.79	16.76			

Abbreviations and Notes:
 * = Surveyed by Kier & Wright on June 9, 2011.
 ** = Surveyed by Andreas Deak in April 1997.
 *** = Prior to well development.
 ft-MSL = feet above mean sea level
 ft = feet

Table 2. Summary of Laboratory Analytical Results										
Well Number	Sample Date	TPH-G	TPH-D	TPH-MO	MTBE	Benzene	Toluene	Ethylbenzene	Total Xylenes	Fuel Oxygenates & Lead Scavengers
MW1	11/19/2013	25,000	3,300, b,c	ND<250	ND<1,500	5,800	210	630	1,400	ND, except TBA = 1,600 MTBE = 1,000
	5/16/2013	18,000	1,800, c	ND<250	ND=800	4,400	320	510	1,100	ND, except TBA = 180 MTBE = 240
	12/11/2012	15,000	2,400, c	ND<250	ND=600	3,300	330	410	1,100	ND, except TBA = 190 MTBE = 100
	6/21/2012	17,000	2,100, c	ND<250	ND=500	1,800	420	500	1,500	ND, except TBA = 110 MTBE = 49
	11/28/2011	18,000	2,600, c	ND<250	ND=600	2,600	410	410	1,200	ND, except TBA = 460, MTBE = 210
	5/26/2011	15,000	2,400, b,c	ND<250	ND<500	2,000	430	400	1,300	ND, except TBA = 570, MTBE = 120
	11/18/2010	21,000	1,900, b,c	ND<250	1,700	6,300	340	340	860	ND, except TBA = 3,300, MTBE = 1,500
	4/28/2010	19,000	2,800, b,c	260, b,c	840	3,400	680	500	1,600	ND, except TBA = 3,200, MTBE = 750
	12/3/2009	19,000	1,900, b, c	ND<250	1,500	4,500	670	400	1,300	ND, except TBA = 10,000, MTBE = 1,100
	2/25/2009	21,000	2,200, b,c	ND<250	ND<2,500	4,300	750	580	1,700	ND, except TBA = 17,000, MTBE = 1,400
	11/25/2008	20,000	2,400, c	ND<250	1,900	5,500	490	530	1,300	ND, except TBA = 16,000, MTBE = 1,600
	8/27/2008	46,000	5,200, c	ND<250	1,300	4,600	1,800	2,000	5,200	NA
	5/28/2008	40,000	6,100, c	290	1,600	4,200	2,600	1,700	5,900	NA
	2/27/2008	45,000	4,900, c	310	2,600	6,200	3,100	1,300	5,100	NA
	11/29/2007	27,000	3,100, b,c	ND<250	2,600	4,700	930	770	2,600	NA
	8/29/2007	26,000	3,900, b,c	470	3,200	5,400	1,400	810	3,000	NA
	5/30/2007	22,000	3,300, c	ND<250	ND=750	400	380	1,100	3,600	NA
	3/12/2007	38,000	3,500, b,c	300	3,500	5,400	2,900	1,300	5,100	NA
	11/6/2006	44,000a	3,400, a,c	360	3,900	5,600	2,300	920	3,000	NA
	MW2	11/19/2013	6,600	3,000, b,c	ND<250	ND<17	160	9.6	36	10
5/16/2013		4,700	2,300, c,e,f	470, c,e,f	ND<180	360	17	31	16	ND, except TBA = 200, MTBE = 62
12/11/2012		3,900	2,700, c,d	590	110	290	15	27	16	ND, except TBA = 190, MTBE = 99
6/21/2012		4,900	1,600, b,c	ND<250	180	560	14	36	12	ND, except TBA = 340, MTBE = 160
11/28/2011		4,900	2,900, c,d	420, c,d	ND<50	400	11	39	7.7	ND, except TBA = 72, MTBE = 29
5/26/2011		6,600	1,900, b,c	ND<250	ND<350	1,000	39	36	97	ND, except TBA = 480, MTBE = 210
11/18/2010		7,700, a	11,000, a,e,d	3,500, a,c,d	ND<35	640	16	74	14	ND, except TBA = 19, MTBE = 22
4/28/2010		9,400, a	23,000, a,c,d	9,100, a,c,d	ND<250	1,200	35	40	29	ND, except TBA = 300, MTBE = 100
12/3/2009		7,700, a	6,900, a, b,c	2,000, a, b, c	ND<250	840	29	34	28	ND, except TBA = 200, MTBE = 61
2/25/2009		7,600, a	21,000, a,c,d	6,200	ND<160	810	18	46	24	ND, except TBA = 38, MTBE = 31, 1,2-DCA = 2.7
11/25/2008		8,700, a	23,000, a,c,d	6,400	14,e	740	15	90	27	ND, except TBA = 11, MTBE = 14
8/27/2008		13,000, a	9,200, a,c,d	2,200	ND<200	990	14	93	19	NA
5/28/2008		12,000, a	25,000 a,c,d	7,200	ND<210	2,000	77	77	90	NA
2/27/2008		11,000, a	21,000, a,c,d	6,800	ND<150	940	36	ND<10	22	NA
11/29/2007		11,000, a	32,000, a,c,d	11,000	ND<50	1,000	28	120	31	NA
8/29/2007		8,600, a	6,300, a, b, c	2,600	ND<100	1,300	36	48	48	NA
5/30/2007		14,000, a	22,000, a,c,d	5,800	ND<210	2,200	51	100	99	NA
3/12/2007		8,500, a	74,000, a, c,d	21,000	ND< 80	1,200	34	140	69	NA
11/6/2006		14,000a	45,000, a,c	11,000	ND<120	1,400	27	200	37	NA
MW3		11/19/2013	ND<50	ND<50	ND<250	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	5/16/2013	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
	12/11/2012	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
	6/21/2012	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
	11/28/2011	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
	5/26/2011	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
	11/18/2010	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
	4/28/2010	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
	12/3/2009	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
	2/25/2009	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
	11/25/2008	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
	8/27/2008	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA
	5/28/2008	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA
	2/27/2008	ND<50	ND<50	ND<250	15	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA
	11/29/2007	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA
8/29/2007	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	
5/30/2007	ND<50	ND<50	ND< 250	ND< 5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	
3/12/2007	ND< 50	ND< 50	ND< 250	ND< 5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	
11/6/2006	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	

Table 2. Summary of Laboratory Analytical Results

Well Number	Sample Date	TPH-G	TPH-D	TPH-MO	MTBE	Benzene	Toluene	Ethylbenzene	Total Xylenes	Fuel Oxygenates & Lead Scavengers
MW4	11/19/2013	9,400	2,100, c	ND<250	ND<150	1,100	24	210	610	ND, except TBA = 82, MTBE = 83
	5/16/2013	6,700	1,500, c	ND<250	ND<60	310	42	220	560	ND, except TBA = 43, MTBE = 21
	12/11/2012	17,000	2,700, c	ND<250	ND<170	88	120	670	2,100	ND, except TBA = 12
	6/21/2012	12,000	2,700, c	ND<250	ND<90	49	83	540	1,700	ND
	11/28/2011	6,000	2,200, c	ND<250	ND<50	86	63	350	1,200	ND, except TBA = 11, MTBE = 12
	5/26/2011	7,300	2,400, b,c	ND<250	ND<210	230	64	450	1,100	ND, except TBA = 74, MTBE = 80
	11/18/2010	5,900	1,100, b,c	ND<250	470	1,100	28	150	390	ND, except TBA = 690, MTBE = 540
	4/28/2010	6,300	1,400, c	ND<250	470	480	74	280	750	ND, except TBA = 350, MTBE = 360
	12/3/2009	6,300	1,200, c	ND<250	640	1,100	35	120	390	ND, except TBA = 600, MTBE = 390
	2/25/2009	11,000	2,200, c	ND<250	ND<300	350	120	490	1,400	ND, except TBA = 160, MTBE = 130
	11/25/2008	10,000	1,900, c	ND<250	270	630	130	390	1,500	ND, except TBA = 190, MTBE = 250
	8/27/2008	9,300	830, c	ND<250	ND<250	260	85	370	1,300	NA
	5/28/2008	2,200	1,400, c	ND<250	ND<30	16	38	100	320	NA
	2/27/2008	8,000	1,900, c	ND<250	ND<50	47	110	270	1,300	NA
	11/29/2007	12,000	2,800, c	ND<250	ND<180	260	230	580	2,500	NA
8/29/2007	12,000, a	560, c	ND<250	660	910	200	750	2,200	NA	
5/30/2007	43,000	4,500, c	610	3,600	5,800	3,700	1,400	5,400	NA	
3/12/2007	19,000	3,100, c	ND< 250	370	560	450	1,100	4,400	NA	
11/6/2006	23,000	4,300, c	850	ND<900	680	250	930	3,100	NA	
EW2	11/19/2013	11,000	1,400, c	ND<250	ND<350	3,300	19	96	76	ND, except TBA = 190, MTBE = 89
	5/16/2013	2,000	210, c	ND<250	83	580	4.9	32	7.3	ND, except TBA = 55, MTBE = 63
	12/11/2012	2,500	160, c	ND<250	ND<120	470	3.6	31	5.1	ND, except TBA = 74, MTBE = 66
	6/21/2012	3,700	280, c	ND< 250	180	960	9.5	20	16	ND, except TBA = 140, MTBE = 120
	11/28/2011	4,600	960, c	ND< 250	260	1,600	15	62	38	ND, except TBA = 270, MTBE = 270
	5/26/2011	2,700	560, b,c	ND< 250	ND<150	580	7.9	10	80	ND, except TBA = 290, MTBE = 97
EW4	11/19/2013	18,000	3,000, c	ND<250	ND<700	4,200	79	480	120	ND, except TBA = 320, MTBE = 270
	5/16/2013	76	ND<50	ND<250	14	4.0	ND<0.5	1.7	ND<0.5	ND, except TBA = 11, MTBE = 13
	12/11/2012	340	150, b,c	ND< 250	ND<30	28	1.5	6.9	0.91	ND, except TBA = 26, MTBE = 20
	6/21/2012	9,600	2,200, c	ND< 250	ND<75	270	22	340	290	ND, except TBA = 18, MTBE = 6.7
	11/28/2011	8,300	2,000, c	ND< 250	ND<150	520	40	510	530	ND, except TBA = 89, MTBE = 16
	5/26/2011	2,800	500, b,c	ND< 250	ND<150	99	9.9	20	300	ND, except TBA = 110, MTBE = 83
EW5	11/19/2013	17,000	2,600, c	ND< 250	ND<800	2,400	110	1,100	1,700	ND, except TBA = 420, MTBE = 330
	5/16/2013	19,000	2,500, c	ND< 250	ND<300	1,500	100	1,700	2,100	ND, except TBA = 180, MTBE = 41
	12/11/2012	40,000	4,700, c	ND< 250	ND<250	700	1,300	2,500	5,900	ND, except TBA = 180, MTBE = 8.6
	6/21/2012	44,000	4,900, c	ND< 250	ND<1,000	710	2,400	2,300	8,800	ND, except TBA = 57, MTBE = 6.5
	11/28/2011	48,000	3,500, b,c	ND< 250	ND<400	930	3,400	2,400	9,000	ND, except TBA = 110, MTBE = 48
	5/26/2011	35,000	3,600, b,c	ND< 250	ND<450	1,000	2,700	850	11,000	ND, except TBA = 250, MTBE = 86
OW2	11/19/2013	610	370, c	ND<250	ND<5.0	2.2	1.5	8.8	14	ND, except TBA = 5.1, MTBE = 2.1
	5/16/2013	85	ND<100	ND<250	ND<5.0	0.57	0.88	ND<0.5	0.54	ND, except TBA = 7.6, MTBE = 0.99
	12/11/2012	61	ND<50	ND<250	ND<5.0	3.2	0.70	0.94	3.5	ND, except TBA = 39, MTBE = 3.1
	6/21/2012	4,600	840, c	ND< 250	ND<45	110	46	160	590	ND, except TBA = 60, MTBE = 5.4
	11/28/2011	5,300	1,100, b,c	ND< 250	ND<130	350	170	24	790	ND, except TBA = 210, MTBE = 50
	5/26/2011	450	430, b,c	ND< 250	ND<5.0	0.87	0.71	ND<0.5	7.7	ND, except TBA = 350, MTBE = 3.6

