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Fourth Quarter 2011 Monitoring Report
Former BP Station #11126
1700 Powell Street
Emeryville, California
ACEH Case #RO0000066

REMEDIATION

"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:
February 29, 2012

Submitted by:

ARCADIS U.S., Inc

Hollis E. Phillips, P.G.
Project Manager

Contact:
Hollis E. Phillips

Phone:
415.374.2744 ext 13

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Our ref:
GP09BPNA.C044

BROADBENT
875 Cotting Ln., Suite G, Vacaville, CA 95688
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February 29, 2012 Project No. 09-88-662

ARCADIS-US, Inc.
100 Montgomery Street, Ste. 300
San Francisco, CA 94104

Attn.: Ms. Hollis Phillips, PG – Senior Geologist

Re: Fourth Quarter 2011 Monitoring Report, Former BP Station #11126, 1700 Powell Street, Emeryville, Alameda County, California; ACEH Case #RO0000066.

Dear Ms. Phillips:

Attached is the Fourth Quarter 2011 Monitoring Report for Former BP Station #11126 located at 1700 Powell Street, Emeryville, California. Should you have questions regarding the work performed or results obtained, please do not hesitate to contact us at (707) 455-7290.

Sincerely,
BROADBENT & ASSOCIATES, INC.

Samuel W. Barkley
Senior Staff Geologist

Thomas A. Sparrowe, P.G. #5065 (exp. 12/31/12)
Senior Geologist

enclosures

cc: Mr. Paresh Khatri, Alameda County Environmental Health (submitted via ACEH ftp site)
Ms. Cherie McCaulou, San Francisco Regional Water Quality Control Board
Electronic copy uploaded to GeoTracker

FOURTH QUARTER 2011 MONITORING REPORT
FORMER BP STATION #11126,
1700 POWELL STREET, EMERYVILLE, CALIFORNIA

Broadbent & Associates, Inc. (Broadbent) is pleased to present this *Fourth Quarter 2011 Monitoring Report* on behalf of ARCADIS-US, Inc. and Atlantic Richfield Company (a BP affiliated company) for Former BP Station #11126 located in Emeryville, Alameda County, California. Monitoring activities at the site were performed in accordance with the reporting requirements issued by the Alameda County Environmental Health (ACEH). Details of work performed and discussion of results are provided below.

Facility Name / Address:	#11126 / 1700 Powell Street, Emeryville, CA
Client Project Manager / Title:	Hollis Phillips, PG / Senior Geologist
BAI Contact:	Sam Barkley & Tom Sparrowe, PG (707) 455-7290
BAI Project No.:	09-88-662
Primary Regulatory Agency / ID No.:	ACEH, Case # RO0000066
Current phase of project:	Groundwater monitoring/sampling
List of Acronyms / Abbreviations:	See end of report text for list of acronyms/abbreviations used in report.

WORK PERFORMED THIS QUARTER (Fourth Quarter 2011):

1. Fourth Quarter 2011 groundwater monitoring/sampling was postponed to First Quarter 2012 due to the acquisition of encroachment permit from the City of Emeryville for a lane closure.

WORK SCHEDULED FOR NEXT QUARTER (First Quarter 2012):

1. Conducted Fourth Quarter 2011 groundwater monitoring/sampling on January 30, 2012.
2. Submit *Fourth Quarter 2011 Monitoring Report* (contained herein).

GROUNDWATER MONITORING PLAN SUMMARY:

Groundwater level gauging:	MW-1 through MW-11	(Semi-Annually: 2Q & 4Q)
Groundwater sample collection:	MW-1 through MW-9	(Semi-Annually: 2Q & 4Q)
	MW-10 & MW-12	(Annually: 2Q)
Biodegradation indicator parameter monitoring:	DO, ORP, Temp., pH	

QUARTERLY RESULTS SUMMARY:

LNAPL

LNAPL observed this quarter:	No	(yes\no)
LNAPL recovered this quarter:	None	(gal)
Cumulative LNAPL recovered:	Unknown	(gal)

Groundwater Elevation and Gradient:

Depth to groundwater:	3.82 (MW-1) to 9.49 (MW-11)	(ft below TOC)
Gradient direction:	Southwest	(compass direction)
Gradient magnitude:	0.009	(ft/ft)
Average change in elevation:	-0.20	(ft since last measurement)

Laboratory Analytical Data

Summary: GRO were detected in six wells sampled at concentrations up to 13,000 µg/L in MW-2. DRO were detected in four wells sampled at concentrations up to 1,500 µg/L in MW-8. MTBE was detected in eight wells sampled at concentrations up to 1,700 µg/L in MW-2. Ethylbenzene was detected in three wells sampled at concentrations up to 640 µg/L in MW-2. Benzene, Toluene, Xylenes & TAME were detected in four wells sampled at concentrations in MW-8, 3,000 µg/L, 45 µg/L 370 µg/L & 60 µg/L in MW-2, respectively.

ACTIVITIES CONDUCTED & RESULTS:

Fourth Quarter 2011 groundwater monitoring was conducted on January 30, 2012 by Broadbent personnel in accordance with the monitoring plan summary detailed above. No irregularities were noted during water level gauging. Collected depth to water measurements ranged from 3.82 ft at MW-1 to 9.49 ft at MW-11. Resulting groundwater surface elevations ranged from 3.86 ft at MW-4 to 6.46 ft at MW-2 and MW-9. Groundwater elevations are summarized in Table 1. Water level elevations yielded a potentiometric groundwater gradient to the southwest at approximately 0.009 ft/ft. Historical groundwater gradient direction and magnitude data are summarized in Table 3. Field methods used during groundwater monitoring are provided in Appendix A. Field data sheets are included in Appendix B. A Site Location Map is presented as Drawing 1. Groundwater elevations are presented in Drawing 2.

Groundwater samples were collected on January 30, 2012 from wells MW-1 through MW-9 consistent with the current monitoring schedule. No irregularities were reported during sampling. Samples were submitted to TestAmerica Laboratories, Inc. (Pleasanton, California) for analysis of Diesel-Range Organics (DRO, C10-C28) by EPA Method 8015M; and for Gasoline-Range Organics (GRO, C6-C12), Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX), Methyl Tertiary Butyl Ether (MTBE), Ethyl Tertiary Butyl Ether (ETBE), Tert-Amyl Methyl Ether (TAME), Di-Isopropyl Ether (DIPE), 1,2-Dibromomethane (EDB), 1,2-Dichloroethane (1,2-DCA), and Tert-Butyl Alcohol (TBA) by EPA Method 8260B. No significant irregularities were encountered during analysis of the samples. The laboratory analytical report, including chain-of-custody documentation, is provided in Appendix C.

GRO were detected above the laboratory reporting limit in six wells sampled at concentrations up to 13,000 µg/L in well MW-2. DRO were detected above the laboratory reporting limit in four wells sampled at concentrations up to 1,500 µg/L in well MW-8. Benzene was detected above the laboratory reporting limit in four wells sampled at concentrations up to 3,000 µg/L in well MW-2. Toluene was detected above the laboratory reporting limit in four wells sampled at concentrations up to 45 µg/L in well MW-2. Ethylbenzene was detected above the laboratory reporting limit in three wells sampled at concentrations up to 640 µg/L in well MW-2. Total Xylenes were detected above the laboratory reporting limit in four wells sampled at concentrations up to 370 µg/L in well MW-2. TAME was detected above the laboratory reporting limit in four wells sampled at concentrations up to 60 µg/L in well MW-2. TBA was detected above the laboratory reporting limit in nine wells sampled at concentrations up to 23,000 µg/L in well MW-4. MTBE was detected above the laboratory reporting limit in eight wells sampled at concentrations up to 1,700 µg/L in well MW-2. The remaining fuel constituents were not detected above their respective laboratory reporting limits in the nine wells sampled this quarter. Groundwater monitoring laboratory analytical results are summarized in Table 1 and Table 2. Table 4 provides biodegradation indicator parameter results. The most recent GRO, Benzene, MTBE and TBA concentrations are presented in Drawing 2. Groundwater monitoring data (GEO_WELL) and laboratory analytical results (EDF) were uploaded to the GeoTracker AB2886 database. Upload confirmation receipts are provided in Appendix D.

SAMPLING PROTOCOL:

Going forward from the fourth quarter sampling event, HydraSleeve™ groundwater sampling tools will be used to collect groundwater samples at the site. The HydraSleeve™ groundwater sampler collects a representative sample from a specific depth interval within the monitoring well screen. The HydraSleeve™ sampler is lowered into the well and remains closed until the desired sampling depth is reached. When the HydraSleeve™ is retrieved it opens to collect a sample from a 2.5-foot long interval within the well screen. HydraSleeves™ will be used to collect samples from the middle of the saturated screen interval without purging or mixing water from other intervals.

Sampling by HydraSleeves™ provides monitoring data of equivalent quality to purge and sample methods and is similar to sampling using passive diffusion bags (PDBs), which are also used to collect no-purge groundwater samples. Because HydraSleeves™ collect groundwater from the well, samples can be

analyzed for any constituent, unlike samples collected with PDBs, which are limited to volatile organic compound (VOC) analyses. Analytical results for samples collected with HydraSleeves™ typically reveal concentrations of target constituents within the expected historical ranges for a given monitoring well. If target constituent concentrations are significantly different in samples collected with HydraSleeves™, this can reveal previously unknown contaminant stratification or sampling bias introduced by purging when groundwater with lower or higher concentrations of target constituents is drawn into the well via preferential pathways in the site geology during purging. If concentrations of target constituents are significantly different than historical monitoring results at a location, additional evaluation will be performed using a combination of methods during subsequent monitoring.

DISCUSSION:

Groundwater levels were between historic minimum and maximum elevations for each well gauged this quarter. Groundwater elevations yielded a potentiometric groundwater gradient to the southwest at approximately 0.009 ft/ft, generally consistent with the highly variable and relatively flat historic gradient data presented in Table 3.

This event's detected analytical concentrations were within the historic minimum and maximum ranges recorded for each well, with the following exceptions: TBA reached a historic minimum in MW-2 with a concentration of 1,900 µg/L. Recent and historic laboratory analytical results are summarized in Table 1 and Table 2. The next groundwater monitoring and sampling event is scheduled to be conducted during Second Quarter 2012.

