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First Quarter 2016 Semi-Annual Groundwater Monitoring Report

Former Atlantic Richfield Company Station #11132
3201 35th Avenue, Oakland, California 94619
Alameda County LOP Case #RO0000014
SFB-RWQCB Case #01-0227

Arcadis U.S., Inc.
2170 Highland Avenue
Suite 250
Birmingham
AL 35205
Tel 205 930 5700
Fax 205 930 5707
www.arcadis.com

ENVIRONMENT

"I declare that to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached document are true and correct."

Date:
April 27, 2016

Submitted by:

Arcadis U.S., Inc.

Megan Smoley, P.G. No. 8614
Certified Project Manager



Contact:
Megan Smoley

Phone:
626.590.1502

Email:
Megan.Smoley@arcadis.com

Our ref:
GP09BPNA.C112.N0000

Mr. Keith Nowell
 Alameda County LOP
 1131 Harbor Bay Parkway
 Alameda, California 94502

Subject:

First Quarter 2016 Semi-Annual Groundwater Monitoring Report

Former Atlantic Richfield Company Station #11132
 3201 35th Avenue, Oakland, California 94619
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Dear Mr. Nowell:

ENVIRONMENT

Arcadis U.S., Inc. (Arcadis) has prepared this semi-annual groundwater monitoring report (GMR) to document the results of groundwater monitoring and sampling at the former Atlantic Richfield Company (ARCO) Service Station #11132, located at 3201 35th Avenue in Oakland, California (the Site; Figure 1).

Date:
 April 27, 2016

1. Summary

1.1 Work Performed During Fourth Quarter 2015 and First Quarter 2016:

- Installed monitoring wells MW-10R and MW-11 on February 3 and 10, 2016, respectively.
- Conducted groundwater monitoring and sampling for the First Quarter 2016 on March 28, 2016.
- Prepared and submitted the *Well Installation and Well Replacement Report* on April 8, 2016 documenting the installation of wells MW-10R and MW-11.
- Prepared and submitted the *First Quarter 2016 Semi-Annual Groundwater Monitoring Report*, contained herein.

Contact:
 Megan Smoley

Phone:
 626.590.1502

Email:
Megan.Smoley@arcadis.com

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1.2 Work Proposed for Second and Third Quarters 2016:

- Conduct quarterly groundwater monitoring and sampling of newly installed wells MW-10R and MW-11.
- Conduct semi-annual groundwater monitoring and sampling for Third Quarter 2016.
- Prepare and submit the *Third Quarter 2016 Semi-Annual Groundwater Monitoring Report*, which will include the second quarter groundwater analytical results from samples collected at MW-10R and MW-11.

SITE INFORMATION

Current Phase of Project:	Groundwater Monitoring and Sampling
Frequency of Monitoring and Sampling	Semi-Annual Gauging (1/3Q): MW-1 through MW-11 and RW-1 Semi-Annual Sampling (1/3Q): MW-1, MW-2, MW-5, MW-8, MW-9, MW-10R*, MW-11*, RW-1 Annual Sampling (1Q): MW-4 and MW-7 *Note: MW-10R and MW-11 will be sampled quarterly for one year after installation through 4Q16.
Have Liquid Phase Hydrocarbons (LPH) Been Measured Onsite, Historically?	Yes
Historical Range in Depth to Water (DTW; feet below top of casing [btoc]):	9.11 (MW-8 3Q/2007) to 32.20 (RW-1 2Q/1994)

CURRENT QUARTER MONITORING DATA

Wells Gauged:	MW-1, MW-2, MW-4, MW-7 through MW-9, MW-10R, MW-11, RW-1
Wells Sampled:	MW-1, MW-2, MW-4, MW-7, MW-8, MW-9, MW-10R, MW-11, RW-1
Monitoring and Sampling Date:	March 28, 2016
LPH Measured This Quarter:	No
LPH Recovered This Quarter:	None
Cumulative LPH Recovered to Date:	None
DTW Range (feet btoc):	10.72 (MW-8) to 16.29 (MW-4)
Groundwater Flow Direction and Gradient (feet/foot):	South at 0.007 feet/foot

CURRENT QUARTER ANALYTICAL DATA

Constituents	Number of Detections Above LRL : Total Samples Collected	Minimum Detected Concentration, in µg/L (Sample ID)	Maximum Detected Concentration, in µg/L (Sample ID)
GRO	7 : 9	199 (RW-1)	38,000 (MW-10R)
Benzene	5 : 9	4.41 (MW-9)	7,360 (MW-2)
Toluene	3 : 9	53.8 (MW-8)	2,810 (MW-10R)
Ethylbenzene	5 : 9	26.8 (MW-9)	1,350 (MW-2)
Total Xylenes	4 : 9	6.32 (MW-9)	5,310 (MW-10R)
MTBE	5 : 9	1.30 (MW-10R)	458 (MW-7)
TBA	4 : 9	3.70 (MW-8)	463 (MW-2)
DIPE	0 : 9	--	--
ETBE	0 : 9	--	--
TAME	1 : 9	7.00 (MW-7)	7.00 (MW-7)
Ethanol	0 : 9	--	--

EDB	0 : 9	--	--
1,2-DCA	0 : 9	--	--
Naphthalene	0 : 0	--	--

Table Notes:

µg/L = Micrograms per liter

LRL = Laboratory reporting limit

GRO = Gasoline range organics

MTBE = Methyl tert-butyl ether

TBA = Tert-butyl alcohol

DIPE = Di-isopropyl ether

ETBE = Ethyl tert-butyl ether

TAME = Tert-amyl methyl ether

EDB = 1,2-dibromoethane

1,2-DCA = 1,2-dichloroethane

2. Groundwater Monitoring and Sampling

2.1 Monitoring and Sampling Procedures

During the First Quarter 2016 sampling event, HydraSleeves were used to collect groundwater samples at the Site. Prior to groundwater sampling, depths to water were measured to within 0.01 feet below top of casing (btoc) in wells MW-1, MW-2, MW-4, MW-7, MW-8, MW-9, MW-10R, MW-11, and RW-1 using an oil/water interface probe. Onsite wells MW-3 and MW-6 were inadvertently not gauged by Broadbent since they were not on the sampling schedule. Samples were collected from wells MW-1, MW-2, MW-4, MW-7, MW-8, MW-9, MW-10R, MW-11, and RW-1. Monitoring well MW-5 was not gauged or sampled due to a parked car blocking access to the well. Field methods used during groundwater monitoring are provided in Attachment A.

All monitoring and sampling activities for the Site during the First Quarter 2016 were performed by Broadbent and Associates, Inc. (Broadbent). The groundwater sampling data package is included as Attachment B.

2.2 Groundwater Sample Analysis

Groundwater samples collected from wells MW-1, MW-2, MW-4, MW-7, MW-8, MW-9, MW-10R, MW-11, and RW-1 were submitted under chain-of-custody protocol to ESC Lab Sciences (ESC), a California state-certified laboratory. Samples were analyzed for GRO by EPA Method 8015B, benzene, toluene, ethylbenzene, and total xylenes (collectively BTEX), MTBE, TBA, DIPE, ETBE, TAME, ethanol, 1,2-DCA, and EDB by EPA Method 8260B. The certified laboratory analytical report, including chain-of-custody documentation, is included as Attachment C.

2.3 Quality Assurance/Quality Control

No issues were noted by ESC during sample analysis that would have an adverse effect on the quality of the data and no issues affecting the sampling protocol were noted.

3. Results and Discussion

The depth to water measurements and analytical data presented this quarter are consistent with historical measurements.

Depth to water at the Site ranged from 10.72 feet btoc at MW-8 to 16.29 feet btoc at MW-4. Resulting

groundwater surface elevations ranged from 154.07 feet at MW-4 to 155.33 feet at RW-1. Water level elevations yielded a potentiometric groundwater gradient to the south at approximately 0.007 feet per foot. Groundwater elevation contours are presented on Figure 2.

GRO and benzene were detected above laboratory reporting limits (LRLs) in wells MW-1, MW-2, MW-8, MW-9, and MW-10R. MTBE was detected above LRLs in wells MW-1, MW-2, and MW-10R. TBA was detected above the LRL in wells MW-1, MW-2, MW-8 and MW-10R. Current groundwater monitoring and sampling data are summarized in Table 1, and presented on Figure 3. Historical groundwater monitoring and sampling results are summarized in Table 2. Groundwater flow direction and gradient information are presented in Table 3.

Starting in the Third Quarter 2012, Arcadis began preparing the semi-annual groundwater monitoring reports for the Site. Historical tables provided by Broadbent, including analytical results for fuel oxygenates (analyzed from Third Quarter 1993 to First Quarter 2012), are provided in Attachment D.

4. Recommendations

Arcadis recommends continuation of groundwater monitoring and sampling on a quarterly basis at MW-10R and MW-11 for at least four consecutive quarters, and on a semi-annual basis at other monitoring well locations in accordance with the approved schedule.

5. Limitations

The findings presented in this report are based upon observations of field personnel, points investigated, results of laboratory tests performed by ESC, and our understanding of the San Francisco Regional Water Quality Control Board (SF-RWQCB) requirements. Our services were performed in accordance with the generally accepted standard of practice at the time this report was written. No other warranty, expressed or implied was made. This report has been prepared for the exclusive use of Arcadis and ARCO. It is possible that variations in soil or groundwater conditions could exist beyond points explored in this investigation. Also, changes in site conditions could occur in the future due to variations in rainfall, temperature, regional water usage, or other factors.

If you have any questions or comments regarding the contents of this report, please contact Megan Smoley at 626.590.1502 or by e-mail at Megan.Smoley@arcadis.com.

Licensed approver:



Megan Smoley, P.G. No. 8614
Certified Project Manager

Tables

- Table 1 Current Groundwater Monitoring and Analytical Data
- Table 2 Historical Groundwater Monitoring and Analytical Data
- Table 3 Historical Groundwater Flow Direction and Gradient

Figures

- Figure 1 Site Location Map
- Figure 2 Groundwater Elevation Contour Map – March 28, 2016
- Figure 3 Groundwater Analytical Summary Map – March 28, 2016

Attachments

- Attachment A Field Methods
- Attachment B Groundwater Sampling Data Package
- Attachment C Certified Laboratory Analytical Report and Chain of Custody Documentation
- Attachment D Historical Tables Provided by Broadbent

cc: Ms. Shelby Lathrop, Conoco Phillips, 76 Broadway, Sacramento, California 95818

ARCADIS

Tables

Table 1
Current Groundwater Monitoring and Analytical Data
CA-11132
3201 35th Ave, Oakland, CA 94619

Well ID	Date	Type	TOC (ft msl)	DTW (ft)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)	GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/l)	NAPH (µg/L)	Notes
MW-1	3/28/2016		169.75	14.78	--	154.97	8,110	6,67(J)	<50.0	59.6	<30.0	5.80(J)	43.5(J)	<10.0	<10.0(J3)	<10.0	<10.0	<10.0	<1,000	1.75	--	
MW-2	3/28/2016		168.14	13.55	--	154.59	36,500	7,360	609	1,350	3,140	118	463	<50.0	<50.0(J3)	<50.0	<50.0	<50.0	<5,000	1.64	--	
MW-3	3/28/2016		167.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(Not Sampled)	
MW-4	3/28/2016		170.36	16.29	--	154.07	<100	<1.00	<5.00	<1.00	<3.00	15.0	<5.00	<1.00	<1.00(J3)	<1.00	<1.00	<1.00	<100	2.27	--	
MW-5	3/28/2016		165.14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(Not Sampled, covered by vehicle)	
MW-6	3/28/2016		165.40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(Not Sampled)	
MW-7	3/28/2016		168.08	13.92	--	154.16	222	<1.00	<5.00	<1.00	<3.00	458	<5.00	<1.00	<1.00(J3)	<1.00	<1.00	7.00	<100	2.51	--	
MW-8	3/28/2016		165.74	10.72	--	155.02	14,100	167	53.8	835	1,330	<50.0	3.70(J)	<1.00	<1.00(J3)	<1.00	<1.00	<1.00	<100	1.50	--	
MW-9	3/28/2016		166.20	10.96	--	155.24	7,630	4.41	<5.00	26.8	6.32	<1.00	<5.00	<1.00	<1.00(J3)	<1.00	<1.00	<1.00	<100	3.96	--	
MW-10R	3/28/2016		166.80	12.50	--	154.30	38,000	3,830	2,810	1,130	5,310	1.30	40.5	<1.00	<1.00(J3)	<1.00	<1.00	<1.00	<100	1.82	--	
MW-11	3/28/2016		165.64	11.32	--	154.32	<100	<1.00	<5.00	<1.00	<3.00	<1.00	<5.00	<1.00	<1.00(J3)	<1.00	<1.00	<1.00	<100	1.12	--	
RW-1	3/28/2016		168.01	12.68	--	155.33	199	<1.00	<5.00	<1.00	<3.00	<1.00	<5.00	<1.00	<1.00(J3)	<1.00	<1.00	<1.00	<100	1.01	--	

Notes:

TOC = Top of casing measured

DTW = Depth to water

LNAPL = Light non-aqueous phase liquid (LPH)

GW Elev = Groundwater elevation

GRO = Gasoline range organics

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total xylenes

MTBE = Methyl tert-butyl ether

TBA = tert-butyl alcohol

DIPE = Di-isopropyl ether

ETBE = Ethyl tert-butyl ether

TAME= tert-Amyl methyl ether

DO = Dissolved oxygen

1,2-DCA = 1,2-dichloroethane

EDB = 1,2-dibromoethane

Ft msl = Feet above mean sea level

J = The identification of the analyte is acceptable; the reported value is an estimate.

J3 = The associated batch QC was outside the established quality control range for precision.

-- = Not analyzed/applicable/measured/available

< = Not detected at or above specified laboratory reporting limit

mg/L = Milligrams per liter

µg/L = Micrograms per liter

Beginning in the Fourth Quarter 2003, the laboratory modified the reported analyte list; TPHg was changed to GRO; the

Beginning in the Second Quarter 2004, the carbon range for GRO was changed from C6-C10 to C4-C12

Values for DO and pH were obtained through field measurements

GRO analysis was completed by EPA method 8260B (C4-C12) for samples collected from the time period April 2006 through

The data within this table collected prior to April 2006 was provided to Broadbent & Associates, Inc. by Atlantic Richfield

Table 2
Historical Groundwater Monitoring and Analytical Data
CA-11132
3201 35th Ave. Oakland, CA 94619

Well ID	Date	Type	TOC (ft msl)	DTW (ft)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)	GRO (µg/L)	DRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	NAPH (µg/L)	Notes
MW-1	2/25/2009		169.75	15.28	0.02	154.47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	4/8/2009		169.75	18.18	--	151.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	5/28/2009		169.75	19.62	0.01	150.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	6/16/2009		169.75	20.94	0.01	148.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	8/6/2009		169.75	22.31	0.01	147.44	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	3/4/2010		169.75	14.27	--	155.48	14,000	--	45	<10	610	390	<10	<80	<10	<10	<10	<10	<10	<10	<2,000	0.54	(P)
MW-1	9/2/2010		169.75	22.32	--	147.43	8,200	--	10	<5.0	230	140	<5.0	<40	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1,000	--	--
MW-1	3/15/2011		169.75	14.99	--	154.76	4,500	--	<5.0	<5.0	56	30	16	<40	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2,500	--	(P,i)
MW-1	8/17/2011		169.75	20.41	--	149.34	1,200	--	<1.0	<1.0	24	15	8.3	<8.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<500	--	(P)
MW-1	2/6/2012		169.75	18.69	--	151.06	710	--	<1.0	<1.0	2.9	2.2	10	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<500	--	(P)
MW-1	8/21/2012		169.75	21.77	--	147.98	5,000	--	230	7.3	230	68	77	<20	<2.5	<2.5	<2.5	<2.5	<2.5	4.3	<1,300	--	--
MW-1	2/4/2013		169.75	18.36	(Sheen)	151.39	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	8/1/2013		169.75	22.25	0.15	147.61	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(LPH)	--
MW-1	2/27/2014		169.75	19.82	0.07	149.98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	8/27/2014		169.75	22.03	0.15	147.83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	3/27/2015		169.75	19.54	--	150.21	7,900	--	17	<2.5	110	25	13	<100	<2.5	<2.5	<2.5	<2.5	<2.5	<2,500	3.23	--	(HC odor, i)
MW-1	8/27/2015		169.75	21.64	0.10	148.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(LNAPL present)	--
MW-1	3/28/2016		169.75	14.78	--	154.97	8,110	--	6.67(J)	<50.0	59.6	<30.0	5,800(J)	43.5(J)	<10.0	<10.0(J3)	<10.0	<10.0	<10.0	<1,000	1.75	--	--
MW-2	3/7/1991		168.14	19.18	--	148.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	4/1/1991		168.14	15.21	--	152.93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	7/3/1992		168.14	20.93	--	147.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	10/5/1992		168.14	22.74	--	145.40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	1/13/1993		168.14	15.55	--	152.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	4/23/1993		168.14	16.54	--	151.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	7/12/1993		168.14	20.46	--	147.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	10/21/1993		168.14	24.91	--	143.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	1/21/1994		168.14	21.20	--	146.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	4/20/1994		168.14	22.44	--	145.70	1,800	--	140	370	54	290	24	--	--	--	--	--	--	--	1.7	--	--
MW-2	8/1/1994		168.14	22.24	--	145.90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	12/23/1994		168.14	16.25	--	151.89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	1/26/1995		168.14	14.55	--	153.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	6/8/1995		168.14	21.18	--	146.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	5/22/1995		168.14	22.76	--	145.38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	10/27/1995		168.14	23.61	--	144.53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	1/25/1996		168.14	15.95	--	152.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	4/19/1996		168.14	17.33	--	150.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	7/23/1996		168.14	21.25	--	146.89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	11/1/1996		168.14	22.27	--	145.87	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	1/21/1997		168.14	15.19	--	152.95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	4/29/1997		168.14	20.22	--	147.92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	4/30/1997		--	--	--	130,000	--	4,600	15,000	6,000	37,000	<5,000	--	--	--	--	--	--	--	--	5	--	--
MW-2	8/21/1997		168.14	21.74	--	146.40	110,000	--	6,000	16,000	4,700	28,000	<500	--	--	--	--	--	--	--	4.6	--	--
MW-2	11/5/1997		168.14	21.61	--	146.53	120,000	--	7,800	18,000	4,900	28,100	<2,500	--	--	--	--	--	--	--	4.6	--	--
MW-2	2/3/1998		168.14	11.51	--	156.63	75,000	--	590	1,500	1,800	12,800	<2,500	--	--	--	--	--	--	--	4.5	--	--
MW-2	5/28/1998		168.14	16.51	--	151.63	79,000	--	3,900	3,100	3,100	18,000	900	--	--	--	--	--	--	--	4.3	--	--
MW-2	1/23/1998		168.14	17.70	--	150.44	95,000	--	4,700	3,500	3,700	21,000	<250	--	--	--	--	--	--	--	--	--	--
MW-2	2/2/1999		168.14	15.46	--	152.68	170,000	--	3,500	1,500	5,200	34,000	<500	--	--	--	--	--	--	--	--	--	--
MW-2	5/10/1999		168.14	16.52	--	151.62	84,000	--	3,200	3,200	3,700	20,000	75	--	--	--	--	--	--	--	--	--	--
MW-2	8/24/1999		168.14	20.73	--	147.41	130,000	--	9,100	9,200	4,700	27,000	<250	--	--	--	--	--	--	--	--	--	--
MW-2	11/3/1999		168.14	20.93	--	147.21	120,000	--	10,000	21,000	4,700	30,200	2,200	--	--	--	--	--	--	--	--	--	--
MW-2	3/1/2000		168.14	13.37	--	154.77	39,000	--	1,400	1,500	1,700	8,100	44	--	--	--	--	--	--	--	--	--	--
MW-2	4/21/2000		168.14	16.59	--	151.55	68,000	--	3,300	2,500	3,100	20,000	260	--	--	--	--	--	--	--	4.6	--	--
MW-2	7/31/2000		168.14	16.37	--	151.77	99,000	--	5,600	1,400	4,300	22,000	490	--	--	--	--	--	--	--	--	--	--
MW-2	11/20/2000		168.14	19.71	--	148.43	37,000	--	5,100	1,500	1,300	4,800	2,800	--	--	--	--	--	--	--	--	--	--
MW-2	2/18/2001		168.14	15.29	--	152.85	54,000	--	5,020	3,880	2,850	15,400	1,010	--	--	--	--	--	--	--	--	--	--
MW-2	6/7/2001		168.14	19.43	--	148.71	110,000	--	7,240	4,380	4,160	22,100	567	--	--	--	--	--	--	--	--	--	--
MW-2	9/5/2001		168.14	22.44	--	145.70	69,000	--	5,750	5,790	2,770	14,200	1,510	--	--	--	--	--	--	--	--	--	--
MW-2	11/30/2001		168.14	19.58	--	148.56	120,000	--	3,300	800	500	2,000	500	<1,000	<25	<25	<25	<25	<25	<5,000	--	--	--
MW-2	2/20/2002		168.14	16.39	--	151.75	56,000	--	2,410	2,270	2,910	14,300	160	--	--	--	--	--	--	--	--	--	--
MW-2	6/20/2002		168.14	19.77	--	148.37	86,000	--	7,310	6,490	3,080	14,600	659	--	--	--	--	--	--	--	--	--	--
MW-2	9/11/2002		168.14	21.60	--	146.54	130,000	--	7,600	13,000	5,400	30,000	<5,000	--	--	--	--	--	--	--	--	--	--
MW-2	11/12/2002		168.14	21.34	--	146.80	46,																

Well ID	Date	Type	TOC (ft msl)	DTW (ft)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)	GRO ($\mu\text{g/L}$)	DRO ($\mu\text{g/L}$)	B ($\mu\text{g/L}$)	T ($\mu\text{g/L}$)	E ($\mu\text{g/L}$)	X ($\mu\text{g/L}$)	MTBE ($\mu\text{g/L}$)	TBA ($\mu\text{g/L}$)	1,2-DCA ($\mu\text{g/L}$)	DIPE ($\mu\text{g/L}$)	ETBE ($\mu\text{g/L}$)	EDB ($\mu\text{g/L}$)	TAME ($\mu\text{g/L}$)	Ethanol ($\mu\text{g/L}$)	DO (mg/L)	NAPH ($\mu\text{g/L}$)	Notes
MW-2	3/4/2010		168.14	13.03	--	155.11	18,000	--	9,500	270	510	1,400	350	2,600	<5.0	<5.0	<5.0	<5.0	12	<1,000	1.28	--	(P)
MW-2	9/2/2010		168.14	20.62	--	147.52	58,000	--	11,000	3,600	3,900	16,000	470	<80	<10	<10	<10	14	<2,000	--	--	(NP, y)	
MW-2	3/15/2011		168.14	13.70	--	154.44	63,000	--	12,000	2,900	4,100	15,000	500	<800	<100	<100	<100	<100	<50,000	--	--	(P)	
MW-2	8/17/2011		168.14	19.31	--	148.83	23,000	--	4,900	620	1,500	4,400	150	<800	<100	<100	<100	<100	<50,000	--	--	(P)	
MW-2	2/6/2012		168.14	17.49	--	150.65	26,000	--	6,400	200	1,700	3,400	360	<800	<100	<100	<100	<100	<50,000	--	--	(P)	
MW-2	8/21/2012		168.14	20.66	--	147.48	20,000	--	4,900	440	4,400	2,400	220	<800	<100	<100	<100	<100	<50,000	--	--		
MW-2	2/4/2013		168.14	17.24	--	150.90	25,000	--	4,000	1,700	1,600	5,300	130	<800	<100	<100	<100	<100	<50,000	--	--		
MW-2	8/1/2013		168.14	21.10	--	147.04	43,000	--	9,100	630	2,800	9,700	220	<2,000	<100	<100	<100	<100	<50,000	--	--		
MW-2	2/27/2014		168.14	18.65	--	149.49	31,000	--	9,600	180	2,700	6,100	310	<2,000	<100	<100	<100	<100	<50,000	--	--		
MW-2	8/27/2014		168.14	20.78	--	147.36	35,000	--	9,900	230	3,100	5,500	240	<4,000	<100	<100	<100	<100	<100,000	3.24	450	(HC odor)	
MW-2	3/27/2015		168.14	18.32	--	149.82	29,000	--	13,000	210	1,400	1,300	140	<4,000	<100	<100	<100	<100	<100,000	2.29	--	(HC odor)	
MW-2	8/27/2015		168.14	20.40	--	147.74	22,400	--	8,550	80.3	1,110	444	41.1(J)	416(J)	<1.00	<1.00	<1.00	<1.00	<100	6.20	--	(1 liter purged and moderate hydrocarbon odor.)	
MW-2	3/28/2016		168.14	13.55	--	154.59	36,500	--	7,360	609	1,350	3,140	118	463	<50.0	<50.0(J3)	<50.0	<50.0	<50.0	<5,000	1.64	--	
MW-3	7/9/1990		--	--	--	140	--	5.3	4.6	2	3.8	--	--	--	--	--	--	--	--	--	--		
MW-3	12/21/1990		--	--	--	0.19	--	100	6	0.9	27	--	--	--	--	--	--	--	--	--	--		
MW-3	3/7/1991		167.17	17.40	--	149.77	0.4	--	69	22	6.1	57	--	--	--	--	--	--	--	--	--		
MW-3	4/1/1991		167.17	13.69	--	153.48	--	--	--	28	26	13	46	--	--	--	--	--	--	--	--		
MW-3	6/27/1991		--	--	--	380	--	28	26	13	46	--	--	--	--	--	--	--	--	--	--		
MW-3	9/27/1991		--	--	--	0.07	--	7.9	--	0.4	1.1	--	--	--	--	--	--	--	--	--	--		
MW-3	12/18/1991		--	--	--	0.26	--	34	24	0.8	28	--	--	--	--	--	--	--	--	--	--		
MW-3	7/3/1992		167.17	19.59	--	147.58	71	--	9.4	0.9	5	13	--	--	--	--	--	--	--	--	--		
MW-3	10/5/1992	Dup	167.17	21.22	--	145.95	<50	--	2.2	<0.5	1.5	2.8	--	--	--	--	--	--	--	--	--	(Dup)	
MW-3	10/5/1992		167.17	21.22	--	145.95	67	--	5.1	1.1	6.1	8.1	--	--	--	--	--	--	--	--	--		
MW-3	1/13/1993		167.17	13.63	--	153.54	830	--	50	34	42	89	--	--	--	--	--	--	--	--	--		
MW-3	4/23/1993	Dup	167.17	15.02	--	152.15	<50	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	(Dup)	
MW-3	4/23/1993		167.17	15.02	--	152.15	<50	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--		
MW-3	7/12/1993		167.17	19.16	--	148.01	250	--	12	4.2	12	16	<50	--	--	--	--	--	--	--	--		
MW-3	10/21/1993	Dup	167.17	21.81	--	145.36	65	--	7.4	1	6.9	4.2	--	--	--	--	--	--	--	--	--	(Dup)	
MW-3	10/21/1993		167.17	21.81	--	145.36	52	--	4.4	1.4	4.7	3.3	<50	--	--	--	--	--	--	--	--		
MW-3	1/21/1994		167.17	19.94	--	147.23	57	--	3	3.4	3.6	9	<50	--	--	--	--	--	--	--	--		
MW-3	4/20/1994		167.17	20.24	--	146.93	600	--	26	23	33	88	28.7	--	--	--	--	--	--	--	1.8		
MW-3	8/1/1994	Dup	167.17	20.74	--	146.43	120	--	7.7	1.6	5.9	6.7	5.43	--	--	--	--	--	--	--	--	(Dup)	
MW-3	8/1/1994		167.17	20.74	--	146.43	99	--	6.2	1.1	4.5	5.2	<50	--	--	--	--	--	--	--	1.4		
MW-3	12/23/1994	Dup	167.17	14.70	--	152.47	<50	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	(Dup)	
MW-3	12/23/1994		167.17	14.70	--	152.47	<50	--	<0.5	0.78	<0.5	<0.5	9.8	--	--	--	--	--	--	--	1.7		
MW-3	1/26/1995		167.17	12.89	--	154.28	190	--	16	0.5	35	24	--	--	--	--	--	--	--	6.6	--		
MW-3	6/8/1995		167.17	19.95	--	147.22	330	--	21	4	34	32	--	--	--	--	--	--	--	--	7		
MW-3	8/22/1995		167.17	21.41	--	145.76	150	--	14	<0.50	<0.50	1.6	<50	--	--	--	--	--	--	--	6.6		
MW-3	10/27/1995		167.17	22.43	--	144.74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-3	10/30/1995		--	--	--	51	--	2.4	<0.50	<0.50	<0.50	<1.0	<50	--	--	--	--	--	--	--	6.9		
MW-3	1/25/1996		167.17	14.03	--	153.14	<50	--	<0.50	<0.50	<0.50	<1.0	5.1	--	--	--	--	--	--	--	--		
MW-3	4/19/1996		167.17	15.26	--	151.91	460	--	55	4	33	63	<10	--	--	--	--	--	--	--	9.4		
MW-3	7/23/1996		167.17	19.19	--	147.98	50	--	<0.5	<0.5	<0.5	<0.5	<10	--	--	--	--	--	--	--	9.2		
MW-3	11/11/1996		167.17	20.24	--	146.93	<250	--	<2.5	<5.0	<5.0	<5.0	<50	--	--	--	--	--	--	--	8.4		
MW-3	1/21/1997		167.17	13.09	--	154.08	<50	--	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	5.4		
MW-3	4/29/1997		167.17	18.14	--	149.03	<50	--	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	4.3		
MW-3	8/21/1997		167.17	19.64	--	147.53	<50	--	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	4.9		
MW-3	11/5/1997		167.17	19.95	--	147.22	<250	--	<2.5	<5.0	<5.0	<5.0	<50	--	--	--	--	--	--	--	4.5		
MW-3	2/3/1998		167.17	10.57	--	156.60	<50	--	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	4.7		
MW-3	5/28/1998		167.17	14.65	--	152.52	330	--	<2.5	<5.0	<5.0	<5.0	<50	--	--	--	--	--	--	--	4.2		
MW-3	12/30/1998		167.17	16.63	--	150.54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-3	2/2/1999		167.17	13.12	--	154.05	<250	--	<5.0	<5.0	<5.0	<5.0	<50	--	--	--	--	--	--	--			
MW-3	5/10/1999		167.17	14.21	--	152.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
MW-3	8/24/1999		167.17	14.36	--	152.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
MW-3	11/3/1999		167.17	19.21	--	147.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
MW-3	3/1/2000		167.17	15.17	--	152.00	<50	--	<0.5	0.57	<0.5	0.62	<0.5	--	--	--	--	--	--	--			
MW-3	4/21/2000		167.17	14.88	--	152.29	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
MW-3	7/31/2000		167.17	15.29	--	151.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
MW-3	11/20/2000		167.17	17.31	--	149.86	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
MW-3	2/18/2001		167.17	12.85	--	154.32	160	--	1.95	1.31	10.2	9.09	1	--	--	--	--	--	--	--	</		

Well ID	Date	Type	TOC (ft msl)	DTW (ft)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)	GRO (ug/L)	DRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TBA (ug/L)	1,2-DCA (ug/L)	DPE (ug/L)	ETBE (ug/L)	EDB (ug/L)	TAME (ug/L)	Ethanol (ug/L)	DO (mg/L)	NAPH (ug/L)	Notes	
MW-4	3/4/2010		170.36	17.11	--	153.25	<50	--	<0.50	<0.50	<0.50	<1.0	34	4.4	<0.50	<0.50	<0.50	<0.50	<0.50	<100	0.63	--	(P)	
MW-4	9/2/2010		170.36	20.63	--	149.73	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-4	3/15/2011		170.36	16.47	--	153.89	<50	--	<0.50	<0.50	<0.50	<1.0	26	4.1	<0.50	<0.50	<0.50	<0.50	<0.50	<250	--	--	(P)	
MW-4	8/17/2011		170.36	20.94	--	149.42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-4	2/6/2012		170.36	19.65	--	150.71	<50	--	<0.50	<0.50	<0.50	<1.0	32	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50(*)	<0.50	<250	--	--	(P)
MW-4	8/2/2012		170.36	22.00	--	148.36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-4	2/4/2013		170.36	19.43	--	150.93	<50	--	<0.50	<0.50	<0.50	<1.0	34	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<250	--	--	
MW-4	8/1/2013		170.36	22.43	--	147.93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-4	2/27/2014		170.36	20.64	--	149.72	<50	--	<0.50	<0.50	<0.50	<1.0	24	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<250	--	--	
MW-4	8/27/2014		170.36	22.24	--	148.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-4	3/27/2015		170.36	20.23	--	150.13	<50	--	<0.50	<0.50	<0.50	<1.0	22	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<500	3.50	--	
MW-4	8/27/2015		170.36	21.87	--	148.49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(Gauge only)	
MW-4	3/28/2016		170.36	16.29	--	154.07	<100	--	<1.00	<5.00	<1.00	<3.00	15.0	<5.00	<1.00	<1.00(J3)	<1.00	<1.00	<1.00	<1.00	<100	2.27	--	
MW-5	7/9/1990		--	--	--	280	--	200	210	46	290	--	--	--	--	--	--	--	--	--	--	--		
MW-5	12/21/1990		--	--	--	0.69	--	300	34	8.4	39	--	--	--	--	--	--	--	--	--	--	--		
MW-5	3/7/1991		165.14	16.60	--	148.54	--	--	17	0.9	0.7	1.6	--	--	--	--	--	--	--	--	--	--		
MW-5	4/1/1991		165.14	11.99	--	153.15	800	--	250	54	11	60	--	--	--	--	--	--	--	--	--	--		
MW-5	6/27/1991		--	--	--	330	--	120	10	12	8	--	--	--	--	--	--	--	--	--	--	--		
MW-5	9/27/1991		--	--	--	0.73	--	230	16	20	22	--	--	--	--	--	--	--	--	--	--	--		
MW-5	7/3/1992		165.14	18.65	--	146.49	150	--	36	<0.5	<0.5	1.1	--	--	--	--	--	--	--	--	--	--		
MW-5	10/5/1992		165.14	20.32	--	144.82	270	--	79	4	1.7	2.9	--	--	--	--	--	--	--	--	--	--		
MW-5	1/13/1993		165.14	13.03	--	152.11	180	--	59	6	1.8	7.6	--	--	--	--	--	--	--	--	--	--		
MW-5	4/23/1993		165.14	13.51	--	151.63	8700	--	440	96	35	136	--	--	--	--	--	--	--	--	--	--		
MW-5	7/12/1993		165.14	18.06	--	147.08	250	--	57	2.9	2.1	6	<5.0	--	--	--	--	--	--	--	--	--		
MW-5	10/21/1993		165.14	20.41	--	144.73	210	--	82	1.5	<0.5	1.4	--	--	--	--	--	--	--	--	--	--		
MW-5	1/21/1994		165.14	18.86	--	146.28	110	--	36	1.2	<0.5	0.7	<5.0	--	--	--	--	--	--	--	--	--		
MW-5	4/20/1994		165.14	17.30	--	147.84	690	--	230	4.5	1.6	11	21.2	--	--	--	--	--	--	--	1.3	--		
MW-5	8/1/1994		165.14	17.53	--	147.61	170	--	44	1.6	0.9	2.7	<5.0	--	--	--	--	--	--	--	0.9	--		
MW-5	1/23/1994		165.14	11.63	--	153.51	630	--	180	1.9	0.66	1.9	7.81	--	--	--	--	--	--	--	1.4	--		
MW-5	1/26/1995	Dup	165.14	11.25	--	153.89	160	--	68	<0.5	<0.5	22	--	--	--	--	--	--	--	--	5.9	--	(Dup)	
MW-5	6/8/1995	Dup	165.14	16.80	--	148.34	1700	--	560	51	55	170	--	--	--	--	--	--	--	--	--	--		
MW-5	6/8/1995		165.14	16.80	--	148.34	2000	--	630	58	61	180	--	--	--	--	--	--	--	--	6.5	--		
MW-5	8/22/1995		165.14	19.02	--	146.12	3700	--	1,100	18	27	59	<130	--	--	--	--	--	--	--	7.3	--		
MW-5	10/27/1995		165.14	20.94	--	144.20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-5	10/30/1995		--	--	--	6,500	--	2,200	55	180	270	<250	--	--	--	--	--	--	--	--	7.5	--		
MW-5	1/25/1996	Dup	165.14	13.30	--	151.84	540	--	37	0.66	<0.50	<1.0	<5.0	--	--	--	--	--	--	--	--	(Dup)		
MW-5	1/25/1996		165.14	13.30	--	151.84	590	--	37	0.7	<0.50	<1.0	<5.0	--	--	--	--	--	--	--	--			
MW-5	4/19/1996		165.14	13.63	--	151.51	1,500	--	470	38	49	210	<50	--	--	--	--	--	--	--	8.1	--		
MW-5	7/23/1996		165.14	17.61	--	147.53	140	--	4.6	<0.5	<0.5	<0.5	<10	--	--	--	--	--	--	--	8	--		
MW-5	11/1/1996		165.14	18.70	--	146.44	140	--	40	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	7.9	--		
MW-5	1/21/1997		165.14	11.63	--	153.51	730	--	300	<5.0	7.8	26	<50	--	--	--	--	--	--	--	5	--		
MW-5	4/29/1997		165.14	16.74	--	148.40	340	--	530	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	--	--	4.8	--		
MW-5	8/21/1997		165.14	18.26	--	146.88	<50	--	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	4.9	--		
MW-5	11/5/1997		165.14	18.84	--	146.30	120	--	13	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	4.4	--		
MW-5	2/3/1998		165.14	9.49	--	155.65	<50	--	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	4.3	--		
MW-5	5/28/1998		165.14	13.57	--	151.57	4,900	--	1,500	34	180	311	<10	--	--	--	--	--	--	--	4.1	--		
MW-5	1/20/1998		165.14	14.65	--	150.49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-5	2/2/1999		165.14	12.56	--	152.58	100	--	<1.0	<1.0	<1.0	<1.0	9.1	--	--	--	--	--	--	--	--	--		
MW-5	5/10/1999		165.14	13.36	--	151.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-5	8/24/1999		165.14	13.50	--	151.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-5	11/3/1999		165.14	18.48	--	146.66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-5	3/1/2000		165.14	9.59	--	155.55	<50	--	<0.5	0.58	<0.5	0.54	2.9	--	--	--	--	--	--	--	--	--		
MW-5	4/21/2000		165.14	13.52	--	151.62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-5	7/31/2000		165.14	14.04	--	151.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-5	11/20/2000		165.14	15.89	--	149.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-5	2/18/2001		165.14	11.88	--	153.26	560	--	161	2.38	6.11	13	5.67	--	--	--	--	--	--	--	--	--		
MW-5	6/7/2001		165.14	15.30	--	149.84	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-5	9/5/2001		165.14	19.32	--	145.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-5	11/30/2001		165.14	17.44	--	147.70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-5	2/20/2002		165.14	13.88	--	151.26	4,200	--	940	18.7	98.2	176	55.6	--	--	--	--	--	--	--	--	--		
MW-5	6/20/2002		165.14	16.20	--	148.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-5	9/11/2002		165.14	19.15	--	145.99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-5	11/12/2002		165.14	19.01	--	146.13	390																	