Table 2. Summary of Laboratory Analytical Results										
Well Number	Sample Date	TPH-G	TPH-D	TPH-MO	MTBE	Benzene	Toluene	Ethylbenzene	Total Xylenes	Fuel Oxygenates & Lead Scavengers
<p>Abbreviations and Notes: TPH-MO = Total Petroleum Hydrocarbons as Motor Oil TPH-D = Total Petroleum Hydrocarbons as Diesel TPH-G = Total Petroleum Hydrocarbons as Gasoline MTBE = Methyl tertiary-butyl ether TBA = tert-Butyl alcohol 1,2-DCA = 1,2-Dichloroethane ND = Not Detected. NA = Not Analyzed. a = Laboratory Note: lighter than water immiscible sheen/ product is present b = Laboratory Note: diesel range compounds are significant; no recognizable pattern c = Laboratory Note: gasoline range compounds are significant d = Laboratory Note: unmodified or weakly modified diesel range compounds are significant e = Analysis by EPA 8260B as part of fuel oxygenate analysis. All other results for MTBE and all results for BTEX are by EPA 8021B. f = Laboratory Note: aged diesel is significant Results are in micrograms per liter (µg/L), unless otherwise noted.</p>										

FIGURES

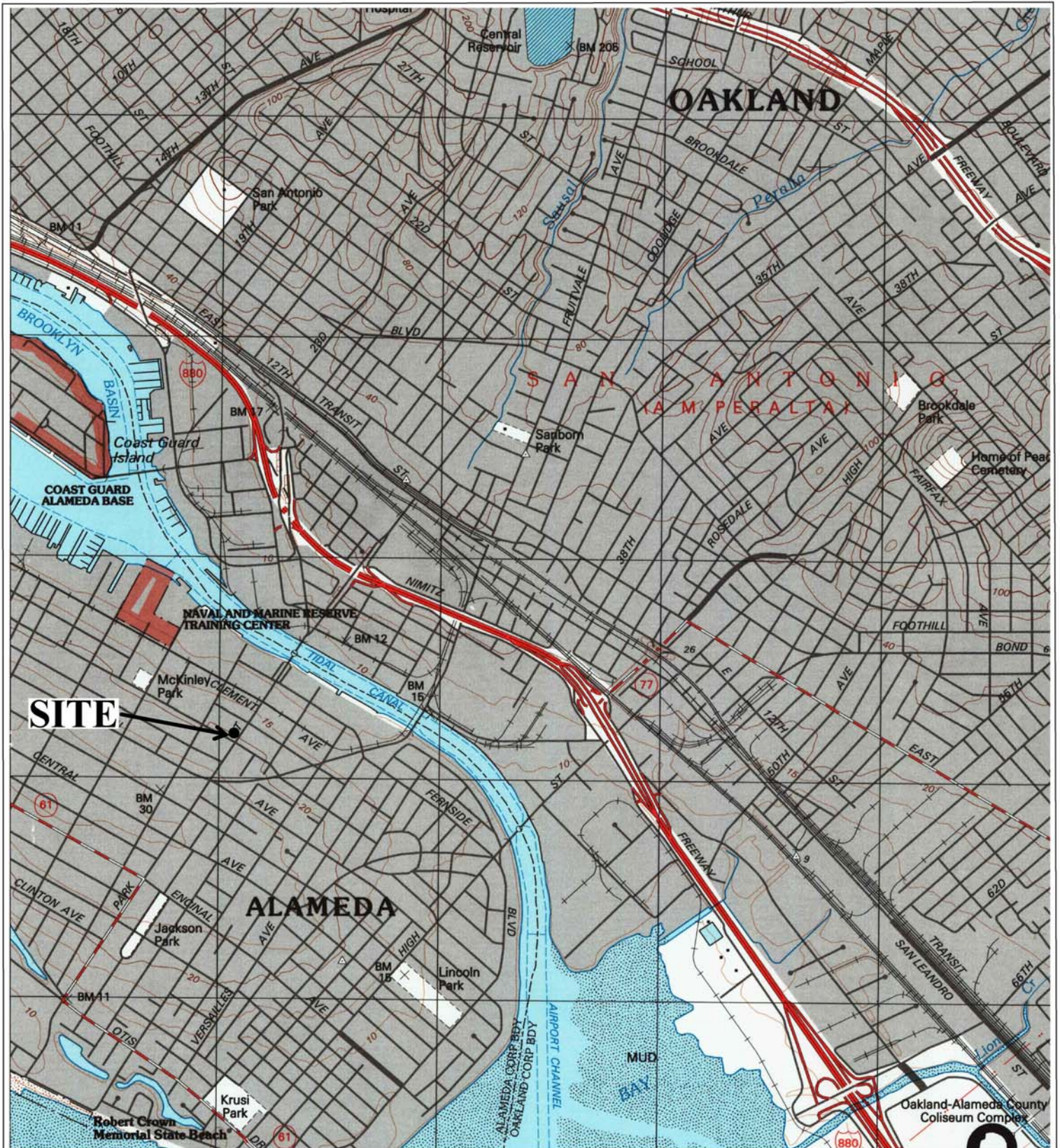


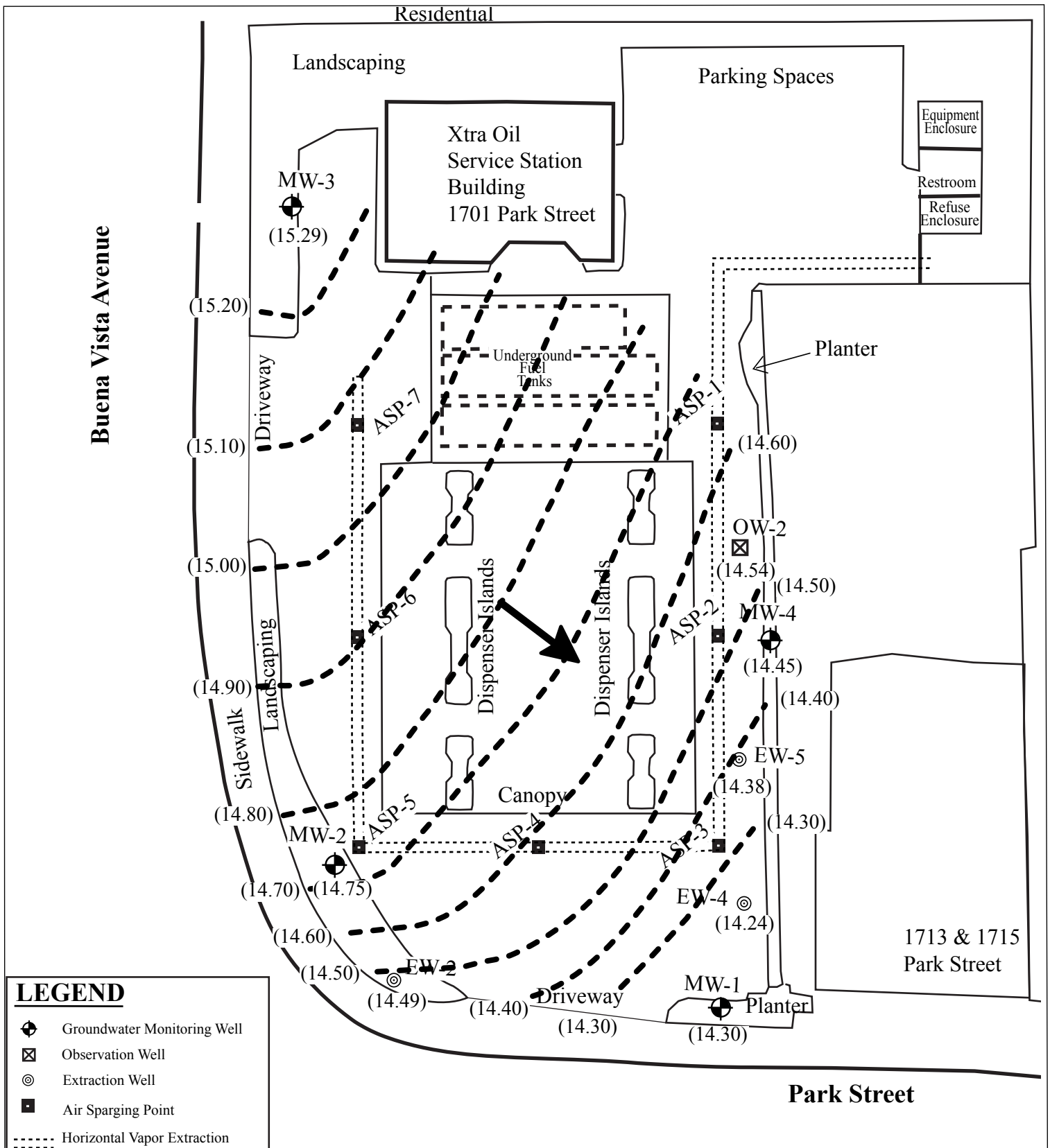
Figure 1
 Site Location Map
 Xtra Oil Company
 1701 Park Street
 Alameda, California

Basemap from:
 U.S. Geological Survey
 Oakland East, California
 7.5-Minute Quadrangle, Map edited 1996

P&D Environmental, Inc.
 55 Santa Clara Ave., Suite 240
 Oakland, CA 94610

0 1,000 2,000
 Approximate Scale in Feet



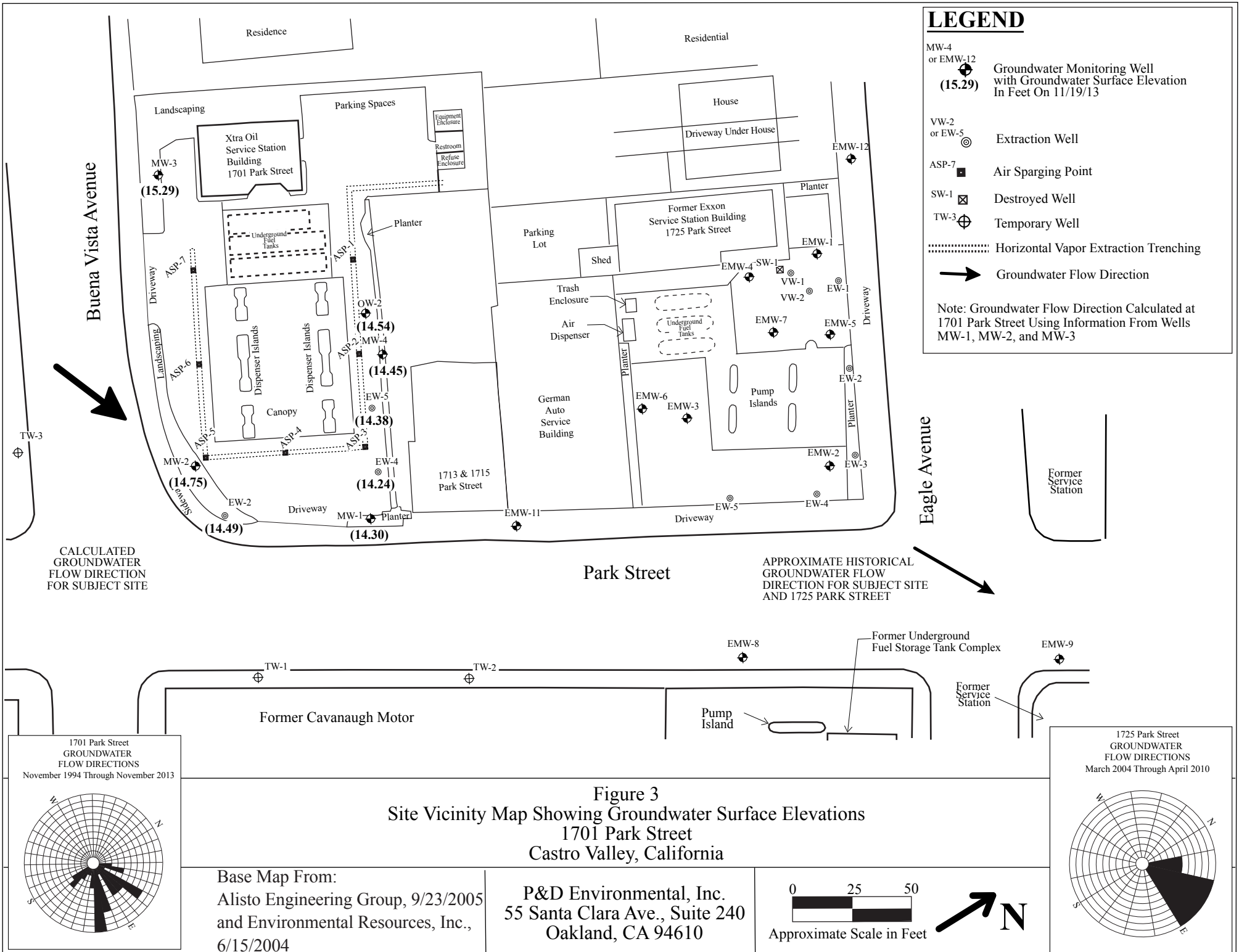


Basemap from: Alisto Engineering Group September 2005, and Google Earth October 2009