As discussed in the Sampling Protocol section, it is recommended to utilize HydraSleeve™ samplers during the Fourth Quarter 2012 groundwater monitoring and sampling event, unless directed otherwise by the ACEH.

LIMITATIONS:

The findings presented in this report are based upon observations of field personnel, points investigated, results of laboratory tests performed by TestAmerica Laboratories, Inc. (Pleasanton, California), and our understanding of ACEH 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-US, Inc. and Atlantic Richfield Company. 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.

ATTACHMENTS:

Drawing 1:	Site Location Map
Drawing 2:	Groundwater Elevation and Analytical Summary Map, January 30, 2012
Table 1:	Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses
Table 2:	Summary of Fuel Additives Analytical Data
Table 3:	Historical Groundwater Gradient – Direction and Magnitude
Table 4:	Bio-Degradation Parameters
Appendix A:	Field Methods
Appendix B:	Field Data Sheets and Non-Hazardous Waste Data Form
Appendix C:	Laboratory Report and Chain-of-Custody Documentation
Appendix D:	GeoTracker Upload Confirmation Receipts

LIST OF COMMONLY USED ACCRONYMS/ABBREVIATIONS:

ACEH:	Alameda County Environmental Health	ft/ft:	feet per foot
BTEX:	Benzene, Toluene, Ethylbenzene, Total Xylenes	gal:	Gallons
1,2-DCA:	1,2-Dichloroethane	GRO:	Gasoline-Range Organics
DIPE:	Di-Isopropyl Ether	LNAPL:	Light Non-Aqueous Phase Liquid
DO:	Dissolved Oxygen	MTBE:	Methyl Tertiary Butyl Ether
DRO:	Diesel-Range Organics	TAME:	Tert-Amyl Methyl Ether
EDB:	1,2-Dibromomethane	TBA:	Tertiary Butyl Ether
EPA:	Environmental Protection Agency	TOC:	Top of Casing
ETBE:	Ethyl Tertiary Butyl Ether	µg/L:	micrograms per liter

N

0 1 2

APPROXIMATE SCALE (mi)

IMAGE SOURCE: DELORME

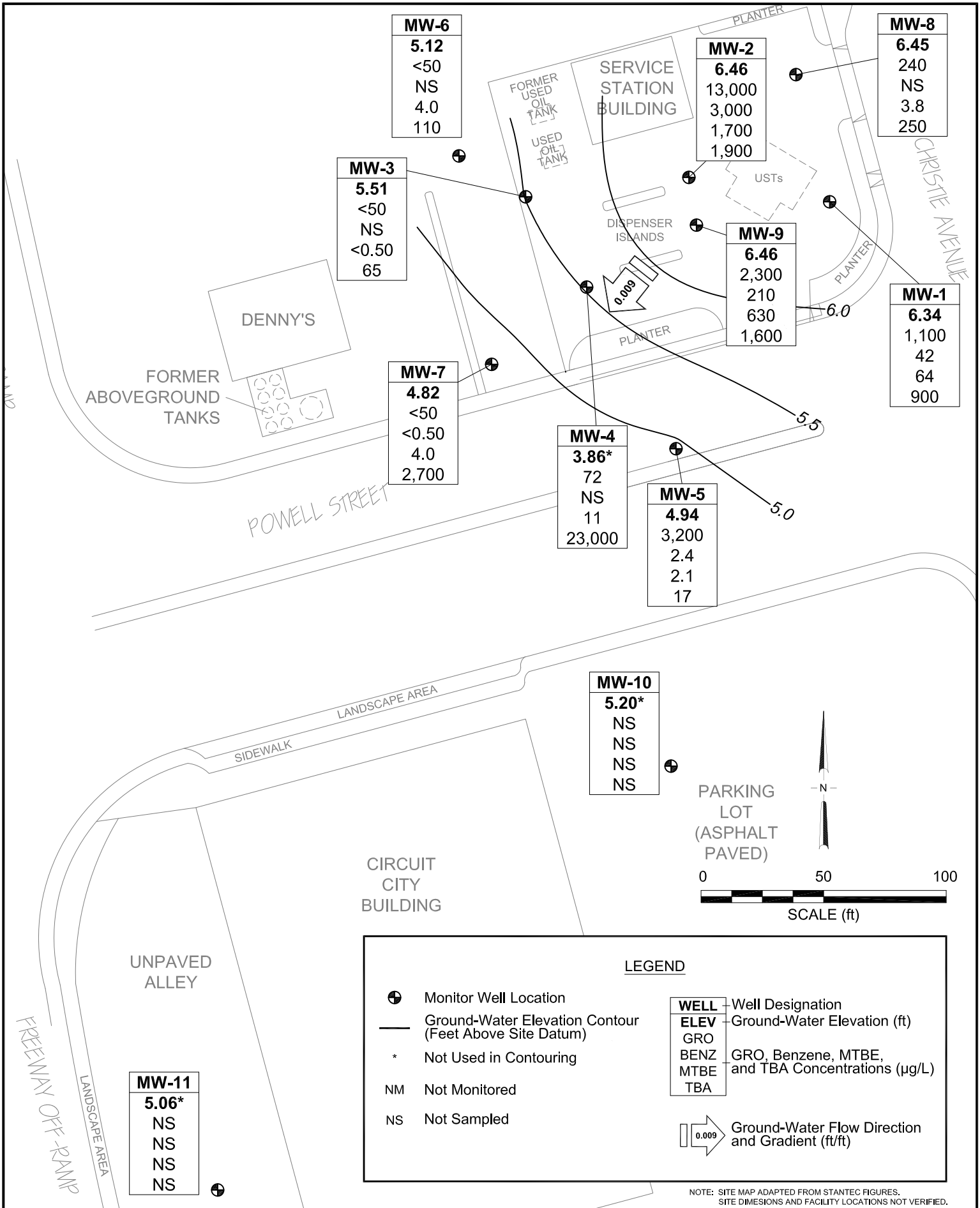
BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, California 95926

Project No.: 09-88-662 Date: 1/21/2010

76 (Former BP)
Service Station #11126
1700 Powell Street
Emeryville, California

Site Location Map

Drawing
1



NOTE: SITE MAP ADAPTED FROM STANTEC FIGURES.
SITE DIMESIONS AND FACILITY LOCATIONS NOT VERIFIED.

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, California 95926
Project No.: 09-88-662 Date: 2/17/2012

76 (Former BP)
Service Station #11126
1700 Powell Street
Emeryville, California

Groundwater Elevation and Analytical Summary Map
January 30, 2012

Drawing
2

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

Former BP Station #11126, 1700 Powell Street, Emeryville, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	DTW (feet)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L									DO (mg/L)	pH	Footnote
						GRO/ TPHg	DRO/ TPHd	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE	TOG	HVOC			
MW-1																	
11/4/1992	--	7.76	4.96	0.00	2.80	5,300	--	1,100	480	<0.50	1,500	--	--	--	--	--	
10/12/1993	--		5.26	0.00	2.50	3,600	--	970	71	100	550	6,111	--	--	--	--	
2/15/1994	--		4.98	0.00	2.78	17,000	--	4,200	510	360	1,600	5,495	--	--	3.9	--	
5/11/1994	--		4.55	0.00	3.21	5,500	--	2,900	37	56	64	705	--	--	8.0	--	
8/1/1994	--		5.51	0.00	2.25	15,000	--	3,600	740	510	2,800	9,718	--	--	2.9	--	
8/1/1994	--		5.51	0.00	2.25	16,000	--	3,600	750	510	2,800	9,800	--	--	--	--	DUP
10/18/1994	--		5.11	0.00	2.65	16,000	--	1,800	61	160	890	15,668	--	--	2.9	--	
10/18/1994	--		5.11	0.00	2.65	16,000	--	1,900	64	170	950	--	--	--	--	--	DUP
1/13/1995	--		3.05	0.00	4.71	590	--	88	0.70	<0.50	55	--	--	--	--	--	DUP
1/13/1995	--		3.05	0.00	4.71	220	--	7.0	<0.50	1.0	23	--	--	--	6.6	--	
4/13/1995	--		3.84	0.00	3.92	9,300	--	4,000	300	200	950	--	--	--	7.7	--	
7/11/1995	--		3.60	0.00	4.16	15,000	--	2,200	84	<25	2,500	--	--	--	8.8	--	
11/2/1995	--		4.58	0.00	3.18	19,000	--	920	<100	<100	430	52,000	--	--	7.3	--	
2/5/1996	--		4.43	0.00	3.33	4,600	--	1,400	330	54	247	8,700	--	--	3.2	--	
4/24/1996	--		4.00	0.00	3.76	2,000	--	510	33	61	228	4,500	--	--	7.5	--	
7/15/1996	--		4.30	0.00	3.46	--	--	--	--	--	--	--	--	--	--	--	
7/16/1996	--		--	--	--	12,000	--	2,800	160	390	1,610	63,000	--	--	--	--	DUP
7/16/1996	--		--	--	--	12,000	--	2,800	170	390	1,630	64,000	--	--	7.9	--	
7/30/1996	--		4.64	0.00	3.12	--	--	--	--	--	--	--	--	--	--	--	
8/12/1996	--		--	--	--	11,000	--	2,500	160	<10	1,740	440,000	--	--	7.0	--	
11/4/1996	--		5.98	0.00	1.78	--	--	--	--	--	--	--	--	--	--	--	
11/5/1996	--		--	--	--	53,000	--	1,300	43	100	349	42,000	--	--	6.6	--	
5/17/1997	--		4.65	0.00	3.11	52,000	--	1,958	55	305	1,216	140,198	--	--	5.7	--	
8/11/1997	--		4.90	0.00	2.86	25,000	--	540	6.7	<5.0	57	360,000	--	--	7.9	--	
11/17/1997	--		6.12	0.00	1.64	93,000	--	1,200	31	180	40	400,000	--	--	7.6	--	
1/29/1998	--		4.90	0.00	2.86	4,800	--	320	24	52	20	<50	--	--	6.6	--	
6/22/1998	--		4.62	0.00	3.14	63,000	--	180	<5.0	15	69	57,000	--	--	6.0	--	
12/30/1998	--		5.41	0.00	2.35	22,000	--	2,500	24	120	400	15,000	--	--	--	--	
3/9/1999	--		3.40	0.00	4.36	16,000	--	2,000	84	290	510	13,000	--	--	--	--	
6/23/1999	--		4.60	0.00	3.16	9,600	--	4,500	21	160	260	24,000	--	--	--	--	