Well ID	Date	Type	TOC (ft msl)	DTW (ft)	Measured LNAPL Thickness (ft)		GW Elev (ft msl)	GRO (µg/L)	DRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	NAPH (µg/L)	Notes	
					LNAPL Thickness (ft)	LNAPL Thickness (ft)																			
MW-5	8/17/2011		165.14	16.62	--	148.52	1,900	--	460	7.6	44	51	<5.0	<40	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2,500	--	--	(P)
MW-5	2/6/2012		165.14	14.36	--	150.78	580	--	140	<5.0	9.2	<10	9.6	<40	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2,500	--	--	(P)
MW-5	8/21/2012		165.14	18.22	--	146.92	230	--	23	0.75	4.8	4.3	17	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<250	--	--	
MW-5	2/4/2013		165.14	13.98	--	151.15	1,400	--	230	2.1	35	34	3.1	13	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<250	--	--	
MW-5	8/1/2013		165.14	18.64	--	146.50	<50	--	<50	<0.50	<0.50	<1.0	27	250	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<250	--	--	
MW-5	2/27/2014		165.14	16.03	--	149.11	83	--	3.5	0.59	<50	<1.0	12	77	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<250	--	--	
MW-5	8/27/2014		165.14	18.28	--	146.86	430	--	43	0.59	2.5	1.2	9.1	210	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<500	3.08	<1.0	(HC odor)
MW-5	3/27/2015		165.14	15.56	--	149.58	2,200	--	370	5.1	74	37	4.2	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<500	3.08	--	(HC odor)
MW-5	8/27/2015		165.14	17.96	--	147.18	7,370	--	803	8.60(J)	62.2	75.8	8.63(J)	126	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<1,000	3.37	--	(1 liter purged)
MW-5	3/28/2016		165.14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(Not Sampled, covered by vehicle)	
MW-6	12/21/1990		--	--	--	--	0.17	--	2.6	7	4.9	26	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	4/1/1991		165.40	11.79	--	153.61	--	--	--	1.3	22	--	2.7	--	--	--	--	--	--	--	--	--	--	--	
MW-6	12/19/1991		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	7/3/1992		165.40	17.77	--	147.63	<50	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	10/5/1992		165.40	19.46	--	145.94	<50	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	1/13/1993		165.40	11.34	--	154.06	<50	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	4/23/1993		165.40	12.92	--	152.48	<50	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	7/12/1993		165.40	17.36	--	149.64	<50	--	<0.5	<0.5	<0.5	<0.5	0.7	<5.0	--	--	--	--	--	--	--	--	--	--	
MW-6	10/21/1993		165.40	19.98	--	145.42	<50	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	1/21/1994		165.40	18.10	--	147.30	<50	--	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	--	--	--	
MW-6	4/20/1994		165.40	18.68	--	146.72	<50	--	<0.5	<0.5	<0.5	<0.5	17.4	8.66	--	--	--	--	--	--	--	--	2	--	
MW-6	8/1/1994		165.40	18.90	--	146.50	<50	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	--	1.5	--	
MW-6	12/23/1994		165.40	12.94	--	152.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	1/26/1995		165.40	10.46	--	154.94	<50	--	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	--	--	7.3	--	
MW-6	6/8/1995		165.40	16.84	--	148.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	8/23/1996		165.40	19.48	--	145.92	<50	--	<0.50	<0.50	<0.50	<1.0	<5.0	--	--	--	--	--	--	--	--	--	6.7	--	
MW-6	10/27/1996		165.40	20.39	--	145.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	1/25/1996		165.40	12.24	--	153.16	<50	--	<0.50	<0.50	<0.50	<1.0	9.9	--	--	--	--	--	--	--	--	--	--	--	
MW-6	4/19/1996		165.40	13.90	--	151.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	7/23/1996		165.40	17.83	--	147.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	11/11/1996		165.40	18.90	--	146.50	<50	--	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	7.7	--	
MW-6	1/21/1997		165.40	11.97	--	153.43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	4/29/1997		165.40	17.04	--	148.36	<50	--	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	4.5	--	
MW-6	8/21/1997		165.40	18.58	--	145.83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	11/5/1997		165.40	19.17	--	146.23	70	--	<0.5	<1.0	<1.0	<1.0	<1.0	85	--	--	--	--	--	--	--	--	4.3	--	
MW-6	2/3/1998		165.40	9.87	--	155.53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	5/28/1998		165.40	13.38	--	152.02	<50	--	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	3.7	--	
MW-6	12/30/1998		165.40	14.45	--	150.95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	2/21/1999		165.40	18.29	--	147.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	5/10/1999		165.40	17.49	--	147.91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	8/24/1999		165.40	17.61	--	147.79	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	11/2/1999		165.40	16.26	--	149.14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	3/1/2000		165.40	17.43	--	147.97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	4/21/2000		165.40	13.32	--	152.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	7/31/2000		165.40	13.46	--	151.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	11/20/2000		165.40	14.79	--	150.62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	2/18/2001		165.40	11.33	--	154.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	6/7/2001		165.40	16.36	--	149.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	1/29/2003		165.40	14.36	--	151.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	7/28/2003		165.40	18.43	--	146.97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	11/10/2003		165.40	17.44	--	147.92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	2/23/2004		165.40	11.54	--	153.86	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	5/4/2004		165.40	16.58	--	148.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	8/4/2004		165.40	18.12	--	147.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	11/10/2004		165.40	15.75	--	149.65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	2/15/2005		165.40	12.50	--	152.90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	5/16/2005		165.40	11.51	--	153.89	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	
MW-6	8/17/2005		165.40	16.85	--	148.55	--	--	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	
MW-6	2/7/2006		165.40	9.93	--	155.47	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<300	--	--	
MW-6	8/23/2006		165.40	16.35	--	149.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	11/15/2006		165.40	17.42	--	147.98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	2/14/2007		165.40	12.0																					

Well ID	Date	Type	TOC (ft msl)	DTW (ft)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)	GRO (µg/L)	DRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	NAPH (µg/L)	Notes
MW-7	3/7/1991		167.61	19.04	--	148.57	--	--	0.4	0.3	2.4	--	--	--	--	--	--	--	--	--	--	--	
MW-7	4/1/1991		167.61	15.18	--	152.43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	6/27/1991	--	--	--	--	70	--	--	17	4	0.8	2.2	--	--	--	--	--	--	--	--	--	--	
MW-7	9/27/1991	--	--	--	--	--	--	--	0.7	2.9	0.8	3.3	--	--	--	--	--	--	--	--	--	--	
MW-7	12/18/1991	--	--	--	--	--	--	--	0.4	--	0.4	--	--	--	--	--	--	--	--	--	--	--	
MW-7	7/3/1992		167.61	20.28	--	147.33	<50	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	--	
MW-7	10/5/1992		167.61	21.56	--	146.05	<50	--	<0.5	<0.5	<0.5	1.5	--	--	--	--	--	--	--	--	--	--	
MW-7	1/13/1993		167.61	15.41	--	152.20	<50	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	--	
MW-7	4/23/1993		167.61	15.84	--	151.77	<50	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	--	
MW-7	7/12/1993		167.61	19.84	--	147.77	<50	--	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	--	
MW-7	10/21/1993		167.61	21.61	--	146.00	<50	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	--	
MW-7	1/21/1994	Dup	167.61	20.49	--	147.12	<50	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	(Dup)	
MW-7	1/21/1994		167.61	20.49	--	147.12	<50	--	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	--	
MW-7	4/20/1994		167.61	20.54	--	147.07	<50	--	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	1.5	
MW-7	8/1/1994		167.61	20.99	--	146.62	<50	--	0.7	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	1.9	
MW-7	12/23/1994		167.61	15.00	--	152.61	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	1/26/1995		167.61	14.69	--	152.92	<50	--	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	--	7	
MW-7	6/8/1995		167.61	19.87	--	147.74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	8/22/1995		167.61	21.49	--	146.12	<50	--	<0.50	<0.50	<0.50	<1.0	<5.0	--	--	--	--	--	--	--	--	6.4	
MW-7	10/27/1995		167.61	22.53	--	145.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	1/25/1996		167.61	17.21	--	150.40	<50	--	<0.50	<0.50	<0.50	<1.0	<5.0	--	--	--	--	--	--	--	--	--	
MW-7	4/19/1996		167.61	17.09	--	150.52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	7/23/1996		167.61	21.02	--	146.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	11/11/1996		167.61	22.03	--	145.58	<50	--	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	7.8	
MW-7	1/21/1997		167.61	15.06	--	152.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	4/29/1997		167.61	20.11	--	147.50	<50	--	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	4.4	
MW-7	8/21/1997		167.61	21.59	--	146.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	11/5/1997		167.61	20.05	--	147.56	<50	--	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	4.4	
MW-7	2/3/1998		167.61	9.97	--	157.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	5/28/1998		167.61	13.52	--	154.09	<50	--	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	4.3	
MW-7	12/30/1998		167.61	18.33	--	149.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	2/21/1999		167.61	12.33	--	155.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	5/10/1999		167.61	13.52	--	154.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	8/24/1999		167.61	14.01	--	153.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	11/3/1999		167.61	19.91	--	147.72	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	3/1/2000		167.61	19.89	--	147.72	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	4/21/2000		167.61	17.94	--	149.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	7/31/2000		167.61	17.33	--	150.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	11/20/2000		167.61	18.41	--	149.20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	2/18/2001		167.61	15.13	--	152.48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	6/7/2001		167.61	18.75	--	148.86	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	9/5/2001		167.61	20.48	--	147.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	11/30/2001		167.61	20.11	--	147.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	2/20/2002		167.61	18.40	--	149.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	6/20/2002		167.61	18.62	--	148.99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	9/11/2002		167.61	20.05	--	147.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	11/12/2002		167.61	21.13	--	146.48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	1/29/2003		167.61	19.10	--	148.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	5/22/2003		167.61	18.83	--	148.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	7/28/2003		167.61	19.88	--	147.73	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	11/18/2003		167.61	20.50	--	147.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	2/23/2004		168.08	15.92	--	152.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	5/4/2004		168.08	18.86	--	149.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	8/4/2004		168.08	19.10	--	148.98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	11/10/2004		168.08	20.25	--	147.83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	2/15/2005		168.08	16.37	--	151.71	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	8/17/2005		168.08	19.74	--	148.34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	11/18/2005		168.08	20.82	--	147.26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	2/7/2006		168.08	14.26	--	153.82	<500	--	<5.0	<5.0	<5.0	<5.0	<270	<200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<3,000	--	
MW-7	5/19/2006		168.08	16.51	--	151.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	8/23/2006		168.08	20.30	--	147.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	11/15/2006		168.08	20.85	--	147.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	2/14/2007		168.08	16.57	--	151.51	520	--	<5.0	<5.0	<5.0	<5.0	740	<200	<5.0	<5.0	<5.0	<5.0	<5.0	9.6	<3,000	3.08	
MW-7	5/22/2007		168.08	18.40	--	149.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	8/15/2007		168.08	20.85	--	147.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	11/8/2007		168.08	20.41	--	147.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	2/20/2008		168.08	15.90	--	152.18	<50	--	<0.50	<0.50	<0.50	<0.50	700	13	0.60	<0.50	<0.50	<0.50	<0.50	12	<100	4.34	
MW-7	5/7/2008		168.08	19.41	--	148.67	--	--</															

Well ID	Date	Type	TOC (ft msl)	DTW (ft)	Measured LNAPL Thickness (ft)		GW Elev (ft msl)	GRO (µg/L)	DRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	NAPH (µg/L)	Notes		
					LNAPL Thickness (ft)	LNAPL Thickness (ft)																				
MW-8	7/3/1992		165.74	18.78	--	146.96	72,000	--	19,000	32,000	3,000	15,000	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	10/5/1992		165.74	20.49	--	145.26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	1/13/1993		165.74	12.87	--	152.87	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	4/23/1993		165.74	13.90	--	151.84	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	7/12/1993		165.74	18.30	--	147.44	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	10/21/1993		165.74	21.91	--	142.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	1/21/1994		165.74	19.12	--	146.62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	4/20/1994		165.74	19.28	--	146.46	26,000	--	1,700	4,100	960	4,000	632	--	--	--	--	--	--	--	--	--	--	1.1	--	
MW-8	12/23/1994		165.74	13.81	--	151.93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	6/8/1995		165.74	17.82	--	147.92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	8/22/1995		165.74	19.41	--	146.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	10/21/1995		165.74	20.47	--	145.27	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	1/25/1996		165.74	13.35	--	152.39	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	4/19/1996		165.74	14.40	--	151.34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	7/23/1996		165.74	18.35	--	147.39	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	11/11/1996		165.74	19.41	--	146.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	1/21/1997		165.74	12.29	--	153.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	8/21/1997		165.74	19.61	--	146.13	240,000	--	1,100	9,300	4,100	31,100	<1,000	--	--	--	--	--	--	--	--	--	--	5.2	--	
MW-8	11/5/1997		165.74	19.45	--	146.29	57,000	--	790	2,700	2,300	15,200	<1,000	--	--	--	--	--	--	--	--	--	--	5	--	
MW-8	2/3/1998		165.74	9.33	--	156.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	3/4/1998		165.74	--	--	94,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	12/30/1998		165.74	15.48	--	150.26	120,000	--	460	2,300	2,200	15,000	150	--	--	--	--	--	--	--	--	--	--	5.5	--	
MW-8	2/21/1999		165.74	18.29	--	147.45	82,000	--	450	2,200	3,700	26,000	<500	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	5/10/1999		165.74	15.62	--	150.12	28,000	--	740	1,800	1,100	5,800	<25	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	8/24/1999		165.74	18.41	--	147.33	75,000	--	530	1,400	3,300	21,000	150	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	11/3/1999		165.74	18.71	--	147.03	70,000	--	600	1,300	3,600	20,500	750	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	3/12/2000		165.74	19.37	--	146.37	27,000	--	1,600	1,200	2,600	6,600	120	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	11/20/2000		165.74	17.42	--	148.32	1,300,000	--	1,400	1,700	20,000	16,000	5,700	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	9/5/2001		165.74	21.45	0.04	144.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	11/30/2001		165.74	18.31	--	147.43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	2/20/2002		165.74	14.02	--	151.72	20,000	--	163	114	403	3,810	80.4	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	6/20/2002		165.74	17.56	--	148.18	28,000	--	466	141	962	5,850	2,520	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	9/11/2002		165.74	19.45	--	146.29	190,000	--	1,500	670	4,500	23,000	1,200	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	11/12/2002		165.74	19.15	--	146.59	420	--	6.4	2.9	16	110	31	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	1/29/2003		165.74	15.02	--	150.72	200,000	--	810	<500	2,000	11,000	<500	<2,000	<50	<50	<50	<50	<50	<50	<50	<50	<4,000	--		
MW-8	5/22/2003		165.74	15.07	--	150.67	--	--	--	--	--	--	<1,000	--	<25	<25	<25	<25	<25	<25	<25	<25	<5,000	--	--	
MW-8	6/24/2003		165.74	17.95	--	147.79	43,000	--	860	300	2,100	9,600	46	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	7/28/2003		165.74	19.45	--	146.29	62,000	--	690	230	1,800	15,000	2,100	<4,000	<100	<100	<100	<100	<100	<100	<100	<20,000	--	--		
MW-8	8/12/2003		165.74	19.40	0.01	146.34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	9/12/2003		165.74	19.34	--	146.40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	11/18/2003		165.74	18.80	0.01	146.94	8,800	--	500	37	530	930	1,700	<400	--	<10	<10	<10	<10	<10	<10	<20	<2,000	--		
MW-8	2/23/2004		165.74	12.82	0.01	152.92	32,000	--	840	360	1,000	7,100	110	<2,000	<50	<50	<50	<50	<50	<50	<50	<10,000	--	--		
MW-8	5/4/2004		165.74	18.87	0.01	146.87	42,000	--	570	230	1,700	8,400	2,000	<1,000	<25	<25	<25	<25	<25	<25	<25	<3,000	<5,000	--		
MW-8	8/4/2004		165.74	19.37	0.05	146.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	9/22/2004		165.74	19.60	--	146.14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	11/10/2004		165.74	16.58	--	149.16	11,000	--	790	61	1,000	830	74	<1,000	<25	<25	<25	<25	<25	<25	<25	<5,000	--	--		
MW-8	2/15/2005		165.74	12.85	--	152.89	38,000	--	1,300	390	2,300	7,900	<50	<2,000	<50	<50	<50	<50	<50	<50	<50	<10,000	--	--		
MW-8	5/16/2005		165.74	12.22	--	153.52	31,000	--	1,000	360	2,500	7,500	<50	<2,000	<50	<50	<50	<50	<50	<50	<50	<10,000	--	--		
MW-8	8/17/2005		165.74	17.80	--	147.94	60,000	--	540	240	2,500	8,600	<50	<2,000	<50	<50	<50	<50	<50	<50	<50	<10,000	--	--		
MW-8	11/18/2005		165.74	21.02	--	144.72	33,000	--	340	120	1,400	4,900	140	<2,000	<50	<50	<50	<50	<50	<50	<50	<10,000	--	--		
MW-8	2/7/2006		165.74	10.73	--	155.01	5,700	--	94	27	260	820	7.5	<200	<50	<50	<50	<50	<50	<50	<50	<3,000	--	--		
MW-8	5/19/2006		165.74	13.89	--	151.85	40,000	--	1,100	320	2,900	6,000	<25	<1,000	<25	<25	<25	<25	<25	<25	<25	<15,000	--	--		
MW-8	8/23/2006		165.74	18.85	--	146.89	21,000	--	520	150	1,800	6,300	82	<1,000	<25	<25	<25	<25	<25	<25	<25	<15,000	--	--		
MW-8	11/15/2006		165.74	18.75	--	146.99	3,300	--	81	<25	130	430	110	<1,000	<25	<25	<25	<25	<25	<25	<25	<15,000	0.81	--		
MW-8	2/14/2007		165.74	13.45	(Sheen)	152.29	9,300	--	320	<25	360	710	82	<1,000	<25	<25	<25	<25	<25	<25	<25	<15,000	1.89	--		
MW-8	5/22/2007		165.74	15.92	(Sheen)	149.82	17,000	--	370	51	760	1,600	11	<400	<10	<10	<10	<10	<10	<10	<10	<6,000	1.05	--		
MW-8	8/15/2007		165.74	19.11	(Sheen)	146.63	17,000	--	170	44	1,000	2,700	28	<400	<10	<10	<10	<10	<10	<10	<10	<6,000	3.93	--		
MW-8	11/8/2007		165.74	18.46	--	147.28	24,000	--	150	43	1,100	3,200	27	<1,000	<25	<										

Well ID	Date	Type	TOC (ft msl)	DTW (ft)	Measured LNAPL Thickness (ft)		GW Elev (ft msl)	GRO (µg/L)	DRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	NAPH (µg/L)	Notes	
					LNAPL Thickness (ft)	LNAPL Thickness (ft)																			
MW-9	4/20/1994	Dup	166.20	19.72	--	146.48	45,000	--	2,700	6,800	1,200	6,200	740	160	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<500	--	--
MW-9	4/20/1994		166.20	19.72	--	146.48	43,000	--	2,800	6,800	1,300	7,900	768	--	--	--	--	--	--	--	--	--	--	1.7	--
MW-9	8/1/1994		166.20	20.18	--	146.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	12/23/1994		166.20	14.23	--	151.98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	1/26/1995		166.20	11.85	--	154.35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	6/8/1995		166.20	18.33	--	147.87	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	8/22/1995		166.20	19.95	--	146.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	10/27/1995		166.20	20.88	--	145.32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	1/25/1996		166.20	13.84	--	152.36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	7/23/1996		166.20	18.84	--	147.36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	11/11/1996		166.20	19.91	--	146.29	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	1/24/1997		166.20	12.93	--	153.27	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	4/29/1997		166.20	18.03	0.10	148.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	4/30/1997		166.20	18.03	--	148.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	8/21/1997		166.20	19.56	--	146.64	110,000	--	2,100	3,400	2,300	18,800	<500	--	--	--	--	--	--	--	--	--	--	5.5	--
MW-9	11/5/1997		166.20	20.59	0.01	145.60	50,000	--	1,400	1,700	2,200	17,000	<500	--	--	--	--	--	--	--	--	--	--	5.1	--
MW-9	2/3/1998		166.20	10.56	--	155.64	55,000	--	490	1,200	1,400	10,200	<1,000	--	--	--	--	--	--	--	--	--	--	4.5	--
MW-9	5/28/1998	Dup	166.20	14.21	--	151.99	53,000	--	290	830	1,400	10,500	<500	<40	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1,000	--	--	
MW-9	5/28/1998		166.20	14.21	--	151.99	430	--	250	1,200	1,500	11,400	<250	4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	17	<100	3.8	
MW-9	12/30/1998		166.20	15.61	--	150.59	83,000	--	860	1,300	2,400	21,000	180	--	--	--	--	--	--	--	--	--	--	--	
MW-9	2/21/1999		166.20	12.33	--	153.87	75,000	--	530	960	1,900	17,000	<50	--	--	--	--	--	--	--	--	--	--	--	
MW-9	5/10/1999		166.20	15.67	--	150.53	22,000	--	600	1,500	1,100	4,400	72	--	--	--	--	--	--	--	--	--	--	--	
MW-9	8/24/1999		166.20	19.10	--	147.10	85,000	--	850	1,300	1,700	20,000	<250	--	--	--	--	--	--	--	--	--	--	--	
MW-9	11/3/1999		166.20	19.58	--	146.62	72,000	--	700	780	1,900	19,000	<50	--	--	--	--	--	--	--	--	--	--	--	
MW-9	3/1/2000		166.20	13.19	--	153.01	34,000	--	78	490	1,100	8,200	63	--	--	--	--	--	--	--	--	--	--	--	
MW-9	4/21/2000		166.20	14.29	--	151.91	55,000	--	260	920	1,500	16,000	<50	--	--	--	--	--	--	--	--	--	--	--	
MW-9	7/31/2000		166.20	15.01	--	151.19	1,200,000	--	1,500	6,300	15,000	120,000	1,600	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	11/20/2000		166.20	18.23	--	147.97	320,000	--	3,500	19,000	5,000	40,000	3,900	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	2/18/2001		166.20	13.14	--	153.06	32,000	--	290	417	1,180	10,400	121	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	6/7/2001		166.20	17.41	--	148.79	96,000	--	421	704	2,330	17,300	223	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	9/5/2001		166.20	20.56	--	145.64	39,000	--	445	323	1,240	8,940	310	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	11/30/2001		166.20	17.42	--	148.78	60,000	--	310	586	1,890	14,200	285	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	2/20/2002		166.20	13.87	--	152.33	14,000	--	64	122	897	2,650	293	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	6/20/2002		166.20	18.22	--	147.98	29,000	--	307	168	1,100	5,670	208	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	9/11/2002		166.20	20.27	--	145.93	230,000	--	1,400	680	3,600	23,000	<2,500	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	11/12/2002		166.20	19.40	--	146.80	840	--	5.8	3.6	28	160	21	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	1/29/2003		166.20	14.30	0.10	151.80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	5/22/2003		166.20	15.16	--	151.04	23,000	--	420	<50	1,000	2,900	<50	38	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	
MW-9	7/28/2003		166.20	19.55	0.01	146.65	1,500,000	--	<500	<500	9,800	79,000	<500	<20,000	--	<500	<500	<500	<500	<500	<500	<100,000	--	--	
MW-9	8/12/2003		166.20	19.60	0.01	146.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	9/12/2003		166.20	19.60	0.01	146.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	11/18/2003		166.20	18.98	0.01	147.22	19,000	--	250	18	690	2,400	45	<400	--	<10	<10	<10	<10	<10	<10	<2,000	--	--	
MW-9	2/23/2004		166.20	13.91	0.01	152.29	91,000	--	<250	440	2,200	13,000	<250	<10,000	<250	<250	<250	<250	<250	<250	<250	<50,000	--	--	
MW-9	5/4/2004		166.20	18.11	0.01	148.09	39,000	--	230	44	1,100	4,200	<25	<1,000	<25	<25	<25	<25	<25	<25	<25	<5,000	--	--	
MW-9	8/4/2004		166.20	18.90	0.03	147.32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	9/22/2004		166.20	19.69	--	145.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	11/10/2004		166.20	16.95	--	149.25	31,000	--	300	<50	1,100	3,800	<50	<2,000	<50	<50	<50	<50	<50	<50	<50	<10,000	--	--	
MW-9	2/15/2005		166.20	12.95	--	153.25	19,000	--	200	<50	720	2,000	<50	<2,000	<50	<50	<50	<50	<50	<50	<50	<10,000	--	--	
MW-9	5/16/2005		166.20	12.53	--	153.67	17,000	--	99	15	770	2,500	<10	4.4	<10	<10	<10	<10	<10	<10	<10	<2,000	--	--	
MW-9	8/17/2005		166.20	18.03	--	148.17	28,000	--	160	26	1,000	2,700	<12	<500	<12	<12	<12	<12	<12	<12	<12	<2,500	--	--	
MW-9	11/18/2005		166.20	19.04	--	147.16	12,000	--	98	<5.0	410	510	19	<200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1,000	--	--	
MW-9	2/7/2006		166.20	10.95	(Sheen)	155.25	18,000	--	110	8.7	770	1,500	<5.0	<4.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<3,000	--	--	
MW-9	8/23/2006		166.20	18.91	--	147.29	28,000	--	84	<50	1,600	6,200	<50	<2,000	<50	<50	<50	<50	<50	<50	<50	<30,000	--	--	
MW-9	11/15/2006		166.20	18.60	--	147.60	8,200	--	44	<25	190	370	26	<1,000	<25	<25	<25	<25	<25	<25	<25	<15,000	0.92	--	
MW-9	2/14/2007		166.20	13.30	--	152.90	20,000	--	64	<25	720	2,000	<25	<1,000	<25	<25	<25	<25	<25	<25	<25	<15,000	0.87	--	
MW-9	5/22/2007		166.20	16.14	(Sheen)	150.06	16,000	--	80	<25	460	1,200	<25	<1,000	<25	<25	<25	<25	<25	<25	<25	<15,000	0.81	--	
MW-9	8/15/2007		166.20	19.31	(Sheen)	149.87	8,000	--	49	<2.5	790	140	<2.5	<200	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<6,			

Well ID	Date	Type	TOC (ft msl)	DTW (ft)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)	GRO (µg/L)	DRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	NAPH (µg/L)	Notes
MW-10	7/12/1993		167.01	19.78	--	147.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	10/21/1993		167.01	22.90	--	144.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	1/21/1994		167.01	20.25	--	146.76	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	4/20/1994		167.01	20.74	--	146.27	100,000	--	12,000	24,000	2,400	14,000	1,577	--	--	--	--	--	--	--	1	--	
MW-10	8/1/1994		167.01	22.00	--	145.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	12/23/1994		167.01	16.08	--	150.93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	1/26/1995		167.01	13.68	--	153.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	6/8/1995		167.01	19.08	--	147.93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	8/22/1995		167.01	20.73	--	146.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	10/27/1995		167.01	21.69	--	145.32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	1/25/1996		167.01	15.05	--	151.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	4/19/1996		167.01	16.26	--	150.75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	7/23/1996		167.01	20.18	--	146.83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	11/11/1996		167.01	21.20	--	145.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	1/21/1997		167.01	13.66	--	153.35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	4/29/1997		167.01	18.71	--	148.30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	4/30/1997		--	--	--	170,000	--	9,700	38,000	4,700	30,500	<5,000	--	--	--	--	--	--	--	5.6	--	--	
MW-10	8/21/1997		167.01	20.19	--	146.82	170,000	--	9,500	35,000	4,300	27,100	<5,000	--	--	--	--	--	--	--	5.3	--	
MW-10	11/5/1997		167.01	20.52	--	146.49	80,000	--	3,800	12,000	2,700	15,700	<500	--	--	--	--	--	--	--	4.4	--	
MW-10	2/3/1998		167.01	10.62	--	156.39	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	2/4/1998		--	--	--	72,000	--	500	1,300	1,700	12,000	<1,000	--	--	--	--	--	--	--	5.1	--	--	
MW-10	5/28/1998		167.01	15.46	--	151.55	220,000	--	3,200	24,000	5,200	43,000	<1,000	--	--	--	--	--	--	--	4.8	--	
MW-10	12/30/1998		167.01	16.65	--	150.36	110,000	--	3,500	14,000	5,800	50,000	<50	--	--	--	--	--	--	--	--	--	
MW-10	2/2/1999		167.01	14.58	--	152.43	74,000	--	1,000	2,800	1,000	26,000	860	--	--	--	--	--	--	--	--	--	
MW-10	5/10/1999		167.01	15.72	--	151.29	81,000	--	2,800	2,800	3,000	17,000	220	--	--	--	--	--	--	--	--	--	
MW-10	8/24/1999		167.01	19.85	--	147.16	54,000	--	3,500	3,800	1,500	9,100	<250	--	--	--	--	--	--	--	--	--	
MW-10	11/3/1999		167.01	20.00	--	147.01	30,000	--	3,000	3,500	1,200	5,000	31	--	--	--	--	--	--	--	--	--	
MW-10	3/1/2000		167.01	14.62	--	152.39	62,000	--	320	1,200	1,100	26,000	4,400	--	--	--	--	--	--	--	--	--	
MW-10	4/21/2000		167.01	15.46	--	151.55	88,000	--	2,700	7,400	3,700	35,000	2,400	--	--	--	--	--	--	--	--	--	
MW-10	11/20/2000		167.01	18.74	--	148.27	78,000	--	3,800	5,500	2,800	13,000	450	--	--	--	--	--	--	--	--	--	
MW-10	2/18/2001		167.01	14.10	--	152.91	39,000	--	1,050	1,160	1,550	14,700	4,180	--	--	--	--	--	--	--	--	--	
MW-10	6/7/2001		167.01	18.78	--	148.23	76,000	--	2,460	2,840	3,330	20,700	635	--	--	--	--	--	--	--	--	--	
MW-10	9/5/2001		167.01	21.40	0.01	145.60	25,000	--	2,510	2,070	1,090	4,540	189	--	--	--	--	--	--	--	--	--	
MW-10	11/30/2001		167.01	18.50	--	148.51	100,000	--	2,480	5,720	3,890	22,800	325	--	--	--	--	--	--	--	--	--	
MW-10	2/20/2002		167.01	14.39	--	152.62	49,000	--	2,170	3,070	1,960	12,300	1,090	--	--	--	--	--	--	--	--	--	
MW-10	6/20/2002		167.01	18.80	--	148.21	44,000	--	2,040	3,050	1,690	8,430	224	--	--	--	--	--	--	--	--	--	
MW-10	9/11/2002		167.01	20.52	--	146.49	28,000	--	1,200	2,700	1,400	6,800	<250	--	--	--	--	--	--	--	--	--	
MW-10	11/12/2002		167.01	20.37	0.07	146.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	1/29/2003		167.01	16.33	0.03	150.65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	5/22/2003		167.01	16.32	--	150.69	13,000	--	2,100	850	630	1,600	300	<2,000	--	<50	<50	<50	<50	<10,000	--	--	
MW-10	6/24/2003		167.01	18.73	0.04	148.24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	7/28/2003		167.01	20.39	0.04	146.58	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	8/12/2003		167.01	20.43	0.01	146.58	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	9/12/2003		167.01	20.41	--	146.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	11/18/2003		167.01	19.55	0.01	147.46	9,900	--	2,200	530	320	860	<50	<2,000	--	<50	<50	<50	<50	<10,000	--	--	
MW-10	2/23/2004		167.01	15.45	0.01	151.56	46,000	--	1,900	2,000	1,800	9,000	180	<4,000	<100	<100	<100	<100	<100	<20,000	--	--	
MW-10	5/4/2004		167.01	18.81	0.01	148.20	35,000	--	3,100	3,600	1,400	5,600	<25	<1,000	<25	<25	<25	<25	<25	<5,000	--	--	
MW-10	8/4/2004		167.01	18.90	--	148.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	9/22/2004		167.01	20.60	--	146.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	11/10/2004		167.01	17.95	--	149.06	9,800	--	470	91	450	1,700	230	<1,000	<25	<25	<25	<25	<25	<5,000	--	--	
MW-10	1/3/2005		167.01	12.21	--	154.80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	2/15/2005		167.01	14.19	--	152.82	30,000	--	510	330	1,800	7,200	77	<2,000	<50	<50	<50	<50	<50	<10,000	--	--	
MW-10	5/16/2005		167.01	13.85	--	153.16	37,000	--	540	730	2,100	9,200	<50	<2,000	<50	<50	<50	<50	<50	<10,000	--	--	
MW-10	8/17/2005		167.01	19.01	--	148.00	15,000	--	1,100	420	1,200	4,100	<50	<2,000	<50	<50	<50	<50	<50	<10,000	--	--	
MW-10	11/18/2005		167.01	19.95	--	147.06	12,000	--	1,200	240	550	1,300	16	<500	<12	<12	<12	<12	<12	<2,500	--	--	
MW-10	2/7/2006		167.01	12.28	(Sheen)	154.73	22,000	--	340	580	1,300	4,500	73	<1,000	<25	<25	<25	<25	<25	<15,000	--	--	
MW-10	5/19/2006		167.01	15.12	--	151.89	40,000	--	690	430	2,600	4,900	<25	<1,000	<25	<25	<25	<25	<25	<15,000	--	--	
MW-10	8/23/2006		167.01	20.00	--	147.01	13,000	--	1,500	540	1,200	3,000	<10	<400	<10	<10	<10	<10	<10	<6,000	4.06	--	
MW-10	11/17/2006		167.01	19.84	--	147.17	3,800	--	700	22	67	160	54	<400	<10	<10	<10	<10	<10	<6,000	0.65	--	
MW-10	2/14/2007		167.01	14.94	(Sheen)	152.07	37,000	--	350	120	2,400	8,100	120	<400	<10	<10	<10	<10	<10	<6,000	2.12	--	
MW-10	5/22/2007		167.01	17.17	(Sheen)	149.84	13,000	--	810	130	750	2,200	15	<400	<10	<10	<10	<10	<10	<6,000	0.06	--	
MW-10	8/15/2007		167.01	20.30	(Sheen)	146.71	4,400	--															

Well ID	Date	Type	TOC (ft msl)	DTW (ft)	Measured LNAPL Thickness (ft)	GW Elev (ft msl) (SHEEN)	GRO ($\mu\text{g/L}$)	DRO ($\mu\text{g/L}$)	B ($\mu\text{g/L}$)	T ($\mu\text{g/L}$)	E ($\mu\text{g/L}$)	X ($\mu\text{g/L}$)	MTBE ($\mu\text{g/L}$)	TBA ($\mu\text{g/L}$)	1,2-DCA ($\mu\text{g/L}$)	DIPE ($\mu\text{g/L}$)	ETBE ($\mu\text{g/L}$)	EDB ($\mu\text{g/L}$)	TAME ($\mu\text{g/L}$)	Ethanol ($\mu\text{g/L}$)	DO (mg/L)	NAPH ($\mu\text{g/L}$)	Notes
RW-1	8/27/2014		168.01	20.35		147.66	2,800	--	5.9	1.7	12	5.2	6.7	<20	<0.50	<0.50	<0.50	<0.50	<500	0.22	6.8	(HC odor, sheen)	
RW-1	3/27/2015		168.01	17.57	--	150.44	970	--	0.98	<0.50	0.91	1.5	0.74	<20	<0.50	<0.50	<0.50	<0.50	<500	2.35	--	(HC odor)	
RW-1	8/27/2015		168.01	19.90	--	148.11	2,550	--	4.57	1.14(j)	4.54	3.66	<1.00	6.22	<1.00	<1.00	<1.00	<1.00	<100	8.36	--	(1 liter purged, Moderate hydrocarbon odor.)	
RW-1	3/28/2016		168.01	12.68	--	155.33	199	--	<1.00	<5.00	<1.00	<3.00	<1.00	<5.00	<1.00	<1.00(j3)	<1.00	<1.00	<1.00	<100	1.01	--	

Notes:

TOC = Top of casing measured

DTW = Depth to water

LNAPL = Light non-aqueous phase liquid (LPH)

GW Elev = Groundwater elevation

GRO = Gasoline range organics

B = Benzene

T = Toluene

E = Ethylbenzenes

X = Total xylenes

MTBE = Methyl tert-butyl ether

TBA = tert-butyl alcohol

DIPE = Di-isopropyl ether

ETBE = Ethyl tert-butyl ether

TAME = tert-Amyl methyl ether

DO = Dissolved oxygen

1,2-DCA = 1,2-dichloroethane

EDB = 1,2-dibromoethane

Ft msl = Feet above mean sea level

DUP = Duplicate sample

-- = Not analyzed/applicable/measured/available

< = Not detected at or above specified laboratory reporting limit

mg/L = Milligrams per liter

$\mu\text{g/L}$ = Micrograms per liter

NP = Well not purged prior to sampling

P = Well purged prior to sampling

b = GWE adjusted assuming a specific gravity of 0.75 for free product

j = Well not sampled due to presence of LPH and nature of the product

t = Sheen in well

y = Sample dilution was done with headspace in the sample vial; the samples were originally analyzed from VOAs without headspace

* = LCS or LCD D exceeds the control limits

Beginning in the Fourth Quarter 2003, the laboratory modified the reported analyte list; TPHg was changed to GRO; the resulting data may be

Beginning in the Second Quarter 2004, the carbon range for GRO was changed from C6-C10 to C4-C12

Values for DO and pH were obtained through field measurements

GRO analysis was completed by EPA method 8260B (C4-C12) for samples collected from the time period April 2006 through February 4, 2008;

The data within this table collected prior to April 2006 was provided to Broadbent & Associates, Inc. by Atlantic Richfield Company and their

Table 2
Historical Groundwater Monitoring and Analytical Data
CA-11132
3201 35th Ave, Oakland, CA 94619

GRO analysis was completed by EPA method 8260B (C4-C12) for samples collected from the time period April 2006 through February 4, 2008;
The data within this table collected prior to April 2006 was provided to Broadbent & Associates, Inc. by Atlantic Richfield Company and their

Table 3
Historical Groundwater Flow Direction and Gradient
CA-11132
3201 35th Ave, Oakland, CA 94619

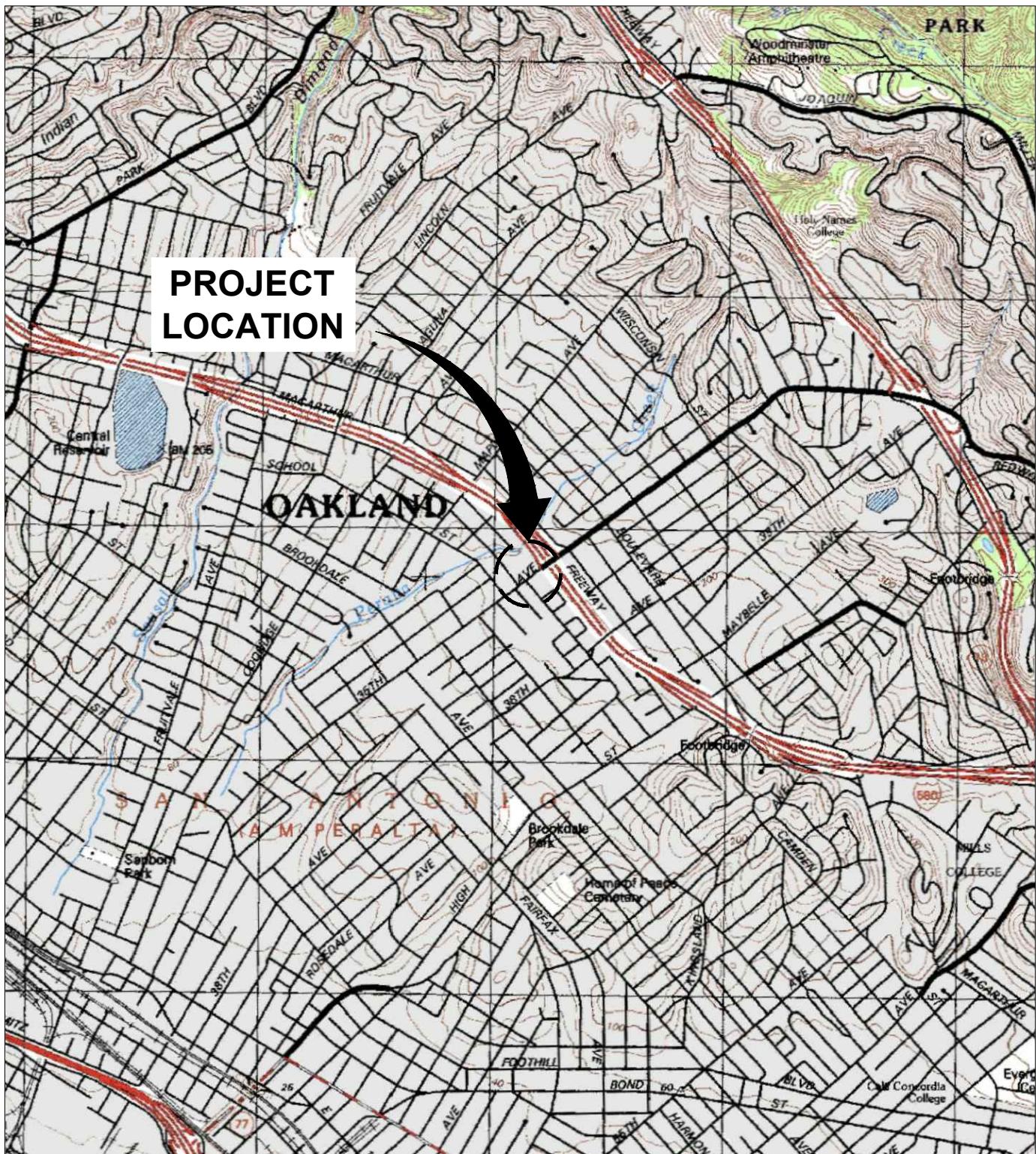
Date Measured	Approximate Gradient Direction	Approximate Gradient Magnitude (ft/ft)
5/19/2006	South	0.003 to 0.005
8/23/2006	Southwest	0.01
11/15/2006	South	0.004
2/14/2007	Southeast	0.01
5/22/2007	South	0.005
8/15/2007	South-Southwest	0.008
11/8/2007	Southwest	0.006
2/20/2008	Southeast	0.008
5/7/2008	South-Southwest	0.003
8/20/2008	South-Southwest	0.007
11/17/2008	South-Southwest	0.005
2/25/2009	Southeast	0.01
5/28/2009	South	0.004
8/6/2009	South-Southwest	0.005
3/4/2010	East-Southeast	0.02
9/2/2010	Southwest	0.01
3/15/2011	Southeast	0.01
8/17/2011	Southwest	0.003
2/6/2012	Southeast	0.005
8/21/2012	Southwest	0.007
2/4/2013	Southwest	0.01
8/1/2013	Southwest	0.007
2/27/2014	South-Southwest	0.007
8/27/2014	West-Northwest	0.01
3/27/2015	West	0.004
8/27/2015	West-Northwest	0.01
3/28/2016	South	0.007

Notes:

The data within this table collected prior to April 2006 were provided to Broadbent & Associates, Inc. by Atlantic Richfield Company and their previous consultants. Broadbent & Associates, Inc. has not verified the accuracy of this information.