P&D Environmental, Inc.
 55 Santa Clara Ave., Suite 240
 Oakland, CA 94610

0 12.5 25
 Approximate Scale in Feet





**GROUNDWATER MONITORING/
WELL PURGING DATA SHEETS**

P&D Environmental, Inc.
Groundwater Monitoring/Well Purging Data Sheet

Site Name Xtra Oil - Park St - Alameda
Job Number 0058
TOC to Water (ft.) 8.06
Well Depth (ft.) 19.2
Well Diameter 2"
Flow Rate (mL/minute) 300
Start Purge Time 1304

Well No. MW1
Date 11/19/13
Sheen none
Free Product Thickness ∅
Sample Collection Method peristaltic pump + new unused disposable PE tubing

Time	Vol. Purged (mL)	Depth to Water (ft.)	pH	Electrical Conductivity (µS/cm)	Temperature (C°)	Dissolved Oxygen (mg/L)	Oxidation/Reduction Potential (mV)	Turbidity (NTU)
1305	300	8.21	6.79	898	21.3	3.52	-91.5	0.00
1308	1,200	8.30	6.79	916	21.6	2.00	-99.2	0.00
1311	2,100	8.32	6.79	920	21.7	1.47	-101.8	0.00
1314	3,000	8.34	6.78	908	21.7	1.27	-100.8	0.00
1317	3,900	8.36	6.78	630	21.7	1.04	-101.9	0.00
1320	4,800	8.37	6.79	635	21.6	0.88	-103.7	0.00

NOTES

no sheen, strong phc odor
MW-1 Collected @ 1325

Stability Parameters
p.H. = +/- 0.1
Sp. Conductivity = +/- 3%
Turbidity = +/- 10%
D.O. = +/- 10%

P&D Environmental, Inc.
Groundwater Monitoring/Well Purging Data Sheet

Site Name Xtra Oil Park St - Alameda
 Job Number 0058
 TOC to Water (ft.) 8.35'
 Well Depth (ft.) 13.4
 Well Diameter 2"
 Flow Rate (mL/minute) 300
 Start Purge Time 1107

Well No. MW-2
 Date 11/19/13
 Sheen Yes
 Free Product Thickness 0
 Sample Collection Method Peristaltic pump + new unused PE tubing

Time	Vol. Purged (mL)	Depth to Water (ft.)	pH	Electrical Conductivity (uS/cm)	Temperature (C°)	Dissolved Oxygen (mg/L)	Oxidation/Reduction Potential (mV)	Turbidity (NTU)
1108	300	8.52	6.49	382.5	20.5	2.99	-50.7	1.93
1111	1,200	8.62	6.48	397.3	20.9	0.99	-75.8	0.00
1114	2,100	8.68	6.50	409.9	21.9	0.72	-83.7	0.00
1117	3,000	8.70	6.51	419.5	21.9	0.63	-90.1	0.00
1120	3,900	8.72	6.52	424.0	21.9	0.56	-94.6	0.00
1123	4,800	8.72	6.53	427.3	22.0	0.61	-97.7	0.00

NOTES

Stability Parameters
 p.H. = +/- 0.1
 Sp. Conductivity = +/- 3%
 Turbidity = +/- 10%
 D.O. = +/- 10%

moderate to strong odor & sheen
Sample collected @ 1125

P&D Environmental, Inc.
Groundwater Monitoring/Well Purging Data Sheet

Site Name xtra Oil - Park Street, Alameda Well No. MW-3
 Job Number 0058 Date 11/19/13
 TOC to Water (ft.) 8.06' Sheen none
 Well Depth (ft.) 19.3 Free Product Thickness 0
 Well Diameter 2" Sample Collection Method Peristaltic
 Flow Rate (mL/minute) 300 pump + new unused
 Start Purge Time 1029 PE tubing

Time	Vol. Purged (mL)	Depth to Water (ft.)	pH	Electrical Conductivity (µS/cm)	Temperature (C°)	Dissolved Oxygen (mg/L)	Oxidation/Reduction Potential (mV)	Turbidity (NTU)
1030	300	8.36	6.29	520.9	20.0	4.85	20.4	30.3
1033	1,200	8.48	6.23	356.2	20.5	1.89	15.6	0.00
1036	2,100	8.59	6.20	331.7	20.6	1.44	29.1	0.00
1039	3,000	8.64	6.20	325.2	20.6	1.32	35.6	0.00
1042	3,900	8.67	6.21	319.3	20.7	1.14	38.9	0.00
1045	4,800	8.69	6.22	318.3	20.7	1.09	40.9	0.00

NOTES

Stability Parameters
 p.H. = +/- 0.1
 Sp. Conductivity = +/- 3%
 Turbidity = +/- 10%
 D.O. = +/- 10%

no sheen, no odor
Sample collected @ 1050

P&D Environmental, Inc.
Groundwater Monitoring/Well Purging Data Sheet

Site Name Xtra Oil, Park Street, Alameda
 Job Number 0058
 TOC to Water (ft.) 8.03
 Well Depth (ft.) 10.9
 Well Diameter 2"
 Flow Rate (mL/minute) 300
 Start Purge Time 1439

Well No. MW4
 Date 11/19/13
 Sheen none
 Free Product Thickness ∅
 Sample Collection Method peristaltic pumpd new/unused disp. PE tubing

Time	Vol. Purged (mL)	Depth to Water (ft.)	pH	Electrical Conductivity (µS/cm)	Temperature (C°)	Dissolved Oxygen (mg/L)	Oxidation/Reduction Potential (mV)	Turbidity (NTU)
1440	300	8.81	6.87	302.2	18.5	4.51	-65.5	0.00
1443	1,200	9.55	6.84	299.5	18.6	1.79	-68.6	0.00
1446	2,100	10.05	6.82	299.4	18.6	1.49	-68.6	0.00
1449	3,000	10.34	6.79	315.9	18.7	1.04	-72.6	0.00
1452	3,900	10.69	6.79	327.9	18.6	1.03	-72.6	0.00
1455	4,800	10.9	6.79	330.7	18.5	1.10	-75.9	0.00

NOTES

Stability Parameters
 pH = +/- 0.1
 Sp. Conductivity = +/- 3%
 Turbidity = +/- 10%
 D.O. = +/- 10%

moderate odor + no sheen
MW-4 collected @ 1500

P&D Environmental, Inc.
Groundwater Monitoring/Well Purging Data Sheet

Site Name Xtra Oil Park St. Alameda
 Job Number 0058
 TOC to Water (ft.) 7.64
 Well Depth (ft.) 23.6
 Well Diameter 4"
 Flow Rate (mL/minute) 300
 Start Purge Time 1145

Well No. EW-2
 Date 11/19/13
 Sheen none
 Free Product Thickness 0
 Sample Collection Method Peristaltic Pump + new unused PE tubing

Time	Vol. Purged (mL)	Depth to Water (ft.)	pH	Electrical Conductivity (µS/cm)	Temperature (C°)	Dissolved Oxygen (mg/L)	Oxidation/Reduction Potential (mV)	Turbidity (NTU)
1146	300	7.72	6.70	548	21.2	2.90	-89.4	0.00
1149	1,200	7.77	6.70	568	21.3	2.26	-96.9	0.00
1152	2,100	7.79	6.71	571	21.0	1.44	-103.2	0.00
1155	3,000	7.80	6.71	566	21.4	1.26	-111.9	0.00
1158	3,900	7.82	6.71	568	21.4	1.21	-113.2	0.00
1201	4,800	7.85	6.71	567	21.4	1.16	-114.6	0.00

NOTES

Stability Parameters
 p.H. = +/- 0.1
 Sp. Conductivity = +/-3%
 Turbidity = +/- 10%
 D.O. = +/- 10%

no sheen, no odor
sample collected @ 1205

P&D Environmental, Inc.
Groundwater Monitoring/Well Purging Data Sheet

Site Name Xtra Oil- Park Street- Alameda
 Job Number 0058
 TOC to Water (ft.) 6.71
 Well Depth (ft.) 21.8
 Well Diameter 4"
 Flow Rate (mL/minute) 300
 Start Purge Time 1337

Well No. EW4
 Date 11/19/13
 Sheen Yes
 Free Product Thickness ∅
 Sample Collection Method Peristaltic pump new/unused disposable PE tubing

Time	Vol. Purged (mL)	Depth to Water (ft.)	pH	Electrical Conductivity (µS/cm)	Temperature (C°)	Dissolved Oxygen (mg/L)	Oxidation/Reduction Potential (mV)	Turbidity (NTU)
1338	300	6.79	6.73	486.1	20.7	4.83	-78.5	0.00
1341	1,200	6.80	6.69	490.2	21.1	2.86	-88.8	0.00
1344	2,100	6.96	6.68	490.5	21.1	1.94	-92.8	0.00
1347	3,000	6.99	6.67	490.6	21.3	1.38	-95.5	0.00
1350	3,900	7.03	6.67	490.8	21.3	1.22	-96.8	0.00
1353	4,800	7.05	6.67	490.9	21.3	1.06	-97.1	0.00

NOTES

moderate - strong odor, sheen observed
EW-4 sample collected @ 1355

Stability Parameters
 p.H. = +/- 0.1
 Sp. Conductivity = +/-3%
 Turbidity = +/- 10%
 D.O. = +/- 10%

P&D Environmental, Inc.
Groundwater Monitoring/Well Purging Data Sheet

Site Name Xtra Oil-Park Street, Alameda
 Job Number 0058
 TOC to Water (ft.) 6.82
 Well Depth (ft.) 23.7
 Well Diameter 4"
 Flow Rate (mL/minute) 300
 Start Purge Time 1409

Well No. EWS
 Date 11/19/13
 Sheen none
 Free Product Thickness ∅
 Sample Collection Method peristaltic pump + new unused disposable PE tubing

<u>Time</u>	<u>Vol. Purged (mL)</u>	<u>Depth to Water (ft.)</u>	<u>pH</u>	<u>Electrical Conductivity (uS/cm)</u>	<u>Temperature (C°)</u>	<u>Dissolved Oxygen (mg/L)</u>	<u>Oxidation/Reduction Potential (mV)</u>	<u>Turbidity (NTU)</u>
1410	300	6.88	6.83	450.9	19.6	3.61	-105.0	14.92
1413	1,200	6.90	6.81	447.4	19.6	2.33	-105.3	0.00
1416	2,100	6.98	6.80	443.7	19.6	1.38	-107.1	0.00
1419	3,000	7.03	6.79	442.4	19.7	1.19	-108.2	0.00
1422	3,900	7.07	6.79	442.0	19.7	0.80	-110.6	0.00
1425	4,800	7.09	6.79	442.8	19.7	0.70	-111.6	0.00

NOTES

Stability Parameters
 p.H. = +/- 0.1
 Sp. Conductivity = +/- 3%
 Turbidity = +/- 10%
 D.O. = +/- 10%

Strong odor, no sheen
EWS Sampled @ 1428

P&D Environmental, Inc.
Groundwater Monitoring/Well Purging Data Sheet

Site Name Atra Oil Park Street, Alameda
 Job Number 0058
 TOC to Water (ft.) 7.01
 Well Depth (ft.) 18.7
 Well Diameter 4"
 Flow Rate (mL/minute) 300
 Start Purge Time 1508

Well No. OW-2
 Date 11/19/13
 Sheen None
 Free Product Thickness ∅
 Sample Collection Method Peristaltic pump + new unused disp. PE tubing

Time	Vol. Purged (mL)	Depth to Water (ft.)	pH	Electrical Conductivity (uS/cm)	Temperature (C°)	Dissolved Oxygen (mg/L)	Oxidation/Reduction Potential (mV)	Turbidity (NTU)
1509	300	7.08	6.89	372.0	18.4	7.55	-61.3	0.00
1512	1,200	7.15	6.84	376.2	18.8	2.34	-79.6	0.00
1515	2,100	7.20	6.84	376.5	18.7	1.32	-84.6	0.00
1518	3,000	7.25	6.84	376.1	18.7	1.05	-86.9	0.00
1521	3,900	7.27	6.83	376.4	18.8	0.77	-89.5	0.00
1524	4,800	7.29	6.84	376.7	18.7	0.72	-90.1	0.00

NOTES

Stability Parameters
 p.H. = +/- 0.1
 Sp. Conductivity = +/- 3%
 Turbidity = +/- 10%
 D.O. = +/- 10%

Very slight odor, no sheen
OW-2 ^{sample} collected @ 1530

**LABORATORY ANALYTICAL REPORTS
AND CHAIN OF CUSTODY
DOCUMENTATION**



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1311703

Report Created for: P & D Environmental
55 Santa Clara, Ste.240
Oakland, CA 94610

Project Contact: Michael Deschenes
Project P.O.:
Project Name: #0058; Xtra Oil

Project Received: 11/20/2013

Analytical Report reviewed & approved for release on 11/26/2013 by:

Question about
your data?