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

Former BP Station #11126, 1700 Powell Street, Emeryville, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	DTW (feet)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L									DO (mg/L)	pH	Footnote
						GRO/ TPHg	DRO/ TPHd	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE	TOG	HVOC			
MW-1 Cont.																	
9/23/1999	--	7.76	4.21	0.00	3.55	3,800	--	1,600	32	150	240	7,100	--	--	--	--	
12/28/1999	--		4.10	0.00	3.66	3,400	--	<2,200	17	53	130	5,500	--	--	--	--	
3/22/2000	--		5.51	0.00	2.25	6,400	--	1,100	45	190	330	4,900	--	--	--	--	
5/26/2000	--		4.79	0.00	2.97	110,000	--	700	44	140	250	320,000	--	--	--	--	
9/6/2000	--		5.19	0.00	2.57	5,600	--	1,000	13	57	90	19,000	--	--	--	--	
9/15/2000	--		5.73	0.00	2.03	--	--	--	--	--	--	--	--	--	--	--	
12/11/2000	--		5.82	0.00	1.94	5,500	--	1,160	47	155	292	3,900	--	--	--	--	
3/29/2001	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	INA
6/27/2001	--		5.49	0.00	2.27	6,100	--	1,200	13	17	78	1,780	--	--	--	--	
9/19/2001	--		6.19	0.00	1.57	1,800	--	102	<12.5	<12.5	<37.5	1,090	--	--	--	--	
12/28/2001	--		5.27	0.00	2.49	4,000	--	540	12	20	65	1,120	--	--	--	--	
3/12/2002	--		5.68	0.00	2.08	3,700	--	491	8.4	12	27	1,020	--	--	--	--	
6/13/2002	--		5.54	0.00	2.22	1,900	--	255	<12.5	<12.5	<25	6,490	--	--	--	--	
9/6/2002	--		5.56	0.00	2.20	1,100	--	170	5.1	2.2	20	550	--	--	--	--	
12/13/2002	--		5.45	0.00	2.31	2,700	--	610	10	18	67	470	--	--	--	--	EPA 8015B/8021B used
2/19/2003	--		3.00	0.00	4.76	1,500	--	180	<5.0	<5.0	15	610	--	--	--	--	
6/6/2003	--		5.52	0.00	2.24	4,600	--	620	<25	<25	55	1,400	--	--	--	--	
8/7/2003	--		5.55	0.00	2.21	2,000	--	290	<5.0	<5.0	15	920	--	--	--	--	
11/20/2003	--		5.41	0.00	2.35	2,800	--	420	11	11	53	250	--	--	--	--	Past holding time
4/28/2004	--		5.33	0.00	2.43	1,600	--	100	5.3	<5.0	8.8	200	--	--	--	--	
8/26/2004	--		4.03	0.00	3.73	1,700	--	220	7.2	15	35	180	--	--	--	--	
8/26/2004	--		4.03	0.00	3.73	1,700	--	220	7.2	15	35	180	--	--	--	--	
12/1/2004	--		3.93	0.00	3.83	2,100	--	380	8.0	34	76	170	--	--	--	--	
2/2/2005	--		3.61	0.00	4.15	1,100	--	150	3.0	12	14	160	--	--	--	--	
4/25/2005	--	10.16	3.75	0.00	6.41	930	--	140	3.6	5.3	11	200	--	--	--	--	
9/30/2005	--		3.54	0.00	6.62	4,600	--	1,000	15	78	150	250	--	--	--	--	
12/28/2005	--		3.26	0.00	6.90	1,500	--	200	5.7	32	58	140	--	--	--	--	
3/23/2006	--		3.40	0.00	6.76	580	--	42	<5.0	10	20	40	--	--	--	--	
6/5/2006	--		2.97	0.00	7.19	900	--	230	2.5	28	71	160	--	--	--	--	
9/19/2006	--		3.67	0.00	6.49	1,600	--	240	3.4	11	23	180	--	--	--	--	Well purged dry

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

Former BP Station #11126, 1700 Powell Street, Emeryville, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	DTW (feet)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L									DO (mg/L)	pH	Footnote
						GRO/ TPHg	DRO/ TPHd	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE	TOG	HVOC			
MW-1 Cont.																	
12/1/2006	--	10.16	3.64	0.00	6.52	1,400	--	86	4.3	7.0	19	150	--	--	--	--	
3/1/2007	--		3.55	0.00	6.61	4,200	--	340	7.0	34	46	160	--	--	--	--	
6/1/2007	--		3.53	0.00	6.63	2,100	--	200	3.4	34	59	140	--	--	--	--	
9/13/2007	--		4.88	0.00	5.28	540	--	74	2.4	5.4	10	59	--	--	--	--	
11/21/2007	--		3.70	0.00	6.46	1,800	--	67	6.2	3.5	12	200	--	--	--	--	
2/29/2008	--		3.49	0.00	6.67	970	--	100	1.9	37	32	25	--	--	--	--	
5/23/2008	--		4.26	0.00	5.90	1,300	--	170	3.5	15	26	120	--	--	--	--	
9/26/2008	--		4.29	0.00	5.87	1,800	--	26	6.1	<1.0	10	120	--	--	--	--	
12/23/2008	--		3.79	0.00	6.37	1,600	--	14	6.1	1.2	9.7	75	--	--	--	--	
3/9/2009	--		3.29	0.00	6.87	2,100	--	200	5.6	16	29	88	--	--	--	--	
5/28/2009	--		4.02	0.00	6.14	880	--	64	1.5	3.4	9.4	48	--	--	0.46	--	
12/10/2009	--		3.92	0.00	6.24	1300	--	46	6.9	2.6	10	65	--	--	0.47	--	
6/29/2010	P		3.60	0.00	6.56	530	--	18	1.3	<0.50	4.3	<0.50	--	--	0.53	7.09	
12/30/2010	P		3.55	0.00	6.61	1,000	--	19	3.2	1.4	8.2	46	--	--	0.57	7.30	
6/29/2011	P		3.58	0.00	6.58	60	--	<0.50	<0.50	<0.50	<1.0	3.9	--	--	0.40	7.6	
1/30/2012	**P**		**3.82**	**0.00**	**6.34**	**1,100**	**--**	**42**	**4.5**	**0.90**	**7.2**	**64**	**--**	**--**	**0.66**	**7.36**	
MW-2																	
11/4/1992	--	8.56	5.88	0.00	2.68	12,000	--	3,900	1,300	<0.50	2,300	--	--	--	--	--	
11/4/1992	--		5.88	0.00	2.68	12,000	--	3,200	980	<0.50	1,900	--	--	--	--	--	DUP
10/12/1993	--		6.29	0.00	2.27	4,500	--	3,400	180	230	940	442	--	--	--	--	
2/15/1994	--		5.56	0.00	3.00	1,800	--	290	160	14	250	--	--	--	--	--	
2/15/1994	--		5.56	0.00	3.00	2,000	--	430	270	28	390	127	--	--	4.0	--	DUP
5/11/1994	--		5.17	0.00	3.39	15,000	--	5,600	1,500	470	2,000	740	--	--	--	--	DUP
5/11/1994	--		5.17	0.00	3.39	14,000	--	3,900	1,200	440	1,900	953	--	--	8.9	--	
8/1/1994	--		5.43	0.00	3.13	8,200	--	3,000	420	230	680	1,676	--	--	2.6	--	
10/18/1994	--		5.71	0.00	2.85	9,000	--	2,000	140	150	420	2,417	--	--	7.2	--	
1/13/1995	--		4.67	0.00	3.89	7,900	--	2,200	42	<5.0	770	--	--	--	6.8	--	
4/13/1995	--		4.37	0.00	4.19	33,000	--	8,000	2,500	1,100	6,600	--	--	--	7.5	--	
4/13/1995	--		4.37	0.00	4.19	25,000	--	6,500	1,500	110	5,300	--	--	--	--	--	DUP
7/11/1995	--		4.51	0.00	4.05	19,000	--	3,300	99	7.5	4,600	--	--	--	7.8	--	