ARCADIS

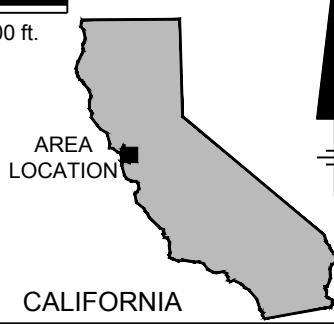
Figures



0 2000' 4000'

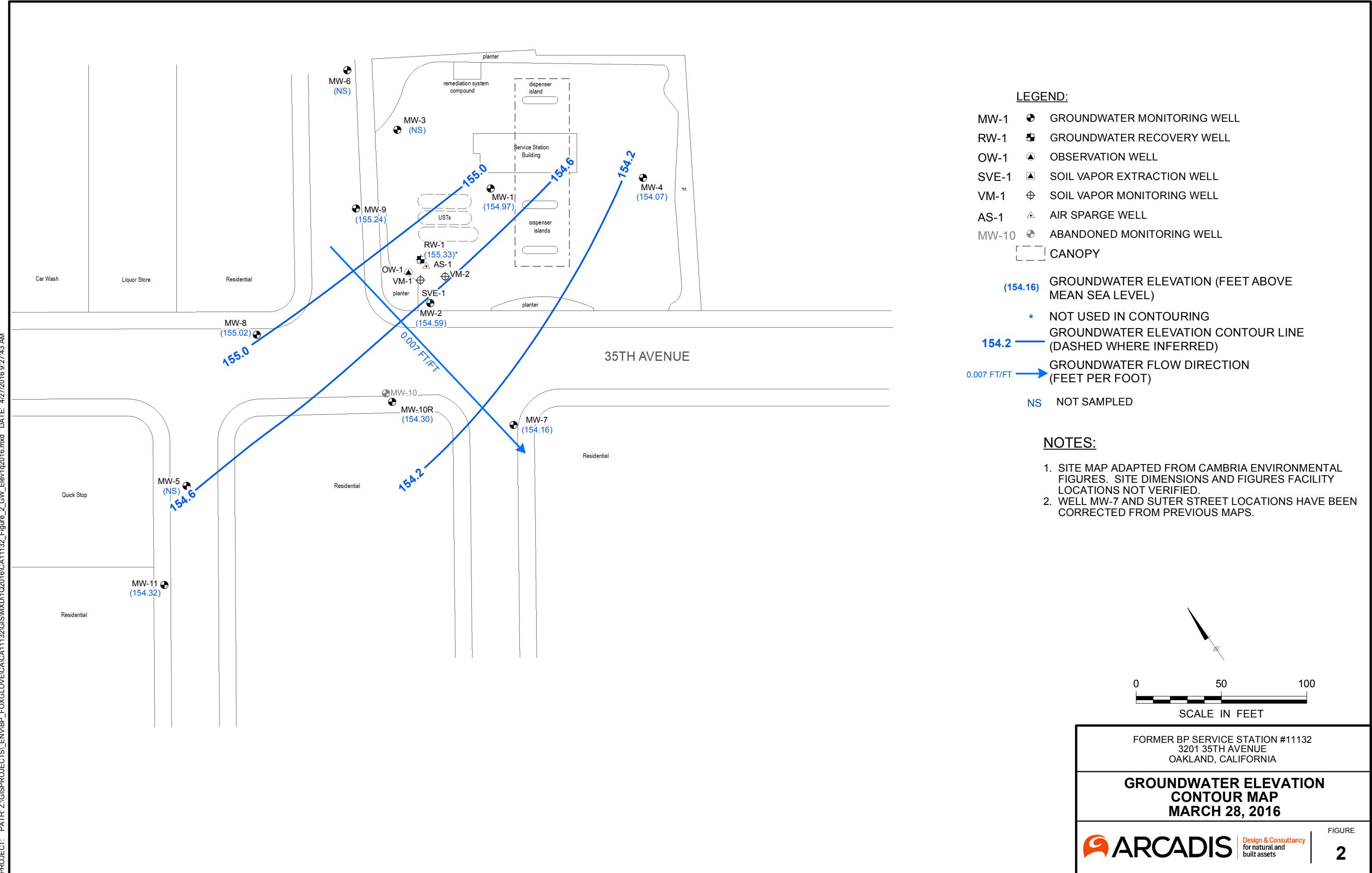
Approximate Scale: 1 in. = 2000 ft.

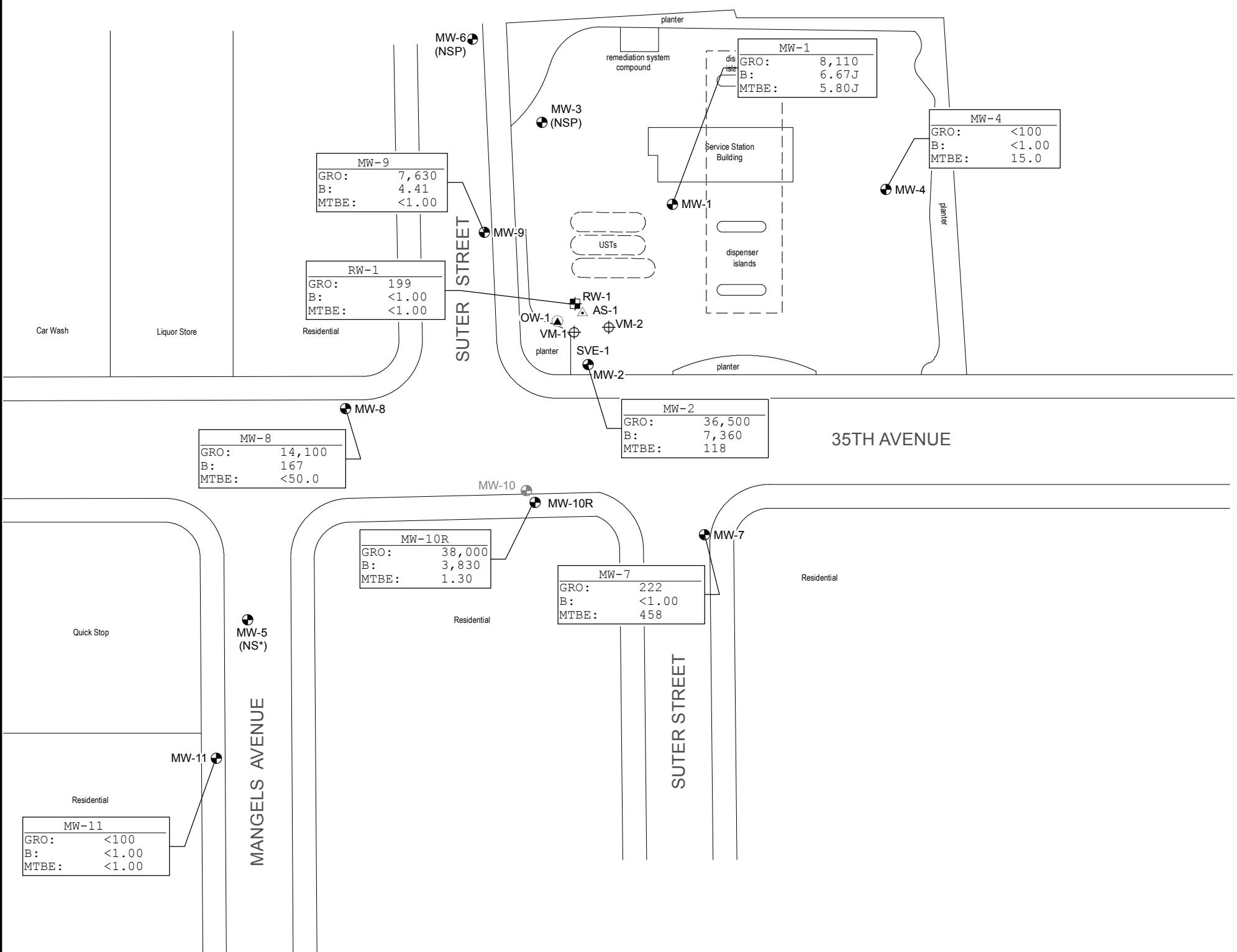
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USGS TOPO 11132.jpg



FORMER BP STATION No. 11132
3201 35TH AVENUE
OAKLAND, CALIFORNIA

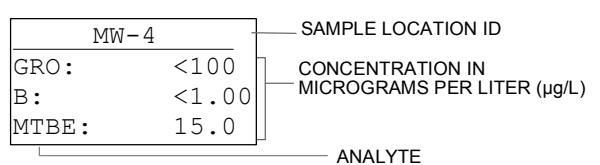
SITE LOCATION MAP



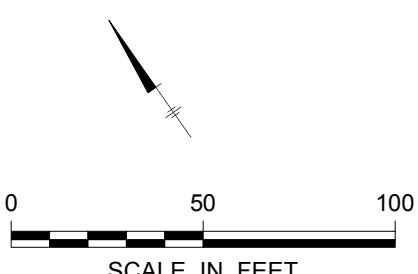


LEGEND:

- MW-1 ● GROUNDWATER MONITORING WELL
- RW-1 □ GROUNDWATER RECOVERY WELL
- OW-1 ▲ OBSERVATION WELL
- SVE-1 ▨ SOIL VAPOR EXTRACTION WELL
- VM-1 Ⓣ SOIL VAPOR MONITORING WELL
- AS-1 △ AIR SPARGE WELL
- MW-10 ○ ABANDONED MONITORING WELL
- CANOPY □



- GRO GASOLINE RANGE ORGANICS
- B BENZENE
- MTBE METHYL TERT-BUTYL ETHER
- < NOT DETECTED AT OR ABOVE STATED LABORATORY REPORTING LIMIT
- NSP WELL NOT SAMPLED IN ACCORDANCE WITH GROUNDWATER SAMPLING SCHEDULE
- J THE IDENTIFICATION OF THE ANALYTE IS ACCEPTABLE; THE REPORTED VALUE IS AN ESTIMATE
- NS* WELL NOT SAMPLED; CAR PARKED OVER WELL DURING MONITORING EVENT



FORMER BP SERVICE STATION #11132
3201 35TH AVENUE
OAKLAND, CALIFORNIA

GROUNDWATER ANALYTICAL SUMMARY MAP MARCH 28, 2016

NOTES:

1. SITE MAP ADAPTED FROM CAMBRIA ENVIRONMENTAL FIGURES. SITE DIMENSIONS AND FIGURES FACILITY LOCATIONS NOT VERIFIED.
2. WELL MW-7 AND SUTER STREET LOCATIONS HAVE BEEN CORRECTED FROM PREVIOUS MAPS.

Attachment A
Field Methods

QUALITY ASSURANCE/QUALITY CONTROL FIELD METHODS

Field methods discussed herein were implemented to provide for accuracy and reliability of field activities, data collection, sample collection, and handling. Discussion of these methods is provided below.

1.0 Equipment Calibration

Equipment calibration was performed per equipment manufacturer specifications before use.

2.0 Depth to Groundwater and Light Non-Aqueous Phase Liquid Measurement

Depth to groundwater was measured in wells identified for gauging in the scope of work using a decontaminated water level indicator. The depth to water measurement was taken from a cut notch or permanent mark at the top of the well casing to which the well head elevation was originally surveyed.

Once depth to water was measured, an oil/water interface meter or a new disposable bailer was utilized to evaluate the presence and, if present, to measure the “apparent” thickness of light non-aqueous phase liquid (LNAPL) in the well. If LNAPL was present in the well, groundwater purging and sampling were not performed, unless sampling procedures in the scope of work specified collection of samples in the presence of LNAPL. Otherwise, time allowing, LNAPL was bailed from the well using either a new disposable bailer, or the disposal bailer previously used for initial LNAPL assessment. Bailing of LNAPL continued until the thickness of LNAPL (or volume) stabilized in each bailer pulled from the well, or LNAPL was no longer present. After LNAPL thickness either stabilized or was eliminated, periodic depth to water and depth to LNAPL measurements were collected as product came back into the well to evaluate product recovery rate and to aid in further assessment of LNAPL in the subsurface. LNAPL thickness measurements were recorded as “apparent.” If a bailer was used for LNAPL thickness measurement, the field sampler noted the bailer entry diameter and chamber diameter to enable correction of thickness measurements. Recovered LNAPL was stored on-site in a labeled steel drum(s) or other appropriate container(s) prior to disposal.

3.0 Well Purging and Groundwater Sample Collection

Well purging and groundwater sampling were performed in wells specified in the scope of work after measuring depth to groundwater and evaluating the presence of LNAPL. Purging and sampling were performed using one of the methods detailed below. The method used was noted in the field records. Purge water was stored on-site in labeled steel drum(s) or other appropriate container(s) prior to disposal or on-site treatment (in cases where treatment using an on-site system is authorized).

3.1 Purging a Predetermined Well Volume

Purging a predetermined well volume is performed per ASTM International (ASTM) D4448-01. This purging method has the objective of removing a predetermined volume of stagnant water from the well prior to sampling. The volume of stagnant water

is defined as either the volume of water contained within the well casing, or the volume within the well casing and sand/gravel in the annulus if natural flow through these is deemed insufficient to keep them flushed out.

This purging method involves removal of a minimum of three stagnant water volumes from the well using a decontaminated pump with new disposable plastic discharge or suction tubing, dedicated well tubing, or using a new disposable or decontaminated reusable bailer. If a new disposable bailer was used for assessment of LNAPL, that bailer may be used for purging. The withdrawal rate used is one that minimizes drawdown while satisfying time constraints.

To evaluate when purging is complete, one or more groundwater stabilization parameters are monitored and recorded during purging activities until stabilization is achieved. Most commonly, stabilization parameters include temperature, conductivity, and pH, but field procedures detailed in the scope of work may also include monitoring of dissolved oxygen concentrations, oxidation reduction potential, and/or turbidity¹. Parameters are considered stable when two (2) consecutive readings recorded three (3) minutes apart fall within ranges provided below in Table 1. In the event that the parameters have not stabilized and five (5) well casing volumes have been removed, purging activities will cease and be considered complete. Once the well is purged, a groundwater sample(s) is collected from the well using a new disposable bailer. If a new disposable bailer was used for purging, that bailer may be used to collect the sample(s). A sample is not collected if the well is inadvertently purged dry.

Table 1. Criteria for Defining Stabilization of Water-Quality Indicator Parameters

Parameter	Stabilization Criterion
Temperature	$\pm 0.2^{\circ}\text{C}$ ($\pm 0.36^{\circ}\text{F}$)
pH	± 0.1 standard units
Conductivity	$\pm 3\%$
Dissolved oxygen	$\pm 10\%$
Oxidation reduction potential	$\pm 10 \text{ mV}$
Turbidity ¹	$\pm 10\%$ or 1.0 NTU (whichever is greater)

3.2 Low-Flow Purging and Sampling

“Low-Flow”, “Minimal Drawdown”, or “Low-Stress” purging is performed per ASTM D6771-02. It is a method of groundwater removal from within a well’s screened interval that is intended to minimize drawdown and mixing of the water column in the well casing. This is accomplished by pumping the well using a decontaminated pump with new disposable plastic discharge or suction tubing or dedicated well tubing at a low flow rate while evaluating the groundwater elevation during pumping.

¹ As stated in ASTM D6771-02, turbidity is not a chemical parameter and not indicative of when formation-quality water is being purged; however, turbidity may be helpful in evaluating stress on the formation during purging. Turbidity measurements are taken at the same time that stabilization parameter measurements are made, or, at a minimum, once when purging is initiated and again just prior to sample collection, after stabilization parameters have stabilized. To avoid artifacts in sample analysis, turbidity should be as low as possible when samples are collected. If turbidity values are persistently high, the withdrawal rate is lowered until turbidity decreases. If high turbidity persists even after lowering the withdrawal rate, the purging is stopped for a period of time until turbidity settles, and the purging process is then restarted. If this fails to solve the problem, the purging/sampling process for the well is ceased, and well maintenance or redevelopment is considered.

The low flow pumping rate is well specific and is generally established at a volume that is less than or equal to the natural recovery rate of the well. A pump with adjustable flow rate control is positioned with the intake at or near the mid-point of the submerged well screen. The pumping rate used during low-flow purging is low enough to minimize mobilization of particulate matter and drawdown (stress) of the water column. Low-flow purging rates will vary based on the individual well characteristics; however, the purge rate should not exceed 1.0 Liter per minute (L/min) or 0.25 gallon per minute (gal/min). Low-flow purging should begin at a rate of approximately 0.1 L/min (0.03 gal/min)², or the lowest rate possible, and be adjusted based on an evaluation of drawdown. Water level measurements should be recorded at approximate one (1) to two (2) minute intervals until the low-flow rate has been established, and drawdown is minimized. As a general rule, drawdown should not exceed 25% of the distance between the top of the water column and the pump in-take.

To evaluate when purging is complete, one or more groundwater stabilization parameters are monitored and recorded during purging activities until stabilization is achieved. Most commonly, stabilization parameters include temperature, conductivity, and pH, but field procedures detailed in the scope of work may also include monitoring of dissolved oxygen concentrations, oxidation reduction potential, and/or turbidity¹. The frequency between measurements will be at an interval of one (1) to three (3) minutes; however, if a flow cell is used, the frequency will be determined based on the time required to evacuate one cell volume. Stabilization is defined as three (3) consecutive readings recorded several minutes apart falling within ranges provided in Table 1. Samples will be collected by filling appropriate containers from the pump discharge tubing at a rate not to exceed the established pumping rate.

3.3 Minimal Purge, Discrete Depth, and Passive Sampling

Per ASTM D4448-01, sampling techniques that do not rely on purging, or require only minimal purging, may be used if a particular zone within a screened interval is to be sampled or if a well is not capable of yielding sufficient groundwater for purging. To properly use these sampling techniques, a water sample is collected within the screened interval with little or no mixing of the water column within the casing. These techniques include minimal purge sampling which uses a dedicated sampling pump capable of pumping rates of less than 0.1 L/min (0.03 gal/min)², discrete depth sampling using a bailer that allows groundwater entry at a controlled depth (e.g. differential pressure bailer), or passive (diffusion) sampling. These techniques are based on certain studies referenced in ASTM D4448-01 that indicate that under certain conditions, natural groundwater flow is laminar and horizontal with little or no mixing within the well screen.

² According to ASTM D4448-01, studies have indicated that at flow rates of 0.1 L/min, low-density polyethylene (LDPE) and plasticized polypropylene tubing materials are prone to sorption. Therefore, TFE-fluorocarbon or other appropriate tubing material is used, particularly when tubing lengths of 50 feet or longer are used.

4.0 Decontamination

Reusable groundwater sampling equipment were cleaned using a solution of Alconox or other acceptable detergent, rinsed with tap water, and finally rinsed with distilled water prior to use in each well. Decontamination water was stored on-site in labeled steel drum(s) or other appropriate container(s) prior to disposal.

5.0 Sample Containers, Labeling, and Storage

Samples were collected in laboratory prepared containers with appropriate preservative (if preservative was required). Samples were properly labeled (site name, sample I.D., sampler initials, date, and time of collection) and stored chilled (refrigerator or ice chest with ice) until delivery to a certified laboratory, under chain of custody procedures.

6.0 Chain of Custody Record and Procedure

The field sampler was personally responsible for care and custody of the samples collected until they were properly transferred to another party. To document custody and transfer of samples, a Chain of Custody Record was prepared. The Chain of Custody Record provided identification of the samples corresponding to sample labels and specified analyses to be performed by the laboratory. The original Chain of Custody Record accompanied the shipment, and a copy of the record was stored in the project file. When the samples were transferred, the individuals relinquishing and receiving them signed, dated, and noted the time of transfer on the record.

7.0 Field Records

Daily Report and data forms were completed by staff personnel to provide daily record of significant events, observations, and measurements. Field records were signed, dated, and stored in the project file.

Attachment B

Groundwater Sampling Data
Package



GROUNDWATER MONITORING SITE SHEET

Page 1 of 1Project: Arcadis 11132Field Representative(s): F1/JJFormation recharge rate is historically: HighProject No.: 09-00-655

Elevation: _____

Low (circle one)

W. L. Indicator ID #: _____

Oil/Water Interface ID #: _____ (list #s of all equip used)

WELL ID RECORD				WELL GAUGING RECORD				LAB ANALYSES		
Well ID	Well Sampling Order	As-Built Well Diam. (in)	As-Built Well Screen Interval (ft)	Previous Depth to Water (ft)	Previous Total Depth (ft)	Time (24:00)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)*	Depth to Water (ft)	Well Total Depth (ft)
MW-5	* Parked	over	unable	to gauge		10:00			24.50	
MW-6				0935			10.00		34.50	
MW-7				1000			—	—	31.37	
MW-8				0945			—	—	30.83	
MW-9				0940			—	—	10.96 24.73	
MW-10B				0955			—	—	12.50 22.54	
MW-11F	(1)			0950			—	—	11.32 25.45	
MW-1				1005			—	—	14.78 29.37	
MW-2				1010			—	—	13.55 31.56	
MW-3				1015			—	—		
RW-1				1020			—	—	12.08 38.56	
MW-4				1025			—	—	16.29 32.95	
* Device used to measure LNAPL thickness:				Bailer	Oil/Water Interface Meter				(circle one)	
If Bailer used, note bailer dimensions (in):				Entry Diameter: _____	Chamber Diameter: _____					

Signature: J. Hart

Revision: 12/4/2015



GROUNDWATER SAMPLING DATA SHEET

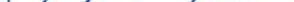
Page 1 of 1

Project: Arcadis 11132
Field Representative: F1/JJ
Well ID: MW 14 Start Time: _____

Project No.: 09-88-658 Date: 3/28/16

Date: 3/28/16

PURGE EQUIPMENT		Disp. Bailer	12V Pump	120V Pump	Flow Cell			
Disp. Tubing	12V Pump	Peristaltic Pump	Other/ID#:					
WELL HEAD INTEGRITY (cap, lock, vault, etc.)		Comments: <i>1st 2 bolts missing</i>						
<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Improvement Needed	(circle one)	(circle one)					
PURGING/SAMPLING METHOD		Predetermined Well Volume	Low-Flow	Other:	(circle one)			
PREDETERMINED WELL VOLUME				LOW-FLOW				
Casing Diameter Unit Volume (gal/ft) (circle one)				Previous Low-Flow Purge Rate: _____ (lpm)				
1" (0.04)	1.25" (0.08)	2" (0.17)	3" (0.38)	Other:	Total Well Depth (a): _____ (ft)			
4" (0.66)	6" (1.50)	8" (2.60)	12" (5.81)	_____ ()	Initial Depth to Water (b): _____ (ft)			
Water Column Height (WCH) = (a - b): _____ (ft)				Pump In-take Depth = b + (a-b)/2: _____ (ft)				
Water Column Volume (WCV) = WCH x Unit Volume: _____ (gal)				Maximum Allowable Drawdown = (a-b)/8: _____ (ft)				
Three Casing Volumes = WCV x 3: _____ (gal)				Low-Flow Purge Rate: _____ (gpm)*				
Five Casing Volumes = WCV x 5: _____ (gal)				Comments: _____				
Pump Depth (if pump used): _____ (ft)				*Low-flow purge rate should be within range of instruments used but should not exceed 0.25 gpm. Drawdown should not exceed Maximum Allowable Drawdown.				
GROUNDWATER STABILIZATION PARAMETER RECORD								
Time (24.00)	Cumulative Vol. gal or L	Temperature °C or °F	pH	ORP mV	Conductivity μS or mS	Turbidity NTU	DO mg/L	NOTES Odor, color, sheen or other
1035		18.3	7.25	-94			3.96	
Previous Stabilized Parameters								
PURGE COMPLETION RECORD			Low Flow & Parameters Stable		3 Casing Volumes & Parameters Stable		5 Casing Volumes	
Other: _____								
SAMPLE COLLECTION RECORD					GEOCHEMICAL PARAMETERS			
Depth to Water at Sampling: 24.73 (ft)					Parameter	Time	Measurement	
Sample Collected Via: Disp. Bailer Dedicated Pump Tubing					DO (mg/L)			
Disp. Pump Tubing		Other:	<i>Hydrostatic</i>		Ferrous Iron (mg/L)			
Sample ID: MW-9		Sample Collection Time: 1035 (24.00)			Redox Potential (mV)			
Containers (#): GVOA		(<input checked="" type="checkbox"/> preserved or <input type="checkbox"/> unpreserved)	Liter Amber		Alkalinity (mg/L)			
Other:		Other:		Other:				
Other:		Other:		Other:				

Signature: 

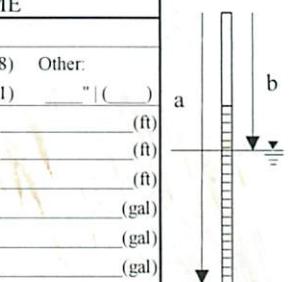
Revision: 8/20/2013



GROUNDWATER SAMPLING DATA SHEET

Page 7 of 1

Project: Arcadis 11132 Project No.: 09-88-655 Date: 3/28/15
Field Representative: F1/JJ
Well ID: MW-10R Start Time: _____ End Time: _____ Total Time (minutes): _____

PURGE EQUIPMENT	Disp. Bailer	120V Pump	Flow Cell					
Disp. Tubing	12V Pump	Peristaltic Pump	Other/ID#:					
WELL HEAD INTEGRITY (cap, lock, vault, etc.)		Comments: _____						
Good	Improvement Needed	(circle one)						
PURGING/SAMPLING METHOD		Predetermined Well Volume	Low-Flow Other: _____ (circle one)					
PREDETERMINED WELL VOLUME				LOW-FLOW				
Casing Diameter Unit Volume (gal/ft) (circle one)				Previous Low-Flow Purge Rate: _____ (lpm)				
1" (0.04)	1.25" (0.08)	2" (0.17)		3" (0.38)	Other: _____			
4" (0.66)	6" (1.50)	8" (2.60)		12" (5.81)	" ()			
Total Well Depth (a): _____ (ft)				Total Well Depth (a): _____ (ft)				
Initial Depth to Water (b): _____ (ft)				Initial Depth to Water (b): _____ (ft)				
Water Column Height (WCH) = (a - b): _____ (ft)				Pump In-take Depth = b + (a-b)/2: _____ (ft)				
Water Column Volume (WCV) = WCH x Unit Volume: _____ (gal)			Maximum Allowable Drawdown = (a-b)/8: _____ (ft)					
Three Casing Volumes = WCV x 3: _____ (gal)			Low-Flow Purge Rate: _____ (gpm)*					
Five Casing Volumes = WCV x 5: _____ (gal)			Comments: _____					
Pump Depth (if pump used): _____ (ft)			*Low-flow purge rate should be within range of instruments used but should not exceed 0.25 gpm. Drawdown should not exceed Maximum Allowable Drawdown.					
GROUNDWATER STABILIZATION PARAMETER RECORD								
Time (24:00)	Cumulative Vol. gal or L	Temperature °C or °F	pH	ORP mV	Conductivity µS or mS	Turbidity NTU	DO mg/L	NOTES Odor, color, sheen or other
1105		19.8	6.65	-28			1.82	
Previous Stabilized Parameters								
PURGE COMPLETION RECORD		Low Flow & Parameters Stable		3 Casing Volumes & Parameters Stable		5 Casing Volumes		
Other: _____								
SAMPLE COLLECTION RECORD						GEOCHEMICAL PARAMETERS		
Depth to Water at Sampling: 22.54 (ft)						Parameter	Time	Measurement
Sample Collected Via: Disp. Bailer Dedicated Pump Tubing						DO (mg/L)		
Disp. Pump Tubing Other: Hydrexeline						Ferrous Iron (mg/L)		
Sample ID: MW-10 Sample Collection Time: 1105 (24:00)						Redox Potential (mV)		
Containers (#): 6 VOA (✓ preserved or unpreserved) Liter Amber						Alkalinity (mg/L)		
Other: _____			Other: _____			Other: _____		
Other: _____			Other: _____			Other: _____		

Signature:

Revision: 8/20/2013



GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1

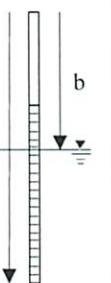
Project: ArCADis 11132

Project No.: D9-88-655 Date: 3/28/10

Field Representative: F1/J

Well ID: MW-11R(F1) Start Time: _____

End Time: _____ Total Time (minutes): _____

PURGE EQUIPMENT	Disp. Bailer	120V Pump	Flow Cell					
Disp. Tubing	12V Pump	Peristaltic Pump	Other/ID#:					
WELL HEAD INTEGRITY (cap, lock, vault, etc.)		Comments: _____						
Good	Improvement Needed	(circle one)						
PURGING/SAMPLING METHOD		Predetermined Well Volume	Low-Flow Other: _____ (circle one)					
PREDETERMINED WELL VOLUME				LOW-FLOW				
Casing Diameter Unit Volume (gal/ft) (circle one)				Previous Low-Flow Purge Rate: _____ (lpm)				
1" (0.04)	1.25" (0.08)	2" (0.17)		3" (0.38)	Other: _____			
4" (0.66)	6" (1.50)	8" (2.60)		12" (5.81)	" ()			
Total Well Depth (a): _____ (ft)				Total Well Depth (a): _____ (ft)				
Initial Depth to Water (b): _____ (ft)				Initial Depth to Water (b): _____ (ft)				
Water Column Height (WCH) = (a - b): _____ (ft)				Pump In-take Depth = b + (a-b)/2: _____ (ft)				
Water Column Volume (WCV) = WCH x Unit Volume: _____ (gal)				Maximum Allowable Drawdown = (a-b)/8: _____ (ft)				
Three Casing Volumes = WCV x 3: _____ (gal)			Low-Flow Purge Rate: _____ (gpm)*					
Five Casing Volumes = WCV x 5: _____ (gal)			Comments: _____					
Pump Depth (if pump used): _____ (ft)			*Low-flow purge rate should be within range of instruments used but should not exceed 0.25 gpm. Drawdown should not exceed Maximum Allowable Drawdown.					
GROUNDWATER STABILIZATION PARAMETER RECORD								
Time (24:00)	Cumulative Vol. gal or L	Temperature °C or °F	pH	ORP mV	Conductivity µS or mS	Turbidity NTU	DO mg/L	NOTES Odor, color, sheen or other
10:55		20.1	7.29	123			1-12	
Previous Stabilized Parameters								
PURGE COMPLETION RECORD			Low Flow & Parameters Stable		3 Casing Volumes & Parameters Stable		5 Casing Volumes	
Other: _____								
SAMPLE COLLECTION RECORD						GEOCHEMICAL PARAMETERS		
Depth to Water at Sampling: 25.45 (ft)						Parameter	Time	Measurement
Sample Collected Via: Disp. Bailer Dedicated Pump Tubing						DO (mg/L)		
Disp. Pump Tubing Other: H7dvasleent						Ferrous Iron (mg/L)		
Sample ID: MW-112 Sample Collection Time: 10:55 (24:00)						Redox Potential (mV)		
Containers (#): 6 VOA (preserved or unpreserved) Liter Amber						Alkalinity (mg/L)		
Other: _____						Other: _____		
Other: _____						Other: _____		
Other: _____						Other: _____		

Signature: 

Revision: 8/20/2013



GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1

Project: Arcadis 11132 Project No.: 09-88-655 Date: 3/28/16
 Field Representative: FL/1)
 Well ID: MN-2 Start Time: _____ End Time: _____ Total Time (minutes): _____

PURGE EQUIPMENT		Disp. Bailer	120V Pump	Flow Cell																																																		
Disp. Tubing		12V Pump	Peristaltic Pump	Other/ID#:																																																		
WELL HEAD INTEGRITY (cap, lock, vault, etc.)		Comments: _____																																																				
<input checked="" type="checkbox"/> Good Improvement Needed (circle one)																																																						
PURGING/SAMPLING METHOD		Predetermined Well Volume	Low-Flow	Other: (circle one)																																																		
PREDETERMINED WELL VOLUME		<table style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="width: 50%;">Casing Diameter Unit Volume (gal/ft) (circle one)</td> <td colspan="3" style="width: 50%;">LOW-FLOW</td> </tr> <tr> <td>1" (0.04)</td> <td>1.25" (0.08)</td> <td>2" (0.17)</td> <td>3" (0.38)</td> <td>Other: _____</td> </tr> <tr> <td>4" (0.66)</td> <td>6" (1.50)</td> <td>8" (2.60)</td> <td>12" (5.81)</td> <td>" ()</td> </tr> <tr> <td colspan="5">Total Well Depth (a): _____ (ft)</td> </tr> <tr> <td colspan="5">Initial Depth to Water (b): _____ (ft)</td> </tr> <tr> <td colspan="5">Water Column Height (WCH) = (a - b): _____ (ft)</td> </tr> <tr> <td colspan="5">Water Column Volume (WCV) = WCH x Unit Volume: _____ (gal)</td> </tr> <tr> <td colspan="5">Three Casing Volumes = WCV x 3: _____ (gal)</td> </tr> <tr> <td colspan="5">Five Casing Volumes = WCV x 5: _____ (gal)</td> </tr> <tr> <td colspan="5">Pump Depth (if pump used): _____ (ft)</td> </tr> </table>			Casing Diameter Unit Volume (gal/ft) (circle one)		LOW-FLOW			1" (0.04)	1.25" (0.08)	2" (0.17)	3" (0.38)	Other: _____	4" (0.66)	6" (1.50)	8" (2.60)	12" (5.81)	" ()	Total Well Depth (a): _____ (ft)					Initial Depth to Water (b): _____ (ft)					Water Column Height (WCH) = (a - b): _____ (ft)					Water Column Volume (WCV) = WCH x Unit Volume: _____ (gal)					Three Casing Volumes = WCV x 3: _____ (gal)					Five Casing Volumes = WCV x 5: _____ (gal)					Pump Depth (if pump used): _____ (ft)				
Casing Diameter Unit Volume (gal/ft) (circle one)		LOW-FLOW																																																				
1" (0.04)	1.25" (0.08)	2" (0.17)	3" (0.38)	Other: _____																																																		
4" (0.66)	6" (1.50)	8" (2.60)	12" (5.81)	" ()																																																		
Total Well Depth (a): _____ (ft)																																																						
Initial Depth to Water (b): _____ (ft)																																																						
Water Column Height (WCH) = (a - b): _____ (ft)																																																						
Water Column Volume (WCV) = WCH x Unit Volume: _____ (gal)																																																						
Three Casing Volumes = WCV x 3: _____ (gal)																																																						
Five Casing Volumes = WCV x 5: _____ (gal)																																																						
Pump Depth (if pump used): _____ (ft)																																																						
																																																						
		Previous Low-Flow Purge Rate: _____ (lpm) Total Well Depth (a): _____ (ft) Initial Depth to Water (b): _____ (ft) Pump In-take Depth = b + (a-b)/2: _____ (ft) Maximum Allowable Drawdown = (a-b)/8: _____ (ft) Low-Flow Purge Rate: _____ (gpm)* Comments: _____																																																				
		<small>*Low-flow purge rate should be within range of instruments used but should not exceed 0.25 gpm. Drawdown should not exceed Maximum Allowable Drawdown.</small>																																																				
GROUNDWATER STABILIZATION PARAMETER RECORD																																																						
Time (24:00)	Cumulative Vol. gal or L	Temperature °C or °F	pH	ORP mV	Conductivity μS or mS	Turbidity NTU	DO mg/L	NOTES Odor, color, sheen or other																																														
<u>1130</u>	<u>20.2</u>	<u>6.67</u>	<u>-69</u>				<u>1.64</u>																																															
Previous Stabilized Parameters																																																						
PURGE COMPLETION RECORD <input type="checkbox"/> Low Flow & Parameters Stable <input type="checkbox"/> 3 Casing Volumes & Parameters Stable <input type="checkbox"/> 5 Casing Volumes Other: _____																																																						
SAMPLE COLLECTION RECORD					GEOCHEMICAL PARAMETERS																																																	
Depth to Water at Sampling: <u>31.56</u> (ft)					Parameter	Time	Measurement																																															
Sample Collected Via: <input type="checkbox"/> Disp. Bailer <input type="checkbox"/> Dedicated Pump Tubing <input type="checkbox"/> Disp. Pump Tubing <input type="checkbox"/> Other: <u>+Hydrasleeve</u>					DO (mg/L)																																																	
Sample ID: <u>MN-2</u> Sample Collection Time: <u>1130</u> (24:00)					Ferrous Iron (mg/L)																																																	
Containers (#): <u>6</u> VOA (<input checked="" type="checkbox"/> preserved or <input type="checkbox"/> unpreserved) <input type="checkbox"/> Liter Amber <input type="checkbox"/> Other: _____ <input type="checkbox"/> Other: _____ <input type="checkbox"/> Other: _____ <input type="checkbox"/> Other: _____					Redox Potential (mV)																																																	
					Alkalinity (mg/L)																																																	
					Other:																																																	
					Other:																																																	

Signature: J. Blau

Revision: 8/20/2013



GROUNDWATER SAMPLING DATA SHEET

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Project: Arcadis 11132
Field Representative: F1/JJ
Well ID: MW-5 Start Time: _____

Project No.: 09-88-685 Date: 3/28/15

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PURGE EQUIPMENT	Disp. Bailer	120V Pump	Flow Cell	
Disp. Tubing	12V Pump	Peristaltic Pump	Other/ID#:	
WELL HEAD INTEGRITY (cap, lock, vault, etc.)		Comments: _____		
Good	Improvement Needed	(circle one)		
PURGING/SAMPLING METHOD		Predetermined Well Volume	Low-Flow Other: _____ (circle one)	
PREDETERMINED WELL VOLUME				
Casing Diameter Unit Volume (gal/ft) (circle one)				
1" (0.04)	1.25" (0.08)	2" (0.17)	3" (0.38)	Other: _____
4" (0.66)	6" (1.50)	8" (2.60)	12" (5.81)	" ()
Total Well Depth (a):		(ft)		
Initial Depth to Water (b):		(ft)		
Water Column Height (WCH) = (a - b):		(ft)		
Water Column Volume (WCV) = WCH x Unit Volume:		(gal)		
Three Casing Volumes = WCV x 3:		(gal)		
Five Casing Volumes = WCV x 5:		(gal)		
Pump Depth (if pump used):		(ft)		
LOW-FLOW				
Previous Low-Flow Purge Rate: _____ (lpm)				
Total Well Depth (a): _____ (ft)				
Initial Depth to Water (b): _____ (ft)				
Pump In-take Depth = b + (a-b)/2: _____ (ft)				
Maximum Allowable Drawdown = (a-b)/8: _____ (ft)				
Low-Flow Purge Rate: _____ (gpm)*				
Comments: _____				

Previous Stabilized Parameters

PURGE COMPLETION RECORD		<input type="checkbox"/> Low Flow & Parameters Stable	<input type="checkbox"/> 3 Casing Volumes & Parameters Stable	<input type="checkbox"/> 5 Casing Volumes
Other:				
SAMPLE COLLECTION RECORD			GEOCHEMICAL PARAMETERS	
Depth to Water at Sampling:	(ft)		Parameter	Time
Sample Collected Via:	<input type="checkbox"/> Disp. Bailer	<input type="checkbox"/> Dedicated Pump Tubing	DO (mg/L)	
Disp. Pump Tubing	Other:		Ferrous Iron (mg/L)	
Sample ID:	Sample Collection Time: _____ (24.00)		Redox Potential (mV)	
Containers (#):	<input type="checkbox"/> VOA (<input type="checkbox"/> preserved or <input type="checkbox"/> unpreserved) <input type="checkbox"/> Liter Amber		Alkalinity (mg/L)	
_____ Other:	_____ Other: _____		Other:	
_____ Other:	_____ Other:		Other:	

Signature:

Revision: 8/20/2013



GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1

Project: Krcadis 11132

Project No.: 09-88-655

Date: 3/28/16

Field Representative: F1/JJ

Well ID: MW-4 Start Time:

End Time: _____ Total Time (minutes): _____

PURGE EQUIPMENT		Disp. Bailer	120V Pump	Flow Cell				
		Disp. Tubing	12V Pump	Peristaltic Pump				
WELL HEAD INTEGRITY (cap, lock, vault, etc.)		Comments: _____						
Good	Improvement Needed	(circle one)						
PURGING/SAMPLING METHOD		Predetermined Well Volume	Low-Flow	Other: _____ (circle one)				
PREDETERMINED WELL VOLUME		 Previous Low-Flow Purge Rate: _____ (lpm) Total Well Depth (a): _____ (ft) Initial Depth to Water (b): _____ (ft) Pump In-take Depth = b + (a-b)/2: _____ (ft) Maximum Allowable Drawdown = (a-b)/8: _____ (ft) Low-Flow Purge Rate: _____ (gpm)* Comments: _____						
Casing Diameter Unit Volume (gal/ft) (circle one)								
1" (0.04)	1.25" (0.08)				2" (0.17)	3" (0.38)	Other: _____	
4" (0.66)	6" (1.50)				8" (2.60)	12" (5.81)	" ()	
Total Well Depth (a): _____ (ft)								
Initial Depth to Water (b): _____ (ft)								
Water Column Height (WCH) = (a - b): _____ (ft)								
Water Column Volume (WCV) = WCH x Unit Volume: _____ (gal)								
Three Casing Volumes = WCV x 3: _____ (gal)								
Five Casing Volumes = WCV x 5: _____ (gal)								
Pump Depth (if pump used): _____ (ft)								
GROUNDWATER STABILIZATION PARAMETER RECORD								
Time (24:00)	Cumulative Vol. gal or L	Temperature ^{°C} or ^{°F}	pH	ORP mV	Conductivity μS or mS	Turbidity NTU	DO mg/L	NOTES Odor, color, sheen or other
<u>1150</u>	<u>24.5</u>	<u>7.25</u>	<u>-49</u>				<u>2.27</u>	
Previous Stabilized Parameters								
PURGE COMPLETION RECORD			<input type="checkbox"/> Low Flow & Parameters Stable		<input type="checkbox"/> 3 Casing Volumes & Parameters Stable		<input type="checkbox"/> 5 Casing Volumes	
			<input checked="" type="checkbox"/> Other:					
SAMPLE COLLECTION RECORD						GEOCHEMICAL PARAMETERS		
Depth to Water at Sampling: <u>32.95</u> (ft)						Parameter	Time	Measurement
Sample Collected Via: <input type="checkbox"/> Disp. Bailer <input type="checkbox"/> Dedicated Pump Tubing						DO (mg/L)		
<input checked="" type="checkbox"/> Disp. Pump Tubing <input type="checkbox"/> Other: <u>Hydrosleeve</u>						Ferrous Iron (mg/L)		
Sample ID: <u>MW-4</u> Sample Collection Time: <u>1150</u> (24:00)						Redox Potential (mV)		
Containers (#): <u>6</u> VOA (<input checked="" type="checkbox"/> preserved or <input type="checkbox"/> unpreserved) <input type="checkbox"/> Liter Amber						Alkalinity (mg/L)		
Other: _____						Other: _____		
Other: _____						Other: _____		

Signature: J. L. A.