[Click here to email
McC Campbell](#)

Angela Rydelius,
Laboratory Manager

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





Glossary of Terms & Qualifier Definitions

Client: P & D Environmental
Project: #0058; Xtra Oil
WorkOrder: 1311703

<u>Glossary</u> <u>Abbreviation</u>	<u>Description</u>
--	--------------------

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix; or sample diluted due to high matrix or analyte content.
RD	Relative Difference
RL	Reporting Limit
RPD	Relative Percent Deviation
SPK Val	Spike Value
SPKRef Val	Spike Reference Value

<u>Analytical</u> <u>Qualifier</u>	
---------------------------------------	--

S	spike recovery outside accepted recovery limits
a3	sample diluted due to high organic content.
c4	surrogate recovery outside of the control limits due to coelution with another peak(s) / cluttered chromatogram.
d1	weakly modified or unmodified gasoline is significant
e2	diesel range compounds are significant; no recognizable pattern
e4	gasoline range compounds are significant.

<u>Quality Control</u> <u>Qualifier</u>	
--	--

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



Analytical Report

Client: P & D Environmental
Project: #0058; Xtra Oil
Date Received: 11/20/13 19:10
Date Prepared: 11/23/13

WorkOrder: 1311703
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-1	1311703-001C	Water	11/19/2013 13:25	GC28	84423

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	25	50	11/23/2013 19:18
t-Butyl alcohol (TBA)	1600	100	50	11/23/2013 19:18
1,2-Dibromoethane (EDB)	ND	25	50	11/23/2013 19:18
1,2-Dichloroethane (1,2-DCA)	ND	25	50	11/23/2013 19:18
Diisopropyl ether (DIPE)	ND	25	50	11/23/2013 19:18
Ethyl tert-butyl ether (ETBE)	ND	25	50	11/23/2013 19:18
Methyl-t-butyl ether (MTBE)	1000	25	50	11/23/2013 19:18
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	105	70-130		11/23/2013 19:18

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-2	1311703-002C	Water	11/19/2013 11:25	GC28	84423

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	1.7	3.3	11/23/2013 19:57
t-Butyl alcohol (TBA)	ND	6.7	3.3	11/23/2013 19:57
1,2-Dibromoethane (EDB)	ND	1.7	3.3	11/23/2013 19:57
1,2-Dichloroethane (1,2-DCA)	ND	1.7	3.3	11/23/2013 19:57
Diisopropyl ether (DIPE)	ND	1.7	3.3	11/23/2013 19:57
Ethyl tert-butyl ether (ETBE)	ND	1.7	3.3	11/23/2013 19:57
Methyl-t-butyl ether (MTBE)	ND	1.7	3.3	11/23/2013 19:57
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: a3	
Dibromofluoromethane	107	70-130	11/23/2013 19:57	

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-3	1311703-003C	Water	11/19/2013 10:50	GC28	84423

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.50	1	11/23/2013 16:05
t-Butyl alcohol (TBA)	ND	2.0	1	11/23/2013 16:05
1,2-Dibromoethane (EDB)	ND	0.50	1	11/23/2013 16:05
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	11/23/2013 16:05
Diisopropyl ether (DIPE)	ND	0.50	1	11/23/2013 16:05
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	11/23/2013 16:05
Methyl-t-butyl ether (MTBE)	ND	0.50	1	11/23/2013 16:05
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	107	70-130		11/23/2013 16:05

(Cont.)



Analytical Report

Client: P & D Environmental
Project: #0058; Xtra Oil
Date Received: 11/20/13 19:10
Date Prepared: 11/23/13

WorkOrder: 1311703
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-4	1311703-004C	Water	11/19/2013 15:00	GC28	84423
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
tert-Amyl methyl ether (TAME)	ND		5.0	10	11/23/2013 20:35
t-Butyl alcohol (TBA)	82		20	10	11/23/2013 20:35
1,2-Dibromoethane (EDB)	ND		5.0	10	11/23/2013 20:35
1,2-Dichloroethane (1,2-DCA)	ND		5.0	10	11/23/2013 20:35
Diisopropyl ether (DIPE)	ND		5.0	10	11/23/2013 20:35
Ethyl tert-butyl ether (ETBE)	ND		5.0	10	11/23/2013 20:35
Methyl-t-butyl ether (MTBE)	83		5.0	10	11/23/2013 20:35
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	106		70-130		11/23/2013 20:35
EW-2	1311703-005C	Water	11/19/2013 12:05	GC28	84423
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
tert-Amyl methyl ether (TAME)	ND		10	20	11/23/2013 21:13
t-Butyl alcohol (TBA)	190		40	20	11/23/2013 21:13
1,2-Dibromoethane (EDB)	ND		10	20	11/23/2013 21:13
1,2-Dichloroethane (1,2-DCA)	ND		10	20	11/23/2013 21:13
Diisopropyl ether (DIPE)	ND		10	20	11/23/2013 21:13
Ethyl tert-butyl ether (ETBE)	ND		10	20	11/23/2013 21:13
Methyl-t-butyl ether (MTBE)	89		10	20	11/23/2013 21:13
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	103		70-130		11/23/2013 21:13
EW-4	1311703-006C	Water	11/19/2013 13:55	GC28	84423
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
tert-Amyl methyl ether (TAME)	ND		12	25	11/23/2013 21:51
t-Butyl alcohol (TBA)	320		50	25	11/23/2013 21:51
1,2-Dibromoethane (EDB)	ND		12	25	11/23/2013 21:51
1,2-Dichloroethane (1,2-DCA)	ND		12	25	11/23/2013 21:51
Diisopropyl ether (DIPE)	ND		12	25	11/23/2013 21:51
Ethyl tert-butyl ether (ETBE)	ND		12	25	11/23/2013 21:51
Methyl-t-butyl ether (MTBE)	270		12	25	11/23/2013 21:51
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	102		70-130		11/23/2013 21:51

(Cont.)



Analytical Report

Client: P & D Environmental
Project: #0058; Xtra Oil
Date Received: 11/20/13 19:10
Date Prepared: 11/23/13

WorkOrder: 1311703
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EW-5	1311703-007C	Water	11/19/2013 14:28	GC28	84423

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	10	20	11/23/2013 22:29
t-Butyl alcohol (TBA)	420	40	20	11/23/2013 22:29
1,2-Dibromoethane (EDB)	ND	10	20	11/23/2013 22:29
1,2-Dichloroethane (1,2-DCA)	ND	10	20	11/23/2013 22:29
Diisopropyl ether (DIPE)	ND	10	20	11/23/2013 22:29
Ethyl tert-butyl ether (ETBE)	ND	10	20	11/23/2013 22:29
Methyl-t-butyl ether (MTBE)	330	10	20	11/23/2013 22:29

Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	104	70-130	11/23/2013 22:29

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
OW-2	1311703-008C	Water	11/19/2013 15:30	GC28	84423

Analytes	Result	RL	DF	Date Analyzed
tert-Amyl methyl ether (TAME)	ND	0.50	1	11/23/2013 23:07
t-Butyl alcohol (TBA)	5.1	2.0	1	11/23/2013 23:07
1,2-Dibromoethane (EDB)	ND	0.50	1	11/23/2013 23:07
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	11/23/2013 23:07
Diisopropyl ether (DIPE)	ND	0.50	1	11/23/2013 23:07
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	11/23/2013 23:07
Methyl-t-butyl ether (MTBE)	2.1	0.50	1	11/23/2013 23:07

Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	107	70-130	11/23/2013 23:07



Analytical Report

Client: P & D Environmental
Project: #0058; Xtra Oil
Date Received: 11/20/13 19:10
Date Prepared: 11/21/13-11/22/13

WorkOrder: 1311703
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-1	1311703-001A	Water	11/19/2013 13:25	GC7	84337
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	25,000		1000	20	11/22/2013 16:24
MTBE	ND		1500	20	11/22/2013 16:24
Benzene	5800		50	100	11/21/2013 22:38
Toluene	210		10	20	11/22/2013 16:24
Ethylbenzene	630		10	20	11/22/2013 16:24
Xylenes	1400		10	20	11/22/2013 16:24
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: d1	
aaa-TFT	107		70-130		11/22/2013 16:24
MW-2	1311703-002A	Water	11/19/2013 11:25	GC7	84337
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	6600		170	3.3	11/22/2013 16:55
MTBE	ND		17	3.3	11/22/2013 16:55
Benzene	160		1.7	3.3	11/22/2013 16:55
Toluene	9.6		1.7	3.3	11/22/2013 16:55
Ethylbenzene	36		1.7	3.3	11/22/2013 16:55
Xylenes	10		1.7	3.3	11/22/2013 16:55
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	Analytical Comments: d1,c4	
aaa-TFT	148	S	70-130		11/22/2013 16:55
MW-3	1311703-003A	Water	11/19/2013 10:50	GC3	84336
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND		50	1	11/22/2013 06:07
MTBE	ND		5.0	1	11/22/2013 06:07
Benzene	ND		0.50	1	11/22/2013 06:07
Toluene	ND		0.50	1	11/22/2013 06:07
Ethylbenzene	ND		0.50	1	11/22/2013 06:07
Xylenes	ND		0.50	1	11/22/2013 06:07
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
aaa-TFT	98		70-130		11/22/2013 06:07

(Cont.)



Analytical Report

Client: P & D Environmental
Project: #0058; Xtra Oil
Date Received: 11/20/13 19:10
Date Prepared: 11/21/13-11/22/13

WorkOrder: 1311703
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-4	1311703-004A	Water	11/19/2013 15:00	GC7	84337
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	9400		500	10	11/22/2013 18:55
MTBE	ND		150	10	11/22/2013 18:55
Benzene	1100		5.0	10	11/22/2013 18:55
Toluene	24		5.0	10	11/22/2013 18:55
Ethylbenzene	210		5.0	10	11/22/2013 18:55
Xylenes	610		5.0	10	11/22/2013 18:55
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: d1	
aaa-TFT	111		70-130		11/22/2013 18:55
EW-2	1311703-005A	Water	11/19/2013 12:05	GC7	84337
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	11,000		500	10	11/22/2013 19:26
MTBE	ND		350	10	11/22/2013 19:26
Benzene	3300		50	100	11/22/2013 00:08
Toluene	19		5.0	10	11/22/2013 19:26
Ethylbenzene	96		5.0	10	11/22/2013 19:26
Xylenes	76		5.0	10	11/22/2013 19:26
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: d1	
aaa-TFT	117		70-130		11/22/2013 19:26
EW-4	1311703-006A	Water	11/19/2013 13:55	GC7	84337
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	18,000		1000	20	11/22/2013 19:56
MTBE	ND		700	20	11/22/2013 19:56
Benzene	4200		50	100	11/22/2013 01:38
Toluene	79		10	20	11/22/2013 19:56
Ethylbenzene	480		10	20	11/22/2013 19:56
Xylenes	120		10	20	11/22/2013 19:56
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: d1	
aaa-TFT	113		70-130		11/22/2013 19:56

(Cont.)



Analytical Report

Client: P & D Environmental
Project: #0058; Xtra Oil
Date Received: 11/20/13 19:10
Date Prepared: 11/21/13-11/22/13

WorkOrder: 1311703
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EW-5	1311703-007A	Water	11/19/2013 14:28	GC7	84337
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	17,000		500	10	11/22/2013 20:26
MTBE	ND		800	10	11/22/2013 20:26
Benzene	2400		50	100	11/22/2013 02:08
Toluene	110		5.0	10	11/22/2013 20:26
Ethylbenzene	1100		5.0	10	11/22/2013 20:26
Xylenes	1700		5.0	10	11/22/2013 20:26
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: d1	
aaa-TFT	100		70-130		11/22/2013 20:26
OW-2	1311703-008A	Water	11/19/2013 15:30	GC7	84337
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	610		50	1	11/22/2013 20:56
MTBE	ND		5.0	1	11/22/2013 20:56
Benzene	2.2		0.50	1	11/22/2013 20:56
Toluene	1.5		0.50	1	11/22/2013 20:56
Ethylbenzene	8.8		0.50	1	11/22/2013 20:56
Xylenes	14		0.50	1	11/22/2013 20:56
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: d1	
aaa-TFT	96		70-130		11/22/2013 20:56



Analytical Report

Client: P & D Environmental
Project: #0058; Xtra Oil
Date Received: 11/20/13 19:10
Date Prepared: 11/21/13

WorkOrder: 1311703
Extraction Method: SW3510C/3630C
Analytical Method: SW8015B
Unit: µg/L

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-1	1311703-001B	Water	11/19/2013 13:25	GC11A	84285
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	3300		50	1	11/23/2013 11:46
TPH-Motor Oil (C18-C36)	ND		250	1	11/23/2013 11:46
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e4,e2	
C9	111		70-130		11/23/2013 11:46
MW-2	1311703-002B	Water	11/19/2013 11:25	GC11A	84285
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	3000		50	1	11/23/2013 07:12
TPH-Motor Oil (C18-C36)	ND		250	1	11/23/2013 07:12
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e4,e2	
C9	108		70-130		11/23/2013 07:12
MW-3	1311703-003B	Water	11/19/2013 10:50	GC11A	84285
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		50	1	11/23/2013 06:03
TPH-Motor Oil (C18-C36)	ND		250	1	11/23/2013 06:03
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	104		70-130		11/23/2013 06:03
MW-4	1311703-004B	Water	11/19/2013 15:00	GC11A	84285
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	2100		50	1	11/23/2013 04:55
TPH-Motor Oil (C18-C36)	ND		250	1	11/23/2013 04:55
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e4	
C9	107		70-130		11/23/2013 04:55

(Cont.)