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

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Well ID and Date Monitored	P/NP	TOC Elevation (feet)	DTW (feet)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L									DO (mg/L)	pH	Footnote
						GRO/ TPHg	DRO/ TPHd	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE	TOG	HVOC			
MW-2 Cont.																	
7/11/1995	--	8.56	4.51	0.00	4.05	28,000	--	6,800	1,000	900	4,900	--	--	--	--	--	DUP
11/2/1995	--		5.55	0.00	3.01	22,000	--	4,000	1,200	600	2,700	19,000	--	--	--	--	DUP
11/2/1995	--		5.55	0.00	3.01	20,000	--	3,800	1,200	570	2,700	15,000	--	--	7.3	--	
2/5/1996	--		5.10	0.00	3.46	910	--	290	180	19	137	93	--	--	--	--	DUP
2/5/1996	--		5.10	0.00	3.46	1,200	--	320	220	26	187	99	--	--	2.2	--	
4/24/1996	--		4.95	0.00	3.61	<500	--	100	30	<10	71	<100	--	--	--	--	
4/24/1996	--		4.95	0.00	3.61	<500	--	70	22	<10	61	<50	--	--	7.0	--	DUP
7/15/1996	--		5.40	0.00	3.16	--	--	--	--	--	--	--	--	--	--	--	
7/16/1996	--		--	--	--	12,000	--	3,300	1,400	250	2,610	1,400	--	--	7.8	--	
7/30/1996	--		5.44	0.00	3.12	--	--	--	--	--	--	--	--	--	--	--	
11/4/1996	--		7.06	0.00	1.50	--	--	--	--	--	--	--	--	--	--	--	
11/5/1996	--		--	--	--	7,200	--	1,400	230	38	2,110	1,100	--	--	7.4	--	
11/5/1996	--		--	--	--	9,200	--	1,300	170	<25	2,240	1,100	--	--	--	--	DUP
5/17/1997	--		5.77	0.00	2.79	570	--	42	<5.0	5.0	60	210	--	--	6.9	--	
8/11/1997	--		5.71	0.00	2.85	6,300	--	1,800	130	86	397	2,400	--	--	8.5	--	
11/17/1997	--		6.91	0.00	1.65	2,400	--	220	30	33	259	130	--	--	7.9	--	
1/29/1998	--		4.61	0.00	3.95	<50	--	<0.50	<1.0	<1.0	<1.0	<10	--	--	6.2	--	
6/22/1998	--		4.80	0.00	3.76	4,200	--	640	150	120	650	560	--	--	5.4	--	
12/30/1998	--		5.21	0.00	3.35	--	--	--	--	--	--	--	--	--	--	--	
6/23/1999	--		5.30	0.00	3.26	--	--	--	--	--	--	--	--	--	--	--	
9/23/1999	--		4.75	0.00	3.81	3,800	--	760	19	210	960	910	--	--	--	--	
12/28/1999	--		4.51	0.00	4.05	--	--	--	--	--	--	--	--	--	--	--	
3/22/2000	--		4.21	0.00	4.35	2,500	--	780	17	44	270	2,800	--	--	--	--	
5/26/2000	--		4.66	0.00	3.90	--	--	--	--	--	--	--	--	--	--	--	
9/6/2000	--		4.71	0.00	3.85	3,700	--	1,200	5.5	12	170	12,000	--	--	--	--	
9/15/2000	--		4.74	0.00	3.82	--	--	--	--	--	--	--	--	--	--	--	
12/11/2000	--		4.79	0.00	3.77	--	--	--	--	--	--	--	--	--	--	--	
3/29/2001	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	INA
6/27/2001	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	INA
9/19/2001	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	INA

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Well ID and Date Monitored	P/NP	TOC Elevation (feet)	DTW (feet)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L									DO (mg/L)	pH	Footnote
						GRO/ TPHg	DRO/ TPHd	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE	TOG	HVOC			
MW-2 Cont.																	
12/28/2001	--	8.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	INA
3/12/2002	--		4.25	0.00	4.31	26,000	--	1,160	4.4	61	171	37,300	--	--	--	--	
6/13/2002	--		4.94	0.00	3.62	18,000	--	578	<50	<50	<100	84,600	--	--	--	--	
9/6/2002	--		5.23	0.00	3.33	26,000	--	440	<50	<50	<50	45,000	--	--	--	--	
12/13/2002	--		4.94	0.00	3.62	69,000	--	1,200	<500	<500	<500	98,000	--	--	--	--	EPA 8015B/8021B used
2/19/2003	--		4.14	0.00	4.42	78,000	--	1,100	<500	<500	<500	81,000	--	--	--	--	
6/6/2003	--		4.66	0.00	3.90	120,000	--	1,100	<1,000	<1,000	<1,000	72,000	--	--	--	--	
8/7/2003	--		4.90	Sheen	3.66	71,000	--	590	<500	<500	<500	83,000	--	--	--	--	
11/20/2003	--		4.59	0.00	3.97	22,000	--	720	<100	<100	<100	18,000	--	--	--	--	
4/28/2004	--		4.37	0.00	4.19	<25,000	--	690	<250	<250	<250	31,000	--	--	--	--	
8/26/2004	--		4.59	0.00	3.97	140,000	--	8,200	18,000	4,200	19,000	11,000	--	--	--	--	
8/26/2004	--		4.59	0.00	3.97	140,000	--	8,200	18,000	4,200	19,000	11,000	--	--	--	--	
12/1/2004	--		4.79	0.00	3.77	98,000	--	8,400	13,000	4,600	21,000	10,000	--	--	--	--	
2/2/2005	--		4.27	Sheen	4.29	92,000	--	6,600	9,900	4,400	18,000	10,000	--	--	--	--	
4/25/2005	--	11.39	4.00	0.00	7.39	80,000	--	6,700	4,900	4,400	17,000	8,200	--	--	--	--	
9/30/2005	--		4.86	0.00	6.53	98,000	--	7,700	7,400	4,700	20,000	16,000	--	--	--	--	
12/28/2005	--		4.28	0.00	7.11	210,000	--	15,000	21,000	7,300	31,000	22,000	--	--	--	--	
3/23/2006	--		3.60	0.00	7.79	79,000	--	9,100	12,000	4,300	17,000	13,000	--	--	--	--	
6/5/2006	--		4.28	Sheen	7.11	79,000	--	9,700	8,700	4,900	20,000	8,000	--	--	--	--	
9/19/2006	--		4.61	0.00	6.78	68,000	--	12,000	9,300	4,100	14,000	16,000	--	--	--	--	
12/1/2006	--		4.55	0.00	6.84	61,000	--	15,000	6,900	4,400	17,000	10,000	--	--	--	--	
3/1/2007	--		4.14	0.00	7.25	80,000	--	9,300	5,500	4,100	15,000	8,300	--	--	--	--	
6/1/2007	--		4.34	0.00	7.05	120,000	--	12,000	6,400	4,200	11,000	17,000	--	--	--	--	
9/13/2007	--		5.35	0.00	6.04	<5,000	--	770	<50	140	<100	2,300	--	--	--	--	
11/21/2007	--		5.19	0.00	6.20	27,000	--	4,500	220	1,600	2,800	5,200	--	--	--	--	
2/29/2008	--		4.41	0.00	6.98	44,000	--	6,100	320	3,800	6,600	4,900	--	--	--	--	
5/23/2008	--		5.25	0.00	6.14	13,000	--	1,700	<50	300	210	2,500	--	--	--	--	
9/26/2008	--		5.81	0.00	5.58	4,800	--	220	12	20	42	960	--	--	--	--	
12/23/2008	--		5.50	0.00	5.89	5,700	--	950	19	170	70	1,800	--	--	--	--	
3/9/2009	--		4.35	0.00	7.04	25,000	--	3,200	73	2,800	2,200	2,200	--	--	--	--	

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						GRO/ TPHg	DRO/ TPHd	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE	TOG	HVOC			
MW-2 Cont.																	
5/28/2009	--	11.39	4.90	0.00	6.49	55,000	--	4,700	740	3,800	8,100	2,800	--	--	0.27	--	
12/10/2009	--		5.29	0.00	6.10	2200	--	250	7.3	13	14	360	--	--	0.65	--	
6/29/2010	P		5.03	0.00	6.36	5,300	--	800	<25	250	300	770	--	--	0.60	6.91	Odor
12/30/2010	P		4.22	0.00	7.17	19,000	--	3,500	58	2,000	1,000	1,700	--	--	--	7.25	
6/29/2011	P		4.51	0.00	6.88	12,000	--	3,200	41	920	150	2,100	--	--	0.41	7.1	
1/30/2012	**P**		**4.93**	**0.00**	**6.46**	**13,000**	**--**	**3,000**	**45**	**640**	**370**	**1,700**	**--**	**--**	**0.63**	**7.21**	
MW-3																	
11/4/1992	--	8.25	6.38	0.00	1.87	200	690	1.6	<0.50	<0.50	1.1	--	<5,000	ND	--	--	
10/12/1993	--		5.84	0.00	2.41	270	2,100	5.0	0.70	<0.50	2.6	96	<5,000	ND	--	--	DUP
10/12/1993	--		5.84	0.00	2.41	150	--	5.6	0.60	<0.50	1.6	--	--	--	--	--	
2/15/1994	--		6.60	0.00	1.65	140	2.3	5.7	<0.50	<0.50	<0.50	30	90	ND	3.9	--	
5/11/1994	--		5.86	0.00	2.39	190	2,500	2.7	1.9	<0.50	1.9	51	<5,000	ND	9.2	--	
8/1/1994	--		6.13	0.00	2.12	120	1,300	1.3	<0.50	0.50	1.1	18	<5,000	ND	2.9	--	
10/18/1994	--		6.39	0.00	1.86	100	2,200	2.3	<0.50	<0.50	<0.50	21	<5,000	ND	3.6	--	
1/13/1995	--		5.47	0.00	2.78	<50	970	0.80	<0.50	<0.50	<1.0	--	--	ND	7.7	--	
4/13/1995	--		5.17	0.00	3.08	530	<500	8.7	1.9	<0.50	3.9	--	2,100	ND	8.4	--	
7/11/1995	--		5.37	0.00	2.88	78	2,100	0.57	<0.50	<0.50	<1.0	--	1,900	ND	8.3	--	
11/2/1995	--		6.29	0.00	1.96	250	2,000	0.73	<0.50	<0.50	1.8	270	1,400	ND	8.3	--	
2/5/1996	--		5.80	0.00	2.45	<50	1,600	<0.50	<1.0	<1.0	2.7	11	9,000	ND	3.5	--	
4/24/1996	--		5.69	0.00	2.56	<50	2,800	<5.0	<10	<10	<10	150	6,000	ND	8.6	--	
7/15/1996	--		6.18	0.00	2.07	<250	3,700	<2.5	<5.0	<5.0	<5.0	<50	1,000	ND	7.7	--	
7/30/1996	--		6.04	0.00	2.21	--	--	--	--	--	--	--	--	--	--	--	
11/4/1996	--		7.84	0.00	0.41	--	--	--	--	--	--	--	--	--	--	--	
11/5/1996	--		--	--	--	90	890	<0.50	<1.0	<1.0	<1.0	30	2,000	ND	6.8	--	
5/17/1997	--		6.49	0.00	1.76	<50	2,100	<0.50	<1.0	<1.0	<1.0	52	700	ND	6.3	--	
8/11/1997	--		6.15	0.00	2.10	490	1,900	<2.5	<5.0	<5.0	<5.0	170	<5,000	ND	7.4	--	
11/17/1997	--		7.15	0.00	1.10	120	2,500	<0.50	<1.0	<1.0	<1.0	46	<5,000	ND	7.0	--	
1/29/1998	--		5.10	0.00	3.15	270	1,700	0.53	<1.0	<1.0	<1.0	330	2,000	ND	6.4	--	
6/22/1998	--		5.50	0.00	2.75	200	2,200	<0.50	<1.0	<1.0	<1.0	130	<5.0	ND	5.5	--	
12/30/1998	--		6.68	0.00	1.57	--	--	--	--	--	--	--	--	--	--	--	