Revision: 8/20/2013



GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1Project: Arcadis 11132
Field Representative: F J ST
Well ID: MW-8Project No.: 09-88-685
Date: 3/28/16
Start Time: _____ End Time: _____ Total Time (minutes): _____

PURGE EQUIPMENT		Disp. Bailer	120V Pump	Flow Cell											
		Disp. Tubing	12V Pump	Peristaltic Pump	Other/ID#:										
WELL HEAD INTEGRITY (cap, lock, vault, etc.)			Comments: _____												
<input checked="" type="checkbox"/> Good Improvement Needed (circle one)															
PURGING/SAMPLING METHOD			Predetermined Well Volume	Low-Flow	Other: _____ (circle one)										
PREDETERMINED WELL VOLUME			<table border="1"><tr><td>Casing Diameter Unit Volume (gal/ft) (circle one)</td></tr><tr><td>1" (0.04) 1.25" (0.08) 2" (0.17) 3" (0.38) Other: _____</td></tr><tr><td>4" (0.66) 6" (1.50) 8" (2.60) 12" (5.81) " ()</td></tr><tr><td>Total Well Depth (a): _____ (ft)</td></tr><tr><td>Initial Depth to Water (b): _____ (ft)</td></tr><tr><td>Water Column Height (WCH) = (a - b): _____ (ft)</td></tr><tr><td>Water Column Volume (WCV) = WCH x Unit Volume: _____ (gal)</td></tr><tr><td>Three Casing Volumes = WCV x 3: _____ (gal)</td></tr><tr><td>Five Casing Volumes = WCV x 5: _____ (gal)</td></tr><tr><td>Pump Depth (if pump used): _____ (ft)</td></tr></table>	Casing Diameter Unit Volume (gal/ft) (circle one)	1" (0.04) 1.25" (0.08) 2" (0.17) 3" (0.38) Other: _____	4" (0.66) 6" (1.50) 8" (2.60) 12" (5.81) " ()	Total Well Depth (a): _____ (ft)	Initial Depth to Water (b): _____ (ft)	Water Column Height (WCH) = (a - b): _____ (ft)	Water Column Volume (WCV) = WCH x Unit Volume: _____ (gal)	Three Casing Volumes = WCV x 3: _____ (gal)	Five Casing Volumes = WCV x 5: _____ (gal)	Pump Depth (if pump used): _____ (ft)	LOW-FLOW	
Casing Diameter Unit Volume (gal/ft) (circle one)															
1" (0.04) 1.25" (0.08) 2" (0.17) 3" (0.38) Other: _____															
4" (0.66) 6" (1.50) 8" (2.60) 12" (5.81) " ()															
Total Well Depth (a): _____ (ft)															
Initial Depth to Water (b): _____ (ft)															
Water Column Height (WCH) = (a - b): _____ (ft)															
Water Column Volume (WCV) = WCH x Unit Volume: _____ (gal)															
Three Casing Volumes = WCV x 3: _____ (gal)															
Five Casing Volumes = WCV x 5: _____ (gal)															
Pump Depth (if pump used): _____ (ft)															
Previous Low-Flow Purge Rate: _____ (lpm)															
Total Well Depth (a): _____ (ft)															
Initial Depth to Water (b): _____ (ft)															
Pump In-take Depth = b + (a-b)/2: _____ (ft)															
Maximum Allowable Drawdown = (a-b)/8: _____ (ft)															
Low-Flow Purge Rate: _____ (gpm)*															
Comments: _____															
*Low-flow purge rate should be within range of instruments used but should not exceed 0.25 gpm. Drawdown should not exceed Maximum Allowable Drawdown.															
GROUNDWATER STABILIZATION PARAMETER RECORD															
Time (24:00)	Cumulative Vol. gal or L	Temperature (°C or °F)	pH	ORP mV	Conductivity μS or mS	Turbidity NTU	DO mg/L	NOTES Odor, color, sheen or other							
<u>1045</u>	<u>18.4</u>	<u>6.75</u>	<u>-22</u>				<u>1.56</u>								
Previous Stabilized Parameters															
PURGE COMPLETION RECORD			Low Flow & Parameters Stable		3 Casing Volumes & Parameters Stable		5 Casing Volumes								
			Other: _____												
SAMPLE COLLECTION RECORD						GEOCHEMICAL PARAMETERS									
Depth to Water at Sampling: <u>30.83</u> (ft)						Parameter	Time	Measurement							
Sample Collected Via: Disp. Bailer Dedicated Pump Tubing						DO (mg/L)									
Disp. Pump Tubing Other: <u>Hydra sleeve</u>						Ferrous Iron (mg/L)									
Sample ID: <u>MW-8</u> Sample Collection Time: <u>1045</u> (24:00)						Redox Potential (mV)									
Containers (#): <u>6</u> VOA (✓ preserved or unpreserved) Liter Amber						Alkalinity (mg/L)									
Other: _____			Other: _____			Other: _____									
Other: _____			Other: _____			Other: _____									

Signature: J. Lux

Revision: 8/20/2013



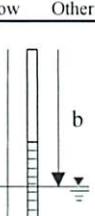
GROUNDWATER SAMPLING DATA SHEET

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Project: Arcachs 11132
Field Representative: F1/JJ
Well ID: MW-1 Start Time: _____

Project No.: 09-88-655 Date: 3/28/16

PURGE EQUIPMENT Disp. Bailer 120V Pump Flow Cell

PURGE EQUIPMENT		Disp. Bailer	120V Pump	Flow Cell
Disp. Tubing		12V Pump	Peristaltic Pump	Other/ID#:
WELL HEAD INTEGRITY (cap, lock, vault, etc.)		Comments: _____		
Good	Improvement Needed	(circle one)		
PURGING/SAMPLING METHOD		Predetermined Well Volume	Low-Flow	Other: _____ (circle one)
PREDETERMINED WELL VOLUME				
Casing Diameter Unit Volume (gal/ft) (circle one)				
1" (0.04)	1.25" (0.08)	2" (0.17)	3" (0.38)	Other: _____
4" (0.66)	6" (1.50)	8" (2.60)	12" (5.81)	" (_____)
Total Well Depth (a):		(ft)		
Initial Depth to Water (b):		(ft)		
Water Column Height (WCH) = (a - b):		(ft)		
Water Column Volume (WCV) = WCH x Unit Volume:		(gal)		
Three Casing Volumes = WCV x 3:		(gal)		
Five Casing Volumes = WCV x 5:		(gal)		
Pump Depth (if pump used):		(ft)		
				
LOW-FLOW				
Previous Low-Flow Purge Rate: _____ (lpm)				
Total Well Depth (a): _____ (ft)				
Initial Depth to Water (b): _____ (ft)				
Pump In-take Depth = b + (a-b)/2: _____ (ft)				
Maximum Allowable Drawdown = (a-b)/8. _____ (ft)				
Low-Flow Purge Rate: _____ (gpm)*				
Comments: _____				

GROUNDWATER STABILIZATION PARAMETER RECORD

Previous Stabilized Parameters

PURGE COMPLETION RECORD

Low Flow & Parameters Stable

3 Casing Volumes & Parameters Stable

5 Casing Volumes

Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: 29-37 (ft)

Sample Collected Via: Disp. Bailer Dedicated Pump Tubing

Disp. Pump Tubing Other: *H709as kev* Sample ID: *M11151* Sample Collection Time: *11:40* (24.00)

Sample ID: WU Sample Collection Time: 11:00
Containers (#): 6 VOA (5) preserved or
unpreserved) 1 liter Amber

Other:

Other:

Parameter	Time	Measurement
mg/L)		
ial (mV)		
g/L)		

Signature:

Revision: 8/20/2013



GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1

Project: ArcaDis
 Field Representative: F1711
 Well ID: DW-1 Start Time:

Project No.: 09-88-655 Date: 3/28/16

End Time: _____ Total Time (minutes): _____

PURGE EQUIPMENT		Disp. Bailer	120V Pump	Flow Cell															
		Disp. Tubing	12V Pump	Peristaltic Pump															
WELL HEAD INTEGRITY (cap, lock, vault, etc.)		Comments: _____																	
<u>Good</u> Improvement Needed (circle one)																			
PURGING/SAMPLING METHOD		Predetermined Well Volume	Low-Flow	Other: _____ (circle one)															
PREDETERMINED WELL VOLUME		<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td>Casing Diameter Unit Volume (gal/ft) (circle one)</td> <td></td> <td colspan="3">LOW-FLOW</td> </tr> <tr> <td>1" (0.04)</td> <td>1.25" (0.08)</td> <td>2" (0.17)</td> <td>3" (0.38)</td> <td>Other: _____</td> </tr> <tr> <td>4" (0.66)</td> <td>6" (1.50)</td> <td>8" (2.60)</td> <td>12" (5.81)</td> <td>" ()</td> </tr> </table>			Casing Diameter Unit Volume (gal/ft) (circle one)		LOW-FLOW			1" (0.04)	1.25" (0.08)	2" (0.17)	3" (0.38)	Other: _____	4" (0.66)	6" (1.50)	8" (2.60)	12" (5.81)	" ()
Casing Diameter Unit Volume (gal/ft) (circle one)		LOW-FLOW																	
1" (0.04)	1.25" (0.08)	2" (0.17)	3" (0.38)	Other: _____															
4" (0.66)	6" (1.50)	8" (2.60)	12" (5.81)	" ()															
Total Well Depth (a): _____ (ft)																			
Initial Depth to Water (b): _____ (ft)																			
Water Column Height (WCH) = (a - b): _____ (ft)																			
Water Column Volume (WCV) = WCH x Unit Volume: _____ (gal)																			
Three Casing Volumes = WCV x 3: _____ (gal)																			
Five Casing Volumes = WCV x 5: _____ (gal)																			
Pump Depth (if pump used): _____ (ft)																			
GROUNDWATER STABILIZATION PARAMETER RECORD																			
Time (24:00)	Cumulative Vol. gal or L	Temperature °C or °F	pH	ORP mV	Conductivity μS or mS	Turbidity NTU	DO mg/L	NOTES Odor, color, sheen or other											
<u>1126</u>		<u>59.1</u>	<u>7.02</u>	<u>-112</u>			<u>1.01</u>												
Previous Stabilized Parameters																			
PURGE COMPLETION RECORD		Low Flow & Parameters Stable			3 Casing Volumes & Parameters Stable		5 Casing Volumes												
					Other: _____														
SAMPLE COLLECTION RECORD						GEOCHEMICAL PARAMETERS													
Depth to Water at Sampling: <u>36.56</u> (ft)						Parameter	Time	Measurement											
Sample Collected Via: Disp. Bailer Dedicated Pump Tubing						DO (mg/L)													
Disp. Pump Tubing Other: <u>Hydrasleeve</u>						Ferrous Iron (mg/L)													
Sample ID: <u>DW-1</u> Sample Collection Time: <u>1120</u> (24:00)						Redox Potential (mV)													
Containers (#): <u>6</u> VOA (<input checked="" type="checkbox"/> preserved or <input type="checkbox"/> unpreserved) <input type="checkbox"/> Liter Amber						Alkalinity (mg/L)													
Other: _____						Other: _____													
Other: _____						Other: _____													

Signature: J. Hayes

Revision: 8/20/2013



GROUNDWATER SAMPLING DATA SHEET

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Project: Arcadis 11132 Project No.: 09-88-655 Date: 3/28/15
 Field Representative: F(1))
 Well ID: MW-7 Start Time: _____ End Time: _____ Total Time (minutes): _____

PURGE EQUIPMENT		Disp. Bailer	120V Pump	Flow Cell																									
Disp. Tubing		12V Pump	Peristaltic Pump	Other/ID#:																									
WELL HEAD INTEGRITY (cap, lock, vault, etc.)		Comments: _____																											
Good	Improvement Needed	(circle one)																											
PURGING/SAMPLING METHOD		Predetermined Well Volume	Low-Flow	Other: _____ (circle one)																									
PREDETERMINED WELL VOLUME		<table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td>Casing Diameter Unit Volume (gal/ft) (circle one)</td> <td rowspan="2" style="vertical-align: middle; text-align: center;">  </td> <td colspan="2">LOW-FLOW</td> </tr> <tr> <td>1" (0.04) 1.25" (0.08) 2" (0.17) 3" (0.38) Other: _____</td> <td>Previous Low-Flow Purge Rate: _____ (lpm)</td> </tr> <tr> <td>4" (0.66) 6" (1.50) 8" (2.60) 12" (5.81) " ()</td> <td>Total Well Depth (a): _____ (ft)</td> </tr> <tr> <td>Total Well Depth (a): _____ (ft)</td> <td>Initial Depth to Water (b): _____ (ft)</td> </tr> <tr> <td>Initial Depth to Water (b): _____ (ft)</td> <td>Pump In-take Depth = b + (a-b)/2: _____ (ft)</td> </tr> <tr> <td>Water Column Height (WCH) = (a - b): _____ (ft)</td> <td>Maximum Allowable Drawdown = (a-b)/8: _____ (ft)</td> </tr> <tr> <td>Water Column Volume (WCV) = WCH x Unit Volume: _____ (gal)</td> <td>Low-Flow Purge Rate: _____ (gpm)*</td> </tr> <tr> <td>Three Casing Volumes = WCV x 3: _____ (gal)</td> <td>Comments: _____</td> </tr> <tr> <td>Five Casing Volumes = WCV x 5: _____ (gal)</td> <td colspan="2" style="font-size: small;">*Low-flow purge rate should be within range of instruments used but should not exceed 0.25 gpm. Drawdown should not exceed Maximum Allowable Drawdown.</td> </tr> <tr> <td>Pump Depth (if pump used): _____ (ft)</td> <td colspan="3"></td> </tr> </table>			Casing Diameter Unit Volume (gal/ft) (circle one)		LOW-FLOW		1" (0.04) 1.25" (0.08) 2" (0.17) 3" (0.38) Other: _____	Previous Low-Flow Purge Rate: _____ (lpm)	4" (0.66) 6" (1.50) 8" (2.60) 12" (5.81) " ()	Total Well Depth (a): _____ (ft)	Total Well Depth (a): _____ (ft)	Initial Depth to Water (b): _____ (ft)	Initial Depth to Water (b): _____ (ft)	Pump In-take Depth = b + (a-b)/2: _____ (ft)	Water Column Height (WCH) = (a - b): _____ (ft)	Maximum Allowable Drawdown = (a-b)/8: _____ (ft)	Water Column Volume (WCV) = WCH x Unit Volume: _____ (gal)	Low-Flow Purge Rate: _____ (gpm)*	Three Casing Volumes = WCV x 3: _____ (gal)	Comments: _____	Five Casing Volumes = WCV x 5: _____ (gal)	*Low-flow purge rate should be within range of instruments used but should not exceed 0.25 gpm. Drawdown should not exceed Maximum Allowable Drawdown.		Pump Depth (if pump used): _____ (ft)			
Casing Diameter Unit Volume (gal/ft) (circle one)		LOW-FLOW																											
1" (0.04) 1.25" (0.08) 2" (0.17) 3" (0.38) Other: _____		Previous Low-Flow Purge Rate: _____ (lpm)																											
4" (0.66) 6" (1.50) 8" (2.60) 12" (5.81) " ()	Total Well Depth (a): _____ (ft)																												
Total Well Depth (a): _____ (ft)	Initial Depth to Water (b): _____ (ft)																												
Initial Depth to Water (b): _____ (ft)	Pump In-take Depth = b + (a-b)/2: _____ (ft)																												
Water Column Height (WCH) = (a - b): _____ (ft)	Maximum Allowable Drawdown = (a-b)/8: _____ (ft)																												
Water Column Volume (WCV) = WCH x Unit Volume: _____ (gal)	Low-Flow Purge Rate: _____ (gpm)*																												
Three Casing Volumes = WCV x 3: _____ (gal)	Comments: _____																												
Five Casing Volumes = WCV x 5: _____ (gal)	*Low-flow purge rate should be within range of instruments used but should not exceed 0.25 gpm. Drawdown should not exceed Maximum Allowable Drawdown.																												
Pump Depth (if pump used): _____ (ft)																													
GROUNDWATER STABILIZATION PARAMETER RECORD																													
Time (24:00)	Cumulative Vol. gal or L	Temperature °C or °F	pH	ORP mV	Conductivity μS or mS	Turbidity NTU	DO mg/L	NOTES Odor, color, sheen or other																					
<u>1110</u>	<u>* Fished</u>	<u>19.6</u>	<u>7.01</u>	<u>7</u>	<u>hydrasleeve,</u>	<u>had fallen</u>	<u>2.5</u>	<u>into well</u>																					
Previous Stabilized Parameters																													
PURGE COMPLETION RECORD		Low Flow & Parameters Stable		3 Casing Volumes & Parameters Stable		5 Casing Volumes																							
		Other: _____																											
SAMPLE COLLECTION RECORD						GEOCHEMICAL PARAMETERS																							
Depth to Water at Sampling: <u>34.37</u> (ft)						Parameter	Time	Measurement																					
Sample Collected Via: <u>✓ Disp. Bailer</u> <u>Dedicated Pump Tubing</u> <u>Disp. Pump Tubing</u> <u>Other: Hydrasleeve</u>						DO (mg/L)																							
Sample ID: <u>MW-7</u> Sample Collection Time: <u>1110</u> (24:00)						Ferrous Iron (mg/L)																							
Containers (#): <u>6</u> VOA (<u>preserved</u> or <u>unpreserved</u>) Liter Amber						Redox Potential (mV)																							
Other: _____						Alkalinity (mg/L)																							
Other: _____						Other:																							
Other: _____						Other:																							

Signature: J. L. R.

Revision: 8/20/2013

Attachment C

Certified Laboratory Analytical Report
and Chain of Custody
Documentation

April 08, 2016

ARCADIS US - San Francisco, CA

Sample Delivery Group: L826190
Samples Received: 03/29/2016
Project Number: GP09BPNA.C112
Description: CA-11132 - GP09BPNA.C112
Site: 3201 35TH AVENUE
Report To: Megan Smoley
865 Cotting Lane, Suite C
Vacaville, CA 95688

Entire Report Reviewed By:



Jarred Willis
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



¹ Cp: Cover Page	1	¹ Cp
² Tc: Table of Contents	2	² Tc
³ Ss: Sample Summary	3	³ Ss
⁴ Cn: Case Narrative	5	⁴ Cn
⁵ Sr: Sample Results	6	⁵ Sr
MW-1 L826190-01	6	
MW-2 L826190-02	7	
MW-4 L826190-03	8	
MW-7 L826190-04	9	
MW-8 L826190-05	10	
MW-9 L826190-06	11	
RW-1 L826190-07	12	
MW-10R L826190-08	13	
MW-11 L826190-09	14	
TB-11132-16328 L826190-10	15	
⁶ Qc: Quality Control Summary	16	⁶ Qc
Volatile Organic Compounds (GC) by Method 8015B	16	
Volatile Organic Compounds (GC/MS) by Method 8260B	18	
⁷ Gl: Glossary of Terms	21	⁷ Gl
⁸ Al: Accreditations & Locations	22	⁸ Al
⁹ Sc: Chain of Custody	23	⁹ Sc

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-1 L826190-01 GW			Collected by Fernando Idiarte	Collected date/time 03/28/16 11:40	Received date/time 03/29/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015B	WG861552	25	04/03/16 01:40	04/03/16 01:40	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG861137	10	04/05/16 05:13	04/05/16 05:13	GLN
MW-2 L826190-02 GW			Collected by Fernando Idiarte	Collected date/time 03/28/16 11:30	Received date/time 03/29/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015B	WG861552	25	04/03/16 01:05	04/03/16 01:05	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG861137	50	04/05/16 05:34	04/05/16 05:34	GLN
MW-4 L826190-03 GW			Collected by Fernando Idiarte	Collected date/time 03/28/16 11:50	Received date/time 03/29/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015B	WG861552	1	04/03/16 01:30	04/03/16 01:30	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG861137	1	04/05/16 05:55	04/05/16 05:55	GLN
MW-7 L826190-04 GW			Collected by Fernando Idiarte	Collected date/time 03/28/16 11:10	Received date/time 03/29/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015B	WG861552	1	04/03/16 01:54	04/03/16 01:54	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG861137	1	04/05/16 06:15	04/05/16 06:15	GLN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG862251	20	04/06/16 16:28	04/06/16 16:28	GLN
MW-8 L826190-05 GW			Collected by Fernando Idiarte	Collected date/time 03/28/16 10:45	Received date/time 03/29/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015B	WG861552	10	04/03/16 03:19	04/03/16 03:19	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG861137	1	04/05/16 06:36	04/05/16 06:36	GLN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG862251	50	04/06/16 16:49	04/06/16 16:49	GLN
MW-9 L826190-06 GW			Collected by Fernando Idiarte	Collected date/time 03/28/16 10:35	Received date/time 03/29/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015B	WG861552	10	04/03/16 03:44	04/03/16 03:44	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG861137	1	04/05/16 06:57	04/05/16 06:57	GLN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG862251	1	04/06/16 17:10	04/06/16 17:10	GLN
RW-1 L826190-07 GW			Collected by Fernando Idiarte	Collected date/time 03/28/16 11:20	Received date/time 03/29/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015B	WG861552	1	04/03/16 04:09	04/03/16 04:09	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG861137	1	04/05/16 07:18	04/05/16 07:18	GLN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG862251	1	04/06/16 17:31	04/06/16 17:31	GLN

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



			Collected by Fernando Idiarte	Collected date/time 03/28/16 11:05	Received date/time 03/29/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015B	WG861552	25	04/03/16 04:33	04/03/16 04:33	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG861137	1	04/05/16 07:38	04/05/16 07:38	GLN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG862251	200	04/06/16 17:52	04/06/16 17:52	GLN
MW-11 L826190-09 GW			Collected by Fernando Idiarte	Collected date/time 03/28/16 10:55	Received date/time 03/29/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015B	WG861552	1	04/03/16 04:58	04/03/16 04:58	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG861137	1	04/05/16 07:59	04/05/16 07:59	GLN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG862251	1	04/06/16 18:14	04/06/16 18:14	GLN
TB-11132-16328 L826190-10 GW			Collected by Fernando Idiarte	Collected date/time 03/28/16 00:00	Received date/time 03/29/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015B	WG861569	1	04/03/16 21:53	04/03/16 21:53	DAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG861137	1	04/05/16 02:06	04/05/16 02:06	GLN

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jarred Willis
Technical Service Representative

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ SC



Volatile Organic Compounds (GC) by Method 8015B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPHG C6 - C12	8110		790	2500	25	04/03/2016 01:40	WG861552
(S) a,a,a-Trifluorotoluene(FID)	93.9			62.0-128		04/03/2016 01:40	WG861552

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	6.67	J	3.31	10.0	10	04/05/2016 05:13	WG861137
Toluene	U		7.80	50.0	10	04/05/2016 05:13	WG861137
Ethylbenzene	59.6		3.84	10.0	10	04/05/2016 05:13	WG861137
Total Xylenes	U		10.6	30.0	10	04/05/2016 05:13	WG861137
1,2-Dichloroethane	U		3.61	10.0	10	04/05/2016 05:13	WG861137
1,2-Dibromoethane	U		3.81	10.0	10	04/05/2016 05:13	WG861137
Di-isopropyl ether	U	J3	3.20	10.0	10	04/05/2016 05:13	WG861137
Ethanol	U		420	1000	10	04/05/2016 05:13	WG861137
Ethyl tert-butyl ether	U		2.70	10.0	10	04/05/2016 05:13	WG861137
Methyl tert-butyl ether	5.80	J	3.67	10.0	10	04/05/2016 05:13	WG861137
tert-Butyl alcohol	43.5	J	24.0	50.0	10	04/05/2016 05:13	WG861137
tert-Amyl Methyl Ether	U		2.60	10.0	10	04/05/2016 05:13	WG861137
(S) Toluene-d8	99.2			90.0-115		04/05/2016 05:13	WG861137
(S) Dibromofluoromethane	88.4			79.0-121		04/05/2016 05:13	WG861137
(S) a,a,a-Trifluorotoluene	108			90.4-116		04/05/2016 05:13	WG861137
(S) 4-Bromofluorobenzene	103			80.1-120		04/05/2016 05:13	WG861137

Sample Narrative:

8260B L826190-01 WG861137: Non-target compounds too high to run at a lower dilution.

MW-2

Collected date/time: 03/28/16 11:30

SAMPLE RESULTS - 02

L826190

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (GC) by Method 8015B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPHG C6 - C12	36500		790	2500	25	04/03/2016 01:05	WG861552
(S) a,a,a-Trifluorotoluene(FID)	89.3			62.0-128		04/03/2016 01:05	WG861552

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	7360		16.6	50.0	50	04/05/2016 05:34	WG861137
Toluene	609		39.0	250	50	04/05/2016 05:34	WG861137
Ethylbenzene	1350		19.2	50.0	50	04/05/2016 05:34	WG861137
Total Xylenes	3140		53.0	150	50	04/05/2016 05:34	WG861137
1,2-Dichloroethane	U		18.0	50.0	50	04/05/2016 05:34	WG861137
1,2-Dibromoethane	U		19.0	50.0	50	04/05/2016 05:34	WG861137
Di-isopropyl ether	U	J3	16.0	50.0	50	04/05/2016 05:34	WG861137
Ethanol	U		2100	5000	50	04/05/2016 05:34	WG861137
Ethyl tert-butyl ether	U		13.5	50.0	50	04/05/2016 05:34	WG861137
Methyl tert-butyl ether	118		18.4	50.0	50	04/05/2016 05:34	WG861137
tert-Butyl alcohol	463		120	250	50	04/05/2016 05:34	WG861137
tert-Amyl Methyl Ether	U		13.0	50.0	50	04/05/2016 05:34	WG861137
(S) Toluene-d8	100			90.0-115		04/05/2016 05:34	WG861137
(S) Dibromofluoromethane	84.6			79.0-121		04/05/2016 05:34	WG861137
(S) a,a,a-Trifluorotoluene	107			90.4-116		04/05/2016 05:34	WG861137
(S) 4-Bromofluorobenzene	101			80.1-120		04/05/2016 05:34	WG861137

MW-4

Collected date/time: 03/28/16 11:50

SAMPLE RESULTS - 03

L826190

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (GC) by Method 8015B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPHG C6 - C12	U		31.6	100	1	04/03/2016 01:30	WG861552
(S) a,a,a-Trifluorotoluene(FID)	92.6			62.0-128		04/03/2016 01:30	WG861552

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	04/05/2016 05:55	WG861137
Toluene	U		0.780	5.00	1	04/05/2016 05:55	WG861137
Ethylbenzene	U		0.384	1.00	1	04/05/2016 05:55	WG861137
Total Xylenes	U		1.06	3.00	1	04/05/2016 05:55	WG861137
1,2-Dichloroethane	U		0.361	1.00	1	04/05/2016 05:55	WG861137
1,2-Dibromoethane	U		0.381	1.00	1	04/05/2016 05:55	WG861137
Di-isopropyl ether	U	J3	0.320	1.00	1	04/05/2016 05:55	WG861137
Ethanol	U		42.0	100	1	04/05/2016 05:55	WG861137
Ethyl tert-butyl ether	U		0.270	1.00	1	04/05/2016 05:55	WG861137
Methyl tert-butyl ether	15.0		0.367	1.00	1	04/05/2016 05:55	WG861137
tert-Butyl alcohol	U		2.40	5.00	1	04/05/2016 05:55	WG861137
tert-Amyl Methyl Ether	U		0.260	1.00	1	04/05/2016 05:55	WG861137
(S) Toluene-d8	101		90.0-115			04/05/2016 05:55	WG861137
(S) Dibromofluoromethane	89.5		79.0-121			04/05/2016 05:55	WG861137
(S) a,a,a-Trifluorotoluene	108		90.4-116			04/05/2016 05:55	WG861137
(S) 4-Bromofluorobenzene	100		80.1-120			04/05/2016 05:55	WG861137

MW-7

Collected date/time: 03/28/16 11:10

SAMPLE RESULTS - 04

L826190

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (GC) by Method 8015B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPHG C6 - C12	222		31.6	100	1	04/03/2016 01:54	WG861552
(S) a,a,a-Trifluorotoluene(FID)	90.1			62.0-128		04/03/2016 01:54	WG861552

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	04/05/2016 06:15	WG861137
Toluene	U		0.780	5.00	1	04/05/2016 06:15	WG861137
Ethylbenzene	U		0.384	1.00	1	04/05/2016 06:15	WG861137
Total Xylenes	U		1.06	3.00	1	04/05/2016 06:15	WG861137
1,2-Dichloroethane	U		0.361	1.00	1	04/05/2016 06:15	WG861137
1,2-Dibromoethane	U		0.381	1.00	1	04/05/2016 06:15	WG861137
Di-isopropyl ether	U	J3	0.320	1.00	1	04/05/2016 06:15	WG861137
Ethanol	U		42.0	100	1	04/05/2016 06:15	WG861137
Ethyl tert-butyl ether	U		0.270	1.00	1	04/05/2016 06:15	WG861137
Methyl tert-butyl ether	458		7.34	20.0	20	04/06/2016 16:28	WG862251
tert-Butyl alcohol	U		2.40	5.00	1	04/05/2016 06:15	WG861137
tert-Amyl Methyl Ether	7.00		0.260	1.00	1	04/05/2016 06:15	WG861137
(S) Toluene-d8	100		90.0-115			04/05/2016 06:15	WG861137
(S) Dibromofluoromethane	91.7		79.0-121			04/05/2016 06:15	WG861137
(S) a,a,a-Trifluorotoluene	108		90.4-116			04/05/2016 06:15	WG861137
(S) 4-Bromofluorobenzene	102		80.1-120			04/05/2016 06:15	WG861137

MW-8

Collected date/time: 03/28/16 10:45

SAMPLE RESULTS - 05

L826190

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (GC) by Method 8015B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPHG C6 - C12	14100		316	1000	10	04/03/2016 03:19	WG861552
(S) a,a,a-Trifluorotoluene(FID)	96.7			62.0-128		04/03/2016 03:19	WG861552

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	167		0.331	1.00	1	04/05/2016 06:36	WG861137
Toluene	53.8		0.780	5.00	1	04/05/2016 06:36	WG861137
Ethylbenzene	835		19.2	50.0	50	04/06/2016 16:49	WG862251
Total Xylenes	1330		53.0	150	50	04/06/2016 16:49	WG862251
1,2-Dichloroethane	U		0.361	1.00	1	04/05/2016 06:36	WG861137
1,2-Dibromoethane	U		0.381	1.00	1	04/05/2016 06:36	WG861137
Di-isopropyl ether	U	J3	0.320	1.00	1	04/05/2016 06:36	WG861137
Ethanol	U		42.0	100	1	04/05/2016 06:36	WG861137
Ethyl tert-butyl ether	U		0.270	1.00	1	04/05/2016 06:36	WG861137
Methyl tert-butyl ether	U		18.4	50.0	50	04/06/2016 16:49	WG862251
tert-Butyl alcohol	3.70	J	2.40	5.00	1	04/05/2016 06:36	WG861137
tert-Amyl Methyl Ether	U		0.260	1.00	1	04/05/2016 06:36	WG861137
(S) Toluene-d8	99.4			90.0-115		04/05/2016 06:36	WG861137
(S) Dibromofluoromethane	84.1			79.0-121		04/05/2016 06:36	WG861137
(S) a,a,a-Trifluorotoluene	107			90.4-116		04/05/2016 06:36	WG861137
(S) 4-Bromofluorobenzene	103			80.1-120		04/05/2016 06:36	WG861137

MW-9

Collected date/time: 03/28/16 10:35

SAMPLE RESULTS - 06

L826190

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (GC) by Method 8015B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPHG C6 - C12	7630		316	1000	10	04/03/2016 03:44	WG861552
(S) a,a,a-Trifluorotoluene(FID)	96.1			62.0-128		04/03/2016 03:44	WG861552

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	4.41		0.331	1.00	1	04/05/2016 06:57	WG861137
Toluene	U		0.780	5.00	1	04/05/2016 06:57	WG861137
Ethylbenzene	26.8		0.384	1.00	1	04/06/2016 17:10	WG862251
Total Xylenes	6.32		1.06	3.00	1	04/06/2016 17:10	WG862251
1,2-Dichloroethane	U		0.361	1.00	1	04/05/2016 06:57	WG861137
1,2-Dibromoethane	U		0.381	1.00	1	04/05/2016 06:57	WG861137
Di-isopropyl ether	U	J3	0.320	1.00	1	04/05/2016 06:57	WG861137
Ethanol	U		42.0	100	1	04/05/2016 06:57	WG861137
Ethyl tert-butyl ether	U		0.270	1.00	1	04/05/2016 06:57	WG861137
Methyl tert-butyl ether	U		0.367	1.00	1	04/05/2016 06:57	WG861137
tert-Butyl alcohol	U		2.40	5.00	1	04/05/2016 06:57	WG861137
tert-Amyl Methyl Ether	U		0.260	1.00	1	04/05/2016 06:57	WG861137
(S) Toluene-d8	95.6			90.0-115		04/05/2016 06:57	WG861137
(S) Dibromofluoromethane	87.8			79.0-121		04/05/2016 06:57	WG861137
(S) a,a,a-Trifluorotoluene	105			90.4-116		04/05/2016 06:57	WG861137
(S) 4-Bromofluorobenzene	98.3			80.1-120		04/05/2016 06:57	WG861137



Volatile Organic Compounds (GC) by Method 8015B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPHG C6 - C12	199		31.6	100	1	04/03/2016 04:09	WG861552
(S) a,a,a-Trifluorotoluene(FID)	94.8			62.0-128		04/03/2016 04:09	WG861552

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	04/05/2016 07:18	WG861137
Toluene	U		0.780	5.00	1	04/05/2016 07:18	WG861137
Ethylbenzene	U		0.384	1.00	1	04/06/2016 17:31	WG862251
Total Xylenes	U		1.06	3.00	1	04/05/2016 07:18	WG861137
1,2-Dichloroethane	U		0.361	1.00	1	04/05/2016 07:18	WG861137
1,2-Dibromoethane	U		0.381	1.00	1	04/05/2016 07:18	WG861137
Di-isopropyl ether	U	J3	0.320	1.00	1	04/05/2016 07:18	WG861137
Ethanol	U		42.0	100	1	04/05/2016 07:18	WG861137
Ethyl tert-butyl ether	U		0.270	1.00	1	04/05/2016 07:18	WG861137
Methyl tert-butyl ether	U		0.367	1.00	1	04/05/2016 07:18	WG861137
tert-Butyl alcohol	U		2.40	5.00	1	04/05/2016 07:18	WG861137
tert-Amyl Methyl Ether	U		0.260	1.00	1	04/05/2016 07:18	WG861137
(S) Toluene-d8	98.8		90.0-115			04/05/2016 07:18	WG861137
(S) Dibromofluoromethane	88.3		79.0-121			04/05/2016 07:18	WG861137
(S) a,a,a-Trifluorotoluene	109		90.4-116			04/05/2016 07:18	WG861137
(S) 4-Bromofluorobenzene	105		80.1-120			04/05/2016 07:18	WG861137



Volatile Organic Compounds (GC) by Method 8015B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPHG C6 - C12	38000		790	2500	25	04/03/2016 04:33	WG861552
(S) a,a,a-Trifluorotoluene(FID)	91.6			62.0-128		04/03/2016 04:33	WG861552

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	3830		66.2	200	200	04/06/2016 17:52	WG862251
Toluene	2810		156	1000	200	04/06/2016 17:52	WG862251
Ethylbenzene	1130		76.8	200	200	04/06/2016 17:52	WG862251
Total Xylenes	5310		212	600	200	04/06/2016 17:52	WG862251
1,2-Dichloroethane	U		0.361	1.00	1	04/05/2016 07:38	WG861137
1,2-Dibromoethane	U		0.381	1.00	1	04/05/2016 07:38	WG861137
Di-isopropyl ether	U	J3	0.320	1.00	1	04/05/2016 07:38	WG861137
Ethanol	U		42.0	100	1	04/05/2016 07:38	WG861137
Ethyl tert-butyl ether	U		0.270	1.00	1	04/05/2016 07:38	WG861137
Methyl tert-butyl ether	1.30		0.367	1.00	1	04/05/2016 07:38	WG861137
tert-Butyl alcohol	40.5		2.40	5.00	1	04/05/2016 07:38	WG861137
tert-Amyl Methyl Ether	U		0.260	1.00	1	04/05/2016 07:38	WG861137
(S) Toluene-d8	101		90.0-115			04/05/2016 07:38	WG861137
(S) Dibromofluoromethane	83.3		79.0-121			04/05/2016 07:38	WG861137
(S) a,a,a-Trifluorotoluene	107		90.4-116			04/05/2016 07:38	WG861137
(S) 4-Bromofluorobenzene	112		80.1-120			04/05/2016 07:38	WG861137