Analytical Report

Client: P & D Environmental
Project: #0058; Xtra Oil
Date Received: 11/20/13 19:10
Date Prepared: 11/21/13

WorkOrder: 1311703
Extraction Method: SW3510C/3630C
Analytical Method: SW8015B
Unit: µg/L

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EW-2	1311703-005B	Water	11/19/2013 12:05	GC11A	84285
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	1400		50	1	11/23/2013 01:29
TPH-Motor Oil (C18-C36)	ND		250	1	11/23/2013 01:29
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e4	
C9	104		70-130		11/23/2013 01:29
EW-4	1311703-006B	Water	11/19/2013 13:55	GC11A	84285
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	3000		50	1	11/23/2013 00:20
TPH-Motor Oil (C18-C36)	ND		250	1	11/23/2013 00:20
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e4	
C9	107		70-130		11/23/2013 00:20
EW-5	1311703-007B	Water	11/19/2013 14:28	GC11A	84285
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	2600		50	1	11/23/2013 02:38
TPH-Motor Oil (C18-C36)	ND		250	1	11/23/2013 02:38
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e4	
C9	107		70-130		11/23/2013 02:38
OW-2	1311703-008B	Water	11/19/2013 15:30	GC11A	84285
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	370		50	1	11/23/2013 10:38
TPH-Motor Oil (C18-C36)	ND		250	1	11/23/2013 10:38
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e4	
C9	105		70-130		11/23/2013 10:38



Quality Control Report

Client: P & D Environmental
Date Prepared: 11/21/13
Date Analyzed: 11/21/13 - 11/22/13
Instrument: GC9b
Matrix: Water
Project: #0058; Xtra Oil

WorkOrder: 1311703
BatchID: 84285
Extraction Method: SW3510C/3630C
Analytical Method: SW8015B
Unit: µg/L
Sample ID: MB/LCS-84285
 1311785-001AMS/MSD

QC Summary Report for SW8015B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	955.7	50	1000	-	95.6	70-130

Surrogate Recovery

C9	575.1	548.4		625	92	88	70-130
----	-------	-------	--	-----	----	----	--------

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	1688	1211	1000	408.2	128	80.3,F1	70-130	32.9,F1	30

Surrogate Recovery

C9	761.7	568.5	625		122	91	70-130	29.1	30
----	-------	-------	-----	--	-----	----	--------	------	----

(Cont.)



Quality Control Report

Client: P & D Environmental
Date Prepared: 11/23/13
Date Analyzed: 11/23/13
Instrument: GC28
Matrix: Water
Project: #0058; Xtra Oil

WorkOrder: 1311703
BatchID: 84423
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-84423
 1311703-003CMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	21.02	0.50	20	-	105	70-130
Benzene	ND	20.26	0.50	20	-	101	70-130
Bromobenzene	ND	-	0.50	-	-	-	-
Bromochloromethane	ND	-	0.50	-	-	-	-
Bromodichloromethane	ND	-	0.50	-	-	-	-
Bromoform	ND	-	0.50	-	-	-	-
Bromomethane	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	2.0	-	-	-	-
t-Butyl alcohol (TBA)	ND	81.7	2.0	80	-	102	70-130
n-Butyl benzene	ND	-	0.50	-	-	-	-
sec-Butyl benzene	ND	-	0.50	-	-	-	-
tert-Butyl benzene	ND	-	0.50	-	-	-	-
Carbon Disulfide	ND	-	0.50	-	-	-	-
Carbon Tetrachloride	ND	-	0.50	-	-	-	-
Chlorobenzene	ND	20.7	0.50	20	-	104	70-130
Chloroethane	ND	-	0.50	-	-	-	-
Chloroform	ND	-	0.50	-	-	-	-
Chloromethane	ND	-	0.50	-	-	-	-
2-Chlorotoluene	ND	-	0.50	-	-	-	-
4-Chlorotoluene	ND	-	0.50	-	-	-	-
Dibromochloromethane	ND	-	0.50	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.20	-	-	-	-
1,2-Dibromoethane (EDB)	ND	20.06	0.50	20	-	100	70-130
Dibromomethane	ND	-	0.50	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.50	-	-	-	-
Dichlorodifluoromethane	ND	-	0.50	-	-	-	-
1,1-Dichloroethane	ND	-	0.50	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	19.97	0.50	20	-	99.9	70-130
1,1-Dichloroethene	ND	-	0.50	-	-	-	-
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,3-Dichloropropane	ND	-	0.50	-	-	-	-
2,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,1-Dichloropropene	ND	-	0.50	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-

(Cont.)



Quality Control Report

Client: P & D Environmental
Date Prepared: 11/23/13
Date Analyzed: 11/23/13
Instrument: GC28
Matrix: Water
Project: #0058; Xtra Oil

WorkOrder: 1311703
BatchID: 84423
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-84423
 1311703-003CMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	20.87	0.50	20	-	104	70-130
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	21.04	0.50	20	-	105	70-130
Freon 113	ND	-	0.50	-	-	-	-
Hexachlorobutadiene	ND	-	0.50	-	-	-	-
Hexachloroethane	ND	-	0.50	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
Isopropylbenzene	ND	-	0.50	-	-	-	-
4-Isopropyl toluene	ND	-	0.50	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	20.43	0.50	20	-	102	70-130
Methylene chloride	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.50	-	-	-	-
Naphthalene	ND	-	0.50	-	-	-	-
n-Propyl benzene	ND	-	0.50	-	-	-	-
Styrene	ND	-	0.50	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
Tetrachloroethene	ND	-	0.50	-	-	-	-
Toluene	ND	19.38	0.50	20	-	96.9	70-130
1,2,3-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.50	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.50	-	-	-	-
Trichloroethene	ND	20.16	0.50	20	-	101	70-130
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.50	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	-	0.50	-	-	-	-
Xylenes, Total	ND	-	0.50	-	-	-	-

Surrogate Recovery

Dibromofluoromethane	27.03	47.6		45	108	106	70-130
Toluene-d8	26.8	47.25		45	107	105	70-130
4-BFB	2.421	4.123		4.5	97	92	70-130

(Cont.)



Quality Control Report

Client: P & D Environmental
Date Prepared: 11/23/13
Date Analyzed: 11/23/13
Instrument: GC28
Matrix: Water
Project: #0058; Xtra Oil

WorkOrder: 1311703
BatchID: 84423
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-84423
 1311703-003CMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	21.67	21.88	20	ND	108	109	70-130	0.928	20
Benzene	20.32	20.71	20	ND	102	104	70-130	1.90	20
t-Butyl alcohol (TBA)	85.35	88.58	80	ND	107	111	70-130	3.72	20
Chlorobenzene	20.82	20.93	20	ND	104	105	70-130	0.546	20
1,2-Dibromoethane (EDB)	20.96	20.64	20	ND	105	103	70-130	1.55	20
1,2-Dichloroethane (1,2-DCA)	20.65	20.67	20	ND	103	103	70-130	0	20
Diisopropyl ether (DIPE)	21.42	21.35	20	ND	107	107	70-130	0	20
Ethyl tert-butyl ether (ETBE)	21.6	22.01	20	ND	108	110	70-130	1.89	20
Methyl-t-butyl ether (MTBE)	21.49	21.59	20	ND	107	108	70-130	0.456	20
Toluene	19.67	19.42	20	ND	98.3	97.1	70-130	1.30	20
Trichloroethene	20.38	20.46	20	ND	102	102	70-130	0	20
Surrogate Recovery									
Dibromofluoromethane	48.48	48.36	45		108	107	70-130	0.248	20
Toluene-d8	48.11	47.57	45		107	106	70-130	1.13	20
4-BFB	4.165	4.081	4.5		93	91	70-130	2.04	20



Quality Control Report

Client: P & D Environmental
Date Prepared: 11/21/13
Date Analyzed: 11/21/13
Instrument: GC3
Matrix: Water
Project: #0058; Xtra Oil

WorkOrder: 1311703
BatchID: 84336
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L
Sample ID: MB/LCS-84336
 1311687-001AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	60.96	40	60	-	102	70-130
MTBE	ND	10.12	5.0	10	-	101	70-130
Benzene	ND	10.52	0.50	10	-	105	70-130
Toluene	ND	10.56	0.50	10	-	106	70-130
Ethylbenzene	ND	10.41	0.50	10	-	104	70-130
Xylenes	ND	31.47	0.50	30	-	105	70-130

Surrogate Recovery

aaa-TFT	9.736	9.61		10	97	96	70-130
---------	-------	------	--	----	----	----	--------

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	59.56	60.64	60	ND	99.3	101	70-130	1.79	20
MTBE	10.52	10.48	10	ND	105	105	70-130	0	20
Benzene	10.87	10.55	10	ND	109	106	70-130	2.93	20
Toluene	10.85	10.59	10	ND	109	106	70-130	2.46	20
Ethylbenzene	10.78	10.58	10	ND	108	106	70-130	1.85	20
Xylenes	32.59	32.08	30	ND	109	107	70-130	1.58	20

Surrogate Recovery

aaa-TFT	9.632	9.454	10		96	95	70-130	1.87	20
---------	-------	-------	----	--	----	----	--------	------	----

(Cont.)



Quality Control Report

Client: P & D Environmental
Date Prepared: 11/21/13
Date Analyzed: 11/21/13
Instrument: GC7
Matrix: Water
Project: #0058; Xtra Oil

WorkOrder: 1311703
BatchID: 84337
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L
Sample ID: MB/LCS-84337
 1311749-026AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	59.15	40	60	-	98.6	70-130
MTBE	ND	10.62	5.0	10	-	106	70-130
Benzene	ND	11.1	0.50	10	-	111	70-130
Toluene	ND	11.26	0.50	10	-	113	70-130
Ethylbenzene	ND	11.26	0.50	10	-	113	70-130
Xylenes	ND	33.55	0.50	30	-	112	70-130

Surrogate Recovery

aaa-TFT	9.281	9.459		10	93	95	70-130
---------	-------	-------	--	----	----	----	--------

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	59.61	56.33	60	ND	99.4	93.9	70-130	5.66	20
MTBE	10.71	10.59	10	ND	107	106	70-130	1.15	20
Benzene	11.59	11.42	10	ND	116	114	70-130	1.53	20
Toluene	11.58	11.66	10	ND	116	117	70-130	0.749	20
Ethylbenzene	11.64	11.36	10	ND	116	114	70-130	2.43	20
Xylenes	34.57	33.58	30	ND	115	112	70-130	2.90	20

Surrogate Recovery

aaa-TFT	9.475	9.322	10		95	93	70-130	1.63	20
---------	-------	-------	----	--	----	----	--------	------	----

1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262



CHAIN-OF-CUSTODY RECORD

WorkOrder: 1311703

ClientCode: PDEO

WaterTrax
 WriteOn
 EDF
 Excel
 EQuIS
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:

Michael Deschenes
 P & D Environmental
 55 Santa Clara, Ste.240
 Oakland, CA 94610
 (510) 658-6916 FAX: 510-834-0152

Email: lab@pdenviro.com
 cc:
 PO:
 ProjectNo: #0058; Xtra Oil

Bill to:

Accounts Payable
 P & D Environmental
 55 Santa Clara, Ste.240
 Oakland, CA 94610

Requested TAT:

5 days

Date Received: 11/20/2013

Date Printed: 11/21/2013

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1311703-001	MW-1	Water	11/19/2013 13:25	<input type="checkbox"/>	C	A	B										
1311703-002	MW-2	Water	11/19/2013 11:25	<input type="checkbox"/>	C	A	B										
1311703-003	MW-3	Water	11/19/2013 10:50	<input type="checkbox"/>	C	A	B										
1311703-004	MW-4	Water	11/19/2013 15:00	<input type="checkbox"/>	C	A	B										
1311703-005	EW-2	Water	11/19/2013 12:05	<input type="checkbox"/>	C	A	B										
1311703-006	EW-4	Water	11/19/2013 13:55	<input type="checkbox"/>	C	A	B										
1311703-007	EW-5	Water	11/19/2013 14:28	<input type="checkbox"/>	C	A	B										
1311703-008	OW-2	Water	11/19/2013 15:30	<input type="checkbox"/>	C	A	B										