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						GRO/ TPHg	DRO/ TPHd	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE	TOG	HVOC			
MW-3 Cont.																	
3/9/1999	--	8.25	5.53	0.00	2.72	60	840	<1.0	<1.0	<1.0	<1.0	19	7,600	--	--	--	
6/23/1999	--		6.60	0.00	1.65	--	--	--	--	--	--	--	--	--	--	--	
9/23/1999	--		6.17	0.00	2.08	--	--	--	--	--	--	--	--	--	--	--	
12/28/1999	--		6.00	0.00	2.25	--	--	--	--	--	--	--	--	--	--	--	
3/22/2000	--		4.77	0.00	3.48	690	<58	4.2	3.1	0.81	2.7	2,900	13,000	--	--	--	
5/26/2000	--		5.28	0.00	2.97	--	--	--	--	--	--	--	--	--	--	--	
9/15/2000	--		5.58	0.00	2.67	--	--	--	--	--	--	--	--	--	--	--	
12/11/2000	--		11.74	0.00	-3.49	--	--	--	--	--	--	--	--	--	--	--	DTW anomalous
3/29/2001	--		5.04	0.00	3.21	650	<50	<2.5	<2.5	<2.5	<7.5	680	6,540	--	--	--	
6/27/2001	--		5.62	0.00	2.63	460	690	<2.5	<2.5	<2.5	<7.5	560	<5,000	--	--	--	
9/19/2001	--		5.80	0.00	2.45	<500	520	<5.0	<5.0	<5.0	<15	464	<5,000	--	--	--	
12/28/2001	--		4.85	0.00	3.40	180	550	<0.50	<0.50	<0.50	<1.0	180	<5,000	--	--	--	
3/12/2002	--		4.39	0.00	3.86	410	1,300	<2.5	<2.5	<2.5	<5.0	443	<5,000	--	--	--	
6/13/2002	--		5.38	0.00	2.87	<250	2,600	<2.5	<2.5	<2.5	<5.0	395	<5,000	--	--	--	
9/6/2002	--		5.68	0.00	2.57	<200	--	<2.0	<2.0	<2.0	<2.0	650	--	--	--	--	
12/13/2002	--		5.37	0.00	2.88	<50	980	<0.50	<0.50	<0.50	<0.50	60	7,000	--	--	--	EPA 8015B/8021B used
2/19/2003	--		4.80	0.00	3.45	<1,000	380	<10	<10	<10	<10	120	6,700	--	--	--	
6/6/2003	--		5.13	0.00	3.12	<500	620	<5.0	<5.0	<5.0	<5.0	180	7.9	--	--	--	
8/7/2003	--		5.43	0.00	2.82	<500	820	5.7	<5.0	<5.0	<5.0	290	5.4	--	--	--	b (DRO)
11/20/2003	--		4.72	0.00	3.53	<50	1,200	<0.50	<0.50	<0.50	<0.50	17	--	--	--	--	b (DRO)
4/28/2004	--		4.87	0.00	3.38	<100	240	<1.0	<1.0	<1.0	<1.0	87	--	--	--	--	b (DRO)
8/26/2004	--		5.42	0.00	2.83	56	250	<0.50	<0.50	<0.50	<0.50	34	--	--	--	--	b (DRO)
8/26/2004	--		5.42	0.00	2.83	56	250	<0.50	<0.50	<0.50	<0.50	34	--	--	--	--	b (DRO)
12/1/2004	--		5.69	0.00	2.56	<100	690	<1.0	<1.0	<1.0	<1.0	7.4	--	--	--	--	
2/2/2005	--		4.72	0.00	3.53	<100	730	<1.0	<1.0	<1.0	<1.0	20	--	--	--	--	
4/25/2005	--	10.73	4.75	0.00	5.98	<250	520	<2.5	<2.5	<2.5	<2.5	220	--	--	--	--	
9/30/2005	--		5.30	0.00	5.43	<50	300	<0.50	<0.50	<0.50	<1.0	8.2	--	--	--	--	b (DRO)
12/28/2005	--		4.41	0.00	6.32	<50	100	<0.50	<0.50	<0.50	<1.0	0.66	<2.0	--	--	--	
3/23/2006	--		4.43	0.00	6.30	<50	260	<0.50	<0.50	<0.50	<1.0	13	<2.0	--	--	--	
6/5/2006	--		4.95	0.00	5.78	61	340	0.69	1.4	0.85	3.6	29	<2.0	--	--	--	

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						GRO/ TPHg	DRO/ TPHd	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE	TOG	HVOC			
MW-3 Cont.																	
9/19/2006	--	10.73	5.19	0.00	5.54	<50	330	<0.50	<0.50	<0.50	<1.0	4.1	<2.0	--	--	--	
12/1/2006	--		5.37	0.00	5.36	<50	130	<0.50	<0.50	<0.50	<1.0	2.0	<2.0	--	--	--	
3/1/2007	--		4.62	0.00	6.11	<50	120	<0.50	<0.50	<0.50	<1.0	3.8	<2.0	--	--	--	
6/1/2007	--		5.53	0.00	5.20	<50	350	<0.50	<0.50	<0.50	<1.0	3.7	<2.0	--	--	--	
9/13/2007	--		6.17	0.00	4.56	<250	1,200	<2.5	<2.5	<2.5	<5.0	2.6	<2.0	--	--	--	
11/21/2007	--		6.16	0.00	4.57	<250	1,600	<2.5	<2.5	<2.5	<5.0	3.4	<2.0	--	--	--	
2/29/2008	--		5.38	0.00	5.35	<50	350	<0.50	<0.50	<0.50	<1.0	0.90	<2.0	--	--	--	
5/23/2008	--		6.07	0.00	4.66	<500	1,100	<5.0	<5.0	<5.0	<10	<5.0	<2.0	--	--	--	
9/26/2008	--		6.46	0.00	4.27	120	3,000	<1.0	<1.0	<1.0	<1.0	4.8	<5,000	--	--	--	
12/23/2008	--		6.36	0.00	4.37	87	2,800	<1.0	<1.0	<1.0	<1.0	4.9	<5,000	--	--	--	
3/9/2009	--		5.31	0.00	5.42	<50	900	<1.0	<1.0	<1.0	<1.0	<1.0	<5,000	--	--	--	
5/28/2009	--		5.77	0.00	4.96	<50	1,600	<1.0	<1.0	<1.0	<1.0	2.1	<5,000	--	0.19	--	
12/10/2009	--		5.67	0.00	5.06	<50	450	<0.50	<0.50	<0.50	<1.0	0.86	790	--	0.72	--	a
6/29/2010	P		5.85	0.00	4.88	<50	2,700	<0.50	<0.50	<0.50	<1.0	1.9	--	--	0.52	7.36	
12/30/2010	P		4.33	0.00	6.40	<50	520	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	7.31	
6/29/2011	P		5.00	0.00	5.73	<50	250	--	--	--	--	0.73	--	--	0.45	7.4	
1/30/2012	**P**		**5.22**	**0.00**	**5.51**	**<50**	**160**	**--**	**--**	**--**	**--**	**<0.50**	**--**	**--**	**1.21**	**7.50**	
MW-4																	
11/4/1992	--	8.12	6.66	0.00	1.46	340	--	4.5	<0.50	4.3	<0.50	--	--	--	--	--	
10/12/1993	--		6.87	0.00	1.25	160	--	5.8	1.4	0.80	2.7	261	--	--	--	--	
2/15/1994	--		6.61	0.00	1.51	110	--	4.4	0.70	<0.50	2.5	118	--	--	4.3	--	
5/11/1994	--		5.89	0.00	2.23	120	--	0.50	0.80	<0.50	<0.50	137	--	--	9.3	--	
8/1/1994	--		6.87	0.00	1.25	140	--	0.70	2.0	5.2	15	138	--	--	3.3	--	
10/18/1994	--		6.62	0.00	1.50	140	--	3.5	<0.50	0.50	<0.50	197	--	--	3.0	--	
1/13/1995	--		7.27	0.00	0.85	<50	--	<0.50	<0.50	<0.50	<1.0	--	--	--	7.9	--	
4/13/1995	--		6.51	0.00	1.61	73	--	1.2	<0.50	<0.50	<1.0	--	--	--	9.9	--	
7/11/1995	--		6.21	0.00	1.91	82	--	0.57	<0.50	<0.50	<1.0	--	--	--	7.2	--	
11/2/1995	--		6.78	0.00	1.34	71	--	1.4	0.96	0.99	2.8	140	--	--	8.6	--	
2/5/1996	--		6.41	0.00	1.71	<50	--	<5.0	<10	<10	<10	200	--	--	4.4	--	
4/24/1996	--		6.18	0.00	1.94	<250	--	<2.5	<5.0	<5.0	<5.0	510	--	--	8.3	--	