Volatile Organic Compounds (GC) by Method 8015B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPHG C6 - C12	U		31.6	100	1	04/03/2016 04:58	WG861552
(S) a,a,a-Trifluorotoluene(FID)	91.8			62.0-128		04/03/2016 04:58	WG861552

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	04/06/2016 18:14	WG862251
Toluene	U		0.780	5.00	1	04/06/2016 18:14	WG862251
Ethylbenzene	U		0.384	1.00	1	04/06/2016 18:14	WG862251
Total Xylenes	U		1.06	3.00	1	04/06/2016 18:14	WG862251
1,2-Dichloroethane	U		0.361	1.00	1	04/05/2016 07:59	WG861137
1,2-Dibromoethane	U		0.381	1.00	1	04/05/2016 07:59	WG861137
Di-isopropyl ether	U	J3	0.320	1.00	1	04/05/2016 07:59	WG861137
Ethanol	U		42.0	100	1	04/05/2016 07:59	WG861137
Ethyl tert-butyl ether	U		0.270	1.00	1	04/05/2016 07:59	WG861137
Methyl tert-butyl ether	U		0.367	1.00	1	04/05/2016 07:59	WG861137
tert-Butyl alcohol	U		2.40	5.00	1	04/05/2016 07:59	WG861137
tert-Amyl Methyl Ether	U		0.260	1.00	1	04/05/2016 07:59	WG861137
(S) Toluene-d8	102		90.0-115			04/05/2016 07:59	WG861137
(S) Dibromofluoromethane	87.2		79.0-121			04/05/2016 07:59	WG861137
(S) a,a,a-Trifluorotoluene	107		90.4-116			04/05/2016 07:59	WG861137
(S) 4-Bromofluorobenzene	105		80.1-120			04/05/2016 07:59	WG861137



Volatile Organic Compounds (GC) by Method 8015B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPHG C6 - C12	U		31.6	100	1	04/03/2016 21:53	WG861569
(S) a,a,a-Trifluorotoluene(FID)	93.3			62.0-128		04/03/2016 21:53	WG861569

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	04/05/2016 02:06	WG861137
Toluene	U		0.780	5.00	1	04/05/2016 02:06	WG861137
Ethylbenzene	U		0.384	1.00	1	04/05/2016 02:06	WG861137
Total Xylenes	U		1.06	3.00	1	04/05/2016 02:06	WG861137
1,2-Dichloroethane	U		0.361	1.00	1	04/05/2016 02:06	WG861137
1,2-Dibromoethane	U		0.381	1.00	1	04/05/2016 02:06	WG861137
Di-isopropyl ether	U	J3	0.320	1.00	1	04/05/2016 02:06	WG861137
Ethanol	U		42.0	100	1	04/05/2016 02:06	WG861137
Ethyl tert-butyl ether	U		0.270	1.00	1	04/05/2016 02:06	WG861137
Methyl tert-butyl ether	U		0.367	1.00	1	04/05/2016 02:06	WG861137
tert-Butyl alcohol	U		2.40	5.00	1	04/05/2016 02:06	WG861137
tert-Amyl Methyl Ether	U		0.260	1.00	1	04/05/2016 02:06	WG861137
(S) Toluene-d8	100			90.0-115		04/05/2016 02:06	WG861137
(S) Dibromofluoromethane	90.5			79.0-121		04/05/2016 02:06	WG861137
(S) a,a,a-Trifluorotoluene	109			90.4-116		04/05/2016 02:06	WG861137
(S) 4-Bromofluorobenzene	102			80.1-120		04/05/2016 02:06	WG861137

L826190-01,02,03,04,05,06,07,08,09

Method Blank (MB)

(MB) R3125941-5 04/02/16 15:22

Analyte	MB Result mg/l	<u>MB Qualifier</u>	MB MDL mg/l	MB RDL mg/l
TPHG C6 - C12	U		0.0316	0.100
(S) a,a,a-Trifluorotoluene(FID)	92.3			62.0-128

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3125941-3 04/02/16 14:07 • (LCSD) R3125941-4 04/02/16 14:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
TPHG C6 - C12	5.50	5.80	5.69	106	103	66.0-123			1.99	20
(S) a,a,a-Trifluorotoluene(FID)				102	100	62.0-128				

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L826164-02 04/05/16 15:08 • (MS) R3126544-1 04/05/16 16:45 • (MSD) R3126544-2 04/05/16 17:06

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
TPHG C6 - C12	5.50	1.52	7.14	7.37	102	106	1	47.5-136			3.23	20
(S) a,a,a-Trifluorotoluene(FID)					102	105		62.0-128				



L826190-10

Method Blank (MB)

(MB) R3126375-3 04/03/16 20:08

Analyte	MB Result mg/l	<u>MB Qualifier</u>	MB MDL mg/l	MB RDL mg/l
TPHG C6 - C12	U		0.0316	0.100
(S) a,a,a-Trifluorotoluene(FID)	92.7			62.0-128

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3126375-1 04/03/16 18:53 • (LCSD) R3126375-2 04/03/16 19:18

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
TPHG C6 - C12	5.50	5.52	5.25	100	95.5	66.0-123			4.97	20
(S) a,a,a-Trifluorotoluene(FID)				100	99.9	62.0-128				

⁷Gl

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L826264-01 04/03/16 22:18 • (MS) R3126375-4 04/03/16 20:38 • (MSD) R3126375-5 04/03/16 21:03

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
TPHG C6 - C12	5.50	ND	1.47	1.22	26.7	22.2	1	47.5-136	J6	J6	18.1	20
(S) a,a,a-Trifluorotoluene(FID)					94.5	94.2		62.0-128				

⁸Al⁹Sc



L826190-01,02,03,04,05,06,07,08,09,10

Method Blank (MB)

(MB) R3126485-1 04/04/16 23:32

Analyte	MB Result mg/l	<u>MB Qualifier</u>	MB MDL mg/l	MB RDL mg/l	1 ¹ Cp
Benzene	U		0.000331	0.00100	
1,2-Dibromoethane	U		0.000381	0.00100	
1,2-Dichloroethane	U		0.000361	0.00100	
Di-isopropyl ether	U		0.000320	0.00100	
Ethylbenzene	U		0.000384	0.00100	
Ethanol	U		0.0420	0.100	
Methyl tert-butyl ether	U		0.000367	0.00100	
Toluene	U		0.000780	0.00500	
Xylenes, Total	U		0.00106	0.00300	
tert-Amyl Methyl Ether	U		0.000260	0.00100	
Ethyl tert-butyl ether	U		0.000270	0.00100	
tert-Butyl alcohol	U		0.00240	0.00500	
(S) Toluene-d8	101			90.0-115	
(S) Dibromofluoromethane	88.3			79.0-121	
(S) a,a,a-Trifluorotoluene	111			90.4-116	
(S) 4-Bromofluorobenzene	102			80.1-120	

1¹ Cp2² Tc3³ Ss4⁴ Cn5⁵ Sr6⁶ Qc7⁷ Gl8⁸ Al9⁹ Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3126485-2 04/04/16 23:52 • (LCSD) R3126485-3 04/05/16 00:13

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits
Benzene	0.0250	0.0225	0.0223	89.8	89.2	73.0-122			0.670	20
1,2-Dibromoethane	0.0250	0.0244	0.0240	97.6	96.0	79.8-122			1.66	20
1,2-Dichloroethane	0.0250	0.0192	0.0189	77.0	75.7	65.3-126			1.67	20
Di-isopropyl ether	0.0250	0.0215	0.0273	86.2	109	65.1-135	J3		23.5	20
Ethylbenzene	0.0250	0.0255	0.0259	102	104	80.9-121			1.43	20
Methyl tert-butyl ether	0.0250	0.0200	0.0227	79.9	90.9	70.1-125			13.0	20
Toluene	0.0250	0.0239	0.0236	95.4	94.4	77.9-116			1.08	20
Xylenes, Total	0.0750	0.0757	0.0764	101	102	79.2-122			0.880	20
(S) Toluene-d8				99.6	99.3	90.0-115				
(S) Dibromofluoromethane				88.0	91.7	79.0-121				
(S) a,a,a-Trifluorotoluene				107	107	90.4-116				
(S) 4-Bromofluorobenzene				101	103	80.1-120				

L826190-01,02,03,04,05,06,07,08,09,10

Original Sample (OS) • Matrix Spike (MS)

(OS) L826131-01 04/05/16 02:27 • (MS) R3126485-4 04/05/16 00:42

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	
Benzene	0.0250	ND	0.0186	74.4	1	58.6-133		¹ Cp
1,2-Dibromoethane	0.0250	ND	0.0226	90.2	1	73.8-131		² Tc
1,2-Dichloroethane	0.0250	ND	0.0169	67.5	1	60.7-132		³ Ss
Di-isopropyl ether	0.0250	ND	0.0188	75.1	1	59.9-140		⁴ Cn
Ethylbenzene	0.0250	ND	0.0216	86.6	1	62.7-136		⁵ Sr
Methyl tert-butyl ether	0.0250	ND	0.0183	73.4	1	61.4-136		⁶ Qc
Toluene	0.0250	ND	0.0202	80.9	1	67.8-124		⁷ Gl
Xylenes, Total	0.0750	ND	0.0639	85.2	1	65.6-133		⁸ Al
(S) Toluene-d8			99.7			90.0-115		⁹ Sc
(S) Dibromofluoromethane			88.2			79.0-121		
(S) a,a,a-Trifluorotoluene			107			90.4-116		
(S) 4-Bromofluorobenzene			101			80.1-120		



L826190-04,05,06,07,08,09

Method Blank (MB)

(MB) R3126782-1 04/06/16 09:14

Analyte	MB Result mg/l	<u>MB Qualifier</u>	MB MDL mg/l	MB RDL mg/l	¹ Cp
Benzene	U		0.000331	0.00100	² Tc
Ethylbenzene	U		0.000384	0.00100	³ Ss
Methyl tert-butyl ether	U		0.000367	0.00100	⁴ Cn
Toluene	U		0.000780	0.00500	⁵ Sr
Xylenes, Total	U		0.00106	0.00300	⁶ Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3126782-2 04/06/16 11:30 • (LCSD) R3126782-3 04/06/16 12:03

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD	RPD Limits	⁷ Gl
Benzene	0.0250	0.0255	0.0232	102	92.6	73.0-122			9.58	20	⁸ Al
Ethylbenzene	0.0250	0.0260	0.0239	104	95.6	80.9-121			8.51	20	⁹ Sc
Methyl tert-butyl ether	0.0250	0.0309	0.0268	124	107	70.1-125			14.2	20	
Toluene	0.0250	0.0258	0.0234	103	93.6	77.9-116			9.79	20	
Xylenes, Total	0.0750	0.0778	0.0716	104	95.5	79.2-122			8.35	20	

GLOSSARY OF TERMS

ONE LAB. NATIONWIDE.



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier

Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey—NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio—VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Company Name/Address:

Broadbent & Associates4820-Business Center Drive, #110
Fairfield, CA 94534665 Cotting Lane St. C
Vacaville, CA 95687

Report to:

Tom Potter (tpotter@broadbentinc.com)

Project 3201 35th Ave

Description:

Phone: 707-455-7290

Fax: 707-863-9046

Collected by (print):
Fernando Idiarte / *Jamey Jacobson*Client Project #
GP09BPNA.C112City/State
Collected: **Oakland, CA**

Lab Project #

Collected by (signature):

Immediately

Packed on Ice N Y

Rush? (Lab MUST Be Notified)

Same Day 200%
 Next Day 100%
 Two Day 50%
 Three Day 25%

Date Results Needed

Email? No Yes
 FAX? No Yes

No. of

Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	GRO (C6-C12) by 8015M	BTEX/5 FO + EDB, 1,2-DCA, Ethanol by 8260	Analysis / Container / Preservative	Chain of Custody	Page 1 of 1
MW-1	Grab	GW	29.6	3/28/16	1140	6	X X			-01
MW-2	Grab	GW	28.3	3/28/16	1130	6	X X			-02
MW-4	Grab	GW	33.1	3/28/16	1150	6	X X			-03
MW-5	Grab	GW	27.0	3/28/16		6	X X			
MW-7	Grab	GW	29.3	3/28/16	1110	6	X X			-04
MW-8	Grab	GW	29.4	3/28/16	1045	6	X X			-05
MW-9	Grab	GW	23.1	3/28/16	1035	6	X X			-06
RW-1	Grab	GW	20.5	3/28/16	1120	6	X X			-07
MW-10R	Grab	GW	23.0	3/28/16	1105	6	X X			-08
MW-11	Grab	GW	23.0	3/28/16	1055	6	X X			-09
TB-1132-16328				3/28/16	21					On Hold -10

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

pH _____ Temp _____

Remarks:

Relinquished by : (Signature)

Date: 3/28/16

Time: 1545

Received by: (Signature)

Flow _____ Other _____

Hol

3-139

Samples returned via: UPS FedEx Courier

Relinquished by : (Signature)

Date:

Time:

Received by: (Signature)

Temp: °C Bottles Received:

2.6 56

Condition: *No 10* (lab use only)

Relinquished by : (Signature)

Date:

Time:

Received for lab by: (Signature)

Date: 3/29/16 Time: 0900

pH Checked: NCF:



YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L# L826190
I210

Acctnum:

Template:

Prelogin:

TSR:

PB:

Shipped Via:

Rem./Contaminant Sample # (lab only)

Attachment D

Historical Tables Provided by
Broadbent

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-1						--	--	--	--	--	--	--	--	
7/9/1990	--	169.75	--	0.22	--	--	--	--	--	--	--	--	--	
12/21/1990	--		--	0.58	--	--	--	--	--	--	--	--	--	
3/7/1991	--		20.59	0.00	149.16	--	--	--	--	--	--	--	--	
4/1/1991	--		16.51	0.15	153.09	--	--	--	--	--	--	--	--	
6/27/1991	--		--	0.18	--	--	--	--	--	--	--	--	--	
9/27/1991	--		--	0.27	--	--	--	--	--	--	--	--	--	
12/18/1991	--		--	0.28	--	--	--	--	--	--	--	--	--	
7/3/1992	--		22.30	0.27	147.18	--	--	--	--	--	--	--	--	
10/5/1992	--		23.98	0.24	145.53	--	--	--	--	--	--	--	--	
1/13/1993	--		17.03	0.24	152.48	--	--	--	--	--	--	--	--	
4/23/1993	--		18.10	0.42	151.23	--	--	--	--	--	--	--	--	
7/12/1993	--		22.02	0.49	147.24	--	--	--	--	--	--	--	--	
10/21/1993	--		25.12	1.09	143.54	--	--	--	--	--	--	--	--	
1/21/1994	--		23.02	0.76	145.97	--	--	--	--	--	--	--	--	
4/20/1994	--		24.54	1.80	143.41	--	--	--	--	--	--	--	--	
8/1/1994	--		24.11	0.35	145.29	--	--	--	--	--	--	--	--	
12/23/1994	--		18.19	0.00	151.56	--	--	--	--	--	--	--	--	
1/26/1995	--		16.25	1.10	152.40	--	--	--	--	--	--	--	--	
2/16/1995	--		--	1.40	--	--	--	--	--	--	--	--	--	
6/8/1995	--		22.92	1.25	145.63	--	--	--	--	--	--	--	--	
6/8/1995	--		22.92	1.25	145.63	--	--	--	--	--	--	--	--	
8/22/1995	--		24.45	0.85	144.45	--	--	--	--	--	--	--	--	
10/27/1995	--		25.41	0.00	143.65	--	--	--	--	--	--	--	--	
10/30/95-12/23/95	--		--	--	--	--	--	--	--	--	--	--	--	
12/23/1995	--		--	0.69	--	--	--	--	--	--	--	--	--	
1/25/1996	--		18.20	1.40	150.15	--	--	--	--	--	--	--	--	
1/25/1996	--		18.20	1.40	150.15	--	--	--	--	--	--	--	--	
4/19/1996	--		19.06	1.22	149.47	--	--	--	--	--	--	--	--	
7/23/1996	--		22.98	0.89	145.88	--	--	--	--	--	--	--	--	
11/11/1996	--		23.99	0.89	144.78	--	--	--	--	--	--	--	--	

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-1 Cont.														
1/21/1997	--	169.75	16.80	0.90	152.05	--	--	--	--	--	--	--	--	
4/29/1997	--		21.90	0.85	147.00	--	--	--	--	--	--	--	--	
4/30/1997	--		--	--	--	92,000	3,500	8,100	4,400	23,800	6,900	--	--	c
4/30/1997	--		--	--	--	100,000	3,600	8,000	4,000	21,300	7,700	5.2	--	
8/21/1997	--		23.40	0.00	146.35	120,000	3,200	8,100	3,800	19,600	5,200	--	--	c
8/21/1997	--		23.40	0.00	146.35	140,000	3,000	8,500	3,900	22,100	5,700	5.3	--	
11/2/97-12/9/97	--		--	0.87	--	--	--	--	--	--	--	--	--	
11/5/1997	--		23.70	0.00	145.51	68,000	6,200	4,400	3,300	14,300	8,000	4.7	--	
11/5/1997	--		23.70	0.00	145.51	88,000	7,300	4,800	3,600	16,900	8,200	--	--	c
2/3/1998	--		13.63	0.32	155.80	--	--	--	--	--	--	--	--	
2/4/1998	--		--	--	--	190,000	2,200	10,000	5,600	32,000	<10000	5.3	--	
2/4/1998	--		--	--	--	160,000	2,300	8,400	5,000	29,400	<10000	--	--	c
5/28/1998	--		18.03	0.17	151.55	87,000	980	3,900	3,600	19,000	2,900	3.8	--	
12/30/1998	--		19.50	0.08	150.17	70,000	530	3,200	2,900	16,000	3,600	--	--	
2/2/1999	--		18.93	0.03	150.79	79,000	480	3,100	3,500	21,000	3,500	--	--	
5/10/1999	--		18.28	0.03	151.44	110,000	160	1,900	3,700	24,000	3,000	--	--	
8/24/1999	--		20.13	0.06	149.56	110,000	850	1,300	1,900	19,000	<50	--	--	
11/3/1999	--		22.27	0.36	147.12	65,000	6,300	1,100	3,300	9,500	8,900	--	--	
3/1/2000	--		14.79	0.23	154.73	--	--	--	--	--	--	--	--	h
4/21/2000	--		18.10	0.33	151.32	61,000	330	780	2,700	17,000	1,300	--	--	
7/31/2000	--		21.60	0.53	147.62	1,500,000	340	2,100	24,000	120,000	2,700	--	--	
11/20/2000	--		21.69	0.37	147.69	1,700,000	1,800	2,300	19,000	93,000	3,900	--	--	
2/18/2001	--		16.70	0.13	152.92	--	--	--	--	--	--	--	--	
2/26/2001	--		14.38	0.15	155.22	100,000	658	466	4,210	15,000	1,890	--	--	
6/7/2001	--		20.78	0.00	148.97	70,000	705	440	3,870	12,200	2,720	--	--	
9/5/2001	--		23.36	0.35	146.04	--	--	--	--	--	--	--	--	j
11/30/2001	--		20.85	0.41	148.49	--	--	--	--	--	--	--	--	k
12/6/2001	--		18.72	0.27	150.76	39,000	3,500	237	2,150	4,500	5,400	--	--	
2/20/2002	--		17.43	0.15	152.17	52,000	465	271	1,600	11,400	106	--	--	
6/20/2002	--		21.18	0.34	148.23	--	--	--	--	--	--	--	--	j

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-1 Cont.						--	--	--	--	--	--	--	--	j
9/11/2002	--	169.75	22.86	0.40	146.49	--	--	--	--	--	--	--	--	j
11/12/2002	--		22.65	0.37	146.73	--	--	--	--	--	--	--	--	j
1/29/2003	--		18.15	0.30	151.30	--	--	--	--	--	--	--	--	j,n
5/22/2003	--		18.49	0.20	151.06	--	--	--	--	--	--	--	--	j
6/24/2003	--		21.44	0.35	147.96	--	--	--	--	--	--	--	--	o
7/28/2003	--		22.72	0.35	146.68	--	--	--	--	--	--	--	--	j
8/12/2003	--		22.64	0.23	146.88	--	--	--	--	--	--	--	--	o
9/12/2003	--		20.70	0.24	148.81	--	--	--	--	--	--	--	--	o
10/3/2003	--		--	0.23	--	--	--	--	--	--	--	--	--	
11/18/2003	NP		21.70	0.25	148.25	--	--	--	--	--	--	--	--	
12/31/2003	--		--	0.15	--	--	--	--	--	--	--	--	--	
2/2/2004	--		--	0.15	--	--	--	--	--	--	--	--	--	
02/23/2004	NP		16.34	0.09	153.48	--	--	--	--	--	--	--	--	
3/18/2004	--		--	0.09	--	--	--	--	--	--	--	--	--	
4/13/2004	--		--	0.24	--	--	--	--	--	--	--	--	--	
05/04/2004	NP		21.28	0.16	148.60	--	--	--	--	--	--	--	--	
6/2/2004	--		--	0.08	--	--	--	--	--	--	--	--	--	
7/2/2004	--		--	0.28	--	--	--	--	--	--	--	--	--	
08/04/2004	--		22.54	0.10	147.29	--	--	--	--	--	--	--	--	
09/22/2004	NP		22.76	0.20	147.15	--	--	--	--	--	--	--	--	
10/26/2004	--		--	0.12	--	--	--	--	--	--	--	--	--	
11/10/2004	--		20.19	0.14	149.67	--	--	--	--	--	--	--	--	
12/27/2004	--		--	0.08	--	--	--	--	--	--	--	--	--	
01/13/2005	--		14.58	0.03	155.19	--	--	--	--	--	--	--	--	
02/15/2005	--		16.13	0.04	153.65	--	--	--	--	--	--	--	--	
03/07/2005	--		13.31	0.01	156.45	--	--	--	--	--	--	--	--	
4/29/2005	--		--	0.01	--	--	--	--	--	--	--	--	--	
05/16/2005	--		15.74	0.02	154.03	--	--	--	--	--	--	--	--	j
6/21/2005	--		--	0.01	--	--	--	--	--	--	--	--	--	
7/7/2005	--		--	0.18	--	--	--	--	--	--	--	--	--	

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-1 Cont.														
08/17/2005	--	169.75	21.15	0.08	148.66	--	--	--	--	--	--	--	--	j
9/6/2005	--		--	0.02	--	--	--	--	--	--	--	--	--	
10/4/2005	--		--	0.12	--	--	--	--	--	--	--	--	--	
11/18/2005	--		20.15	0.00	149.60	--	--	--	--	--	--	--	--	j
12/30/2005	--		--	0.03	--	--	--	--	--	--	--	--	--	
1/24/2006	--		--	--	--	--	--	--	--	--	--	--	--	
02/07/2006	--		15.19	0.01	154.57	--	--	--	--	--	--	--	--	j
3/30/2006	--		--	--	--	--	--	--	--	--	--	--	--	
5/19/2006	P		17.42	0.00	152.33	44,000	73	510	3,300	5,300	86	--	6.9	u, t
8/23/2006	--		22.01	0.14	147.74	--	--	--	--	--	--	--	--	b, j
11/15/2006	--		21.98	0.18	147.91	--	--	--	--	--	--	--	--	b, j
2/14/2007	--		17.12	0.17	152.76	--	--	--	--	--	--	--	--	b, j
5/22/2007	--		19.49	0.01	150.26	--	--	--	--	--	--	--	--	b, j
8/15/2007	--		22.24	0.01	147.52	--	--	--	--	--	--	--	--	b, j
11/8/2007	--		21.84	0.01	147.92	--	--	--	--	--	--	--	--	b, j
2/20/2008	--		16.52	0.02	153.25	--	--	--	--	--	--	--	--	b, j
5/7/2008	--		20.91	0.02	148.86	--	--	--	--	--	--	--	--	b, j
8/20/2008	--		22.77	0.02	147.00	--	--	--	--	--	--	--	--	b
11/17/2008	P		22.05	0.00	147.70	27,000	780	30	1,800	1,400	590	--	6.60	w
2/25/2009	--		15.28	0.02	154.49	--	--	--	--	--	--	--	--	b
4/8/2009	--		18.18	0.00	151.57	--	--	--	--	--	--	--	--	
5/28/2009	--		19.62	0.01	150.14	--	--	--	--	--	--	--	--	b
6/16/2009	--		20.94	0.01	148.82	--	--	--	--	--	--	--	--	
8/6/2009	--		22.31	0.01	147.45	--	--	--	--	--	--	--	--	b, j
3/4/2010	P		14.27	Sheen	155.48	14,000	45	<10	610	390	<10	0.54	6.96	
9/2/2010	NP		22.32	0.00	147.43	8,200	10	<5.0	230	140	<5.0	0.52	7.01	
3/15/2011	P		14.99	Sheen	154.76	4,500	<5.0	<5.0	56	30	16	0.85	7.0	t
8/17/2011	P		20.41	0.00	149.34	1,200	<1.0	<1.0	24	15	8.3	0.71	7.39	
2/6/2012	P		18.69	0.00	151.06	710	<1.0	<1.0	2.9	2.2	10	0.78	7.34	
MW-2														

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-2 Cont.						--	--	--	--	--	--	--	--	
7/9/1990	--	168.14	--	--	--	--	--	--	--	--	--	--	--	
12/21/1990	--		--	--	--	--	--	--	--	--	--	--	--	
3/7/1991	--		19.18	0.00	148.96	--	--	--	--	--	--	--	--	
4/1/1991	--		15.21	0.00	152.93	--	--	--	--	--	--	--	--	
6/27/1991	--		--	--	--	--	--	--	--	--	--	--	--	
9/27/1991	--		--	--	--	--	--	--	--	--	--	--	--	
12/18/1991	--		--	--	--	--	--	--	--	--	--	--	--	
7/3/1992	--		20.93	0.00	147.21	--	--	--	--	--	--	--	--	
10/5/1992	--		22.74	0.00	145.40	--	--	--	--	--	--	--	--	
1/13/1993	--		15.55	0.00	152.59	--	--	--	--	--	--	--	--	
4/23/1993	--		16.54	0.00	151.60	--	--	--	--	--	--	--	--	
7/12/1993	--		20.46	0.00	147.68	--	--	--	--	--	--	--	--	
10/21/1993	--		24.91	0.00	143.23	--	--	--	--	--	--	--	--	
1/21/1994	--		21.20	0.00	146.94	--	--	--	--	--	--	--	--	
4/20/1994	--		22.44	0.00	145.70	1,800	140	370	54	290	24	1.7	--	i
8/1/1994	--		22.24	0.00	145.90	--	--	--	--	--	--	--	--	
12/23/1994	--		16.25	0.00	151.89	--	--	--	--	--	--	--	--	
1/26/1995	--		14.55	0.00	153.59	--	--	--	--	--	--	--	--	
6/8/1995	--		21.18	0.00	146.96	--	--	--	--	--	--	--	--	
8/22/1995	--		22.76	0.00	145.38	--	--	--	--	--	--	--	--	
10/27/1995	--		23.61	0.00	144.53	--	--	--	--	--	--	--	--	
1/25/1996	--		15.95	0.00	152.19	--	--	--	--	--	--	--	--	
4/19/1996	--		17.33	0.00	150.81	--	--	--	--	--	--	--	--	
7/23/1996	--		21.25	0.00	146.89	--	--	--	--	--	--	--	--	
11/11/1996	--		22.27	0.00	145.87	--	--	--	--	--	--	--	--	
1/21/1997	--		15.19	0.00	152.95	--	--	--	--	--	--	--	--	
4/29/1997	--		20.22	0.00	147.92	--	--	--	--	--	--	--	--	
4/30/1997	--		--	--	--	130,000	4,600	15,000	6,000	37,000	<5000	5	--	
8/21/1997	--		21.74	0.00	146.40	110,000	6,000	16,000	4,700	28,000	<500	4.6	--	
11/5/1997	--		21.61	0.00	146.53	120,000	7,800	18,000	4,900	28,100	<2500	4.6	--	

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-2 Cont.														
2/3/1998	--	168.14	11.51	0.00	156.63	75,000	590	1,500	1,800	12,800	<2500	4.5	--	
5/28/1998	--		16.51	0.00	151.63	79,000	3,900	3,100	3,100	18,000	900	4.3	--	
12/30/1998	--		17.70	0.00	150.44	95,000	4,700	3,500	3,700	21,000	<250	--	--	
2/2/1999	--		15.46	0.00	152.68	170,000	3,500	1,500	5,200	34,000	<500	--	--	
5/10/1999	--		16.52	0.00	151.62	84,000	3,200	3,200	3,700	20,000	75	--	--	
8/24/1999	--		20.73	0.00	147.41	130,000	9,100	9,200	4,700	27,000	<250	--	--	
11/3/1999	--		20.93	0.00	147.21	120,000	10,000	21,000	4,700	30,200	2,200	--	--	
3/1/2000	--		13.37	0.00	154.77	39,000	1,400	1,500	1,700	8,100	44	--	--	
4/21/2000	--		16.59	0.00	151.55	68,000	3,300	2,500	3,100	20,000	260	--	--	
7/31/2000	--		16.37	0.00	151.77	99,000	5,600	1,400	4,300	22,000	490	--	--	
11/20/2000	--		19.71	0.00	148.43	37,000	5,100	1,500	1,300	4,800	2,800	--	--	
2/18/2001	--		15.29	0.00	152.85	54,000	5,020	3,880	2,850	15,400	1,010	--	--	
6/7/2001	--		19.43	0.00	148.71	110,000	7,240	4,380	4,160	22,100	567	--	--	
9/5/2001	--		22.44	0.00	145.70	69,000	5,750	5,790	2,770	14,200	1,510	--	--	
11/30/2001	--		19.58	0.00	148.56	120,000	7,270	6,540	4,590	23,000	794	--	--	
2/20/2002	--		16.39	0.00	151.75	56,000	2,410	2,270	2,910	14,300	160	--	--	
6/20/2002	--		19.77	0.00	148.37	86,000	7,310	6,490	3,080	14,600	659	--	--	
9/11/2002	--		21.60	0.00	146.54	130,000	7,600	13,000	5,400	30,000	<5000	--	--	
11/12/2002	--		21.34	0.00	146.80	46,000	4,100	4,300	1,900	10,000	1,900	--	--	t
1/29/2003	--		16.80	0.00	151.34	77,000	4,700	2,600	2,800	13,000	820	--	--	n,t
5/22/2003	--		17.15	0.00	150.99	52,000	6,400	2,600	1,800	7,400	1,000	--	--	t
7/28/2003	--		21.47	0.00	146.67	31,000	6,900	5,500	2,200	12,000	1,700	--	--	p
11/18/2003	P		20.50	0.00	147.64	23,000	3,300	800	500	2,000	500	--	6.6	
02/23/2004	P		14.77	0.00	153.37	84,000	14,000	6,200	3,100	14,000	790	--	6.6	t
05/04/2004	P		20.09	0.00	148.05	120,000	15,000	17,000	4,900	24,000	780	--	6.6	t
08/04/2004	P		21.39	0.00	146.75	38,000	9,100	3,300	1,900	5,800	430	--	6.69	t
11/10/2004	P		18.98	0.00	149.16	22,000	4,400	2,000	940	3,600	310	--	7.5	
02/15/2005	P		15.62	0.00	152.52	67,000	11,000	4,200	3,000	11,000	690	--	7.1	t
05/16/2005	P		14.71	0.00	153.43	94,000	11,000	7,600	4,100	17,000	560	--	6.5	
08/17/2005	P		20.00	0.00	148.14	110,000	13,000	8,000	4,300	18,000	480	--	6.6	

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-2 Cont.														
11/18/2005	P	168.14	20.89	0.00	147.25	37,000	11,000	2,400	1,500	4,600	340	--	6.6	
02/07/2006	P		13.31	0.00	154.83	74,000	8,900	5,800	3,600	14,000	440	--	6.7	
5/19/2006	P		16.30	0.00	151.84	78,000	11,000	3,700	4,500	14,000	430	--	6.6	t
8/23/2006	P		20.83	0.00	147.31	100,000	12,000	9,100	5,800	25,000	480	--	6.6	
11/15/2006	--		20.80	0.00	147.34	46,000	8,800	3,600	2,300	8,500	400	0.70	6.73	
2/14/2007	P		15.96	Sheen	152.18	100,000	13,000	3,600	6,200	26,000	810	1.43	6.97	t
5/22/2007	P		18.20	0.00	149.94	91,000	15,000	8,700	4,700	20,000	1,000	0.08	6.90	
8/15/2007	P		21.23	Sheen	146.91	14,000	7,300	130	280	600	260	4.24	6.78	
11/8/2007	P		20.32	0.00	147.82	22,000	7,400	420	640	1,700	240	1.21	7.03	
2/20/2008	--		15.20	0.06	152.99	--	--	--	--	--	--	--	--	b, j
5/7/2008	--		19.80	0.04	148.37	--	--	--	--	--	--	--	--	b, j
8/20/2008	--		21.70	0.01	146.45	--	--	--	--	--	--	--	--	b
11/17/2008	P		20.73	0.00	147.41	45,000	8,400	700	1,500	5,600	320	--	6.46	t, w
2/25/2009	P		14.15	0.00	153.99	18,000	5,200	<250	380	1,400	<250	2.11	6.50	
4/8/2009	--		17.00	0.00	151.14	--	--	--	--	--	--	--	--	
5/28/2009	P		18.43	Sheen	149.71	37,000	5,300	1,600	1,400	5,600	510	0.16	6.59	t, x
6/16/2009	--		19.80	0.01	148.35	--	--	--	--	--	--	--	--	
8/6/2009	--		21.17	0.01	146.98	--	--	--	--	--	--	--	--	b, j
3/4/2010	P		13.03	Sheen	155.11	18,000	9,500	270	510	1,400	350	1.28	6.80	
9/2/2010	NP		20.62	0.00	147.52	58,000	11,000	3,600	3,900	16,000	470	0.70	6.90	y
3/15/2011	P		13.70	Sheen	154.44	63,000	12,000	2,900	4,100	15,000	500	0.69	6.8	
8/17/2011	P		19.31	0.00	148.83	23,000	4,900	620	1,500	4,400	150	0.50	7.07	
2/6/2012	P		17.49	0.00	150.65	26,000	6,400	200	1,700	3,400	360	0.91	7.08	
MW-3														
7/9/1990	--	167.17	--	--	--	140	5.3	4.6	2	3.8	--	--	--	
12/21/1990	--		--	--	--	0.19	100	6	0.9	27	--	--	--	
3/7/1991	--		17.40	0.00	149.77	0.4	69	22	6.1	57	--	--	--	
4/1/1991	--		13.69	0.00	153.48	--	--	--	--	--	--	--	--	
6/27/1991	--		--	--	--	380	28	26	13	46	--	--	--	
9/27/1991	--		--	--	--	0.07	7.9	--	0.4	1.1	--	--	--	

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Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-3 Cont.														
12/18/1991	--	167.17	--	--	--	0.26	34	24	0.8	28	--	--	--	
7/3/1992	--		19.59	0.00	147.58	71	9.4	0.9	5	13	--	--	--	
10/5/1992	--		21.22	0.00	145.95	<50	2.2	<0.5	1.5	2.8	--	--	--	c
10/5/1992	--		21.22	0.00	145.95	67	5.1	1.1	6.1	8.1	--	--	--	
1/13/1993	--		13.63	0.00	153.54	830	50	34	42	89	--	--	--	i
4/23/1993	--		15.02	0.00	152.15	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	c,i
4/23/1993	--		15.02	0.00	152.15	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	i
7/12/1993	--		19.16	0.00	148.01	250	12	4.2	12	16	<5.0	--	--	i
10/21/1993	--		21.81	0.00	145.36	65	7.4	1	6.9	4.2	--	--	--	c
10/21/1993	--		21.81	0.00	145.36	52	4.4	1.4	4.7	3.3	<5.0	--	--	i
1/21/1994	--		19.94	0.00	147.23	57	3	3.4	3.6	9	<5.0	--	--	i
4/20/1994	--		20.24	0.00	146.93	600	26	23	33	88	28.7	1.8	--	i
8/1/1994	--		20.74	0.00	146.43	120	7.7	1.6	5.9	6.7	5.43	--	--	c,i
8/1/1994	--		20.74	0.00	146.43	99	6.2	1.1	4.5	5.2	<5.0	1.4	--	i
12/23/1994	--		14.70	0.00	152.47	<50	<0.5	0.78	<0.5	<0.5	9.8	1.7	--	i
12/23/1994	--		14.70	0.00	152.47	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	c
1/26/1995	--		12.89	0.00	154.28	190	16	0.5	35	24	--	6.6	--	d
6/8/1995	--		19.95	0.00	147.22	330	21	4	34	32	--	7	--	
8/22/1995	--		21.41	0.00	145.76	150	14	<0.50	<0.50	1.6	<5.0	6.6	--	d
10/27/1995	--		22.43	0.00	144.74	--	--	--	--	--	--	--	--	
10/30/1995	--		--	--	--	51	2.4	<0.50	<0.50	<1.0	<5.0	6.9	--	
1/25/1996	--		14.03	0.00	153.14	<50	<0.50	<0.50	<0.50	<1.0	5.1	--	--	
4/19/1996	--		15.26	0.00	151.91	460	55	4	33	63	<10	9.4	--	
7/23/1996	--		19.19	0.00	147.98	<50	<0.5	<0.5	<0.5	<0.5	<10	9.2	--	
11/11/1996	--		20.24	0.00	146.93	<250	<2.5	<5.0	<5.0	<5.0	<50	8.4	--	
1/21/1997	--		13.09	0.00	154.08	<50	<0.5	<1.0	<1.0	<1.0	<10	5.4	--	
4/29/1997	--		18.14	0.00	149.03	<50	<0.5	<1.0	<1.0	<1.0	<10	4.3	--	
8/21/1997	--		19.64	0.00	147.53	<50	<0.5	<1.0	<1.0	<1.0	<10	4.9	--	
11/5/1997	--		19.95	0.00	147.22	<250	<2.5	<5.0	<5.0	<5.0	<50	4.5	--	
2/3/1998	--		10.57	0.00	156.60	<50	<0.50	<1.0	<1.0	<1.0	<10	4.7	--	

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						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-3 Cont.														
5/28/1998	--	167.17	14.65	0.00	152.52	330	<2.5	<5.0	<5.0	<5.0	<50	4.2	--	
12/30/1998	--		16.63	0.00	150.54	--	--	--	--	--	--	--	--	
2/2/1999	--		13.12	0.00	154.05	<250	<5.0	<5.0	<5.0	<5.0	<5.0	--	--	
5/10/1999	--		14.21	0.00	152.96	--	--	--	--	--	--	--	--	
8/24/1999	--		14.36	0.00	152.81	--	--	--	--	--	--	--	--	
11/3/1999	--		19.21	0.00	147.96	--	--	--	--	--	--	--	--	
3/1/2000	--		15.17	0.00	152.00	<50	<0.5	0.57	<0.5	0.62	<0.5	--	--	
4/21/2000	--		14.88	0.00	152.29	--	--	--	--	--	--	--	--	
7/31/2000	--		15.29	0.00	151.88	--	--	--	--	--	--	--	--	
11/20/2000	--		17.31	0.00	149.86	--	--	--	--	--	--	--	--	
2/18/2001	--		12.85	0.00	154.32	160	1.95	1.31	10.2	9.09	1	--	--	
6/7/2001	--		18.00	0.00	149.17	--	--	--	--	--	--	--	--	
9/5/2001	--		20.32	0.00	146.85	--	--	--	--	--	--	--	--	
11/30/2001	--		16.94	0.00	150.23	--	--	--	--	--	--	--	--	
2/20/2002	--		14.84	0.00	152.33	86	<0.5	0.845	6.58	5.75	<0.5	--	--	
6/20/2002	--		18.40	0.00	148.77	--	--	--	--	--	--	--	--	
9/11/2002	--		20.06	0.00	147.11	--	--	--	--	--	--	--	--	
11/12/2002	--		19.84	0.00	147.33	--	--	--	--	--	--	--	--	
1/27/2003	--		14.83	0.00	152.34	850	20	9.7	24	45	0.76	--	--	n
5/22/2003	--		15.60	0.00	151.57	--	--	--	--	--	--	--	--	
7/28/2003	--		20.12	0.00	147.05	--	--	--	--	--	--	--	--	p
11/18/2003	--		19.15	0.00	148.02	--	--	--	--	--	--	--	--	
02/23/2004	--		13.53	0.00	153.64	160	<0.50	1.1	9.6	12	<0.50	--	6.7	
05/04/2004	--		18.61	0.00	148.56	--	--	--	--	--	--	--	--	
08/04/2004	--		19.21	0.00	147.96	--	--	--	--	--	--	--	--	
11/10/2004	--		17.48	0.00	149.69	--	--	--	--	--	--	--	--	
02/15/2005	P		14.31	0.00	152.86	500	7.8	1.8	9.2	9.6	1.7	--	7.5	
05/16/2005	--		13.11	0.00	154.06	--	--	--	--	--	--	--	--	
08/17/2005	--		18.53	0.00	148.64	--	--	--	--	--	--	--	--	
11/18/2005	--		19.34	0.00	147.83	--	--	--	--	--	--	--	--	