Test Legend:

1	5-OXYS+PBSCV_W	2	G-MBTX_W	3	TPH(DMO)WSG_W	4		5	
6		7		8		9		10	
11		12							

Prepared by: Maria Venegas

Comments:

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



WORK ORDER SUMMARY

Client Name: P & D ENVIRONMENTAL

QC Level: LEVEL 2

Work Order: 1311703

Project: #0058; Xtra Oil

Client Contact: Michael Deschenes

Date Received: 11/20/2013

Comments:

Contact's Email: lab@pdenviro.com

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1311703-001A	MW-1	Water	SW8021B/8015Bm (G/MBTEX)	2	VOA w/ HCl	<input type="checkbox"/>	11/19/2013 13:25	5 days	Present	<input type="checkbox"/>	
1311703-001B	MW-1	Water	SW8015B (TPH-d,mo w/ S.G. Clean-Up)	2	VOA w/ HCl	<input type="checkbox"/>	11/19/2013 13:25	5 days	Present	<input type="checkbox"/>	
1311703-001C	MW-1	Water	SW8260B (5 Oxys+Lead Scav.)	2	VOA w/ HCl	<input type="checkbox"/>	11/19/2013 13:25	5 days	Present	<input type="checkbox"/>	
1311703-002A	MW-2	Water	SW8021B/8015Bm (G/MBTEX)	2	VOA w/ HCl	<input type="checkbox"/>	11/19/2013 11:25	5 days	Present	<input type="checkbox"/>	
1311703-002B	MW-2	Water	SW8015B (TPH-d,mo w/ S.G. Clean-Up)	2	VOA w/ HCl	<input type="checkbox"/>	11/19/2013 11:25	5 days	Present	<input type="checkbox"/>	
1311703-002C	MW-2	Water	SW8260B (5 Oxys+Lead Scav.)	2	VOA w/ HCl	<input type="checkbox"/>	11/19/2013 11:25	5 days	Present	<input type="checkbox"/>	
1311703-003A	MW-3	Water	SW8021B/8015Bm (G/MBTEX)	2	VOA w/ HCl	<input type="checkbox"/>	11/19/2013 10:50	5 days	Present	<input type="checkbox"/>	
1311703-003B	MW-3	Water	SW8015B (TPH-d,mo w/ S.G. Clean-Up)	2	VOA w/ HCl	<input type="checkbox"/>	11/19/2013 10:50	5 days	Present	<input type="checkbox"/>	
1311703-003C	MW-3	Water	SW8260B (5 Oxys+Lead Scav.)	2	VOA w/ HCl	<input type="checkbox"/>	11/19/2013 10:50	5 days	Present	<input type="checkbox"/>	
1311703-004A	MW-4	Water	SW8021B/8015Bm (G/MBTEX)	2	VOA w/ HCl	<input type="checkbox"/>	11/19/2013 15:00	5 days	Present	<input type="checkbox"/>	
1311703-004B	MW-4	Water	SW8015B (TPH-d,mo w/ S.G. Clean-Up)	2	VOA w/ HCl	<input type="checkbox"/>	11/19/2013 15:00	5 days	Present	<input type="checkbox"/>	
1311703-004C	MW-4	Water	SW8260B (5 Oxys+Lead Scav.)	2	VOA w/ HCl	<input type="checkbox"/>	11/19/2013 15:00	5 days	Present	<input type="checkbox"/>	
1311703-005A	EW-2	Water	SW8021B/8015Bm (G/MBTEX)	2	VOA w/ HCl	<input type="checkbox"/>	11/19/2013 12:05	5 days	Present	<input type="checkbox"/>	
1311703-005B	EW-2	Water	SW8015B (TPH-d,mo w/ S.G. Clean-Up)	2	VOA w/ HCl	<input type="checkbox"/>	11/19/2013 12:05	5 days	Present	<input type="checkbox"/>	
1311703-005C	EW-2	Water	SW8260B (5 Oxys+Lead Scav.)	2	VOA w/ HCl	<input type="checkbox"/>	11/19/2013 12:05	5 days	Present	<input type="checkbox"/>	
1311703-006A	EW-4	Water	SW8021B/8015Bm (G/MBTEX)	2	VOA w/ HCl	<input type="checkbox"/>	11/19/2013 13:55	5 days	Present	<input type="checkbox"/>	
1311703-006B	EW-4	Water	SW8015B (TPH-d,mo w/ S.G. Clean-Up)	2	VOA w/ HCl	<input type="checkbox"/>	11/19/2013 13:55	5 days	Present	<input type="checkbox"/>	

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

Bottle Legend:

VOA w/ HCl = 43mL VOA w/ HCl



WORK ORDER SUMMARY

Client Name: P & D ENVIRONMENTAL

QC Level: LEVEL 2

Work Order: 1311703

Project: #0058; Xtra Oil

Client Contact: Michael Deschenes

Date Received: 11/20/2013

Comments:

Contact's Email: lab@pdenviro.com

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1311703-006C	EW-4	Water	SW8260B (5 Oxys+Lead Scav.)	2	VOA w/ HCl	<input type="checkbox"/>	11/19/2013 13:55	5 days	Present	<input type="checkbox"/>	
1311703-007A	EW-5	Water	SW8021B/8015Bm (G/MBTEX)	2	VOA w/ HCl	<input type="checkbox"/>	11/19/2013 14:28	5 days	Present	<input type="checkbox"/>	
1311703-007B	EW-5	Water	SW8015B (TPH-d,mo w/ S.G. Clean-Up)	2	VOA w/ HCl	<input type="checkbox"/>	11/19/2013 14:28	5 days	Present	<input type="checkbox"/>	
1311703-007C	EW-5	Water	SW8260B (5 Oxys+Lead Scav.)	2	VOA w/ HCl	<input type="checkbox"/>	11/19/2013 14:28	5 days	Present	<input type="checkbox"/>	
1311703-008A	OW-2	Water	SW8021B/8015Bm (G/MBTEX)	2	VOA w/ HCl	<input type="checkbox"/>	11/19/2013 15:30	5 days	Present	<input type="checkbox"/>	
1311703-008B	OW-2	Water	SW8015B (TPH-d,mo w/ S.G. Clean-Up)	2	VOA w/ HCl	<input type="checkbox"/>	11/19/2013 15:30	5 days	Present	<input type="checkbox"/>	
1311703-008C	OW-2	Water	SW8260B (5 Oxys+Lead Scav.)	2	VOA w/ HCl	<input type="checkbox"/>	11/19/2013 15:30	5 days	Present	<input type="checkbox"/>	

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

Bottle Legend:

VOA w/ HCl = 43mL VOA w/ HCl

1311703

CHAIN OF CUSTODY RECORD

P&D ENVIRONMENTAL, INC.
 55 Santa Clara Ave., Suite 240
 Oakland, CA 94610
 (510) 658-6916

PROJECT NUMBER:
 0058

PROJECT NAME:
 Xtra Oil
 1701 Park Street,
 Alameda, CA

SAMPLED BY: (PRINTED & SIGNATURE)
 Michael Bruce Derzhenskiy *Michael Bruce Derzhenskiy*

NUMBER OF CONTAINERS

ANALYSIS(ES):
 TPH - Multi Range (Gr. D, Mo)
 w/ Silica gel cleanup
 MBTEX by 80218
 Fuel Oils + Ph Scavenger
 by 82608

PRESERVATIVE

REMARKS

+
+
+
+
+
+
+
+
+

SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	TPH - Multi Range (Gr. D, Mo) w/ Silica gel cleanup	MBTEX by 80218	Fuel Oils + Ph Scavenger by 82608	PRESERVATIVE	REMARKS
MW-1	11/19/03	1325	M20		6	X	X	X	ICE	Normal Turnaround
MW-2		1125			6	X	X	X		Time
MW-3		1050			6	X	X	X		
MW-4		1500			6	X	X	X		
EW-2		1205			6	X	X	X		
EW-4		1355			6	X	X	X		
EW-5		1428			6	X	X	X		
OW-2		1530			6	X	X	X		

ICE: 22
 GOOD CONDITION APPROPRIATE CONTAINERS
 HEAD SPACE ABSENT PRESERVED IN LAB
 DECHLORINATED IN LAB
 PRESERVATION: VOAS O&G METALS OTHER

RELINQUISHED BY: (SIGNATURE) *Michael Bruce Derzhenskiy* DATE: 11/20/03 TIME: 1605 RECEIVED BY: (SIGNATURE) *[Signature]* Total No. of Samples (This Shipment): 8 LABORATORY: Mc Campbell Analytical, Inc

RELINQUISHED BY: (SIGNATURE) *[Signature]* DATE: 11/26/03 TIME: 1910 RECEIVED BY: (SIGNATURE) *[Signature]* Total No. of Containers (This Shipment): 48 LABORATORY CONTACT: Angela Rydelius 877 252-9262

RELINQUISHED BY: (SIGNATURE) DATE: TIME: RECEIVED FOR LABORATORY BY: (SIGNATURE) SAMPLE ANALYSIS REQUEST SHEET ATTACHED: () YES (X) NO

Results and billing to: P&D Environmental, Inc. lab@pdenviro.com REMARKS: All bottles (VOAs) preserved w/ HCl.



Sample Receipt Checklist

Client Name: **P & D Environmental** Date and Time Received: **11/20/2013 7:10:00 PM**
 Project Name: **#0058; Xtra Oil** LogIn Reviewed by: **Maria Venegas**
 WorkOrder N°: **1311703** Matrix: Water Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Container/Temp Blank temperature Cooler Temp: 2.2°C NA
 Water - VOA vials have zero headspace / no bubbles? Yes No NA
 Sample labels checked for correct preservation? Yes No
 Metal - pH acceptable upon receipt (pH<2)? Yes No NA
 Samples Received on Ice? Yes No

(Ice Type: WET ICE)

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

 Comments:

APPENDIX A

HISTORICAL WATER LEVEL AND WATER QUALITY DATA FOR THE SUBJECT SITE

TABLE 1 - SUMMARY OF GROUNDWATER SAMPLING
 XTRA OIL COMPANY SERVICE STATION
 1701 PARK STREET, ALAMEDA, CALIFORNIA

ALISTO PROJECT NO. 10-210

WELL ID	DATE OF MONITORING/SAMPLING	CASING ELEVATION (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	OTHER SVOCs (ug/l)	NAPHTHALENE (ug/l)	BENZO-PYRENE (ug/l)	DO (ppm)	LAB
MW-1	11/04/94	19.60	8.6		10.96	60000	6400	13000	4900	1300	5500						MCC
QC-1 (c)	11/04/94					54000		12000	4500	1200	5200						MCC
MW-1	01/11/95	19.60	6.10		13.50												
MW-1	02/24/95	19.60	6.57		13.03	56000	4400	13000	7000	1400	5100						MCC
QC-1 (c)	02/24/95					43000		8900	4600	970	3300						MCC
MW-1	05/25/95	19.60	6.54		13.06	53000	4700	11000	5700	1200	4000						4.3
QC-1 (c)	05/25/95					48000		11000	5300	1200	3800						MCC
MW-1	08/30/95	19.60	8.15		11.45	14000	3700	5000	1100	3900	103						2.8
QC-1 (c)	08/30/95					57000		17000	7000	1500	5200						MCC
MW-1	11/16/95	19.60	8.79		10.81	100000	5900	22000	17000	2100	8500						MCC
QC-1 (c)	11/16/95					95000		20000	15000	1800	7800						MCC
MW-1	03/20/96	19.60	6.45		13.15	46000	3300	10000	6200	1100	3200						MCC
QC-1 (c)	03/20/96					42000		8800	5800	970	3000						MCC
MW-1	06/13/96	19.60	7.14		12.46	44000	5400	9500	5500	1100	4000	19000					MCC
QC-1 (c)	06/13/96					45000		8500	9300	1000	3800	17000					MCC
MW-1	09/23/96	19.60	7.56		12.04	76000	14000	14000	11000	1600	7100	17000					6.1
MW-1	12/19/96	19.60	7.08		12.52	46000		12000	5500	1200	4100						MCC
MW-1	05/09/97	19.60	7.39		12.21	80000	7500	14000	12000	1700	7600	14000	ND	280	ND<2	2.7	MCC/CHR
MW-1	09/11/97	19.60	7.50		12.10	100000	7700	19000	19000	2400	11000	ND<2100					7.2
MW-1	12/15/97	19.60	7.61		11.99	45000	3500	11000	5300	1500	5200	13000					6.8
QC-1 (c)	12/15/97					45000		11000	5400	1400	5100	14000					MCC
MW-1	03/11/98	19.60	6.35		14.25	40000	3800	5900	3500	1300	4900	8700					6
QC-1 (c)	03/11/98					43000		7200	5000	1400	5300	14000					MCC
MW-1	06/23/98	19.60	5.63		12.97	44000	3700	5900	6200	1800	6200	870					6.2
QC-1 (c)	06/23/98					47000		6000	6400	1800	6300	1000					MCC
MW-1	12/01/98	19.60	6.48		13.12	57000		7400	12000	2100	8200	7200					2.4
QC-1 (c)	12/01/98					57000		6800	11000	1900	7500	8300					MCC
MW-1	03/30/99	19.60	5.74		13.86	67000	6500	5700	9400	2500	9400	3200					2.1
QC-1 (c)	03/30/99					64000	6400	5500	9000	2400	9100	3100					MCC
MW-1	08/16/99	19.60	7.02		12.58	63000		3800	9100	2800	11000	ND<1700					1.3
QC-1 (c)	08/16/99					64000		3700	8800	2800	11000	ND<1400					MCC
MW-1	12/31/99	19.60	7.45		12.15	62000	5100	2900	9400	2700	11000	ND<100					8.3
QC-1 (c)	12/31/99					67000	4900	2900	9700	2800	12000	ND<100					MCC
MW-1	03/31/00	19.60	5.85		13.75	48000	490	3200	5500	2000	6700	520					7.9
QC-1 (c)	03/31/00					54000	3300	3500	6000	2300	7300	730					MCC
MW-1	07/14/00	19.60	7.00		12.60	79000	5700	5600	4900	2300	9500	ND<200					3.2
QC-1 (c)	07/14/00					72000		4900	14000	2100	9200	ND<200					MCC
MW-1	10/04/00	19.60	7.60		12.00	65000	2900	3800	11000	2400	8200	ND<100					1.4
QC-1 (c)	10/04/00					68000		3900	13000	2400	9300	ND<100					MCC
MW-1	12/21/00	19.60	6.91		12.99	74000	2500	3800	17000	3400	15000	ND<200					1.3
QC-1 (c)	12/21/00					69000		2700	12000	2400	11000	ND<550					MCC
MW-1	04/13/01	19.60	6.06		13.54	55000	2400	2900	7800	2400	9400	ND<900					0.8
QC-1 (c)	04/13/01					51000		2300	8100	2900	7800	ND<350					MCC
MW-1	06/27/01	19.60	6.54		13.06	80000	3600	2800	13000	2300	10000	ND<250					1.1
QC-1 (c)	06/27/01					76000		3100	13000	2300	10000	ND<250					MCC
MW-1	09/20/01	19.60	7.06		12.52	74000	6600	1600	7700	2500	10000	ND<200					0.8
QC-1 (c)	09/20/01					67000		1600	7800	2600	10000	ND<200					MCC
MW-1	12/21/01	19.60	5.71		13.89	58000	5500	2100	11000	2400	10000	ND<720					1.4
QC-1 (c)	12/21/01					56000		2100	11000	2300	10000	ND<620					MCC
MW-1	02/04/02	19.60	5.01		14.59	6500	1800	74	100	230	1500	140					4.1
QC-1 (c)	02/04/02					8000		90	130	270	1800	ND<500					MCC
MW-1	05/07/02	19.60	6.10		13.50	41000	7900	1300	5200	1700	6300	ND<1000					4.3
QC-1 (c)	05/07/02					40000		1300	5200	1700	6400	ND<500					MCC
MW-1	09/22/02	19.60	6.91		12.89	42000	4800	1100	6300	1900	7900	ND<500					4.9
QC-1 (c)	09/22/02					40000		1000	6100	1800	7500	ND<500					MCC
MW-1	11/08/02	19.60	6.46		13.14	39000	6800	770	4600	1600	6600	ND<1000					MCC
QC-1 (c)	11/08/02					49000		880	4800	1800	6700	ND<1700					MCC
MW-1	02/07/03	19.60	5.80		13.80	43000	3700	1600	5100	2100	9700	ND<500					1.1
MW-1	05/02/03	19.60	5.60		14.00	48000	4600	1100	5900	1800	7300	ND<1000					MCC
QC-1 (c)	05/02/03							1200	5800	1800	7100	ND<500					MCC
MW-1	08/14/03	19.60	6.81		12.79	42000	3800	1000	4700	2000	8100	ND<500					1.3
QC-1 (c)	08/14/03					43000		1000	4600	2000	7900	ND<500					MCC
MW-1	11/14/03	19.60	6.71		12.89	40000	3000	610	4900	1900	7600	ND<500					MCC
MW-1	03/01/04	19.60	5.22		14.38	20000	3000	540	2500	720	2900	ND<50					0.01
MW-1	06/30/04	19.60	6.38		13.22	38000	3000	570	2900	2100	8200	ND<500					MCC
QC-1 (c)	06/30/04						6800	550	3200	2100	9100	ND<500					MCC
MW-1	10/26/04	19.60	6.00		13.60	35000	4400	510	2900	1900	5700	ND<150					2.7
QC-1 (c)	10/26/04							450	2700	1600	5500	ND<150					MCC
MW-1	03/24/05	19.60	5.04		14.56	29000	3300	1300	5500	1200	4900	ND<500					2.7
QC-1 (c)	03/24/05					31000		830	3800	1900	4500	ND<210					MCC
MW-1	06/14/05	19.60	5.45		14.15	23000	4300	1300	2700	810	2700	ND<500					2.9
QC-1 (c)	06/14/05							1400	3100	810	2900	ND<250					MCC
MW-1	09/12/05	19.60	7.89		11.71	60000	4600	4900	8200	1900	7300	2300					2.6
QC-1 (c)	09/12/05					58000		5000	8500	1900	7300	2200					MCC
MW-1	01/04/06	19.60	6.09		13.51	54000	2900	8800	3500	970	3700	5400					MCC
QC-1 (c)	01/04/06					46000		8500	3500	970	3700	5200					MCC
MW-1	04/04/06	19.60	5.71	<0.01	13.89	31000	2500	6700	2800	1900	6800	5400					MCC
QC-1 (c)	04/04/06					31000		6900	2900	1000	2800	5800					MCC
MW-1	06/12/06	19.60	6.66	sheen	12.94	31000	3100	4800	2200	910	2600	3900					MCC
QC-1 (c)	06/12/06					31000		5700	2300	850	2400	4900					MCC
MW-1	09/08/06	19.60	7.78	sheen	11.82	34000	3000	7900	1800	760	2300	6200					MCC
QC-1 (c)	09/08/06					39000		6300	1600	680	2000	5200					MCC

TABLE 1 - SUMMARY OF GROUNDWATER SAMPLING
 XTRA OIL COMPANY SERVICE STATION
 1701 PARK STREET, ALAMEDA, CALIFORNIA

ALISTO PROJECT NO. 10-210

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (Feet)	DEPTH TO WATER (a) (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	OTHER SVOCs (ug/l)	NAPHTHALENE (ug/l)	BENZO-PYRENE (ug/l)	DO (ppm)	LAB	
MW-2	11/04/84	20.31	9.12	0.16	11.31	—	—	—	—	—	—	—	—	—	—	—	—	
MW-2	01/11/95	20.31	6.75	—	13.56	—	—	—	—	—	—	—	—	—	—	—	—	
MW-2	02/24/95	20.31	7.11	0.18	13.34	—	—	—	—	—	—	—	—	—	—	—	—	
MW-2	05/25/95	20.31	7.01	0.01	13.31	—	—	—	—	—	—	—	—	—	—	—	—	
MW-2	08/30/95	20.31	6.58	0.12	11.82	—	—	—	—	—	—	—	—	—	—	—	—	
MW-2	11/16/95	20.31	6.07	0.01	11.26	—	—	—	—	—	—	—	—	—	—	—	—	
MW-2	03/20/96	20.31	6.79	0.01	13.53	—	—	—	—	—	—	—	—	—	—	—	—	
MW-2	06/13/96	20.31	7.41	0.01	12.91	—	—	—	—	—	—	—	—	—	—	—	—	
MW-2	09/23/96	20.31	7.83	0.01	12.49	30000	19000	4600	180	1500	4100	2600	—	—	—	5.5	MCC	
QC-1 (c)	09/23/96	—	—	—	—	33000	—	4700	170	1600	3900	2400	—	—	—	—	MCC	
MW-2	12/19/96	20.31	7.37	0.01	12.95	29000	—	1800	240	1400	5400	(d)	—	—	ND<10	—	MCC	
QC-1 (e)	12/19/96	—	—	—	—	29000	—	580	210	1300	5100	—	—	—	—	—	MCC	
MW-2	05/09/97	20.31	6.11	0.21	14.36	34000	6700000	4600	260	1500	4300	1600	—	—	—	3.7	MCC	
MW-2	09/11/97	20.31	7.70	0.03	12.63	44000	1200000	3900	250	2400	7400	ND<610	—	—	—	6.5	MCC	
QC-1 (e)	09/11/97	—	—	—	—	47000	1100000	4000	420	2700	8300	920	—	—	—	—	MCC	
MW-2	12/15/97	20.31	7.87	0.03	12.46	32000	68000	4600	130	2200	5400	ND<470	—	—	—	6	MCC	
MW-2	03/11/98	20.31	5.61	0.18	14.84	44000	3800	5200	220	2000	5000	1100	—	—	—	6.2	MCC	
MW-2	06/23/98	20.31	6.74	0.02	13.59	75000	570000	5900	390	3100	8300	8400	—	—	—	6.3	MCC	
MW-2	12/01/98	20.31	7.30	—	13.01	36000	—	3800	73	1500	3900	2000	—	—	—	1.9	MCC	
MW-2	03/30/99	20.31	6.51	0.13	13.90	23000	23000	5000	100	610	870	21000	—	—	—	1.7	MCC	
MW-2	08/16/99	20.31	6.04	0.21	12.43	30000	—	5200	67	1100	1800	6000	—	—	—	2.6	MCC	
MW-2	12/31/99	20.31	8.20	0.01	12.12	43000	340000	7600	97	1400	2500	4300	—	—	—	9.0	MCC	
MW-2	03/31/00	20.31	6.29	0.01	14.03	26000	200000	4000	58	1100	1500	13000	—	—	—	8.1	MCC	
MW-2	07/14/00	20.31	8.02	—	12.29	35000	17000	5000	76	1100	2500	4900	—	—	—	3.9	MCC	
MW-2	10/04/00	20.31	8.62	—	11.69	22000	67000	4700	97	1300	1000	1900	—	—	—	1.8	MCC	
MW-2	12/21/00	20.31	7.70	—	12.61	23000	16000	3700	85	770	490	8600	—	220	ND<10	0.6	MCC	
MW-2	04/13/01	20.31	7.05	—	13.26	25000	21000	6400	79	790	670	8300	—	—	—	1.1	MCC	
MW-2	06/27/01	20.31	7.50	—	12.81	34000	10000	5400	100	520	370	6800	—	—	—	0.7	MCC	
MW-2	09/20/01	20.31	8.10	—	12.21	28000	64000	4600	78	670	500	2000	—	—	—	0.4	MCC	
MW-2	12/21/01	20.31	6.66	—	13.65	30000	18000	3000	52	1700	970	ND<100	—	—	—	0.9	MCC	
MW-2	02/04/02	20.31	6.75	—	13.56	17000	35000	3600	ND<50	960	500	1200	—	—	—	1.3	MCC	
MW-2	05/07/02	20.31	7.20	—	13.11	16000	59000	3500	43	520	220	3100	—	—	—	1.0	MCC	
MW-2	08/22/02	20.31	7.96	—	12.35	15000	60000	2700	30	460	220	700	—	—	—	4.2	MCC	
MW-2	11/08/02	20.31	7.66	—	12.62	15000	100000	2100	60	1100	150	ND<250	—	—	—	—	MCC	
MW-2	02/07/03	20.31	6.52	—	13.79	11000	—	4400	24	ND<12	77	1900	—	—	—	0.7	MCC	
MW-2	05/02/03	20.31	6.40	—	13.91	16000	79000	1800	23	860	210	ND<350	—	—	—	—	MCC	
MW-2	08/14/03	20.31	7.77	—	12.54	13000	4300	1600	21	450	80	ND<400	—	—	—	0.9	MCC	
MW-2	11/14/03	20.31	7.85	—	12.46	12000	13000	1700	29	600	100	ND<600	—	—	—	0.7	MCC	
MW-2	03/01/04	20.31	6.10	—	14.21	17000	43000	3900	100	670	430	1800	—	—	—	0.8	MCC	
MW-2	06/30/04	20.31	7.61	—	12.67	14000	12000	3800	33	390	72	1900	—	—	—	0.42	MCC	
MW-2	10/20/04	20.31	7.12	—	13.19	14000	7900	3700	47	300	100	1700	—	—	—	—	MCC	
MW-2	03/24/05	20.31	5.78	—	14.63	15000	57000	3000	ND<25	400	58	ND<900	—	—	—	—	MCC	
MW-2	06/14/05	20.31	6.92	—	13.39	15000	53000	2100	31	310	49	530	—	—	—	0.8	MCC	
MW-2	09/12/05	20.31	8.25	0.01	12.06	10000	11000	2600	30	200	ND<10	660	—	—	—	2.6	MCC	
MW-2	01/04/06	(g)	20.31	6.45	<0.01	13.86	7300	14000	1500	18	180	47	ND<250	—	—	—	—	MCC
MW-2	04/04/06	(h)	20.31	6.14	—	14.17	9500	130000	2200	35	170	52	ND<250	—	—	—	—	MCC
MW-2	06/12/06	20.31	7.15	0.01	13.16	10000	29000	2200	46	74	59	460	—	—	—	—	MCC	
MW-2	09/08/06	20.31	8.22	sheen	12.09	12000	7400	1800	25	130	38	ND<300	—	—	—	—	MCC	
MW-3	11/04/84	20.57	8.92	—	11.65	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	—	—	MCC	
MW-3	01/11/95	20.57	5.67	—	14.90	—	—	—	—	—	—	—	—	—	—	—	—	
MW-3	02/24/95	20.57	6.11	—	14.46	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	—	—	MCC	
MW-3	05/25/95	20.57	6.24	—	14.33	91	ND<50	28.0	12.0	2.1	6.5	—	—	—	—	—	MCC	
MW-3	08/30/95	20.57	8.27	—	12.30	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	—	4.6	MCC	
MW-3	11/16/95	20.57	8.82	—	11.75	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	—	—	MCC	
MW-3	03/20/96	20.57	5.44	—	16.13	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	—	—	MCC	
MW-3	06/13/96	20.57	6.17	—	14.40	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	MCC	
MW-3	09/23/96	20.57	6.57	—	14.00	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	MCC	
MW-3	12/19/96	20.57	6.59	—	13.98	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	—	MCC	
MW-3	05/09/97	20.57	7.00	—	13.57	ND<50	59	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	3.3	MCC	
MW-3	09/11/97	20.57	6.92	—	13.95	ND<50	82	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	7	MCC	
MW-3	12/15/97	20.57	7.03	—	13.54	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	6.5	MCC	
MW-3	03/11/98	20.57	4.71	—	15.86	ND<50	ND<50	ND<0.5	1.8	0.6	3.1	ND<5.0	—	—	—	6.1	MCC	
MW-3	06/23/98	20.57	6.33	—	14.24	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	5.7	MCC	
MW-3	12/01/98	20.57	6.74	—	13.83	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	4	MCC	
MW-3	03/30/99	20.57	5.68	—	14.89	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	4.6	MCC	
MW-3	08/16/99	20.57	7.67	—	12.90	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	2.7	MCC	
MW-3	12/31/99	20.57	8.07	—	12.50	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	9.0	MCC	
MW-3	03/31/00	20.57	5.99	—	14.98	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	2.8	MCC	
MW-3	07/14/00	20.57	7.84	—	12.93	68	ND<50	0.89	1.7	2.1	9.5	ND<5.0	—	—	—	2.1	MCC	
MW-3	10/04/00	20.57	8.34	—	12.23	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	2.0	MCC	
MW-3	12/21/00	20.57	7.00	—	13.57	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	1.4	MCC	
MW-3	04/13/01	20.57	6.38	—	14.19	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	1.3	MCC	
MW-3	06/27/01	20.57	7.37	—	13.20	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	1.9	MCC	
MW-3	09/20/01	20.57	8.25	—	12.52	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	2.1	MCC	
MW-3	12/21/01	20.57	5.72	—	14.85	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	2.9	MCC	
MW-3	02/04/02	20.57	5.85	—	14.72	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	4.1	MCC	
MW-3	05/07/02	20.57	6.49	—	14.08	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5							