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

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Well ID and Date Monitored	P/NP	TOC Elevation (feet)	DTW (feet)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L									DO (mg/L)	pH	Footnote
						GRO/ TPHg	DRO/ TPHd	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE	TOG	HVOC			
MW-4 Cont.																	
7/15/1996	--	8.12	6.63	0.00	1.49	<50	--	5.7	<1.0	<1.0	<1.0	550	--	--	7.4	--	
7/30/1996	--		6.34	0.00	1.78	--	--	--	--	--	--	--	--	--	--	--	
11/4/1996	--		8.27	0.00	-0.15	--	--	--	--	--	--	--	--	--	--	--	
11/5/1996	--		--	--	--	460	--	<2.5	11	<5.0	<5.0	620	--	--	7.3	--	
5/17/1997	--		7.00	0.00	1.12	--	--	--	--	--	--	--	--	--	--	--	
8/11/1997	--		6.81	0.00	1.31	--	--	--	--	--	--	--	--	--	--	--	
11/17/1997	--		9.19	0.00	-1.07	840	--	<0.50	<1.0	<1.0	<1.0	880	--	--	7.3	--	
1/29/1998	--		7.94	0.00	0.18	--	--	--	--	--	--	--	--	--	--	--	
6/22/1998	--		7.49	0.00	0.63	--	--	--	--	--	--	--	--	--	--	--	
12/30/1998	--		8.21	0.00	-0.09	--	--	--	--	--	--	--	--	--	--	--	
3/9/1999	--		7.70	0.00	0.42	1,200	--	<1.0	<1.0	<1.0	<1.0	2,000	--	--	--	--	
6/23/1999	--		8.81	0.00	-0.69	--	--	--	--	--	--	--	--	--	--	--	
9/23/1999	--		8.32	0.00	-0.20	--	--	--	--	--	--	--	--	--	--	--	
12/28/1999	--		8.21	0.00	-0.09	--	--	--	--	--	--	--	--	--	--	--	
3/22/2000	--		6.74	0.00	1.38	910	--	<0.50	<0.50	0.54	1.7	3,800	--	--	--	--	
5/26/2000	--		5.13	0.00	2.99	--	--	--	--	--	--	--	--	--	--	--	
9/15/2000	--		8.20	0.00	-0.08	--	--	--	--	--	--	--	--	--	--	--	
12/11/2000	--		8.31	0.00	-0.19	--	--	--	--	--	--	--	--	--	--	--	
3/29/2001	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	INA
6/27/2001	--		7.57	0.00	0.55	2,800	--	19	<2.5	<2.5	<7.5	4,220	--	--	--	--	
9/19/2001	--		7.87	0.00	0.25	2,500	--	<5.0	<5.0	<5.0	<15	3,340	--	--	--	--	
12/28/2001	--		7.80	0.00	0.32	4,400	--	<5.0	<5.0	<5.0	<10	5,330	--	--	--	--	
3/12/2002	--		4.53	0.00	3.59	6,400	--	72	<5.0	<5.0	<10	8,440	--	--	--	--	
6/13/2002	--		6.21	0.00	1.91	1,800	--	7.5	<5.0	5.0	13	6,870	--	--	--	--	
9/6/2002	--		7.78	0.00	0.34	<2,000	--	<20	<20	<20	<20	9,600	--	--	--	--	
12/13/2002	--		7.87	0.00	0.25	5,600	--	<50	<50	<50	<50	8,600	--	--	--	--	EPA 8015B/8021B used
2/19/2003	--		4.84	0.00	3.28	<10,000	--	<100	<100	<100	<100	8,000	--	--	--	--	
6/6/2003	--		7.98	0.00	0.14	13,000	--	<50	<50	<50	<50	6,800	--	--	--	--	
8/7/2003	--		7.24	0.00	0.88	6,200	--	<50	<50	<50	<50	6,600	--	--	--	--	
11/20/2003	--		7.02	0.00	1.10	10,000	--	<100	<100	<100	<100	11,000	--	--	--	--	

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						GRO/ TPHg	DRO/ TPHd	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE	TOG	HVOC			
MW-4 Cont.																	
4/28/2004	--	8.12	4.81	0.00	3.31	<25,000	--	<250	<250	<250	<250	3,600	--	--	--	--	
8/26/2004	--		5.65	0.00	2.47	<2,500	--	<25	<25	<25	<25	1,800	--	--	--	--	
12/1/2004	--		7.34	0.00	0.78	1,100	--	<10	<10	<10	<10	450	--	--	--	--	
2/2/2005	--		7.61	0.00	0.51	1,000	--	<5.0	<5.0	<5.0	<5.0	410	--	--	--	--	
4/25/2005	--	10.58	7.25	0.00	3.33	720	--	8.0	5.3	<5.0	16	170	--	--	--	--	
9/30/2005	--		7.72	0.00	2.86	<2,500	--	63	58	46	140	110	--	--	--	--	
12/28/2005	--		7.48	0.00	3.10	<2,500	--	<25	<25	<25	<50	34	--	--	--	--	
3/23/2006	--		4.42	0.00	6.16	<2,500	--	<25	<25	<25	<50	120	--	--	--	--	
6/5/2006	--		4.97	0.00	5.61	<5,000	--	<50	<50	<50	<100	<50	--	--	--	--	Well purged dry
9/19/2006	--		5.45	0.00	5.13	<5,000	--	<50	<50	<50	<100	110	--	--	--	--	Well purged dry
12/1/2006	--		5.14	0.00	5.44	<5,000	--	<50	<50	<50	<100	68	--	--	--	--	Well purged dry
3/1/2007	--		7.60	0.00	2.98	<5,000	--	<50	<50	<50	<100	<50	--	--	--	--	
6/1/2007	--		5.21	0.00	5.37	2,700	--	<25	<25	<25	<50	31	--	--	--	--	
9/13/2007	--		6.45	0.00	4.13	<2,500	--	<25	<25	<25	<50	<25	--	--	--	--	
11/21/2007	--		5.68	0.00	4.90	<2,500	--	<25	<25	<25	<50	<25	--	--	--	--	
2/29/2008	--		6.44	0.00	4.14	<5,000	--	<50	<50	<50	<100	<50	--	--	--	--	
5/23/2008	--		6.01	0.00	4.57	<5,000	--	<50	<50	<50	<100	<50	--	--	--	--	
9/26/2008	--		7.37	0.00	3.21	370	--	<1.0	<1.0	<1.0	<1.0	14	--	--	--	--	
12/23/2008	--		6.04	0.00	4.54	270	--	<1.0	<1.0	<1.0	<1.0	15	--	--	--	--	
3/9/2009	--		5.30	0.00	5.28	140	--	<1.0	<1.0	<1.0	<1.0	18	--	--	--	--	
5/28/2009	--		7.06	0.00	3.52	330	--	<1.0	<1.0	<1.0	<1.0	21	--	--	0.41	--	
12/10/2009	--		6.24	0.00	4.34	660	--	<0.50	<0.50	<0.50	<1.0	10	--	--	0.49	--	Well purged dry
6/29/2010	P		6.57	0.00	4.01	<500	--	<5.0	<5.0	<5.0	<10	7.3	--	--	--	7.43	Well purged dry
12/30/2010	P		7.32	0.00	3.26	<500	--	<5.0	<5.0	<5.0	<10	11	--	--	--	7.01	Well purged dry
6/29/2011	P		6.43	0.00	4.15	<500	610	--	--	--	--	11	--	--	0.45	7.6	
1/30/2012	**P**		**6.72**	**0.00**	**3.86**	**72**	**530**	**--**	**--**	**--**	**--**	**11**	**--**	**--**	**0.55**	**7.71**	
MW-5																	
10/12/1993	--	7.69	6.01	0.00	1.68	--	--	--	--	--	--	--	--	--	--	--	
10/13/1993	--		--	--	--	2,300	--	160	10	<0.50	26	--	--	--	--	--	
2/15/1994	--		5.74	0.00	1.95	5,100	--	710	16	33	35	153	--	--	4.0	--	

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						GRO/ TPHg	DRO/ TPHd	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE	TOG	HVOC			
MW-5 Cont.																	
5/11/1994	--	7.69	5.28	0.00	2.41	11,000	--	1,100	39	110	57	165	--	--	8.0	--	
8/1/1994	--		5.84	0.00	1.85	9,000	--	730	35	61	41	196	--	--	2.6	--	
10/18/1994	--		6.01	0.00	1.68	7,800	--	330	30	27	27	559	--	--	5.6	--	
1/13/1995	--		4.74	0.00	2.95	<500	--	290	6.0	<5.0	18	--	--	--	6.8	--	
4/13/1995	--		5.50	0.00	2.19	9,100	--	400	15	52	27	--	--	--	7.4	--	
7/11/1995	--		5.75	0.00	1.94	7,300	--	390	13	28	23	--	--	--	7.2	--	
11/3/1995	--		6.65	0.00	1.04	7,200	--	270	15	38	23	200	--	--	8.4	--	
2/5/1996	--		4.83	0.00	2.86	4,600	--	370	15	53	28	<50	--	--	1.9	--	
4/24/1996	--		6.09	0.00	1.60	3,000	--	180	<10	32	14	<100	--	--	8.1	--	
7/15/1996	--		6.57	0.00	1.12	--	--	--	--	--	--	--	--	--	--	--	
7/16/1996	--		--	--	--	<50	--	190	<10	31	16	<100	--	--	8.3	--	
7/30/1996	--		5.61	0.00	2.08	--	--	--	--	--	--	--	--	--	--	--	
8/12/1996	--		--	--	--	2,000	--	150	12	25	18	<50	--	--	7.6	--	
11/4/1996	--		8.25	0.00	-0.56	--	--	--	--	--	--	--	--	--	--	--	
11/5/1996	--		--	--	--	5,200	--	42	5.5	13	<5.0	1,700	--	--	7.4	--	
5/17/1997	--		6.95	0.00	0.74	80	--	0.56	<1.0	<1.0	<1.0	46	--	--	6.7	--	
8/11/1997	--		6.72	0.00	0.97	2,700	--	20	12	6.7	9.7	1,900	--	--	8.5	--	
11/17/1997	--		9.49	0.00	-1.80	8,400	--	25	12	8.7	5.4	13,000	--	--	7.9	--	
1/29/1998	--		7.88	0.00	-0.19	110,000	--	2,500	110	180	589	180,000	--	--	6.8	--	
6/22/1998	--		7.40	0.00	0.29	4,400	--	47	10	29	21	47	--	--	6.6	--	
12/30/1998	--		6.13	0.00	1.56	6,000	--	18	9.1	22	16	63	--	--	--	--	
3/9/1999	--		4.79	0.00	2.90	4,600	--	8.8	5.5	12	11	24	--	--	--	--	
6/23/1999	--		5.95	0.00	1.74	3,400	--	1,500	8.9	54	87	7,500	--	--	--	--	
9/23/1999	--		5.43	0.00	2.26	2,600	--	510	14	140	650	580	--	--	--	--	
12/28/1999	--		5.30	0.00	2.39	3,500	--	900	18	57	140	4,800	--	--	--	--	
3/22/2000	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	INA
5/26/2000	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	INA
9/6/2000	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	INA
9/15/2000	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	INA
12/11/2000	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	INA