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Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-3 Cont.														
02/07/2006	P	167.17	11.64	0.00	155.53	65	<0.50	<0.50	1.4	2.3	<0.50	--	7.1	
5/19/2006	--		14.88	0.00	152.29	--	--	--	--	--	--	--	--	
8/23/2006	--		19.43	0.00	147.74	--	--	--	--	--	--	--	--	
11/15/2006	--		19.22	0.00	147.95	--	--	--	--	--	--	--	--	
2/14/2007	P		13.80	0.00	153.37	200	1.1	<0.50	5.9	3.2	3.8	0.68	7.52	
5/22/2007	--		16.80	0.00	150.37	--	--	--	--	--	--	--	--	
8/15/2007	--		19.87	0.00	147.30	--	--	--	--	--	--	--	--	
11/8/2007	--		19.27	0.00	147.90	--	--	--	--	--	--	--	--	
2/20/2008	P		13.58	0.00	153.59	240	1.1	<0.50	0.99	0.79	2.3	2.58	7.06	
5/7/2008	--		18.32	0.00	148.85	--	--	--	--	--	--	--	--	
8/20/2008	--		20.29	0.00	146.88	--	--	--	--	--	--	--	--	
11/17/2008	--		19.35	0.00	147.82	--	--	--	--	--	--	--	--	
2/25/2009	P		11.77	0.00	155.40	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.45	7.09	
5/28/2009	--		17.02	0.00	150.15	--	--	--	--	--	--	--	--	
8/6/2009	--		19.87	0.00	147.30	--	--	--	--	--	--	--	--	
3/4/2010	P		10.79	0.00	156.38	<50	<0.50	<0.50	<0.50	<1.0	<0.50	3.16	7.06	
9/2/2010	--		19.32	0.00	147.85	--	--	--	--	--	--	--	--	
3/15/2011	P		11.77	0.00	155.40	<50	<0.50	<0.50	<0.50	<1.0	<0.50	3.14	7.2	
8/17/2011	--		17.98	0.00	149.19	--	--	--	--	--	--	--	--	
2/6/2012	--		15.92	0.00	151.25	--	--	--	--	--	--	--	--	
MW-4														
7/9/1990	--	170.36	--	--	--	--	--	--	--	--	--	--	--	
12/21/1990	--		--	--	--	--	--	--	0.8	--	--	--	--	
3/7/1991	--		20.72	0.00	149.64	--	2.2	3.8	1.5	2.8	--	--	--	
4/1/1991	--		17.49	0.00	152.87	--	--	--	--	--	--	--	--	
6/27/1991	--		--	--	--	--	6.3	1.8	0.4	1	--	--	--	
9/27/1991	--		--	--	--	--	--	--	--	--	--	--	--	
12/18/1991	--		--	--	--	--	--	--	--	--	--	--	--	
7/3/1992	--		22.16	0.00	148.20	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
10/5/1992	--		23.38	0.00	146.98	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-4 Cont.														
1/13/1993	--	170.36	17.58	0.00	152.78	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	i
4/23/1993	--		15.72	0.00	154.64	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	i
7/12/1993	--		21.74	0.00	148.62	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	i
10/21/1993	--		23.84	0.00	146.52	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	i
1/21/1994	--		22.42	0.00	147.94	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	i
4/20/1994	--		22.66	0.00	147.70	<50	<0.5	<0.5	<0.5	<0.5	<5.0	2.2	--	i
8/1/1994	--		23.01	0.00	147.35	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.9	--	i
12/23/1994	--		17.03	0.00	153.33	--	--	--	--	--	--	--	--	
1/26/1995	--		17.42	0.00	152.94	<50	<0.5	<0.5	<0.5	<1	--	7.5	--	
6/8/1995	--		21.55	0.00	148.81	--	--	--	--	--	--	--	--	
8/22/1995	--		23.47	0.00	146.89	<50	<0.50	<0.50	<0.50	<1.0	<5.0	6.4	--	d
10/27/1995	--		24.50	0.00	145.86	--	--	--	--	--	--	--	--	
1/25/1996	--		18.74	0.00	151.62	<50	<0.50	<0.50	<0.50	<1.0	58	--	--	
4/19/1996	--		18.63	0.00	151.73	--	--	--	--	--	--	--	--	
7/23/1996	--		22.56	0.00	147.80	--	--	--	--	--	--	--	--	
11/11/1996	--		23.63	0.00	146.73	<50	<1.0	<1.0	<1.0	<1.0	34	8.2	--	
1/21/1997	--		16.59	0.00	153.77	--	--	--	--	--	--	--	--	
4/29/1997	--		21.43	0.00	148.93	<50	<0.5	<1.0	<1.0	<1.0	<10	4.7	--	
8/21/1997	--		22.91	0.00	147.45	--	--	--	--	--	--	--	--	
11/5/1997	--		22.34	0.00	148.02	60	<0.5	<1.0	<1.0	<1.0	76	4.9	--	
2/3/1998	--		12.26	0.00	158.10	--	--	--	--	--	--	--	--	
5/28/1998	--		18.50	0.00	151.86	70	<0.5	<1.0	<1.0	<1.0	160	4.2	--	
12/30/1998	--		19.69	0.00	150.67	--	--	--	--	--	--	--	--	
2/2/1999	--		18.26	0.00	152.10	70	<1.0	<1.0	<1.0	<1.0	130	--	--	
5/10/1999	--		17.86	0.00	152.50	--	--	--	--	--	--	--	--	
8/24/1999	--		17.93	0.00	152.43	--	--	--	--	--	--	--	--	
11/3/1999	--		22.78	0.00	147.58	--	--	--	--	--	--	--	--	
3/1/2000	--		18.04	0.00	152.32	<50	<0.5	0.67	<0.5	0.7	110	--	--	
4/21/2000	--		17.36	0.00	153.00	--	--	--	--	--	--	--	--	
7/31/2000	--		17.83	0.00	152.53	--	--	--	--	--	--	--	--	

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-4 Cont.						--	--	--	--	--	--	--	--	
11/20/2000	--	170.36	18.91	0.00	151.45	--	--	--	--	--	--	--	--	
2/18/2001	--		17.72	0.00	152.64	88	<0.5	<0.5	<0.5	<0.5	97.3	--	--	
6/7/2001	--		20.23	0.00	150.13	--	--	--	--	--	--	--	--	
9/5/2001	--		22.76	0.00	147.60	--	--	--	--	--	--	--	--	
11/30/2001	--		21.30	0.00	149.06	--	--	--	--	--	--	--	--	
2/20/2002	--		19.32	0.00	151.04	76	<0.5	<0.5	<0.5	<1.0	81	--	--	
6/20/2002	--		20.71	0.00	149.65	--	--	--	--	--	--	--	--	
9/11/2002	--		22.22	0.00	148.14	--	--	--	--	--	--	--	--	
11/12/2002	--		22.22	0.00	148.14	--	--	--	--	--	--	--	--	
1/29/2003	--		19.80	0.00	150.56	100	<0.5	<0.5	<0.5	<0.5	66	--	--	n
5/22/2003	--		19.35	0.00	151.01	--	--	--	--	--	--	--	--	
7/28/2003	--		22.18	0.00	148.18	--	--	--	--	--	--	--	--	p
11/18/2003	--		21.65	0.00	148.71	--	--	--	--	--	--	--	--	
02/23/2004	P		17.53	0.00	152.83	75	<0.50	<0.50	<0.50	<0.50	65	--	6.8	
05/04/2004	--		20.62	0.00	149.74	--	--	--	--	--	--	--	--	
08/04/2004	--		21.30	0.00	149.06	--	--	--	--	--	--	--	--	
11/10/2004	--		20.65	0.00	149.71	--	--	--	--	--	--	--	--	
02/15/2005	P		18.91	0.00	151.45	<50	<0.50	<0.50	<0.50	<0.50	62	--	7.6	
05/16/2005	--		17.34	0.00	153.02	--	--	--	--	--	--	--	--	
08/17/2005	--		21.31	0.00	149.05	--	--	--	--	--	--	--	--	
11/18/2005	--		21.67	0.00	148.69	--	--	--	--	--	--	--	--	
02/07/2006	P		16.74	0.00	153.62	100	<0.50	<0.50	1.0	3.0	29	--	6.8	
5/19/2006	--		18.22	0.00	152.14	--	--	--	--	--	--	--	--	
8/23/2006	--		20.95	0.00	149.41	--	--	--	--	--	--	--	--	
11/15/2006	--		22.21	0.00	148.15	--	--	--	--	--	--	--	--	
2/14/2007	P		18.25	0.00	152.11	<50	<0.50	<0.50	<0.50	<0.50	61	0.95	7.34	
5/22/2007	--		20.16	0.00	150.20	--	--	--	--	--	--	--	--	
8/15/2007	--		22.34	0.00	148.02	--	--	--	--	--	--	--	--	
11/8/2007	--		21.86	0.00	148.50	--	--	--	--	--	--	--	--	
2/20/2008	P		17.74	0.00	152.62	<50	<0.50	<0.50	<0.50	<0.50	36	2.13	6.93	

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-4 Cont.														
5/7/2008	--	170.36	21.38	0.00	148.98	--	--	--	--	--	--	--	--	
8/20/2008	--		22.44	0.00	147.92	--	--	--	--	--	--	--	--	
11/17/2008	--		22.20	0.00	148.16	--	--	--	--	--	--	--	--	
2/25/2009	P		16.81	0.00	153.55	<50	<0.50	<0.50	<0.50	<0.50	26	2.80	6.83	
5/28/2009	--		20.37	0.00	149.99	--	--	--	--	--	--	--	--	
8/6/2009	--		22.46	0.00	147.90	--	--	--	--	--	--	--	--	
3/4/2010	P		17.11	Sheen	153.25	<50	<0.50	<0.50	<0.50	<1.0	34	0.63	6.80	
9/2/2010	--		20.63	0.00	149.73	--	--	--	--	--	--	--	--	
3/15/2011	P		16.47	0.00	153.89	<50	<0.50	<0.50	<0.50	<1.0	26	1.05	6.9	
8/17/2011	--		20.94	0.00	149.42	--	--	--	--	--	--	--	--	
2/6/2012	P		19.65	0.00	150.71	<50	<0.50	<0.50	<0.50	<1.0	32	1.06	7.28	
MW-5														
7/9/1990	--	165.14	--	--	--	280	200	210	46	290	--	--	--	
12/21/1990	--		--	--	--	0.69	300	34	8.4	39	--	--	--	
3/7/1991	--		16.60	0.00	148.54	--	17	0.9	0.7	1.6	--	--	--	
4/1/1991	--		11.99	0.00	153.15	800	250	54	11	60	--	--	--	
6/27/1991	--		--	--	--	330	120	10	12	8	--	--	--	
9/27/1991	--		--	--	--	0.73	230	16	20	22	--	--	--	
12/18/1991	--		--	--	--	--	--	--	--	--	--	--	--	
7/3/1992	--		18.65	0.00	146.49	150	36	<0.5	<0.5	1.1	--	--	--	
10/5/1992	--		20.32	0.00	144.82	270	79	4	1.7	2.9	--	--	--	
1/13/1993	--		13.03	0.00	152.11	180	59	6	1.8	7.6	--	--	--	i
4/23/1993	--		13.51	0.00	151.63	8,700	440	96	35	136	--	--	--	i
7/12/1993	--		18.06	0.00	147.08	250	57	2.9	2.1	6	<5.0	--	--	i
10/21/1993	--		20.41	0.00	144.73	210	82	1.5	<0.5	1.4	--	--	--	i
1/21/1994	--		18.86	0.00	146.28	110	36	1.2	<0.5	0.7	<5.0	--	--	i
4/20/1994	--		17.30	0.00	147.84	690	230	4.5	1.6	11	21.2	1.3	--	i
8/1/1994	--		17.53	0.00	147.61	170	44	1.6	0.9	2.7	<5.0	0.9	--	i
12/23/1994	--		11.63	0.00	153.51	630	180	1.9	0.66	1.9	7.81	1.4	--	i
1/26/1995	--		11.25	0.00	153.89	160	68	<0.5	<0.5	22	--	5.9	--	

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-5 Cont.														
6/8/1995	--	165.14	16.80	0.00	148.34	1,700	560	51	55	170	--	--	--	c
6/8/1995	--		16.80	0.00	148.34	2,000	630	58	61	180	--	6.5	--	
8/22/1995	--		19.02	0.00	146.12	3,700	1,100	18	27	59	<130	7.3	--	d
10/27/1995	--		20.94	0.00	144.20	--	--	--	--	--	--	--	--	
10/30/1995	--		--	--	--	6,500	2,200	55	180	270	<250	7.5	--	
1/25/1996	--		13.30	0.00	151.84	540	37	0.66	<0.50	<1.0	<5.0	--	--	c
1/25/1996	--		13.30	0.00	151.84	590	37	0.7	<0.50	<1.0	<5.0	--	--	
4/19/1996	--		13.63	0.00	151.51	1,500	470	38	49	210	<50	8.1	--	
7/23/1996	--		17.61	0.00	147.53	140	4.6	<0.5	<0.5	<0.5	<10	8	--	
11/11/1996	--		18.70	0.00	146.44	140	40	<1.0	<1.0	<1.0	<10	7.9	--	
1/21/1997	--		11.63	0.00	153.51	730	300	<5.0	7.8	26	<50	5	--	
4/29/1997	--		16.74	0.00	148.40	340	530	<5.0	<5.0	<5.0	<50	4.8	--	
8/21/1997	--		18.26	0.00	146.88	<50	<0.5	<1.0	<1.0	<1.0	<10	4.9	--	
11/5/1997	--		18.84	0.00	146.30	120	13	<1.0	<1.0	<1.0	<10	4.4	--	
2/3/1998	--		9.49	0.00	155.65	<50	<0.50	<1.0	<1.0	<1.0	<10	4.3	--	
5/28/1998	--		13.57	0.00	151.57	4,900	1,500	34	180	311	<10	4.1	--	
12/30/1998	--		14.65	0.00	150.49	--	--	--	--	--	--	--	--	
2/2/1999	--		12.56	0.00	152.58	100	<1.0	<1.0	<1.0	<1.0	9.1	--	--	
5/10/1999	--		13.36	0.00	151.78	--	--	--	--	--	--	--	--	
8/24/1999	--		13.50	0.00	151.64	--	--	--	--	--	--	--	--	
11/3/1999	--		18.48	0.00	146.66	--	--	--	--	--	--	--	--	
3/1/2000	--		9.59	0.00	155.55	<50	<0.5	0.58	<0.5	0.54	2.9	--	--	
4/21/2000	--		13.52	0.00	151.62	--	--	--	--	--	--	--	--	
7/31/2000	--		14.04	0.00	151.10	--	--	--	--	--	--	--	--	
11/20/2000	--		15.89	0.00	149.25	--	--	--	--	--	--	--	--	
2/18/2001	--		11.88	0.00	153.26	560	161	2.38	6.11	13	5.67	--	--	
6/7/2001	--		15.30	0.00	149.84	--	--	--	--	--	--	--	--	
9/5/2001	--		19.32	0.00	145.82	--	--	--	--	--	--	--	--	
11/30/2001	--		17.44	0.00	147.70	--	--	--	--	--	--	--	--	
2/20/2002	--		13.88	0.00	151.26	4,200	940	18.7	98.2	176	55.6	--	--	

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Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-5 Cont.														
6/20/2002	--	165.14	16.20	0.00	148.94	--	--	--	--	--	--	--	--	
9/11/2002	--		19.15	0.00	145.99	--	--	--	--	--	--	--	--	
11/12/2002	--		19.01	0.00	146.13	390	55	0.89	3.4	3.5	210	--	--	
1/29/2003	--		16.33	0.00	148.81	7,900	1,400	34	220	350	82	--	--	n
5/22/2003	--		14.35	0.00	150.79	9,900	2,300	91	400	690	<50	--	--	
7/28/2003	--		18.90	0.00	146.24	3,200	690	14	81	100	120	--	--	p
11/18/2003	--		--	--	--	--	--	--	--	--	--	--	--	Well inaccessible e, q
02/23/2004	P		12.21	0.00	152.93	7,500	1,500	100	190	350	100	--	6.7	
05/04/2004	P		17.12	0.00	148.02	5,900	1,500	57	200	280	42	--	6.6	
08/04/2004	P		19.05	0.00	146.09	<2,500	<25	<25	<25	<25	390	--	6.69	
11/10/2004	P		16.95	0.00	148.19	870	80	<5.0	<5.0	<5.0	530	--	7.5	
02/15/2005	P		12.75	0.00	152.39	1,600	330	8.0	37	67	260	--	7.2	
05/16/2005	P		15.46	0.00	149.68	<500	<5.0	<5.0	<5.0	<5.0	370	--	6.7	
08/17/2005	P		17.00	0.00	148.14	7,000	1,000	17	110	130	51	--	6.6	
11/18/2005	P		18.33	0.00	146.81	1,900	91	<5.0	33	29	340	--	7.3	
02/07/2006	P		10.27	0.00	154.87	2,100	590	9.6	86	110	200	--	6.7	
5/19/2006	P		13.08	0.00	152.06	3,200	720	9.7	150	170	44	--	6.8	
8/23/2006	P		17.02	0.00	148.12	1,400	69	<5.0	20	24	230	--	7.11	
11/15/2006	P		18.30	0.00	146.84	1,100	24	<2.5	10	8.6	490	0.85	6.82	
2/14/2007	P		13.16	0.00	151.98	680	110	<2.5	16	11	420	2.54	7.24	
5/22/2007	P		15.42	0.00	149.72	2,800	660	8.8	74	100	26	1.41	7.03	
8/15/2007	P		18.80	0.00	146.34	2,800	50	<10	26	29	280	3.81	7.14	
11/8/2007	P		18.55	Sheen	146.59	3,800	77	<2.5	46	35	270	1.08	7.23	t
2/20/2008	P		12.21	0.00	152.93	2,500	530	<5.0	75	62	43	2.01	6.84	
5/7/2008	P		16.91	0.00	148.23	6,700	1,800	29	270	360	30	2.45	6.87	t
8/20/2008	P		19.45	0.00	145.69	300	22	<2.0	8.5	5.3	260	5.57	6.86	
11/17/2008	--		--	--	--	--	--	--	--	--	--	--	--	e
2/25/2009	P		11.12	0.00	154.02	140	6.4	<0.50	2.4	3.1	68	4.38	6.65	
5/28/2009	P		15.70	0.00	149.44	3,800	790	9.5	140	110	11	0.04	6.82	x
8/6/2009	P		18.84	Sheen	146.30	78	<5.0	<5.0	<5.0	<5.0	190	0.06	7.27	x

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Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-5 Cont.														
3/4/2010	P	165.14	10.02	0.00	155.12	1,200	420	5.5	69	58	15	0.66	6.87	
9/2/2010	NP		16.24	0.00	148.90	200	69	1.3	3.2	7.3	13	0.75	6.75	y
3/15/2011	P		11.36	0.00	153.78	1,700	410	7.9	88	80	5.9	0.85	6.8	
8/17/2011	P		16.62	0.00	148.52	1,900	460	7.6	44	51	<5.0	0.61	7.11	
2/6/2012	P		14.36	0.00	150.78	580	140	<5.0	9.2	<10	9.8	1.31	7.21	
MW-6														
7/9/1990	--	165.40	--	--	--	--	--	--	--	--	--	--	--	
12/21/1990	--		--	--	--	0.17	2.6	7	4.9	26	--	--	--	
3/7/1991	--		--	--	--	--	--	--	--	--	--	--	--	e
4/1/1991	--		11.79	0.00	153.61	--	--	--	--	--	--	--	--	
6/27/1991	--		--	--	--	--	--	--	--	--	--	--	--	e
9/27/1991	--		--	--	--	--	--	--	--	--	--	--	--	e
12/18/1991	--		--	--	--	--	1.3	22	--	2.7	--	--	--	
7/3/1992	--		17.77	0.00	147.63	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
10/5/1992	--		19.46	0.00	145.94	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
1/13/1993	--		11.34	0.00	154.06	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	i
4/23/1993	--		12.92	0.00	152.48	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	i
7/12/1993	--		17.36	0.00	148.04	<50	<0.5	<0.5	<0.5	0.7	<5.0	--	--	i
10/21/1993	--		19.98	0.00	145.42	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	i
1/21/1994	--		18.10	0.00	147.30	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	i
4/20/1994	--		18.68	0.00	146.72	<50	<0.5	<0.5	<0.5	<0.5	17.4	2	--	i
8/1/1994	--		18.90	0.00	146.50	<50	<0.5	<0.5	<0.5	<0.5	8.66	1.5	--	i
12/23/1994	--		12.94	0.00	152.46	--	--	--	--	--	--	--	--	
1/26/1995	--		10.46	0.00	154.94	<50	<0.5	<0.5	<0.5	<1	--	7.3	--	
6/8/1995	--		16.84	0.00	148.56	--	--	--	--	--	--	--	--	
8/22/1995	--		19.48	0.00	145.92	<50	<0.50	<0.50	<0.50	<1.0	<5.0	6.7	--	d
10/27/1995	--		20.39	0.00	145.01	--	--	--	--	--	--	--	--	
1/25/1996	--		12.24	0.00	153.16	<50	<0.50	<0.50	<0.50	<1.0	9.9	--	--	
4/19/1996	--		13.90	0.00	151.50	--	--	--	--	--	--	--	--	
7/23/1996	--		17.83	0.00	147.57	--	--	--	--	--	--	--	--	

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-6 Cont.														
11/11/1996	--	165.40	18.90	0.00	146.50	<50	<0.5	<1.0	<1.0	<1.0	<10	7.7	--	
1/21/1997	--		11.97	0.00	153.43	--	--	--	--	--	--	--	--	
4/29/1997	--		17.04	0.00	148.36	<50	<0.5	<1.0	<1.0	<1.0	<10	4.5	--	
8/21/1997	--		18.58	0.00	146.82	--	--	--	--	--	--	--	--	
11/5/1997	--		19.17	0.00	146.23	70	<0.5	<1.0	<1.0	<1.0	85	4.3	--	
2/3/1998	--		9.87	0.00	155.53	--	--	--	--	--	--	--	--	
5/28/1998	--		13.38	0.00	152.02	<50	<0.5	<1.0	<1.0	<1.0	<10	3.7	--	
12/30/1998	--		14.45	0.00	150.95	--	--	--	--	--	--	--	--	
2/2/1999	--		18.29	0.00	147.11	--	--	--	--	--	--	--	--	
5/10/1999	--		17.49	0.00	147.91	--	--	--	--	--	--	--	--	
8/24/1999	--		17.61	0.00	147.79	--	--	--	--	--	--	--	--	
11/3/1999	--		16.26	0.00	149.14	--	--	--	--	--	--	--	--	
3/1/2000	--		17.43	0.00	147.97	--	--	--	--	--	--	--	--	
4/21/2000	--		13.32	0.00	152.08	--	--	--	--	--	--	--	--	
7/31/2000	--		13.46	0.00	151.94	--	--	--	--	--	--	--	--	
11/20/2000	--		14.78	0.00	150.62	--	--	--	--	--	--	--	--	
2/18/2001	--		11.33	0.00	154.07	--	--	--	--	--	--	--	--	
6/7/2001	--		16.36	0.00	149.04	--	--	--	--	--	--	--	--	
9/5/2001	--		18.61	0.00	146.79	--	--	--	--	--	--	--	--	
11/30/2001	--		15.20	0.00	150.20	--	--	--	--	--	--	--	--	
2/20/2002	--		12.74	0.00	152.66	--	--	--	--	--	--	--	--	
6/20/2002	--		16.68	0.00	148.72	--	--	--	--	--	--	--	--	
9/11/2002	--		18.38	0.00	147.02	--	--	--	--	--	--	--	--	
11/12/2002	--		18.78	0.00	146.62	--	--	--	--	--	--	--	--	
1/29/2003	--		14.45	0.00	150.95	--	--	--	--	--	--	--	--	n
5/22/2003	--		14.36	0.00	151.04	--	--	--	--	--	--	--	--	
7/28/2003	--		18.43	0.00	146.97	--	--	--	--	--	--	--	--	p
11/18/2003	--		17.48	0.00	147.92	--	--	--	--	--	--	--	--	
02/23/2004	--		11.54	0.00	153.86	--	--	--	--	--	--	--	--	
05/04/2004	--		16.58	0.00	148.82	--	--	--	--	--	--	--	--	

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-6 Cont.														
08/04/2004	--	165.40	18.12	0.00	147.28	--	--	--	--	--	--	--	--	
11/10/2004	--		15.75	0.00	149.65	--	--	--	--	--	--	--	--	
02/15/2005	--		12.50	0.00	152.90	--	--	--	--	--	--	--	--	
05/16/2005	P		11.51	0.00	153.89	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	7.0	
08/17/2005	--		16.85	0.00	148.55	--	--	--	--	--	--	--	--	
11/18/2005	--		--	--	--	--	--	--	--	--	--	--	--	e
02/07/2006	P		9.93	0.00	155.47	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	7.1	
5/19/2006	--		--	--	--	--	--	--	--	--	--	--	--	e
8/23/2006	--		16.35	0.00	149.05	--	--	--	--	--	--	--	--	
11/15/2006	--		17.42	0.00	147.98	--	--	--	--	--	--	--	--	
2/14/2007	P		12.03	0.00	153.37	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.07	7.73	
5/22/2007	--		15.11	0.00	150.29	--	--	--	--	--	--	--	--	
8/15/2007	--		18.08	0.00	147.32	--	--	--	--	--	--	--	--	
11/8/2007	--		17.79	0.00	147.61	--	--	--	--	--	--	--	--	
2/20/2008	P		11.81	0.00	153.59	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.29	7.10	
5/7/2008	--		16.75	0.00	148.65	--	--	--	--	--	--	--	--	
8/20/2008	--		--	--	--	--	--	--	--	--	--	--	--	e
11/17/2008	--		--	--	--	--	--	--	--	--	--	--	--	e
2/25/2009	P		9.99	0.00	155.41	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.39	7.09	
5/28/2009	--		--	--	--	--	--	--	--	--	--	--	--	e
8/6/2009	--		18.33	0.00	147.07	--	--	--	--	--	--	--	--	
3/4/2010	P		9.11	0.00	156.29	<50	<0.50	<0.50	<0.50	<1.0	<0.50	0.88	7.01	
9/2/2010	--		17.80	0.00	147.60	--	--	--	--	--	--	--	--	
3/15/2011	P		10.08	0.00	155.32	<50	<0.50	<0.50	<0.50	<1.0	<0.50	1.43	7.1	
8/17/2011	--		16.50	0.00	148.90	--	--	--	--	--	--	--	--	
2/6/2012	--		14.44	0.00	150.96	--	--	--	--	--	--	--	--	
MW-7														
7/9/1990	--	167.61	--	--	--	--	--	--	--	--	--	--	--	
12/21/1990	--		--	--	--	--	--	--	--	--	--	--	--	
3/7/1991	--		19.04	0.00	148.57	--	--	0.4	0.3	2.4	--	--	--	

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-7 Cont.						--	--	--	--	--	--	--	--	
4/1/1991	--	167.61	15.18	0.00	152.43	--	--	--	--	--	--	--	--	
6/27/1991	--		--	--	--	70	17	4	0.8	2.2	--	--	--	
9/27/1991	--		--	--	--	0.4	--	--	0.4	--	--	--	--	
12/18/1991	--		--	--	--	0.7	2.9	0.8	3.3	--	--	--	--	
7/3/1992	--		20.28	0.00	147.33	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
10/5/1992	--		21.56	0.00	146.05	<50	<0.5	<0.5	<0.5	1.5	--	--	--	
1/13/1993	--		15.41	0.00	152.20	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	i
4/23/1993	--		15.84	0.00	151.77	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	i
7/12/1993	--		19.84	0.00	147.77	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	i
10/21/1993	--		21.61	0.00	146.00	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	i
1/21/1994	--		20.49	0.00	147.12	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	c
1/21/1994	--		20.49	0.00	147.12	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	i
4/20/1994	--		20.54	0.00	147.07	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.5	--	i
8/1/1994	--		20.99	0.00	146.62	<50	0.7	<0.5	<0.5	<0.5	<5.0	1.9	--	i
12/23/1994	--		15.00	0.00	152.61	--	--	--	--	--	--	--	--	
1/26/1995	--		14.69	0.00	152.92	<50	<0.5	<0.5	<0.5	<1	--	7	--	
6/8/1995	--		19.87	0.00	147.74	--	--	--	--	--	--	--	--	
8/22/1995	--		21.49	0.00	146.12	<50	<0.50	<0.50	<0.50	<1.0	<5.0	6.4	--	d
10/27/1995	--		22.53	0.00	145.08	--	--	--	--	--	--	--	--	
1/25/1996	--		17.21	0.00	150.40	<50	<0.50	<0.50	<0.50	<1.0	<5.0	--	--	
4/19/1996	--		17.09	0.00	150.52	--	--	--	--	--	--	--	--	
7/23/1996	--		21.02	0.00	146.59	--	--	--	--	--	--	--	--	
11/11/1996	--		22.03	0.00	145.58	<50	<0.5	<1.0	<1.0	<1.0	<10	7.8	--	
1/21/1997	--		15.06	0.00	152.55	--	--	--	--	--	--	--	--	
4/29/1997	--		20.11	0.00	147.50	<50	<0.5	<1.0	<1.0	<1.0	<10	4.4	--	
8/21/1997	--		21.59	0.00	146.02	--	--	--	--	--	--	--	--	
11/5/1997	--		20.05	0.00	147.56	<50	<0.5	<1.0	<1.0	<1.0	<10	4.4	--	
2/3/1998	--		9.97	0.00	157.64	--	--	--	--	--	--	--	--	
5/28/1998	--		13.52	0.00	154.09	<50	<0.5	<1.0	<1.0	<1.0	<10	4.3	--	
12/30/1998	--		18.33	0.00	149.28	--	--	--	--	--	--	--	--	

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-7 Cont.						--	--	--	--	--	--	--	--	
2/2/1999	--	167.61	12.33	0.00	155.28	--	--	--	--	--	--	--	--	
5/10/1999	--		13.52	0.00	154.09	--	--	--	--	--	--	--	--	
8/24/1999	--		14.01	0.00	153.60	--	--	--	--	--	--	--	--	
11/3/1999	--		19.91	0.00	147.70	--	--	--	--	--	--	--	--	
3/1/2000	--		19.89	0.00	147.72	--	--	--	--	--	--	--	--	
4/21/2000	--		17.94	0.00	149.67	--	--	--	--	--	--	--	--	
7/31/2000	--		17.33	0.00	150.28	--	--	--	--	--	--	--	--	
11/20/2000	--		18.41	0.00	149.20	--	--	--	--	--	--	--	--	
2/18/2001	--		15.13	0.00	152.48	--	--	--	--	--	--	--	--	
6/7/2001	--		18.75	0.00	148.86	--	--	--	--	--	--	--	--	
9/5/2001	--		20.48	0.00	147.13	--	--	--	--	--	--	--	--	
11/30/2001	--		20.11	0.00	147.50	--	--	--	--	--	--	--	--	
2/20/2002	--		18.40	0.00	149.21	--	--	--	--	--	--	--	--	
6/20/2002	--		18.62	0.00	148.99	--	--	--	--	--	--	--	--	
9/11/2002	--		20.05	0.00	147.56	--	--	--	--	--	--	--	--	
11/12/2002	--		21.13	0.00	146.48	--	--	--	--	--	--	--	--	n
1/29/2003	--		19.10	0.00	148.51	--	--	--	--	--	--	--	--	
5/22/2003	--		18.83	0.00	148.78	--	--	--	--	--	--	--	--	
7/28/2003	--		19.88	0.00	147.73	--	--	--	--	--	--	--	--	p
11/18/2003	--	168.08	20.50	0.00	147.58	--	--	--	--	--	--	--	--	s
11/18/2003	--		20.50	0.00	147.58	--	--	--	--	--	--	--	--	
02/23/2004	--		15.92	0.00	152.16	--	--	--	--	--	--	--	--	
05/04/2004	--		18.86	0.00	149.22	--	--	--	--	--	--	--	--	
08/04/2004	--		19.10	0.00	148.98	--	--	--	--	--	--	--	--	
11/10/2004	--		20.25	0.00	147.83	--	--	--	--	--	--	--	--	
02/15/2005	--		16.37	0.00	151.71	--	--	--	--	--	--	--	--	
05/16/2005	--		--	--	--	--	--	--	--	--	--	--	--	e
08/17/2005	--		19.74	0.00	148.34	--	--	--	--	--	--	--	--	
11/18/2005	--		20.82	0.00	147.26	--	--	--	--	--	--	--	--	
02/07/2006	P		14.26	0.00	153.82	<500	<5.0	<5.0	<5.0	<5.0	270	--	7.3	

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-7 Cont.														
5/19/2006	--	168.08	16.51	0.00	151.57	--	--	--	--	--	--	--	--	
8/23/2006	--		20.30	0.00	147.78	--	--	--	--	--	--	--	--	
11/15/2006	--		20.85	0.00	147.23	--	--	--	--	--	--	--	--	
2/14/2007	P		16.57	0.00	151.51	520	<5.0	<5.0	<5.0	<5.0	740	3.08	7.30	v
5/22/2007	--		18.40	0.00	149.68	--	--	--	--	--	--	--	--	
8/15/2007	--		20.85	0.00	147.23	--	--	--	--	--	--	--	--	
11/8/2007	--		20.41	0.00	147.67	--	--	--	--	--	--	--	--	
2/20/2008	P		15.90	0.00	152.18	<50	<0.50	<0.50	<0.50	<0.50	700	4.34	7.09	
5/7/2008	--		19.41	0.00	148.67	--	--	--	--	--	--	--	--	
8/20/2008	--		21.34	0.00	146.74	--	--	--	--	--	--	--	--	
11/17/2008	--		20.54	0.00	147.54	--	--	--	--	--	--	--	--	
2/25/2009	P		14.89	0.00	153.19	130	<20	<20	<20	<20	540	4.28	6.87	
5/28/2009	--		18.57	0.00	149.51	--	--	--	--	--	--	--	--	
8/6/2009	--		20.83	0.00	147.25	--	--	--	--	--	--	--	--	
3/4/2010	P		14.02	0.00	154.06	430	<0.50	<0.50	<0.50	<1.0	920	3.30	7.02	
9/2/2010	--		20.43	0.00	147.65	--	--	--	--	--	--	--	--	
3/15/2011	P		14.86	0.00	153.22	<1,000	<0.50	<0.50	<0.50	<1.0	990	4.05	7.0	
8/17/2011	--		19.01	0.00	149.07	--	--	--	--	--	--	--	--	
2/6/2012	P		18.20	0.00	149.88	<50	<0.50	<0.50	<0.50	<1.0	22	1.58	7.44	
MW-8														
3/7/1991	--	165.74	16.72	0.00	149.02	2.7	780	450	64	310	--	--	--	
4/1/1991	--		12.54	0.00	153.20	15,000	3,600	2,600	410	1,900	--	--	--	
6/27/1991	--		--	--	--	12,000	3,400	1,100	240	750	--	--	--	
9/27/1991	--		--	--	--	41	5,700	5,200	1,100	4,300	--	--	--	
12/18/1991	--		--	--	--	3.2	990	150	120	250	--	--	--	
7/3/1992	--		18.78	0.00	146.96	72,000	19,000	32,000	3,000	15,000	--	--	--	
10/5/1992	--		20.48	0.00	145.26	--	--	--	--	--	--	--	--	
1/13/1993	--		12.87	0.00	152.87	--	--	--	--	--	--	--	--	
4/23/1993	--		13.90	0.00	151.84	--	--	--	--	--	--	--	--	t
7/12/1993	--		18.30	0.00	147.44	--	--	--	--	--	--	--	--	t

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-8 Cont.						--	--	--	--	--	--	--	--	
10/21/1993	--	165.74	21.91	0.00	142.88	--	--	--	--	--	--	--	--	
10/2/93-12/9/98	--		--	0.12	--	--	--	--	--	--	--	--	--	
1/21/1994	--		19.12	0.00	146.62	--	--	--	--	--	--	--	--	
4/20/1994	--		19.28	0.00	146.46	26,000	1,700	4,100	960	4,000	632	1.1	--	i
8/1/1994	--		--	--	--	--	--	--	--	--	--	--	--	
12/23/1994	--		13.81	0.00	151.93	--	--	--	--	--	--	--	--	
1/26/1995	--		--	--	--	--	--	--	--	--	--	--	--	
6/8/1995	--		17.82	0.00	147.92	--	--	--	--	--	--	--	--	
8/22/1995	--		19.41	0.00	146.33	--	--	--	--	--	--	--	--	
10/27/1995	--		20.47	0.00	145.27	--	--	--	--	--	--	--	--	
1/25/1996	--		13.35	0.00	152.39	--	--	--	--	--	--	--	--	
4/19/1996	--		14.40	0.00	151.34	--	--	--	--	--	--	--	--	
7/23/1996	--		18.35	0.00	147.39	--	--	--	--	--	--	--	--	
11/11/1996	--		19.41	0.00	146.33	--	--	--	--	--	--	--	--	
1/21/1997	--		12.29	0.00	153.45	--	--	--	--	--	--	--	--	
4/29/1997	--		--	--	--	--	--	--	--	--	--	--	--	e
8/21/1997	--		19.61	0.00	146.13	240,000	1,100	9,300	4,100	31,100	<1000	5.2	--	
11/5/1997	--		19.45	0.00	146.29	57,000	790	2,700	2,300	15,200	<1000	5	--	
2/3/1998	--		9.33	0.00	156.41	--	--	--	--	--	--	--	--	
2/4/1998	--		--	--	--	94,000	570	1,500	2,100	15,200	<2500	5.5	--	
5/28/1998	--		--	--	--	--	--	--	--	--	--	--	--	e
12/30/1998	--		15.48	0.00	150.26	120,000	460	2,300	2,200	15,000	150	--	--	
2/2/1999	--		18.29	0.00	147.45	82,000	450	2,200	3,700	26,000	<500	--	--	
5/10/1999	--		15.62	0.00	150.12	28,000	740	1,800	1,100	5,800	<25	--	--	
8/24/1999	--		18.41	0.00	147.33	75,000	530	1,400	3,300	21,000	150	--	--	
11/3/1999	--		18.71	0.00	147.03	70,000	600	1,300	3,600	20,500	750	--	--	
3/1/2000	--		19.37	0.00	146.37	27,000	1,600	1,200	2,600	6,600	120	--	--	
4/21/2000	--		--	--	--	--	--	--	--	--	--	--	--	e
7/31/2000	--		--	--	--	--	--	--	--	--	--	--	--	e
11/20/2000	--		17.42	0.00	148.32	1,300,000	1,400	1,700	20,000	16,000	5,700	--	--	