TABLE 1 - SUMMARY OF GROUNDWATER SAMPLING
XTRA OIL COMPANY SERVICE STATION
1701 PARK STREET, ALAMEDA, CALIFORNIA

ALISTO PROJECT NO. 10-210

WELL ID	DATE OF MONITORING/SAMPLING	CASING ELEVATION (Feet)	DEPTH TO WATER (Feet) (a)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (Feet) (b)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	OTHER SVOCs (ug/l)	NAPHTHALENE (ug/l)	BENZO-PYRENE (ug/l)	DO (ppm)	LAB
MW-3	02/07/03	20.57	5.85	---	14.52	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	2.8	MCC
MW-3	05/02/03	20.57	5.75	---	14.82	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	---	MCC
MW-3	08/14/03	20.57	7.74	---	12.83	ND<50	ND<50	1.6	ND<0.5	0.82	3.2	ND<5.0	---	---	---	2.1	MCC
MW-3	11/14/03	20.57	7.75	---	12.82	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	0.8	MCC
MW-3	03/01/04	20.57	5.17	---	15.40	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	0.92	MCC
MW-3	06/30/04	(e) 20.57	7.48	---	13.09	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	0.92	MCC
MW-3	10/26/04	20.57	6.47	---	14.10	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	3.0	MCC
MW-3	03/24/05	20.57	4.70	---	15.87	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	3.0	MCC
MW-3	06/14/05	20.57	5.99	---	14.58	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	2.7	MCC
MW-3	09/12/05	20.57	7.89	---	12.68	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	3.3	MCC
MW-3	01/04/06	(g) 20.57	5.10	---	15.47	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	---	MCC
MW-3	04/04/06	(h) 20.57	4.93	---	15.64	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	---	MCC
MW-3	06/12/06	20.57	6.20	---	14.37	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	---	MCC
MW-3	09/08/06	20.57	7.81	---	12.76	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	---	MCC
MW-4	05/09/97	19.69	7.17	---	12.52	31000	15000	540	1300	1000	4500	1900	ND	2.1	ND<2	3.1	MCC/CHR
MW-4	09/11/97	19.69	7.71	---	11.98	40000	6500	2000	3100	1700	7700	3400	---	---	---	6.4	MCC
MW-4	12/15/97	19.69	7.87	---	11.82	14000	2100	910	690	390	2700	1700	---	---	---	5.5	MCC
MW-4	03/11/98	19.69	3.51	---	16.18	2800	780	68	94	72	430	140	---	---	---	6	MCC
MW-4	06/23/98	19.69	5.21	---	14.48	15000	2800	240	630	720	2700	370	---	---	---	5.4	MCC
MW-4	12/01/98	19.69	6.45	---	13.24	21000	---	580	1000	530	3600	1700	---	---	---	4.4	MCC
MW-4	03/20/99	19.69	5.41	---	14.28	41000	3600	3100	3400	1700	6700	5700	---	---	---	4.6	MCC
MW-4	08/16/99	19.69	7.35	---	12.34	24000	---	4600	940	1200	2700	9700	---	---	---	3.4	MCC
MW-4	12/31/99	19.69	7.71	---	11.98	14000	2000	510	630	600	3100	3500	---	---	---	10.1	MCC
MW-4	03/31/00	19.69	5.22	---	14.47	14000	1400	470	480	580	2200	2000	---	---	---	6.8	MCC
MW-4	07/14/00	19.69	7.31	---	12.38	37000	4300	770	1500	1800	7200	1700	---	---	---	3.3	MCC
MW-4	10/04/00	19.69	7.11	---	12.58	47000	3200	870	2000	2600	9800	ND<1500	---	---	---	1.7	MCC
MW-4	12/21/00	19.69	6.66	---	12.83	13000	1800	370	410	460	1500	---	---	88	ND<10	0.6	MCC
MW-4	04/13/01	19.69	6.02	---	13.67	20000	2800	710	640	620	2900	2300	---	---	---	1.0	MCC
MW-4	06/27/01	19.69	6.72	---	12.97	23000	2100	510	1100	1100	4300	1400	---	---	---	1.0	MCC
MW-4	09/20/01	19.69	7.30	---	12.39	36000	4400	460	1300	1700	6700	1000	---	---	---	2.0	MCC
MW-4	12/21/01	19.69	4.55	---	15.14	11000	5600	130	250	480	2400	ND<320	---	---	---	1.6	MCC
MW-4	02/04/02	19.69	5.82	---	13.87	50000	12000	3000	8100	1900	7600	ND<500	---	---	---	2.0	MCC
MW-4	05/07/02	19.69	6.08	---	13.61	17000	3200	270	820	870	3700	ND<500	---	---	---	2.6	MCC
MW-4	08/22/02	19.69	7.45	---	12.24	26000	3800	720	920	1500	6500	2100	---	---	---	4.6	MCC
MW-4	11/08/02	19.69	6.74	---	12.95	20000	3600	290	630	1200	5100	670	---	---	---	---	MCC
MW-4	02/07/03	19.69	4.86	---	14.83	13000	---	520	1300	ND<25	3600	420	---	---	---	2.1	MCC
QC-1 (c)	02/07/03	---	---	---	---	13000	---	510	1200	83	3100	420	---	---	---	---	MCC
MW-4	05/02/03	19.69	5.45	---	14.24	18000	3800	280	550	810	3600	470	---	---	---	---	MCC
MW-4	08/14/03	19.69	7.20	---	12.49	31000	4100	720	810	1300	6400	1100	---	---	---	1.2	MCC
MW-4	11/14/03	19.69	6.92	---	12.77	18000	3300	450	320	1000	4500	ND<1000	---	---	---	0.7	MCC
QC-1 (e)	11/14/03	---	---	---	---	---	---	440	310	1100	4500	ND<1000	---	---	---	---	MCC
MW-4	03/01/04	19.69	5.10	---	14.59	15000	2500	110	210	580	2700	240	---	---	---	0.61	MCC
QC-1 (e)	03/01/04	---	---	---	---	15000	---	110	220	610	2800	250	---	---	---	---	MCC
MW-4	06/30/04	(e) 19.69	6.70	---	12.99	23000	5800	330	550	1300	5200	ND<900	---	---	---	0.61	MCC
MW-4	10/26/04	19.69	6.05	---	13.64	19000	3800	150	380	950	3800	ND<300	---	---	---	2.0	MCC
MW-4	03/24/05	19.69	4.23	---	15.46	6600	1900	62	28	190	950	ND<120	---	---	---	2.0	MCC
MW-4	06/14/05	19.69	5.58	---	14.11	23000	5600	160	510	1200	4000	ND<500	---	---	---	2.1	MCC
MW-4	09/12/05	19.69	7.84	---	11.95	24000	4000	1400	640	1400	3900	1400	---	---	---	2.2	MCC
MW-4	01/04/06	(g) 19.69	4.65	---	15.04	20000	2800	740	350	930	2900	1100	---	---	---	---	MCC
MW-4	04/04/06	(h) 19.69	4.62	---	15.07	8100	2000	300	64	490	1200	530	---	---	---	---	MCC
MW-4	06/12/06	19.69	6.07	sheen	13.62	24000	4500	270	390	1300	3600	340	---	---	---	---	MCC
MW-4	09/08/06	(i) 19.69	7.42	sheen	12.27	20000	3100	1700	240	930	2000	1800	---	---	---	---	MCC
QC-2 (f)	11/04/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	MCC
QC-2 (f)	02/24/95	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	MCC
QC-2 (f)	05/25/96	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	MCC
QC-2 (f)	08/30/95	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	MCC
QC-2 (f)	11/16/95	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	MCC
QC-2 (f)	03/20/96	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	MCC
QC-2 (f)	06/13/96	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	MCC

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline using EPA Methods 5030/8015
TPH-D	Total petroleum hydrocarbons as diesel using EPA Methods 3510/8015
B	Benzene using EPA Methods 5030/8020
T	Toluene using EPA Methods 5030/8020
E	Ethylbenzene using EPA Methods 5030/8020
X	Total xylenes using EPA Methods 5030/8020
MTBE	Methyl tert butyl ether using EPA Methods 5030/8020
SVOCs	Semivolatile organic compounds using EPA Method 8270
DO	Dissolved oxygen
ug/l	Micrograms per liter
ppm	Parts per million
---	Not analyzed/applicable/measurable
ND	Not detected above reported detection limit
MCC	McCambell Analytical, Inc.
CHR	Chromatlab, Inc.

NOTES:

(a)	Top of casing surveyed relative to mean sea level.
(b)	Groundwater elevations expressed in feet above mean sea level, and adjusted assuming a specific gravity of 0.75 for free product.
(c)	Blind duplicate.
(d)	Other SVOCs detected at concentrations of 200 ug/l 2-methylnaphthalene and 14 ug/l phenanthrene
(e)	Wells monitored 6/15/04.
(f)	Travel blank.
(g)	4th Quarter 2005 sampling
(h)	1st Quarter 2006 sampling
(i)	Well recharge was exceeding slow; not to be used in prepaying contours