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						GRO/ TPHg	DRO/ TPHd	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE	TOG	HVOC			
MW-5 Cont.																	
3/29/2001	--	7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	INA
6/27/2001	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	INA
9/19/2001	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	INA
12/28/2001	--		4.65	0.00	3.04	4,600	--	20	25	16	57	72	--	--	--	--	
3/12/2002	--		5.35	0.00	2.34	5,100	--	45	14	22	39	32	--	--	--	--	
6/13/2002	--		5.34	0.00	2.35	2,900	--	32	<12.5	<12.5	<25	616	--	--	--	--	
9/6/2002	--		5.46	0.00	2.23	3,400	--	23	5.5	<5.0	11	230	--	--	--	--	
12/13/2002	--		5.47	0.00	2.22	2,500	--	12	9.3	4.6	8.8	110	--	--	--	--	EPA 8015B/8021B used
2/19/2003	--		5.29	0.00	2.40	2,800	--	11	5.4	9.7	12	6.4	--	--	--	--	
6/6/2003	--		5.30	0.00	2.39	3,200	--	9.1	<5.0	7.6	9.3	<5.0	--	--	--	--	
8/7/2003	--		5.33	0.00	2.36	2,200	--	7.3	<5.0	<5.0	9.1	18	--	--	--	--	
11/20/2003	--		5.39	0.00	2.30	3,500	--	12	5.4	6.4	12	12	--	--	--	--	
4/28/2004	--		5.53	0.00	2.16	5,700	--	7.8	4.2	5.2	11	11	--	--	--	--	
8/26/2004	--		5.42	0.00	2.27	2,400	--	23	4.0	3.6	11	74	--	--	--	--	
12/1/2004	--		5.38	0.00	2.31	4,300	--	11	<5.0	5.5	15	<5.0	--	--	--	--	
2/2/2005	--		5.48	0.00	2.21	4,000	--	8.4	4.8	4.0	10	11	--	--	--	--	
4/25/2005	--	10.18	5.52	0.00	4.66	5,200	--	7.6	4.0	4.3	9.9	12	--	--	--	--	
9/30/2005	--		5.04	0.00	5.14	4,100	--	5.3	2.7	2.1	8.0	16	--	--	--	--	
12/28/2005	--		4.85	0.00	5.33	7,700	--	7.7	3.3	2.9	7.1	3.8	--	--	--	--	
3/23/2006	--		5.07	0.00	5.11	5,700	--	11	3.3	2.4	8.1	8.6	--	--	--	--	
6/5/2006	--		5.39	Sheen	4.79	5,900	--	36	5.0	3.7	15	11	--	--	--	--	
9/19/2006	--		4.75	0.00	5.43	4,600	--	6.7	<2.5	<2.5	<5.0	12	--	--	--	--	
12/1/2006	--		5.29	0.00	4.89	4,400	--	5.0	<2.5	<2.5	5.8	14	--	--	--	--	
3/1/2007	--		5.01	0.00	5.17	6,400	--	6.2	3.0	<2.5	8.7	<2.5	--	--	--	--	
6/1/2007	--		5.34	0.00	4.84	7,000	--	3.4	<2.5	<2.5	6.6	11	--	--	--	--	
9/13/2007	--		5.11	0.00	5.07	7,000	--	3.8	<2.5	<2.5	<5.0	8.5	--	--	--	--	
11/21/2007	--		5.34	0.00	4.84	4,700	--	<2.5	<2.5	<2.5	<5.0	11	--	--	--	--	
2/29/2008	--		5.33	0.00	4.85	5,100	--	1.9	1.8	0.93	4.2	<0.50	--	--	--	--	
5/23/2008	--		5.38	0.00	4.80	4,600	--	<2.5	<2.5	<2.5	<5.0	3.9	--	--	--	--	
9/26/2008	--		5.26	0.00	4.92	3,400	--	1.5	<1.0	<1.0	2.2	2.8	--	--	--	--	

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

Former BP Station #11126, 1700 Powell Street, Emeryville, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	DTW (feet)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L									DO (mg/L)	pH	Footnote
						GRO/ TPHg	DRO/ TPHd	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE	TOG	HVOC			
MW-5 Cont.																	
12/23/2008	--	10.18	5.04	0.00	5.14	3,300	--	2.7	1.1	<1.0	3.4	1.0	--	--	--	--	
3/9/2009	--		4.79	0.00	5.39	4,300	--	1.9	1.8	<1.0	4.0	<1.0	--	--	--	--	
5/28/2009	--		5.21	0.00	4.97	4,400	--	<1.0	<1.0	<1.0	1.8	<1.0	--	--	2.15	--	
12/10/2009	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	INA, Need traffic control
6/29/2010	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	INA, Need traffic control
12/30/2010	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	INA, Need traffic control
6/29/2011	P		5.38	0.00	4.80	3,300	--	1.7	0.60	<0.50	2.4	1.9	--	--	0.46	7.3	
1/30/2012	**P**		**5.24**	**0.00**	**4.94**	**3,200**	**--**	**2.4**	**1.1**	**<0.50**	**3.6**	**2.1**	**--**	**--**	**1.09**	**7.46**	
MW-6																	
10/12/1993	--	8.52	6.59	0.00	1.93	63	--	<0.50	<0.50	<0.50	<0.50	44	--	--	--	--	
2/15/1994	--		6.31	0.00	2.21	68	--	<0.50	<0.50	<0.50	<0.50	38	--	--	3.1	--	
5/11/1994	--		6.15	0.00	2.37	68	--	<0.50	<0.50	<0.50	<0.50	49	--	--	8.7	--	
8/1/1994	--		6.46	0.00	2.06	91	--	<0.50	<0.50	<0.50	0.60	60	--	--	2.4	--	
10/18/1994	--		6.72	0.00	1.80	<50	--	<0.50	<0.50	<0.50	<0.50	85	--	--	6.0	--	
1/13/1995	--		5.95	0.00	2.57	<50	--	<0.50	<0.50	<0.50	<1.0	--	--	--	7.0	--	
4/13/1995	--		5.44	0.00	3.08	<50	--	<0.50	<0.50	<0.50	<1.0	--	--	--	8.5	--	
7/11/1995	--		5.68	0.00	2.84	<50	--	<0.50	<0.50	<0.50	<1.0	--	--	--	8.4	--	
11/2/1995	--		6.57	0.00	1.95	<50	--	<0.50	<0.50	<0.50	<1.0	35	--	--	8.3	--	
2/5/1996	--		6.27	0.00	2.25	<50	--	<5.0	<10	<10	<10	<100	--	--	2.2	--	
4/24/1996	--		5.95	0.00	2.57	<250	--	<2.5	<5.0	<5.0	<5.0	62	--	--	8.0	--	
7/15/1996	--		6.39	0.00	2.13	<250	--	<2.5	<5.0	<5.0	<5.0	<50	--	--	8.0	--	
7/30/1996	--		6.44	0.00	2.08	--	--	--	--	--	--	--	--	--	--	--	
11/4/1996	--		8.05	0.00	0.47	--	--	--	--	--	--	--	--	--	--	--	
11/5/1996	--		--	--	--	<50	--	<0.50	<1.0	<1.0	<1.0	<10	--	--	7.3	--	
5/17/1997	--		6.75	0.00	1.77	--	--	--	--	--	--	--	--	--	--	--	
8/11/1997	--		6.48	0.00	2.04	--	--	--	--	--	--	--	--	--	--	--	
11/17/1997	--		9.27	0.00	-0.75	<50	--	<0.50	<1.0	<1.0	<1.0	<10	--	--	7.7	--	
1/29/1998	--		7.98	0.00	0.54	--	--	--	--	--	--	--	--	--	--	--	
6/22/1998	--		7.68	0.00	0.84	--	--	--	--	--	--	--	--	--	--	--	
12/30/1998	--		6.98	0.00	1.54	--	--	--	--	--	--	--	--	--	--	--	