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-8 Cont.														
2/18/2001	--	165.74	--	--	--	--	--	--	--	--	--	--	--	e
6/7/2001	--		--	--	--	--	--	--	--	--	--	--	--	e
9/5/2001	--		21.45	0.04	144.25	--	--	--	--	--	--	--	--	j
11/30/2001	--		18.31	0.00	147.43	--	--	--	--	--	--	--	--	h
12/6/2001	--		--	--	--	--	--	--	--	--	--	--	--	e
2/20/2002	--		14.02	0.00	151.72	20,000	163	114	403	3,810	80.4	--	--	
6/20/2002	--		17.56	0.00	148.18	28,000	466	141	962	5,850	2,520	--	--	
9/11/2002	--		19.45	0.00	146.29	190,000	1,500	670	4,500	23,000	1,200	--	--	
11/12/2002	--		19.15	0.00	146.59	420	6.4	2.9	16	110	31	--	--	t
1/29/2003	--		15.02	0.00	150.72	200,000	810	<500	2,000	11,000	<500	--	--	n
5/22/2003	--		15.07	0.00	150.67	--	--	--	--	--	--	--	--	t
6/24/2003	--		17.95	0.00	147.79	43,000	860	300	2,100	9,600	46	--	--	
7/28/2003	--		19.45	0.00	146.29	62,000	690	230	1,800	15,000	2,100	--	--	
8/12/2003	--		19.40	<0.01	146.34	--	--	--	--	--	--	--	--	o,t
9/12/2003	--		19.34	0.00	146.40	--	--	--	--	--	--	--	--	o
10/3/2003	--		--	<0.01	--	--	--	--	--	--	--	--	--	
11/18/2003	P		18.80	<0.01	146.94	8,800	500	37	530	930	1,700	--	--	o,p
12/31/2003	--		--	<0.01	--	--	--	--	--	--	--	--	--	
2/2/2004	--		--	<0.01	--	--	--	--	--	--	--	--	--	
02/23/2004	P		12.82	<0.01	152.92	32,000	840	360	1,000	7,100	110	--	6.6	t
3/18/2004	--		--	<0.01	--	--	--	--	--	--	--	--	--	
4/13/2004	--		--	<0.01	--	--	--	--	--	--	--	--	--	
05/04/2004	P		18.87	<0.01	146.87	42,000	570	230	1,700	8,400	2,000	--	7.0	t
6/2/2004	--		--	<0.01	--	--	--	--	--	--	--	--	--	
08/04/2004	--		19.37	0.05	146.41	--	--	--	--	--	--	--	--	
09/22/2004	NP		19.60	0.00	146.14	--	--	--	--	--	--	--	--	
11/10/2004	P		16.58	0.00	149.16	11,000	790	61	1,000	830	74	--	7.3	t
02/15/2005	P		12.85	0.00	152.89	38,000	1,300	390	2,300	7,900	<50	--	7.2	
05/16/2005	P		12.22	0.00	153.52	31,000	1,000	360	2,500	7,500	<50	--	6.5	
08/17/2005	P		17.80	0.00	147.94	60,000	540	240	2,500	8,600	<50	--	6.7	

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

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						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-8 Cont.														
11/18/2005	P	165.74	21.02	0.00	144.72	33,000	340	120	1,400	4,900	140	--	6.9	
02/07/2006	P		10.73	0.00	155.01	5,700	94	27	260	820	7.5	--	6.6	
5/19/2006	P		13.89	0.00	151.85	40,000	1,100	320	2,900	6,000	<25	--	6.6	t
8/23/2006	P		18.85	0.00	146.89	21,000	520	150	1,800	6,300	82	--	7.35	
11/15/2006	P		18.75	0.00	146.99	3,300	81	<25	130	430	110	0.81	6.91	
2/14/2007	P		13.45	Sheen	152.29	9,300	320	<25	360	710	82	1.89	7.13	t
5/22/2007	P		15.92	Sheen	149.82	17,000	370	51	760	1,600	11	1.05	6.99	t
8/15/2007	P		19.11	Sheen	146.63	17,000	170	44	1,000	2,700	28	3.93	7.08	
11/8/2007	P		18.46	Sheen	147.28	24,000	150	43	1,100	3,200	27	1.29	7.14	t
2/20/2008	--		--	--	--	--	--	--	--	--	--	--	--	e
5/7/2008	--		--	--	--	--	--	--	--	--	--	--	--	e
8/20/2008	--		19.66	0.01	146.09	--	--	--	--	--	--	--	--	b
11/17/2008	--		--	--	--	--	--	--	--	--	--	--	--	e
2/25/2009	P		11.50	Sheen	154.24	3,400	160	11	88	65	35	2.18	6.98	t
4/8/2009	--		14.55	0.00	151.19	--	--	--	--	--	--	--	--	
5/28/2009	P		16.12	Sheen	149.62	8,300	410	54	660	800	<2.5	0.06	6.78	t, x
6/16/2009	--		17.63	0.00	148.11	--	--	--	--	--	--	--	--	
8/6/2009	--		--	--	--	--	--	--	--	--	--	--	--	e
3/4/2010	P		10.33	0.00	155.41	11,000	520	110	830	1,600	<5.0	0.82	6.72	
9/2/2010	P		18.52	0.00	147.22	6,900	180	24	280	480	<5.0	0.56	6.75	
3/15/2011	P		11.03	Sheen	154.71	14,000	470	150	1,400	3,000	<2.5	0.90	6.6	
8/17/2011	P		17.14	0.00	148.60	4,100	180	24	280	340	<5.0	0.61	7.08	
2/6/2012	P		15.07	0.00	150.67	5,100	140	18	210	220	<5.0	0.91	7.17	
MW-9														
3/7/1991	--	166.20	16.79	0.00	149.41	7.1	220	4	2.4	2,400	--	--	--	
4/1/1991	--		12.89	0.00	153.31	12,000	2,000	2,600	360	1,600	--	--	--	
6/27/1991	--		--	--	--	3,600	520	400	85	310	--	--	--	
9/27/1991	--		--	--	--	3.2	720	150	50	180	--	--	--	
12/18/1991	--		--	--	--	--	2.5	1.1	0.3	5.8	--	--	--	
7/3/1992	--		18.89	0.00	147.31	5,700	17,000	840	230	800	--	--	--	

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						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-9 Cont.														
10/5/1992	--	166.20	20.52	0.00	145.68	1,400	440	17	14	100	--	--	--	
1/13/1993	--		12.92	0.00	153.28	11,000	1,200	1,600	330	1,300	--	--	--	c,i
1/13/1993	--		12.92	0.00	153.28	11,000	1,200	1,700	340	1,400	--	--	--	i
4/23/1993	--		14.08	0.00	152.12	24,000	2,800	4,500	730	3,400	--	--	--	i
7/12/1993	--		18.44	0.00	147.76	10,000	1,200	900	310	1,200	--	--	--	c
7/12/1993	--		18.44	0.00	147.76	13,000	1,400	1,100	360	1,400	20.8	--	--	i
10/21/1993	--		21.81	0.00	143.50	--	--	--	--	--	--	--	--	
11/2/93-4/29/97	--		--	0.10	--	--	--	--	--	--	--	--	--	
1/21/1994	--		19.28	0.00	146.92	--	--	--	--	--	--	--	--	
4/20/1994	--		19.72	0.00	146.48	45,000	2,700	6,800	1,200	8,200	740	--	--	c,d
4/20/1994	--		19.72	0.00	146.48	43,000	2,800	6,800	1,300	7,900	768	1.7	--	i
8/1/1994	--		20.18	0.00	146.02	--	--	--	--	--	--	--	--	
12/23/1994	--		14.22	0.00	151.98	--	--	--	--	--	--	--	--	
1/26/1995	--		11.85	0.00	154.35	--	--	--	--	--	--	--	--	
6/8/1995	--		18.33	0.00	147.87	--	--	--	--	--	--	--	--	
8/22/1995	--		19.95	0.00	146.25	--	--	--	--	--	--	--	--	
10/27/1995	--		20.88	0.00	145.32	--	--	--	--	--	--	--	--	
1/25/1996	--		13.84	0.00	152.36	--	--	--	--	--	--	--	--	
4/19/1996	--		--	--	--	--	--	--	--	--	--	--	--	e
7/23/1996	--		18.84	0.00	147.36	--	--	--	--	--	--	--	--	
11/11/1996	--		19.91	0.00	146.29	--	--	--	--	--	--	--	--	
1/21/1997	--		12.93	0.00	153.27	--	--	--	--	--	--	--	--	
4/29/1997	--		18.03	0.10	148.17	--	--	--	--	--	--	--	--	t
4/30/1997	--		--	--	--	78,000	1,900	3,600	3,100	20,600	<5000	5.5	--	
8/21/1997	--		19.56	0.00	146.64	110,000	2,100	3,400	2,300	18,800	<500	5.1	--	
11/5/1997	--		20.59	0.01	145.60	59,000	1,400	1,700	2,200	17,000	<500	4.5	--	
2/3/1998	--		10.56	0.00	155.64	55,000	490	1,200	1,400	10,200	<1000	4.9	--	
5/28/1998	--		14.21	0.00	151.99	53,000	290	830	1,400	10,500	<500	--	--	c
5/28/1998	--		14.21	0.00	151.99	41,000	250	1,200	1,500	11,400	<250	3.8	--	
12/30/1998	--		15.61	0.00	150.59	83,000	860	1,300	2,400	21,000	180	--	--	

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						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-9 Cont.														
2/2/1999	--	166.20	12.33	0.00	153.87	75,000	530	960	1,900	17,000	<50	--	--	
5/10/1999	--		15.67	0.00	150.53	22,000	600	1,500	1,100	4,400	72	--	--	
8/24/1999	--		19.10	0.00	147.10	85,000	850	1,300	1,700	20,000	<250	--	--	
11/3/1999	--		19.58	0.00	146.62	72,000	700	780	1,900	19,000	<5.0	--	--	
3/1/2000	--		13.19	0.00	153.01	34,000	78	490	1,100	8,200	63	--	--	
4/21/2000	--		14.29	0.00	151.91	55,000	260	920	1,500	16,000	<5.0	--	--	
7/31/2000	--		15.01	0.00	151.19	1,200,000	1,500	6,300	15,000	120,000	1,600	--	--	
11/20/2000	--		18.23	0.00	147.97	320,000	3,500	19,000	5,000	40,000	3,900	--	--	
2/18/2001	--		13.14	0.00	153.06	32,000	290	417	1,180	10,400	121	--	--	
6/7/2001	--		17.41	0.00	148.79	96,000	421	704	2,330	17,300	223	--	--	
9/5/2001	--		20.56	0.00	145.64	39,000	445	323	1,240	8,940	310	--	--	
11/30/2001	--		17.42	0.00	148.78	60,000	310	586	1,890	14,200	285	--	--	
2/20/2002	--		13.87	0.00	152.33	14,000	64	122	897	2,650	293	--	--	
6/20/2002	--		18.22	0.00	147.98	29,000	307	168	1,100	5,670	208	--	--	
9/11/2002	--		20.27	0.00	145.93	230,000	1,400	680	3,600	23,000	<2500	--	--	
11/12/2002	--		19.40	0.00	146.80	840	5.8	3.6	28	160	21	--	--	t
1/29/2003	--		14.30	0.10	151.80	--	--	--	--	--	--	--	--	j,n
5/22/2003	--		15.16	0.00	151.04	23,000	260	<50	1,000	2,900	<50	--	--	t
6/24/2003	--		--	--	--	--	--	--	--	--	--	--	--	e
7/28/2003	--		19.55	<0.01	146.65	1,500,000	<500	<500	9,800	79,000	<500	--	--	
8/12/2003	--		19.60	<0.01	146.60	--	--	--	--	--	--	--	--	o,t
9/12/2003	--		19.60	<0.01	146.60	--	--	--	--	--	--	--	--	o,t
11/18/2003	P		18.98	<0.01	147.22	19,000	250	18	690	2,400	45	--	6.8	o,p
12/31/2003	--		--	<0.01	--	--	--	--	--	--	--	--	--	
2/2/2004	--		--	<0.01	--	--	--	--	--	--	--	--	--	
02/23/2004	P		13.91	<0.01	152.29	91,000	<250	440	2,200	13,000	<250	--	6.8	t
3/18/2004	--		--	<0.01	--	--	--	--	--	--	--	--	--	
4/13/2004	--		--	<0.01	--	--	--	--	--	--	--	--	--	
05/04/2004	P		18.11	<0.01	148.09	39,000	230	44	1,100	4,200	<25	--	6.9	t
6/2/2004	--		--	<0.01	--	--	--	--	--	--	--	--	--	

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						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-9 Cont.														
08/04/2004	--	166.20	18.90	0.03	147.32	--	--	--	--	--	--	--	--	
09/22/2004	NP		19.69	0.00	146.51	--	--	--	--	--	--	--	--	
11/10/2004	NP		16.95	0.00	149.25	31,000	300	<50	1,100	3,800	<50	--	7.3	t
02/15/2005	P		12.95	0.00	153.25	19,000	200	<50	720	2,000	<50	--	7.3	t
05/16/2005	P		12.53	0.00	153.67	17,000	99	15	770	2,500	<10	--	6.7	
08/17/2005	P		18.03	0.00	148.17	28,000	160	26	1,000	2,700	<12	--	6.8	
11/18/2005	P		19.04	0.00	147.16	12,000	98	<5.0	410	510	19	--	7.1	
02/07/2006	P		10.95	Sheen	155.25	18,000	110	8.7	770	1,500	<5.0	--	6.9	t
5/19/2006	--		--	--	--	--	--	--	--	--	--	--	--	e
8/23/2006	P		18.91	0.00	147.29	28,000	84	<50	1,600	6,200	<50	--	7.3	
11/15/2006	P		18.60	0.00	147.60	8,200	44	<25	190	370	26	0.92	6.88	
2/14/2007	P		13.30	0.00	152.90	20,000	64	<25	720	2,000	<25	0.87	7.17	t
5/22/2007	P		16.14	Sheen	150.06	16,000	80	<25	460	1,200	<25	0.81	7.08	t
8/15/2007	P		19.31	Sheen	146.89	5,900	27	<2.5	59	170	27	2.57	6.98	
11/8/2007	P		18.70	0.00	147.50	6,100	29	<5.0	98	250	52	1.24	7.47	
2/20/2008	--		12.79	0.03	153.43	--	--	--	--	--	--	--	--	b, j
5/7/2008	--		17.68	0.03	148.54	--	--	--	--	--	--	--	--	b, j
8/20/2008	--		19.75	0.01	146.46	--	--	--	--	--	--	--	--	b
11/17/2008	P		18.73	0.00	147.47	10,000	24	<2.5	160	140	33	--	6.64	w
2/25/2009	P		11.23	Sheen	154.97	14,000	60	<10	550	140	<10	2.27	6.69	t
4/8/2009	--		14.21	0.00	151.99	--	--	--	--	--	--	--	--	
5/28/2009	P		16.33	Sheen	149.87	15,000	49	<10	790	1,500	<10	0.07	6.83	t, x
6/16/2009	--		17.82	0.01	148.39	--	--	--	--	--	--	--	--	
8/6/2009	P		19.25	Sheen	146.95	6,800	19	<2.0	120	250	18	0.00	7.26	x
3/4/2010	P		10.32	0.00	155.88	6,000	29	<2.5	<2.5	100	<2.5	0.62	6.84	
9/2/2010	NP		18.72	0.00	147.48	5,700	31	<2.5	160	120	<2.5	0.46	6.85	
3/15/2011	P		11.08	0.00	155.12	6,500	17	<2.5	150	73	<2.5	1.07	6.8	
8/17/2011	--		17.35	0.00	148.85	5,200	9.5	<2.5	71	54	<2.5	0.64	7.18	
2/6/2012	P		15.52	0.00	150.68	4,200	14	<2.5	49	22	<2.5	1.43	7.21	
MW-10														

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-10 Cont.														
3/7/1991	--	167.01	18.09	0.00	148.92	1.6	120	190	32	230	--	--	--	
4/1/1991	--		13.92	0.00	153.09	--	--	--	--	--	--	--	--	
6/27/1991	--		--	--	--	12,000	7,300	500	150	300	--	--	--	
9/27/1991	--		--	--	--	57	12,000	7,200	1,400	4,600	--	--	--	
12/18/1991	--		--	--	--	5.3	2,500	120	36	79	--	--	--	
7/3/1992	--		19.92	0.00	147.09	8,600	5,100	1,300	180	690	--	--	--	
10/5/1992	--		21.92	0.00	145.09	--	--	--	--	--	--	--	--	
1/13/1993	--		14.43	0.00	152.58	--	--	--	--	--	--	--	--	
4/23/1993	--		15.26	0.00	151.75	--	--	--	--	--	--	--	--	
7/12/1993	--		19.78	0.00	147.23	--	--	--	--	--	--	--	--	
10/21/1993	--		22.90	0.00	144.11	--	--	--	--	--	--	--	--	
1/21/1994	--		20.25	0.00	146.76	--	--	--	--	--	--	--	--	
4/20/1994	--		20.74	0.00	146.27	100,000	12,000	24,000	2,400	14,000	1,577	1	--	d,i
8/1/1994	--		22.00	0.00	145.01	--	--	--	--	--	--	--	--	
12/23/1994	--		16.08	0.00	150.93	--	--	--	--	--	--	--	--	
1/26/1995	--		13.68	0.00	153.33	--	--	--	--	--	--	--	--	
6/8/1995	--		19.08	0.00	147.93	--	--	--	--	--	--	--	--	
8/22/1995	--		20.73	0.00	146.28	--	--	--	--	--	--	--	--	
10/27/1995	--		21.69	0.00	145.32	--	--	--	--	--	--	--	--	
1/25/1996	--		15.05	0.00	151.96	--	--	--	--	--	--	--	--	
4/19/1996	--		16.26	0.00	150.75	--	--	--	--	--	--	--	--	
7/23/1996	--		20.18	0.00	146.83	--	--	--	--	--	--	--	--	
9/4/1996	--		--	0.76	--	--	--	--	--	--	--	--	--	
11/11/1996	--		21.20	0.00	145.81	--	--	--	--	--	--	--	--	
1/21/1997	--		13.66	0.00	153.35	--	--	--	--	--	--	--	--	
4/29/1997	--		18.71	0.00	148.30	--	--	--	--	--	--	--	--	
4/30/1997	--		--	--	--	170,000	9,700	38,000	4,700	30,500	<5000	5.6	--	
8/21/1997	--		20.19	0.00	146.82	170,000	9,500	35,000	4,300	27,100	<5000	5.3	--	
11/5/1997	--		20.52	0.00	146.49	80,000	3,800	12,000	2,700	15,700	<500	4.4	--	
12/2/1997	--		--	0.03	--	--	--	--	--	--	--	--	--	

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-10 Cont.														
2/3/1998	--	167.01	10.62	0.00	156.39	--	--	--	--	--	--	--	--	
2/4/1998	--		--	--	--	72,000	500	1,300	1,700	12,000	<1000	5.1	--	
5/28/1998	--		15.46	0.00	151.55	220,000	3,200	24,000	5,200	43,000	<1000	4.8	--	
12/30/1998	--		16.65	0.00	150.36	110,000	3,500	14,000	5,800	50,000	<50	--	--	
2/2/1999	--		14.58	0.00	152.43	74,000	1,000	2,800	1,000	26,000	860	--	--	
5/10/1999	--		15.72	0.00	151.29	81,000	2,800	2,800	3,000	17,000	220	--	--	
8/24/1999	--		19.85	0.00	147.16	54,000	3,500	3,800	1,500	9,100	<250	--	--	
11/3/1999	--		20.00	0.00	147.01	30,000	3,000	3,500	1,200	5,000	31	--	--	
3/1/2000	--		14.62	0.00	152.39	62,000	320	1,200	1,100	26,000	4,400	--	--	
4/21/2000	--		15.46	0.00	151.55	88,000	2,700	7,400	3,700	35,000	2,400	--	--	
7/31/2000	--		--	--	--	--	--	--	--	--	--	--	--	e
11/20/2000	--		18.74	0.00	148.27	78,000	3,800	5,500	2,800	13,000	450	--	--	
2/18/2001	--		14.10	0.00	152.91	39,000	1,050	1,160	1,550	14,700	4,180	--	--	
6/7/2001	--		18.78	0.00	148.23	76,000	2,460	2,840	3,330	20,700	635	--	--	
9/5/2001	--		21.40	0.01	145.60	25,000	2,510	2,070	1,090	4,540	189	--	--	
11/30/2001	--		18.50	0.00	148.51	100,000	2,480	5,720	3,890	22,800	325	--	--	
2/20/2002	--		14.39	0.00	152.62	49,000	2,170	3,070	1,960	12,300	1,090	--	--	
6/20/2002	--		18.80	0.00	148.21	44,000	2,040	3,050	1,690	8,430	224	--	--	
9/11/2002	--		20.52	0.00	146.49	28,000	1,200	2,700	1,400	6,800	<250	--	--	
11/12/2002	--		20.37	0.07	146.57	--	--	--	--	--	--	--	--	j
1/29/2003	--		16.33	0.03	150.65	--	--	--	--	--	--	--	--	j,n
5/22/2003	--		16.32	0.00	150.69	13,000	2,100	850	630	1,600	300	--	--	t
6/24/2003	--		18.73	0.04	148.24	--	--	--	--	--	--	--	--	o
7/28/2003	--		20.39	0.04	146.58	--	--	--	--	--	--	--	--	j
8/12/2003	--		20.43	<0.01	146.58	--	--	--	--	--	--	--	--	o,t
9/12/2003	--		20.41	0.00	146.60	--	--	--	--	--	--	--	--	o
10/3/2003	--		--	<0.01	--	--	--	--	--	--	--	--	--	
11/18/2003	P		19.55	<0.01	147.46	9,900	2,200	530	320	860	<50	--	6.8	o,p
12/31/2003	--		--	<0.01	--	--	--	--	--	--	--	--	--	
2/2/2004	--		--	<0.01	--	--	--	--	--	--	--	--	--	

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-10 Cont.														
02/23/2004	P	167.01	15.45	<0.01	151.56	46,000	1,900	2,000	1,800	9,000	180	--	6.7	t
3/18/2004	--		--	<0.01	--	--	--	--	--	--	--	--	--	
4/13/2004	--		--	<0.01	--	--	--	--	--	--	--	--	--	
05/04/2004	P		18.81	<0.01	148.20	35,000	3,100	3,600	1,400	5,600	<25	--	7.1	t
6/2/2004	--		--	<0.01	--	--	--	--	--	--	--	--	--	
7/2/2004	--		--	<0.01	--	--	--	--	--	--	--	--	--	
08/04/2004	--		18.90	0.00	148.11	--	--	--	--	--	--	--	--	
09/22/2004	NP		20.60	0.00	146.41	--	--	--	--	--	--	--	--	
11/10/2004	P		17.95	0.00	149.06	9,800	470	91	450	1,700	230	--	7.3	t
01/13/2005	--		12.21	0.00	154.80	--	--	--	--	--	--	--	--	
02/15/2005	P		14.19	0.00	152.82	30,000	510	330	1,800	7,200	77	--	7.2	
05/16/2005	P		13.85	0.00	153.16	37,000	540	730	2,100	9,200	<50	--	6.7	
08/17/2005	P		19.01	0.00	148.00	15,000	1,100	420	1,200	4,100	<50	--	6.7	
11/18/2005	P		19.95	0.00	147.06	12,000	1,200	240	550	1,300	16	--	6.8	
02/07/2006	P		12.28	Sheen	154.73	22,000	340	580	1,300	4,500	73	--	6.8	t
5/19/2006	P		15.12	0.00	151.89	40,000	690	430	2,600	4,900	<25	--	6.9	t
8/23/2006	P		20.00	0.00	147.01	13,000	1,500	540	1,200	3,000	<10	--	6.97	
11/15/2006	P		19.84	0.00	147.17	3,800	700	22	67	160	54	0.65	6.78	
2/14/2007	P		14.94	Sheen	152.07	37,000	350	120	2,400	8,100	120	2.12	7.05	t
5/22/2007	P		17.17	Sheen	149.84	13,000	810	130	750	2,200	15	0.06	7.10	t
8/15/2007	P		20.30	Sheen	146.71	4,400	550	38	160	310	<10	3.09	7.09	
11/8/2007	P		19.58	Sheen	147.43	13,000	970	130	480	1,600	6.0	1.47	7.95	t
2/20/2008	--		14.27	0.05	152.78	--	--	--	--	--	--	--	--	b, j
5/7/2008	P		18.61	0.00	148.40	16,000	970	150	770	2,000	<20	2.18	6.98	t
8/20/2008	--		20.71	0.01	146.31	--	--	--	--	--	--	--	--	b
11/17/2008	P		19.71	0.00	147.30	10,000	960	57	270	720	23	--	6.54	t, w
2/25/2009	P		13.10	0.00	153.91	2,900	53	14	69	160	170	4.06	6.68	
4/8/2009	--		15.91	0.00	151.10	--	--	--	--	--	--	--	--	
5/28/2009	P		17.37	Sheen	149.64	15,000	640	280	790	2,500	65	0.03	6.69	t, x
6/16/2009	--		18.79	0.01	148.23	--	--	--	--	--	--	--	--	

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
MW-10 Cont.														
8/6/2009	P	167.01	20.19	Sheen	146.82	23,000	850	490	1,200	4,100	<25	0.06	7.23	x
3/4/2010	P		12.32	Sheen	154.69	12,000	71	72	740	1,800	<2.5	0.56	6.81	
9/2/2010	--		19.63	0.02	147.40	--	--	--	--	--	--	--	--	b, j
3/15/2011	--		13.20	0.01	153.82	--	--	--	--	--	--	--	--	b, j
8/17/2011	P		18.27	0.00	148.74	4,000	780	39	250	290	<5.0	0.44	7.18	
2/6/2012	P		16.32	0.00	150.69	6,300	1,100	39	340	470	<5.0	0.71	7.21	
QC-2														
10/5/1992	--	168.01	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	f
1/13/1993	--		--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	f,i
4/23/1993	--		--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	f,i
7/12/1993	--		--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	f
10/21/1993	--		--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	f
1/21/1994	--		--	--	--	<50	<0.5	2.1	<0.5	2.1	--	--	--	f
4/20/1994	--		--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	f
12/23/1994	--		--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	f
1/26/1995	--		--	--	--	<50	<0.5	<0.5	<0.5	<1	--	--	--	f
6/8/1995	--		--	--	--	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	f
8/22/1995	--		--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<5.0	--	--	d,f
10/30/1995	--		--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<5.0	--	--	f
1/25/1996	--		--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<5.0	--	--	f
4/19/1996	--		--	--	--	<50	<0.5	<1	<1	<1	<10	--	--	f
RW-1														
7/9/1990	--	168.01	--	--	--	--	--	--	--	--	--	--	--	
12/21/1990	--		--	--	--	--	--	--	--	--	--	--	--	
3/7/1991	--		17.62	0.00	150.39	--	--	--	--	--	--	--	--	t
4/1/1991	--		14.40	0.00	153.61	--	--	--	--	--	--	--	--	
6/27/1991	--		--	--	--	--	--	--	--	--	--	--	--	
9/27/1991	--		--	--	--	--	--	--	--	--	--	--	--	
12/18/1991	--		--	--	--	--	--	--	--	--	--	--	--	

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
RW-1 Cont.						--	--	--	--	--	--	--	--	t
7/3/1992	--	168.01	20.66	0.00	147.35	--	--	--	--	--	--	--	--	
10/5/1992	--		23.34	0.00	144.67	--	--	--	--	--	--	--	--	
1/13/1993	--		16.59	0.00	151.42	--	--	--	--	--	--	--	--	
4/23/1993	--		16.17	0.00	151.84	--	--	--	--	--	--	--	--	
7/12/1993	--		20.18	0.00	147.83	--	--	--	--	--	--	--	--	
10/21/1993	--		25.70	0.00	142.31	--	--	--	--	--	--	--	--	
1/21/1994	--		21.24	0.00	146.77	--	--	--	--	--	--	--	--	
4/20/1994	--		32.20	0.00	135.81	--	--	--	--	--	--	--	--	
8/1/1994	--		21.70	0.00	146.31	29,000	580	950	300	7,800	1,200	1.1	--	d
12/23/1994	--		16.02	0.00	151.99	1,300	25	8.6	1.4	69	616	1.8	--	i
1/26/1995	--		13.78	0.00	154.23	<50	<0.5	<0.5	<0.5	<1	--	--	--	
1/26/1995	--		13.78	0.00	154.23	<50	<0.5	<0.5	<0.5	<1	--	--	--	c
6/8/1995	--		20.05	0.00	147.96	1,300	130	<1.0	<1.0	36	--	--	--	
8/22/1995	--		21.74	0.00	146.27	2,800	210	9.3	4.3	250	<25	--	--	c
8/22/1995	--		21.74	0.00	146.27	3,300	230	13	4.9	280	<25	6.6	--	d
10/27/1995	--		32.00	0.00	136.01	--	--	--	--	--	--	--	--	
10/30/1995	--		--	--	--	240	1.6	<1.0	<1.0	<2.0	630	--	--	c
10/30/1995	--		--	--	--	230	1.4	<1.0	<1.0	<2.0	650	6.9	--	
1/25/1996	--		15.41	0.00	152.60	15,000	3,400	930	330	2,500	5,300	--	--	
4/19/1996	--		16.83	0.00	151.18	35,000	5,500	3,300	1,700	9,400	14,000	7.6	--	
4/19/1996	--		16.83	0.00	151.18	33,000	5,600	3,200	1,700	8,800	15,000	--	--	c
7/23/1996	--		20.76	0.00	147.25	47,000	3,700	2,500	930	5,300	35,000	--	--	c
7/23/1996	--		20.76	0.00	147.25	46,000	3,600	2,300	900	5,100	36,000	7.4	--	
11/11/1996	--		21.73	0.00	146.28	31,000	2,900	1,000	860	4,600	22,000	--	--	c
11/11/1996	--		21.73	0.00	146.28	34,000	3,000	1,200	880	4,600	22,000	8.3	--	
1/21/1997	--		14.20	0.00	153.81	270	42	17	2.7	36	1,500	--	--	c
1/21/1997	--		14.20	0.00	153.81	260	40	16	2.7	34	1,500	6.1	--	
4/29/1997	--		19.15	0.00	148.86	32,000	3,100	590	1,300	6,000	46,000	5.3	--	
8/21/1997	--		20.67	0.00	147.34	7,600	730	58	370	1,780	9,500	4.7	--	
11/5/1997	--		21.01	0.00	147.00	39,000	2,300	86	1,300	3,840	56,000	4.5	--	

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
RW-1 Cont.														
2/3/1998	--	168.01	10.68	0.00	157.33	3,400	31	11	29	161	3,200	5.1	--	
5/28/1998	--		15.55	0.00	152.46	2,000	90	15	60	305	2,700	4.3	--	
12/30/1998	--		17.35	0.00	150.66	--	--	--	--	--	--	--	--	
2/2/1999	--		14.58	0.00	153.43	82,000	2,300	120	2,000	3,200	51000/78000	--	--	g
5/10/1999	--		16.00	0.00	152.01	15,000	620	88	340	660	61,000	--	--	
8/24/1999	--		20.00	0.00	148.01	52,000	1,400	170	2,200	2,900	37,000	--	--	
11/3/1999	--		20.39	0.00	147.62	17,000	2,500	86	1,500	970	54,000	--	--	
3/1/2000	--		12.97	0.00	155.04	17,000	580	78	790	1,100	13,000	--	--	
4/21/2000	--		16.02	0.00	151.99	31,000	2,100	100	1,400	1,100	39,000	--	--	
7/31/2000	--		21.89	0.00	146.12	47,000	1,300	170	2,700	2,300	30,000	--	--	
11/20/2000	--		19.15	0.00	148.86	--	--	--	--	--	--	--	--	h
2/18/2001	--		15.35	0.00	152.66	14,000	589	89	600	712	13,000	--	--	
6/7/2001	--		19.09	0.00	148.92	28,000	1,140	68.2	504	530	19,100	--	--	
9/5/2001	--		22.06	0.02	145.93	--	--	--	--	--	--	--	--	j
11/30/2001	--		19.53	0.00	148.48	20,000	405	39.4	545	740	8,260	--	--	
2/20/2002	--		15.99	0.00	152.02	13,000	469	29	434	655	7,240	--	--	
6/20/2002	--		19.31	0.00	148.70	--	--	--	--	--	--	--	--	j,l
9/11/2002	--		21.07	0.03	146.91	--	--	--	--	--	--	--	--	j
11/12/2002	--		20.92	0.02	147.07	--	--	--	--	--	--	--	--	j
1/29/2003	--		16.31	0.04	151.66	--	--	--	--	--	--	--	--	j,n
5/22/2003	--		16.68	0.00	151.33	--	--	--	--	--	--	--	--	j,t
6/24/2003	--		19.76	0.07	148.18	--	--	--	--	--	--	--	--	o
7/28/2003	--		21.04	0.04	146.93	--	--	--	--	--	--	--	--	j
8/12/2003	--		21.41	<0.01	146.60	--	--	--	--	--	--	--	--	o,t
9/12/2003	--		21.10	0.07	146.84	--	--	--	--	--	--	--	--	o
10/3/2003	--		--	0.03	--	--	--	--	--	--	--	--	--	
11/18/2003	P		20.10	<0.01	147.91	12,000	770	<50	320	250	6,100	--	6.6	o,p
12/31/2003	--		--	<0.01	--	--	--	--	--	--	--	--	--	
02/23/2004	--		14.35	0.01	153.67	--	--	--	--	--	--	--	--	
3/18/2004	--		--	0.09	--	--	--	--	--	--	--	--	--	

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
RW-1 Cont.						--	--	--	--	--	--	--	--	
4/13/2004	--	168.01	--	0.02	--	--	--	--	--	--	--	--	--	
05/04/2004	--		19.58	0.02	148.45	--	--	--	--	--	--	--	--	
6/2/2004	--		--	0.05	--	--	--	--	--	--	--	--	--	
7/2/2004	--		--	0.11	--	--	--	--	--	--	--	--	--	
08/04/2004	--		22.05	0.05	146.00	--	--	--	--	--	--	--	--	
09/22/2004	NP		21.28	0.06	146.78	--	--	--	--	--	--	--	--	
10/26/2004	--		--	0.01	--	--	--	--	--	--	--	--	--	
11/10/2004	--		18.56	0.02	149.47	--	--	--	--	--	--	--	--	
12/27/2004	--		--	0.03	--	--	--	--	--	--	--	--	--	
01/13/2005	--		12.51	0.01	155.51	--	--	--	--	--	--	--	--	
02/15/2005	--		15.24	0.03	152.79	--	--	--	--	--	--	--	--	
03/07/2005	--		11.90	0.02	156.13	--	--	--	--	--	--	--	--	
4/29/2005	--		--	0.03	--	--	--	--	--	--	--	--	--	
05/16/2005	--		14.39	0.02	153.64	--	--	--	--	--	--	--	--	j
6/21/2005	--		--	0.03	--	--	--	--	--	--	--	--	--	
7/7/2005	--		--	0.06	--	--	--	--	--	--	--	--	--	
08/17/2005	--		19.91	0.03	148.12	--	--	--	--	--	--	--	--	j
9/6/2005	--		--	0.03	--	--	--	--	--	--	--	--	--	
10/4/2005	--		--	0.07	--	--	--	--	--	--	--	--	--	
11/18/2005	--		20.36	0.07	147.71	--	--	--	--	--	--	--	--	b, j
12/30/2005	--		--	0.04	--	--	--	--	--	--	--	--	--	
1/24/2006	--		--	0.01	--	--	--	--	--	--	--	--	--	
02/07/2006	--		12.87	0.01	155.15	--	--	--	--	--	--	--	--	j
3/30/2006	--		--	0.02	--	--	--	--	--	--	--	--	--	
5/19/2006	--		15.87	0.04	152.17	--	--	--	--	--	--	--	--	b
8/23/2006	--		20.50	0.07	147.56	--	--	--	--	--	--	--	--	b, j
11/15/2006	--		20.52	0.07	147.54	--	--	--	--	--	--	--	--	b, j
2/14/2007	--		15.44	0.04	152.60	--	--	--	--	--	--	--	--	b, j
5/22/2007	--		17.78	Sheen	150.23	--	--	--	--	--	--	--	--	j, l
8/15/2007	--		20.80	0.02	147.23	--	--	--	--	--	--	--	--	b, j

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L						DO (mg/L)	pH	Footnote
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE			
RW-1 Cont.														
11/8/2007	--	168.01	20.32	0.01	147.70	--	--	--	--	--	--	--	--	b, j
2/20/2008	--		14.55	0.02	153.48	--	--	--	--	--	--	--	--	b, j
5/7/2008	--		--	--	--	--	--	--	--	--	--	--	--	e
8/20/2008	--		21.34	0.02	146.69	--	--	--	--	--	--	--	--	b
11/17/2008	P		20.41	0.00	147.60	13,000	120	<20	590	320	120	--	6.47	w
2/25/2009	--		13.40	0.02	154.63	--	--	--	--	--	--	--	--	b
4/8/2009	--		16.45	0.00	151.56	--	--	--	--	--	--	--	--	
5/28/2009	--		17.88	0.01	150.14	--	--	--	--	--	--	--	--	b
6/16/2009	--		19.30	0.01	148.72	--	--	--	--	--	--	--	--	
8/6/2009	--		20.72	0.01	147.30	--	--	--	--	--	--	--	--	b, j
3/4/2010	P		12.33	Sheen	155.68	8,000	20	<2.5	230	140	110	1.24	6.77	
9/2/2010	NP		20.14	0.00	147.87	4,700	18	<2.5	78	46	<2.5	0.66	7.31	
3/15/2011	P		13.03	0.00	154.98	7,000	3.7	<2.5	44	31	6.7	0.79	7.0	
8/17/2011	P		18.60	0.00	149.41	2,800	7.5	<2.5	12	10	8.8	0.43	7.14	
2/6/2012	P		16.81	0.00	151.20	1,300	3.1	<2.5	5.2	5.1	2.9	0.61	7.03	

Symbols & Abbreviations:

-- = Not analyzed/applicable/measured/available

< = Not detected at or above specified laboratory reporting limit

DO = Dissolved oxygen

DTW = Depth to water in ft bgs

ft bgs = Feet below ground surface

ft MSL = Feet above mean sea level

GRO = Gasoline range organics

GWE = Groundwater elevation measured in ft MSL

mg/L = Milligrams per liter

MTBE = Methyl tert-butyl ether

NP = Well not purged prior to sampling

P = Well purged prior to sampling

TOC = Top of casing measured in ft MSL

TPH-g = Total petroleum hydrocarbons as gasoline

µg/L = Micrograms per liter

SEQ/SEQM= Sequoia Analytical/Sequoia Analytical Morgan Hill (Laboratories)

SPH = Separate phase hydrocarbons

CEL = Calscience Environmental Laboratories

Footnotes:

a = Casing elevations surveyed to the nearest 0.01 ft MSL

b = GWE adjusted assuming a specific gravity of 0.75 for free product (FP)

c = Blind duplicate.

d = A copy of the documentation for this data is included in Appendix C of Alisto report 10-024-10-001

e = Well inaccessible

f = Travel blank

g = EPA Methods 8020/8260 used

h = Unable to sample

i = A copy of the documentation for this data can be found in Blaine Tech Services report 010607-M-3. MTBE data for the January 13, 1993 and April 23, 1993 sampling events has been destroyed. No chromatograms could be located for MTBE data from wells MW-5, MW-6, and MW-7, sampled on October 21, 1993

j = Well not sampled due to presence of SPH and nature of the product

k = Could not purge and sample; waste drum full

l = Value represents the depth to product. Unable to determine depth to water, product disabled the interface probe.

m = Discrete p[ak @ C6-7

n = TPH-g, BTEX, and MTBE analyzed by EPA method 8260 B beginning on 1st quarter 2003 aampling event (1/29/03)

o = Groundwater samples are not collected during FP bailing event

p = Well not included in the monthly FP bailing program

q = Well not sampled in November 2003 due to the presence of a pile of gravel dumped over the well box

r = This sample was analyzed beyond the EPA recommended holding time. The results may still be useful for their intended purpose

s = MW-7 TOC elevation raised +0.47 ft during well repair on January 20, 2004

t = Sheen in well

u = Calib. verif. is within method limits but outside contract limits

v = GRO result partly due to individual peak(s) in quantitation range

w = DO meter not working at time of measurement

x = DO measurement suspect

y = Sample dilution was done with headspace in the sample vial. The samples were originally analyzed from VOAs without headspace

Notes:

Beginning in the fourth quarter 2003, the laboratory modified the reported analyte list. TPH-g was changed to GRO. The resulting data may be impacted by the potential of non-TPH-g analytes within the requested fuel range resulting in a higher concentration being reported

Beginning in the second quarter 2004, the carbon range for GRO was changed from C6-C10 to C4-C12

Values for DO and pH were obtained through field measurements

GRO analysis was completed by EPA method 8260B (C4-C12) for samples collected from the time period April 2006 through February 4, 2008. The analysis for GRO was changed to EPA method 8015B (C6-C12) for samples collected from the time period February 5, 2008 through the present

The data within this table collected prior to April 2006 was provided to Broadbent & Associates, Inc. by Atlantic Richfield Company and their previous consultants. Broadbent & Associates, Inc. has not verified the accuracy of this information

Table 2. Summary of Fuel Additives Analytical Data
Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-1									
4/30/1997	--	--	6,900	--	--	--	--	--	
4/30/1997	--	--	7,700	--	--	--	--	--	
8/21/1997	--	--	5,200	--	--	--	--	--	
8/21/1997	--	--	5,700	--	--	--	--	--	
11/5/1997	--	--	8,000	--	--	--	--	--	
11/5/1997	--	--	8,200	--	--	--	--	--	
2/4/1998	--	--	<10000	--	--	--	--	--	
2/4/1998	--	--	<10000	--	--	--	--	--	
5/28/1998	--	--	2,900	--	--	--	--	--	
12/30/1998	--	--	3,600	--	--	--	--	--	
2/2/1999	--	--	3,500	--	--	--	--	--	
5/10/1999	--	--	3,000	--	--	--	--	--	
8/24/1999	--	--	<50	--	--	--	--	--	
11/3/1999	--	--	8,900	--	--	--	--	--	
4/21/2000	--	--	1,300	--	--	--	--	--	
7/31/2000	--	--	2,700	--	--	--	--	--	
11/20/2000	--	--	3,900	--	--	--	--	--	
2/26/2001	--	--	1,890	--	--	--	--	--	
6/7/2001	--	--	2,720	--	--	--	--	--	
12/6/2001	--	--	5,400	--	--	--	--	--	
2/20/2002	--	--	106	--	--	--	--	--	
5/19/2006	<6,000	<400	86	<10	<10	<10	<10	<10	
11/17/2008	<6,000	350	590	<10	<10	27	<10	<10	
3/4/2010	<2,000	<80	<10	<10	<10	<10	<10	<10	
9/2/2010	<1,000	<40	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
3/15/2011	<2500	<40	16	<5.0	<5.0	<5.0	<5.0	<5.0	
8/17/2011	<500	<8.0	8.3	<1.0	<1.0	<1.0	<1.0	<1.0	
2/6/2012	<500	100	10	<1.0	<1.0	<1.0	<1.0	<1.0	
MW-2									
4/20/1994	--	--	24	--	--	--	--	--	
4/30/1997	--	--	<5000	--	--	--	--	--	

Table 2. Summary of Fuel Additives Analytical Data
Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-2 Cont.									
8/21/1997	--	--	<500	--	--	--	--	--	
11/5/1997	--	--	<2500	--	--	--	--	--	
2/3/1998	--	--	<2500	--	--	--	--	--	
5/28/1998	--	--	900	--	--	--	--	--	
12/30/1998	--	--	<250	--	--	--	--	--	
2/2/1999	--	--	<500	--	--	--	--	--	
5/10/1999	--	--	75	--	--	--	--	--	
8/24/1999	--	--	<250	--	--	--	--	--	
11/3/1999	--	--	2,200	--	--	--	--	--	
3/1/2000	--	--	44	--	--	--	--	--	
4/21/2000	--	--	260	--	--	--	--	--	
7/31/2000	--	--	490	--	--	--	--	--	
11/20/2000	--	--	2,800	--	--	--	--	--	
2/18/2001	--	--	1,010	--	--	--	--	--	
6/7/2001	--	--	567	--	--	--	--	--	
9/5/2001	--	--	1,510	--	--	--	--	--	
11/30/2001	--	--	794	--	--	--	--	--	
2/20/2002	--	--	160	--	--	--	--	--	
6/20/2002	--	--	659	--	--	--	--	--	
9/11/2002	--	--	<5000	--	--	--	--	--	
11/12/2002	--	--	1,900	--	--	--	--	--	
1/29/2003	<4000	<2000	820	<50	<50	<50	<50	<50	
5/22/2003	<10000	<2000	1,000	<50	<50	<50	--	--	
7/28/2003	<20000	<4000	1,700	<100	<100	<100	<100	<100	a
11/18/2003	<5,000	<1,000	500	<25	<25	<25	--	--	
02/23/2004	<25,000	<5,000	790	<120	<120	<120	<120	<120	
05/04/2004	<50,000	<10,000	780	<250	<250	<250	<250	<250	
08/04/2004	<50,000	<10,000	430	<250	<250	<250	<250	<250	
11/10/2004	<5,000	<1,000	310	<25	<25	<25	<25	<25	
02/15/2005	<20,000	<4,000	690	<100	<100	<100	<100	<100	
05/16/2005	<50,000	<10,000	560	<250	<250	<250	<250	<250	
08/17/2005	<20,000	<4,000	480	<100	<100	<100	<100	<100	

Table 2. Summary of Fuel Additives Analytical Data
Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-2 Cont.									
11/18/2005	<20,000	<4,000	340	<100	<100	<100	<100	<100	b
02/07/2006	<60,000	<4,000	440	<100	<100	<100	160	<100	
5/19/2006	<60,000	<4,000	430	<100	<100	<100	<100	<100	b
8/23/2006	<60,000	<4,000	480	<100	<100	<100	<100	<100	
11/15/2006	<60,000	<4,000	400	<100	<100	<100	<100	<100	
2/14/2007	<60,000	<4,000	810	<100	<100	<100	<100	<100	
5/22/2007	<150,000	<10,000	1,000	<250	<250	<250	<250	<250	
8/15/2007	<30,000	2,400	260	<50	<50	<50	<50	<50	b
11/8/2007	<30,000	2,800	240	<50	<50	<50	<50	<50	
11/17/2008	<6,000	1,800	320	<10	<10	<10	<10	<10	
2/25/2009	<150,000	<5,000	<250	<250	<250	<250	<250	<250	
5/28/2009	<75,000	<2,500	510	<120	<120	<120	<120	<120	
3/4/2010	<1,000	2,600	350	<5.0	<5.0	12	<5.0	<5.0	
9/2/2010	<2,000	<80	470	<10	<10	14	<10	<10	
3/15/2011	<50,000	<800	500	<100	<100	<100	<100	<100	
8/17/2011	<50,000	<800	150	<100	<100	<100	<100	<100	
2/6/2012	<50,000	<800	360	<100	<100	<100	<100	<100	
MW-3									
7/12/1993	--	--	<5.0	--	--	--	--	--	
10/21/1993	--	--	<5.0	--	--	--	--	--	
1/21/1994	--	--	<5.0	--	--	--	--	--	
4/20/1994	--	--	28.7	--	--	--	--	--	
8/1/1994	--	--	5.43	--	--	--	--	--	
8/1/1994	--	--	<5.0	--	--	--	--	--	
12/23/1994	--	--	9.8	--	--	--	--	--	
8/22/1995	--	--	<5.0	--	--	--	--	--	
10/30/1995	--	--	<5.0	--	--	--	--	--	
1/25/1996	--	--	5.1	--	--	--	--	--	
4/19/1996	--	--	<10	--	--	--	--	--	
7/23/1996	--	--	<10	--	--	--	--	--	
11/11/1996	--	--	<50	--	--	--	--	--	

Table 2. Summary of Fuel Additives Analytical Data
Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-3 Cont.									
1/21/1997	--	--	<10	--	--	--	--	--	
4/29/1997	--	--	<10	--	--	--	--	--	
8/21/1997	--	--	<10	--	--	--	--	--	
11/5/1997	--	--	<50	--	--	--	--	--	
2/3/1998	--	--	<10	--	--	--	--	--	
5/28/1998	--	--	<50	--	--	--	--	--	
2/2/1999	--	--	<5.0	--	--	--	--	--	
3/1/2000	--	--	<0.5	--	--	--	--	--	
2/18/2001	--	--	1	--	--	--	--	--	
2/20/2002	--	--	<0.5	--	--	--	--	--	
1/27/2003	<40	<20	0.76	<50	<50	<50	<50	<50	
02/23/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
02/15/2005	<100	<20	1.7	<0.50	<0.50	<0.50	<0.50	<0.50	
02/07/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/14/2007	<300	<20	3.8	<0.50	<0.50	<0.50	<0.50	<0.50	u
2/20/2008	<100	<10	2.3	<0.50	<0.50	<0.50	<0.50	<0.50	
2/25/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
3/4/2010	<100	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
3/15/2011	<250	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-4									
7/12/1993	--	--	<5.0	--	--	--	--	--	
10/21/1993	--	--	<5.0	--	--	--	--	--	
1/21/1994	--	--	<5.0	--	--	--	--	--	
4/20/1994	--	--	<5.0	--	--	--	--	--	
8/1/1994	--	--	<5.0	--	--	--	--	--	
8/22/1995	--	--	<5.0	--	--	--	--	--	
1/25/1996	--	--	58	--	--	--	--	--	
11/11/1996	--	--	34	--	--	--	--	--	
4/29/1997	--	--	<10	--	--	--	--	--	
11/5/1997	--	--	76	--	--	--	--	--	
5/28/1998	--	--	160	--	--	--	--	--	

Table 2. Summary of Fuel Additives Analytical Data
Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-4 Cont.									
2/2/1999	--	--	130	--	--	--	--	--	
3/1/2000	--	--	110	--	--	--	--	--	
2/18/2001	--	--	97.3	--	--	--	--	--	
2/20/2002	--	--	81	--	--	--	--	--	
1/29/2003	<40	<20	66	<0.50	<0.50	<0.50	<0.50	<0.50	
02/23/2004	<100	<20	65	<0.50	<0.50	<0.50	<0.50	<0.50	
02/15/2005	<100	<20	62	<0.50	<0.50	<0.50	<0.50	<0.50	
02/07/2006	<300	<20	29	<0.50	<0.50	<0.50	<0.50	<0.50	
2/14/2007	<300	<20	61	<0.50	<0.50	<0.50	<0.50	<0.50	
2/20/2008	<100	<10	36	<0.50	<0.50	<0.50	<0.50	<0.50	
2/25/2009	<300	<10	26	<0.50	<0.50	<0.50	<0.50	<0.50	
3/4/2010	<100	4.4	34	<0.50	<0.50	<0.50	<0.50	<0.50	
3/15/2011	<250	4.1	26	<0.50	<0.50	<0.50	<0.50	<0.50	
2/6/2012	<250	<4.0	32	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-5									
7/12/1993	--	--	<5.0	--	--	--	--	--	
1/21/1994	--	--	<5.0	--	--	--	--	--	
4/20/1994	--	--	21.2	--	--	--	--	--	
8/1/1994	--	--	<5.0	--	--	--	--	--	
12/23/1994	--	--	7.81	--	--	--	--	--	
8/22/1995	--	--	<130	--	--	--	--	--	
10/30/1995	--	--	<250	--	--	--	--	--	
1/25/1996	--	--	<5.0	--	--	--	--	--	
1/25/1996	--	--	<5.0	--	--	--	--	--	
4/19/1996	--	--	<50	--	--	--	--	--	
7/23/1996	--	--	<10	--	--	--	--	--	
11/11/1996	--	--	<10	--	--	--	--	--	
1/21/1997	--	--	<50	--	--	--	--	--	
4/29/1997	--	--	<50	--	--	--	--	--	
8/21/1997	--	--	<10	--	--	--	--	--	
11/5/1997	--	--	<10	--	--	--	--	--	

Table 2. Summary of Fuel Additives Analytical Data
Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-5 Cont.									
2/3/1998	--	--	<10	--	--	--	--	--	
5/28/1998	--	--	<10	--	--	--	--	--	
2/2/1999	--	--	9.1	--	--	--	--	--	
3/1/2000	--	--	2.9	--	--	--	--	--	
2/18/2001	--	--	5.67	--	--	--	--	--	
2/20/2002	--	--	55.6	--	--	--	--	--	
11/12/2002	--	--	210	--	--	--	--	--	
1/29/2003	<400	<200	82	<5.0	<5.0	<5.0	<5.0	<5.0	
5/22/2003	<10000	<2000	<50	<50	<50	<50	--	--	
7/28/2003	<2000	<400	120	<10	<10	<10	<10	<10	
11/18/2003	--	--	--	--	--	--	--	--	Well inaccessible
02/23/2004	<5,000	<1,000	100	<25	<25	<25	38	<25	
05/04/2004	<5,000	<1,000	42	<25	<25	<25	<25	<25	
08/04/2004	<5,000	<1,000	390	<25	<25	<25	<25	<25	
11/10/2004	<1,000	<200	530	<5.0	<5.0	5.5	<5.0	<5.0	
02/15/2005	<1,000	<200	260	<5.0	<5.0	<5.0	<5.0	<5.0	
05/16/2005	<1,000	<200	370	<5.0	<5.0	<5.0	<5.0	<5.0	
08/17/2005	<1,000	<200	51	<5.0	<5.0	<5.0	<5.0	<5.0	
11/18/2005	<1,000	<200	340	<5.0	<5.0	<5.0	<5.0	<5.0	b
02/07/2006	<3,000	<200	200	<5.0	<5.0	<5.0	<5.0	<5.0	
5/19/2006	<3,000	<200	44	<5.0	<5.0	<5.0	<5.0	<5.0	b
8/23/2006	<3,000	<200	230	<5.0	<5.0	<5.0	<5.0	<5.0	
11/15/2006	<1,500	<100	490	<2.5	<2.5	4.2	<2.5	<2.5	
2/14/2007	<1,500	<100	420	<2.5	<2.5	3.6	<2.5	<2.5	
5/22/2007	<1,500	<100	26	<2.5	<2.5	<2.5	<2.5	<2.5	
8/15/2007	<6,000	<400	280	<10	<10	<10	<10	<10	
11/8/2007	<1,500	310	270	<2.5	<2.5	<2.5	<2.5	<2.5	
2/20/2008	<1,000	<100	43	<5.0	<5.0	<5.0	<5.0	<5.0	
5/7/2008	<6,000	<200	30	<10	<10	<10	<10	<10	
8/20/2008	<1,200	270	260	<2.0	<2.0	3.0	<2.0	<2.0	
2/25/2009	<300	110	68	<0.50	<0.50	0.62	<0.50	<0.50	
5/28/2009	<600	<20	11	<1.0	<1.0	<1.0	<1.0	<1.0	

Table 2. Summary of Fuel Additives Analytical Data
Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-5 Cont.									
8/6/2009	<3,000	340	190	<5.0	<5.0	<5.0	<5.0	<5.0	
3/4/2010	<100	38	15	<0.50	<0.50	<0.50	<0.50	<0.50	
9/2/2010	<100	<4.0	13	<0.50	<0.50	<0.50	<0.50	<0.50	
3/15/2011	<250	<4.0	5.9	<0.50	<0.50	<0.50	<0.50	<0.50	
8/17/2011	<2,500	<40	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
2/6/2012	<2,500	<40	9.8	<5.0	<5.0	<5.0	<5.0	<5.0	
MW-6									
7/12/1993	--	--	<5.0	--	--	--	--	--	
1/21/1994	--	--	<5.0	--	--	--	--	--	
4/20/1994	--	--	17.4	--	--	--	--	--	
8/1/1994	--	--	8.66	--	--	--	--	--	
8/22/1995	--	--	<5.0	--	--	--	--	--	
1/25/1996	--	--	9.9	--	--	--	--	--	
11/11/1996	--	--	<10	--	--	--	--	--	
4/29/1997	--	--	<10	--	--	--	--	--	
11/5/1997	--	--	85	--	--	--	--	--	
5/28/1998	--	--	<10	--	--	--	--	--	
05/16/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
02/07/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/14/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/20/2008	<100	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/25/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
3/4/2010	<100	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
3/15/2011	<250	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-7									
7/12/1993	--	--	<5.0	--	--	--	--	--	
1/21/1994	--	--	<5.0	--	--	--	--	--	
4/20/1994	--	--	<5.0	--	--	--	--	--	
8/1/1994	--	--	<5.0	--	--	--	--	--	
8/22/1995	--	--	<5.0	--	--	--	--	--	

Table 2. Summary of Fuel Additives Analytical Data
Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-7 Cont.									
1/25/1996	--	--	<5.0	--	--	--	--	--	
11/11/1996	--	--	<10	--	--	--	--	--	
4/29/1997	--	--	<10	--	--	--	--	--	
11/5/1997	--	--	<10	--	--	--	--	--	
5/28/1998	--	--	<10	--	--	--	--	--	
02/07/2006	<3,000	<200	270	<5.0	<5.0	<5.0	<5.0	<5.0	
2/14/2007	<3,000	<200	740	<5.0	<5.0	9.6	<5.0	<5.0	
2/20/2008	<100	13	700	<0.50	<0.50	12	0.60	<0.50	
2/25/2009	<12,000	<400	540	<20	<20	<20	<20	<20	
3/4/2010	<100	4.0	920	<0.50	<0.50	17	0.74	<0.50	
3/15/2011	<250	130	990	<0.50	<0.50	17	0.81	<0.50	
2/6/2012	<250	<4.0	22	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-8									
4/20/1994	--	--	632	--	--	--	--	--	
8/21/1997	--	--	<1000	--	--	--	--	--	
11/5/1997	--	--	<1000	--	--	--	--	--	
2/4/1998	--	--	<2500	--	--	--	--	--	
12/30/1998	--	--	150	--	--	--	--	--	
2/2/1999	--	--	<500	--	--	--	--	--	
5/10/1999	--	--	<25	--	--	--	--	--	
8/24/1999	--	--	150	--	--	--	--	--	
11/3/1999	--	--	750	--	--	--	--	--	
3/1/2000	--	--	120	--	--	--	--	--	
11/20/2000	--	--	5,700	--	--	--	--	--	
2/20/2002	--	--	80.4	--	--	--	--	--	
6/20/2002	--	--	2,520	--	--	--	--	--	
9/11/2002	--	--	1,200	--	--	--	--	--	
11/12/2002	--	--	31	--	--	--	--	--	
1/29/2003	<4000	<2000	<500	<50	<50	<50	<50	<50	
5/22/2003	<5000	<1000	--	<25	<25	<25	--	--	
6/24/2003	--	--	46	--	--	--	--	--	

Table 2. Summary of Fuel Additives Analytical Data
Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-8 Cont.									
7/28/2003	<20000	<4000	2,100	<100	<100	<100	<100	<100	
11/18/2003	<2,000	<400	1,700	<10	<10	20	--	--	a,b
02/23/2004	<10,000	<2,000	110	<50	<50	<50	<50	<50	
05/04/2004	<5,000	<1,000	2,000	<25	<25	33	<25	<25	
11/10/2004	<5,000	<1,000	74	<25	<25	<25	<25	<25	
02/15/2005	<10,000	<2,000	<50	<50	<50	<50	<50	<50	
05/16/2005	<10,000	<2,000	<50	<50	<50	<50	<50	<50	
08/17/2005	<10,000	<2,000	<50	<50	<50	<50	<50	<50	
11/18/2005	<10,000	<2,000	140	<50	<50	<50	<50	<50	b
02/07/2006	<3,000	<200	7.5	<5.0	<5.0	<5.0	<5.0	<5.0	
5/19/2006	<15,000	<1,000	<25	<25	<25	<25	<25	<25	b
8/23/2006	<15,000	<1,000	82	<25	<25	<25	<25	<25	
11/15/2006	<15,000	<1,000	110	<25	<25	<25	<25	<25	
2/14/2007	<15,000	<1,000	82	<25	<25	<25	<25	<25	
5/22/2007	<6,000	<400	11	<10	<10	<10	<10	<10	
8/15/2007	<6,000	<400	28	<10	<10	<10	<10	<10	
11/8/2007	<15,000	<1,000	27	<25	<25	<25	<25	<25	
2/25/2009	<6,000	<200	35	<10	<10	<10	<10	<10	
5/28/2009	<1,500	<50	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	
3/4/2010	<1,000	<40	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
9/2/2010	<1,000	<40	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
3/15/2011	<1,200	<20	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	
8/17/2011	<2,500	<40	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
2/6/2012	2,900	<40	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
MW-9									
7/12/1993	--	--	20.8	--	--	--	--	--	
4/20/1994	--	--	740	--	--	--	--	--	
4/20/1994	--	--	768	--	--	--	--	--	
4/30/1997	--	--	<5000	--	--	--	--	--	
8/21/1997	--	--	<500	--	--	--	--	--	
11/5/1997	--	--	<500	--	--	--	--	--	

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Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-9 Cont.									
2/3/1998	--	--	<1000	--	--	--	--	--	
5/28/1998	--	--	<500	--	--	--	--	--	
5/28/1998	--	--	<250	--	--	--	--	--	
12/30/1998	--	--	180	--	--	--	--	--	
2/2/1999	--	--	<50	--	--	--	--	--	
5/10/1999	--	--	72	--	--	--	--	--	
8/24/1999	--	--	<250	--	--	--	--	--	
11/3/1999	--	--	<5.0	--	--	--	--	--	
3/1/2000	--	--	63	--	--	--	--	--	
4/21/2000	--	--	<5.0	--	--	--	--	--	
7/31/2000	--	--	1,600	--	--	--	--	--	
11/20/2000	--	--	3,900	--	--	--	--	--	
2/18/2001	--	--	121	--	--	--	--	--	
6/7/2001	--	--	223	--	--	--	--	--	
9/5/2001	--	--	310	--	--	--	--	--	
11/30/2001	--	--	285	--	--	--	--	--	
2/20/2002	--	--	293	--	--	--	--	--	
6/20/2002	--	--	208	--	--	--	--	--	
9/11/2002	--	--	<2500	--	--	--	--	--	
11/12/2002	--	--	21	--	--	--	--	--	
5/22/2003	<10000	<2000	<50	<50	<50	<50	--	--	
7/28/2003	<100000	<20000	<500	<500	<500	<500	<500	<500	
11/18/2003	<2,000	<400	45	<10	<10	<10	--	--	a,b
02/23/2004	<50,000	<10,000	<250	<250	<250	<250	<250	<250	
05/04/2004	<5,000	<1,000	<25	<25	<25	<25	<25	<25	
11/10/2004	<10,000	<2,000	<50	<50	<50	<50	<50	<50	
02/15/2005	<10,000	<2,000	<50	<50	<50	<50	<50	<50	
05/16/2005	<2,000	<400	<10	<10	<10	<10	<10	<10	
08/17/2005	<2,500	<500	<12	<12	<12	<12	<12	<12	
11/18/2005	<1,000	<200	19	<5.0	<5.0	<5.0	<5.0	<5.0	b
02/07/2006	<3,000	<200	<5.0	<5.0	<5.0	5.4	<5.0	<5.0	
8/23/2006	<30,000	<2,000	<50	<50	<50	<50	<50	<50	

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Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-9 Cont.									
11/15/2006	<15,000	<1,000	26	<25	<25	<25	<25	<25	
2/14/2007	<15,000	<1,000	<25	<25	<25	<25	<25	<25	
5/22/2007	<15,000	<1,000	<25	<25	<25	<25	<25	<25	
8/15/2007	<1,500	<100	27	<2.5	<2.5	<2.5	<2.5	<2.5	b
11/8/2007	<3,000	<200	52	<5.0	<5.0	<5.0	<5.0	<5.0	
11/17/2008	<1,500	<50	33	<2.5	<2.5	<2.5	<2.5	<2.5	
2/25/2009	<6,000	<200	<10	<10	<10	<10	<10	<10	
5/28/2009	<6,000	<200	<10	<10	<10	<10	<10	<10	
8/6/2009	<1,200	<40	18	<2.0	<2.0	<2.0	<2.0	<2.0	
3/4/2010	<500	<20	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	
9/2/2010	<500	<20	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	
3/15/2011	<1,200	<20	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	
8/17/2011	<1,300	<20	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	
2/6/2012	<1,300	<20	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	
MW-10									
4/20/1994	--	--	1,577	--	--	--	--	--	
4/30/1997	--	--	<5000	--	--	--	--	--	
8/21/1997	--	--	<5000	--	--	--	--	--	
11/5/1997	--	--	<500	--	--	--	--	--	
2/4/1998	--	--	<1000	--	--	--	--	--	
5/28/1998	--	--	<1000	--	--	--	--	--	
12/30/1998	--	--	<50	--	--	--	--	--	
2/2/1999	--	--	860	--	--	--	--	--	
5/10/1999	--	--	220	--	--	--	--	--	
8/24/1999	--	--	<250	--	--	--	--	--	
11/3/1999	--	--	31	--	--	--	--	--	
3/1/2000	--	--	4,400	--	--	--	--	--	
4/21/2000	--	--	2,400	--	--	--	--	--	
11/20/2000	--	--	450	--	--	--	--	--	
2/18/2001	--	--	4,180	--	--	--	--	--	
6/7/2001	--	--	635	--	--	--	--	--	

Table 2. Summary of Fuel Additives Analytical Data
Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-10 Cont.									
9/5/2001	--	--	189	--	--	--	--	--	
11/30/2001	--	--	325	--	--	--	--	--	
2/20/2002	--	--	1,090	--	--	--	--	--	
6/20/2002	--	--	224	--	--	--	--	--	
9/11/2002	--	--	<250	--	--	--	--	--	
5/22/2003	<10000	<2000	300	<50	<50	<50	--	--	
11/18/2003	<10,000	<2,000	<50	<50	<50	<50	--	--	b
02/23/2004	<20,000	<4,000	180	<100	<100	<100	<100	<100	
05/04/2004	<5,000	<1,000	<25	<25	<25	<25	<25	<25	
11/10/2004	<5,000	<1,000	230	<25	<25	<25	<25	<25	b
02/15/2005	<10,000	<2,000	77	<50	<50	<50	<50	<50	
05/16/2005	<10,000	<2,000	<50	<50	<50	<50	<50	<50	
08/17/2005	<10,000	<2,000	<50	<50	<50	<50	<50	<50	
11/18/2005	<2,500	<500	16	<12	<12	<12	<12	<12	b
02/07/2006	<15,000	<1,000	73	<25	<25	<25	<25	<25	
5/19/2006	<15,000	<1,000	<25	<25	<25	<25	<25	<25	b
8/23/2006	<6,000	<400	<10	<10	<10	<10	<10	<10	
11/15/2006	<6,000	<400	54	<10	<10	<10	<10	<10	
2/14/2007	<6,000	<400	120	<10	<10	<10	<10	<25	
5/22/2007	<6,000	<400	15	<10	<10	<10	<10	<10	
8/15/2007	<6,000	<400	<10	<10	<10	<10	<10	<10	
11/8/2007	<3,000	<200	6.0	<5.0	<5.0	<5.0	<5.0	<5.0	
5/7/2008	<12,000	<400	<20	<20	<20	<20	<20	<20	
11/17/2008	<12,000	<400	23	<20	<20	<20	<20	<20	
2/25/2009	<6,000	280	170	<10	<10	<10	<10	<10	
5/28/2009	<1,500	110	65	<2.5	<2.5	<2.5	<2.5	<2.5	
8/6/2009	<15,000	<500	<25	<25	<25	<25	<25	<25	
3/4/2010	<500	160	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	
8/17/2011	<2,500	<40	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
2/6/2012	<2,500	<40	<5.0	<5.0	<4.0	<5.0	<5.0	<5.0	
QC-2									

Table 2. Summary of Fuel Additives Analytical Data
Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
QC-2 Cont.									
8/22/1995	--	--	<5.0	--	--	--	--	--	
10/30/1995	--	--	<5.0	--	--	--	--	--	
1/25/1996	--	--	<5.0	--	--	--	--	--	
4/19/1996	--	--	<10	--	--	--	--	--	
RW-1									
8/1/1994	--	--	1,200	--	--	--	--	--	
12/23/1994	--	--	616	--	--	--	--	--	
8/22/1995	--	--	<25	--	--	--	--	--	
8/22/1995	--	--	<25	--	--	--	--	--	
10/30/1995	--	--	630	--	--	--	--	--	
10/30/1995	--	--	650	--	--	--	--	--	
1/25/1996	--	--	5,300	--	--	--	--	--	
4/19/1996	--	--	14,000	--	--	--	--	--	
4/19/1996	--	--	15,000	--	--	--	--	--	
7/23/1996	--	--	35,000	--	--	--	--	--	
7/23/1996	--	--	36,000	--	--	--	--	--	
11/11/1996	--	--	22,000	--	--	--	--	--	
11/11/1996	--	--	22,000	--	--	--	--	--	
1/21/1997	--	--	1,500	--	--	--	--	--	
1/21/1997	--	--	1,500	--	--	--	--	--	
4/29/1997	--	--	46,000	--	--	--	--	--	
8/21/1997	--	--	9,500	--	--	--	--	--	
11/5/1997	--	--	56,000	--	--	--	--	--	
2/3/1998	--	--	3,200	--	--	--	--	--	
5/28/1998	--	--	2,700	--	--	--	--	--	
2/2/1999	--	--	51000/78000	--	--	--	--	--	
5/10/1999	--	--	61,000	--	--	--	--	--	
8/24/1999	--	--	37,000	--	--	--	--	--	
11/3/1999	--	--	54,000	--	--	--	--	--	
3/1/2000	--	--	13,000	--	--	--	--	--	
4/21/2000	--	--	39,000	--	--	--	--	--	

Table 2. Summary of Fuel Additives Analytical Data
Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
RW-1 Cont.									
7/31/2000	--	--	30,000	--	--	--	--	--	
2/18/2001	--	--	13,000	--	--	--	--	--	
6/7/2001	--	--	19,100	--	--	--	--	--	
11/30/2001	--	--	8,260	--	--	--	--	--	
2/20/2002	--	--	7,240	--	--	--	--	--	
11/18/2003	<10,000	11,000	6,100	<50	<50	160	--	--	a,b
11/17/2008	<12,000	<400	120	<20	<20	<20	<20	<20	
3/4/2010	<500	45	110	<2.5	<2.5	5.7	<2.5	<2.5	
9/2/2010	<500	<20	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	
3/15/2011	<1,200	<20	6.7	<2.5	<2.5	<2.5	<2.5	<2.5	
8/17/2011	<1,300	<20	8.8	<2.5	<2.5	<2.5	<2.5	<2.5	
2/6/2012	<1,300	<20	2.9	<2.5	<2.5	<2.5	<2.5	<2.5	

Symbols & Abbreviations:

-- = Not analyzed/applicable/measured/available

< = Not detected at or above specified laboratory reporting limit

1,2-DCA = 1,2-Dichloroethane

DIPE = Diisopropyl ether

EDB = 1,2-Dibromoethane

ETBE = Ethyl tert-butyl ether

MTBE = Methyl tert-butyl ether

TAME = tert-Amyl methyl ether

TBA = tert-Butyl alcohol

µg/L = Micrograms per Liter

Footnotes:

a = The result for TBA was reported with a possible high bias due to the continuing calibration verification falling outside acceptance criteria

b = The continuing calibration verification for ethanol was outside of client contractual acceptance limits. However, it was within method acceptance limits. The data should still be useful for its intended purpose

Notes:

All volatile organic compounds analyzed using EPA Method 8260B

The data within this table collected prior to April 2006 was provided to Broadbent & Associates, Inc. by Atlantic Richfield Company and their previous consultants. Broadbent & Associates, Inc. has not verified the accuracy of this information

Table 3. Historical Groundwater Gradient - Direction and Magnitude**Former BP Station #11132, 3201 35th Ave, Oakland, CA**

Date Measured	Approximate Gradient Direction	Approximate Gradient Magnitude (ft/ft)
5/19/2006	South	0.003 to 0.005
8/23/2006	Southwest	0.01
11/15/2006	South	0.004
2/14/2007	Southeast	0.01
5/22/2007	South	0.005
8/15/2007	South-Southwest	0.008
11/8/2007	Southwest	0.006
2/20/2008	Southeast	0.008
5/7/2008	South-Southwest	0.003
8/20/2008	South-Southwest	0.007
11/17/2008	South-Southwest	0.005
2/25/2009	Southeast	0.01
5/28/2009	South	0.004
8/6/2009	South-Southwest	0.005
3/4/2010	East-Southeast	0.02
9/2/2010	Southwest	0.01
3/15/2011	Southeast	0.01
8/17/2011	Southwest	0.003
2/6/2012	Southeast	0.005

Notes:

The data within this table collected prior to April 2006 was provided to Broadbent & Associates, Inc. by Atlantic Richfield Company and their previous consultants. Broadbent & Associates, Inc. has not verified the accuracy of this information

Table 4. Bio-Degradation Parameters
Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	Concentrations in mg/L										ORP (mV)	pH	Footnote
	Dissolved Oxygen	Nitrate (NO ₃)	Manganese	Ferrous Iron	Sulfate (SO ₄)	Dissolved Sulfide	Hydrogen Sulfide	Dissolved CO ₂	Methane	Total Alkalinity			
MW-1													
11/17/2008	--	<0.1	2.750	3.400	<1	<0.050	--	65	4.830	426	126	6.60	DO meter not working
3/4/2010	0.54	--	--	--	--	--	--	--	--	--	-106	6.96	
9/2/2010	0.52	--	--	--	--	--	--	--	--	--	186	7.01	
3/15/2011	0.85	--	--	--	--	--	--	--	--	--	-95	7.0	
8/17/2011	0.71	--	--	--	--	--	--	--	--	--	-71	7.39	
2/6/2012	0.78	--	--	--	--	--	--	--	--	--	33	7.34	
MW-2													
11/17/2008	--	<0.1	6.380	7.300	1.1	<0.050	--	98.5	5.350	838	111	6.46	DO meter not working
2/25/2009	2.11	<0.1	5.380	8.600	5.1	<0.050	--	294	3.480	846	-8	6.50	
5/28/2009	0.16	<0.1	5.340	2.400	8.7	<0.050	--	209	1.160	782	-75	6.59	BV (S ₂ -, FE); DO measurement suspect
3/4/2010	1.28	--	--	--	--	--	--	--	--	--	-92	6.80	
9/2/2010	0.70	--	--	--	--	--	--	--	--	--	230	6.90	
3/15/2011	0.69	--	--	--	--	--	--	--	--	--	-94	6.8	
8/17/2011	0.50	--	--	--	--	--	--	--	--	--	-53	7.07	
2/6/2012	0.91	--	--	--	--	--	--	--	--	--	-9	7.08	
MW-3													
2/25/2009	3.45	1.6	0.0185	<0.100	29	<0.050	--	17.4	<0.0010	146	78	7.09	
3/4/2010	3.16	--	--	--	--	--	--	--	--	--	-10	7.06	
3/15/2011	3.14	--	--	--	--	--	--	--	--	--	75	7.2	
MW-4													
2/25/2009	2.80	3.8	<0.0050	<0.100	42	<0.050	--	44.1	<0.0010	244	-23	6.83	
3/4/2010	0.63	--	--	--	--	--	--	--	--	--	74	6.80	
3/15/2011	1.05	--	--	--	--	--	--	--	--	--	28	6.9	
2/6/2012	1.06	--	--	--	--	--	--	--	--	--	189	7.28	
MW-5													
8/20/2008	5.57	0.11	6.310	<0.10	12	<0.050	--	1,660	0.0355	698	170	6.86	BV (S ₂ -, FE)
2/25/2009	4.38	0.22	2.930	<0.100	7.7	<0.050	--	17.6	0.00133	352	23	6.65	BV (S ₂ -, FE)
5/28/2009	0.04	<0.1	4.450	0.840	2.9	<0.050	--	145	0.128	898	-89	6.82	BV (S ₂ -, FE); DO measurement suspect

Table 4. Bio-Degradation Parameters
Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	Concentrations in mg/L										ORP (mV)	pH	Footnote
	Dissolved Oxygen	Nitrate (NO ₃)	Manganese	Ferrous Iron	Sulfate (SO ₄)	Dissolved Sulfide	Hydrogen Sulfide	Dissolved CO ₂	Methane	Total Alkalinity			
MW-5 Cont.													
8/6/2009	0.06	<0.1	5.820	<0.100	10	<0.050	--	139	0.00312	694	--	7.27	DO measurement suspect
3/4/2010	0.66	--	--	--	--	--	--	--	--	--	-69	6.87	
9/2/2010	0.75	--	--	--	--	--	--	--	--	--	190	6.75	
3/15/2011	0.85	--	--	--	--	--	--	--	--	--	-50	6.8	
8/17/2011	0.61	--	--	--	--	--	--	--	--	--	-29	7.11	
2/6/2012	1.31	--	--	--	--	--	--	--	--	--	35	7.21	
MW-6													
2/25/2009	2.39	2.2	0.0176	<0.100	55	<0.050	--	23.4	<0.0010	196	16	7.09	
3/4/2010	0.88	--	--	--	--	--	--	--	--	--	4	7.01	
3/15/2011	1.43	--	--	--	--	--	--	--	--	--	74	7.1	
MW-7													
2/25/2009	4.28	1.2	0.0167	<0.100	16	<0.050	--	36	<0.0010	280	90	6.87	BV (S ₂ -, FE)
3/4/2010	3.30	--	--	--	--	--	--	--	--	--	-36	7.02	
3/15/2011	4.05	--	--	--	--	--	--	--	--	--	8	7.0	
2/6/2012	1.58	--	--	--	--	--	--	--	--	--	178	7.44	
MW-8													
2/25/2009	2.18	0.1	4.140	3.000	4.7	<0.050	--	198	1.890	702	19	6.98	
5/28/2009	0.06	<0.1	3.040	1.500	2.2	<0.050	--	186	1.750	664	-41	6.78	BV (S ₂ -, FE); DO measurement suspect
3/4/2010	0.82	--	--	--	--	--	--	--	--	--	63	6.72	
9/2/2010	0.56	--	--	--	--	--	--	--	--	--	199	6.75	
3/15/2011	0.90	--	--	--	--	--	--	--	--	--	-56	6.6	
8/17/2011	0.61	--	--	--	--	--	--	--	--	--	-30	7.08	
2/6/2012	0.91	--	--	--	--	--	--	--	--	--	22	7.17	
MW-9													
11/17/2008	--	0.18	3.190	3.400	12	<0.050	--	19.5	1.290	480	139	6.64	DO meter not working
2/25/2009	2.27	<0.1	3.060	1.900	1.9	<0.050	--	156	1.960	554	-23	6.69	
5/28/2009	0.07	<0.1	2.730	0.900	3.8	<0.050	--	169	0.826	522	-73	6.83	BV (S ₂ -, FE); DO measurement suspect
8/6/2009	0.00	0.39	2.680	2.500	15	<0.050	--	--	0.573	478	--	7.26	DO measurement suspect

Table 4. Bio-Degradation Parameters
Former BP Station #11132, 3201 35th Ave, Oakland, CA

Well ID and Date Monitored	Concentrations in mg/L										ORP (mV)	pH	Footnote
	Dissolved Oxygen	Nitrate (NO ₃)	Manganese	Ferrous Iron	Sulfate (SO ₄)	Dissolved Sulfide	Hydrogen Sulfide	Dissolved CO ₂	Methane	Total Alkalinity			
MW-9 Cont.													
3/4/2010	0.62	--	--	--	--	--	--	--	--	--	-83	6.84	
9/2/2010	0.46	--	--	--	--	--	--	--	--	--	214	6.85	
3/15/2011	1.07	--	--	--	--	--	--	--	--	--	-69	6.8	
2/6/2012	1.43	--	--	--	--	--	--	--	--	--	113	7.21	
MW-10													
11/17/2008	--	<0.1	4.890	4.700	1.7	<0.050	--	283	1.720	686	160	6.54	DO meter not working
2/25/2009	4.06	0.29	4.530	3.700	13	<0.050	--	182	0.117	572	-33	6.68	BV (S ₂₋ , FE)
5/28/2009	0.03	<0.1	4.380	4.000	6.9	<0.050	--	657	0.618	634	-40	6.69	BV (S ₂₋ , FE); DO measurement suspect
8/6/2009	0.06	<0.1	4.770	0.130	1.7	<0.050	--	81.4	0.587	728	--	7.23	DO measurement suspect
3/4/2010	0.56	--	--	--	--	--	--	--	--	--	-115	6.81	
8/17/2011	0.44	--	--	--	--	--	--	--	--	--	-72	7.18	
2/6/2012	0.71	--	--	--	--	--	--	--	--	--	-19	7.21	
QC-2													
RW-1													
11/17/2008	--	<0.1	0.581	0.990	<1	<0.050	--	35.8	3.780	94	108	6.47	DO meter not working
3/4/2010	1.24	--	--	--	--	--	--	--	--	--	-116	6.77	
9/2/2010	0.66	--	--	--	--	--	--	--	--	--	131	7.31	
3/15/2011	0.79	--	--	--	--	--	--	--	--	--	-41	7.0	
8/17/2011	0.43	--	--	--	--	--	--	--	--	--	-80	7.14	
2/6/2012	0.61	--	--	--	--	--	--	--	--	--	101	7.03	

Symbols & Abbreviations:

< = Not detected at or above specified laboratory reporting limit

ORP = Oxygen reduction potential

DO = Dissolved oxygen

CO₂ = Carbon dioxide

S₂- = Soluble Sulfide

mV = Millivolts

µg/L = Micrograms per liter

mg/L = Milligrams per liter

BV = Sample received after holding time expired