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Well ID and Date Monitored	P/NP	TOC Elevation (feet)	DTW (feet)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L									DO (mg/L)	pH	Footnote
						GRO/ TPHg	DRO/ TPHd	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE	TOG	HVOC			
MW-6 Cont.																	
3/9/1999	--	8.52	5.90	0.00	2.62	--	--	--	--	--	--	--	--	--	--	--	
6/23/1999	--		6.93	0.00	1.59	--	--	--	--	--	--	--	--	--	--	--	
9/23/1999	--		6.45	0.00	2.07	--	--	--	--	--	--	--	--	--	--	--	
12/28/1999	--		6.33	0.00	2.19	--	--	--	--	--	--	--	--	--	--	--	
3/22/2000	--		5.15	0.00	3.37	--	--	--	--	--	--	--	--	--	--	--	
5/26/2000	--		5.72	0.00	2.80	--	--	--	--	--	--	--	--	--	--	--	
9/15/2000	--		6.02	0.00	2.50	--	--	--	--	--	--	--	--	--	--	--	
12/11/2000	--		6.20	0.00	2.32	--	--	--	--	--	--	--	--	--	--	--	
3/29/2001	--		5.34	0.00	3.18	750	--	<2.5	2.9	<2.5	12	820	--	--	--	--	
6/27/2001	--		6.00	0.00	2.52	760	--	33	<2.5	<2.5	<7.5	968	--	--	--	--	
9/19/2001	--		6.22	0.00	2.30	<500	--	<5.0	<5.0	<5.0	<15	879	--	--	--	--	
12/28/2001	--		4.71	0.00	3.81	--	--	--	--	--	--	--	--	--	--	--	NS
3/12/2002	--		4.96	0.00	3.56	<500	--	<5.0	<5.0	<5.0	<10	244	--	--	--	--	
6/13/2002	--		5.78	0.00	2.74	<250	--	<2.5	<2.5	<2.5	<5.0	413	--	--	--	--	
9/6/2002	--		6.14	0.00	2.38	130	--	<0.50	<0.50	<0.50	<0.50	240	--	--	--	--	
12/13/2002	--		6.05	0.00	2.47	140	--	<1.0	<1.0	<1.0	<1.0	200	--	--	--	--	EPA 8015B/8021B used
2/19/2003	--		5.40	0.00	3.12	<500	--	<5.0	<5.0	<5.0	<5.0	150	--	--	--	--	
6/6/2003	--		5.54	0.00	2.98	1,100	--	<5.0	<5.0	<5.0	<5.0	140	--	--	--	--	
8/7/2003	--		5.94	0.00	2.58	<500	--	<5.0	<5.0	<5.0	<5.0	160	--	--	--	--	
11/20/2003	--		5.85	0.00	2.67	95	--	<0.50	<0.50	<0.50	<0.50	74	--	--	--	--	
4/28/2004	--		5.45	0.00	3.07	<250	--	<2.5	<2.5	<2.5	<2.5	120	--	--	--	--	
8/26/2004	--		6.06	0.00	2.46	<250	--	<2.5	<2.5	<2.5	<2.5	110	--	--	--	--	
8/26/2004	--		6.06	0.00	2.46	<250	--	<2.5	<2.5	<2.5	<2.5	110	--	--	--	--	
12/1/2004	--		6.19	0.00	2.33	<250	--	<2.5	<2.5	<2.5	<2.5	86	--	--	--	--	
2/2/2005	--		5.20	0.00	3.32	55	--	<0.50	<0.50	<0.50	<0.50	41	--	--	--	--	
4/25/2005	--	11.01	5.22	0.00	5.79	64	--	<0.50	<0.50	<0.50	<0.50	50	--	--	--	--	
9/30/2005	--		5.93	0.00	5.08	200	--	<2.0	<2.0	<2.0	<4	51	--	--	--	--	b (GRO)
12/28/2005	--		5.49	0.00	5.52	<50	--	<0.50	<0.50	<0.50	<1.0	16	--	--	--	--	
3/23/2006	--		4.59	0.00	6.42	<50	--	<0.50	<0.50	<0.50	<1.0	5.6	--	--	--	--	
6/5/2006	--		5.38	0.00	5.63	<50	--	<0.50	0.54	<0.50	<1.0	14	--	--	--	--	

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						GRO/ TPHg	DRO/ TPHd	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE	TOG	HVOC			
MW-6 Cont.																	
9/19/2006	--	11.01	5.93	0.00	5.08	<50	--	<0.50	<0.50	<0.50	<1.0	8.8	--	--	--	--	
12/1/2006	--		6.28	0.00	4.73	<50	--	<0.50	<0.50	<0.50	<1.0	5.9	--	--	--	--	
3/1/2007	--		5.72	0.00	5.29	<50	--	<0.50	<0.50	<0.50	<1.0	6.0	--	--	--	--	
6/1/2007	--		6.22	0.00	4.79	<50	--	<0.50	<0.50	<0.50	<1.0	7.4	--	--	--	--	
9/13/2007	--		6.57	0.00	4.44	63	--	<0.50	<0.50	<0.50	<1.0	6.7	--	--	--	--	
11/21/2007	--		6.67	0.00	4.34	<50	--	<0.50	<0.50	<0.50	<1.0	8.4	--	--	--	--	
2/29/2008	--		5.80	0.00	5.21	<50	--	<0.50	<0.50	<0.50	<1.0	7.1	--	--	--	--	
5/23/2008	--		6.53	0.00	4.48	<50	--	<0.50	<0.50	<0.50	<1.0	8.4	--	--	--	--	
9/26/2008	--		6.86	0.00	4.15	<50	--	<1.0	<1.0	<1.0	<1.0	5.1	--	--	--	--	
12/23/2008	--		6.90	0.00	4.11	<50	--	<1.0	<1.0	<1.0	<1.0	5.3	--	--	--	--	
3/9/2009	--		6.00	0.00	5.01	<50	--	<1.0	<1.0	<1.0	<1.0	3.5	--	--	--	--	
5/28/2009	--		6.19	0.00	4.82	<50	--	<1.0	<1.0	<1.0	<1.0	6.6	--	--	2.77	--	
12/10/2009	--		6.15	0.00	4.86	<50	--	<0.50	<0.50	<0.50	<1.0	2.0	--	--	0.60	--	
6/29/2010	P		6.18	0.00	4.83	<50	--	<0.50	<0.50	<0.50	<1.0	2.7	--	--	0.57	7.20	
12/30/2010	P		5.34	0.00	5.67	<50	--	<0.50	<0.50	<0.50	<1.0	2.2	--	--	0.41	7.05	
6/29/2011	P		5.53	0.00	5.48	<50	2,100	--	--	--	--	3.6	--	--	0.03	7.4	
1/30/2012	**P**		**5.89**	**0.00**	**5.12**	**<50**	**710**	**--**	**--**	**--**	**--**	**4.0**	**--**	**--**	**0.61**	**7.61**	
MW-7																	
10/12/1993	--	7.61	6.14	0.00	1.47	<50	--	<0.50	<0.50	<0.50	0.70	<5.0	--	--	--	--	
2/15/1994	--		5.88	0.00	1.73	78	--	<0.50	<0.50	<0.50	0.60	<5.0	--	--	4.0	--	
5/11/1994	--		5.76	0.00	1.85	70	--	<0.50	<0.50	<0.50	0.90	12	--	--	9.1	--	
8/1/1994	--		5.97	0.00	1.64	77	--	<0.50	<0.50	<0.50	0.50	182	--	--	2.5	--	
10/18/1994	--		6.24	0.00	1.37	<50	--	<0.50	<0.50	<0.50	<0.50	52	--	--	6.3	--	
1/13/1995	--		5.39	0.00	2.22	<50	--	<0.50	<0.50	<0.50	<1.0	--	--	--	8.2	--	
4/13/1995	--		5.17	0.00	2.44	63	--	<0.50	<0.50	<0.50	1.4	--	--	--	8.4	--	
7/11/1995	--		5.25	0.00	2.36	<50	--	<0.50	<0.50	<0.50	<1.0	--	--	--	7.9	--	
11/2/1995	--		6.19	0.00	1.42	<50	--	<0.50	<0.50	<0.50	<1.0	55	--	--	8.0	--	
2/5/1996	--		5.69	0.00	1.92	<50	--	<0.50	<1.0	<1.0	<1.0	40	--	--	1.9	--	
4/24/1996	--		5.59	0.00	2.02	<250	--	<2.5	<5.0	<5.0	<5.0	53	--	--	8.2	--	
7/15/1996	--		6.07	0.00	1.54	<250	--	<2.5	<5.0	<5.0	<5.0	<50	--	--	7.8	--	

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						GRO/ TPHg	DRO/ TPHd	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE	TOG	HVOC			
MW-7 Cont.																	
7/30/1996	--	7.61	6.04	0.00	1.57	--	--	--	--	--	--	--	--	--	--	--	
11/4/1996	--		7.76	0.00	-0.15	--	--	--	--	--	--	--	--	--	--	--	
11/5/1996	--		--	--	--	<50	--	<0.50	<1.0	<1.0	<1.0	<10	--	--	7.8	--	
5/17/1997	--		6.42	0.00	1.19	--	--	--	--	--	--	--	--	--	--	--	
8/11/1997	--		6.06	0.00	1.55	--	--	--	--	--	--	--	--	--	--	--	
11/17/1997	--		9.07	0.00	-1.46	<50	--	<0.50	<1.0	<1.0	<1.0	<10	--	--	7.1	--	
1/29/1998	--		7.44	0.00	0.17	--	--	--	--	--	--	--	--	--	--	--	
6/22/1998	--		7.39	0.00	0.22	--	--	--	--	--	--	--	--	--	--	--	
12/30/1998	--		5.51	0.00	2.10	--	--	--	--	--	--	--	--	--	--	--	
3/9/1999	--		5.57	0.00	2.04	--	--	--	--	--	--	--	--	--	--	--	
6/23/1999	--		6.69	0.00	0.92	--	--	--	--	--	--	--	--	--	--	--	
9/23/1999	--		6.23	0.00	1.38	--	--	--	--	--	--	--	--	--	--	--	
12/28/1999	--		6.08	0.00	1.53	--	--	--	--	--	--	--	--	--	--	--	
3/22/2000	--		4.88	0.00	2.73	--	--	--	--	--	--	--	--	--	--	--	
5/26/2000	--		5.42	0.00	2.19	--	--	--	--	--	--	--	--	--	--	--	
9/15/2000	--		5.79	0.00	1.82	--	--	--	--	--	--	--	--	--	--	--	
12/11/2000	--		5.93	0.00	1.68	--	--	--	--	--	--	--	--	--	--	--	
3/29/2001	--		5.24	0.00	2.37	600	--	<2.5	<2.5	<2.5	<7.5	636	--	--	--	--	
6/27/2001	--		5.69	0.00	1.92	590	--	<2.5	<2.5	<2.5	<7.5	739	--	--	--	--	
9/19/2001	--		5.89	0.00	1.72	560	--	<5.0	<5.0	<5.0	<15	1,190	--	--	--	--	
12/28/2001	--		4.53	0.00	3.08	910	--	23	<2.5	<2.5	<5.0	856	--	--	--	--	
3/12/2002	--		4.71	0.00	2.90	620	--	<2.5	<2.5	<2.5	<5.0	675	--	--	--	--	
6/13/2002	--		5.21	0.00	2.40	860	--	<2.5	<2.5	<2.5	<5.0	1,470	--	--	--	--	
9/6/2002	--		5.77	0.00	1.84	350	--	<2.5	<2.5	<2.5	<2.5	690	--	--	--	--	
12/13/2002	--		5.65	0.00	1.96	1,300	--	<10	<10	<10	<10	1,800	--	--	--	--	EPA 8015B/8021B used
2/19/2003	--		5.07	0.00	2.54	1,700	--	<10	<10	<10	<10	1,600	--	--	--	--	
6/6/2003	--		5.27	0.00	2.34	1,000	--	<5.0	<5.0	<5.0	<5.0	510	--	--	--	--	
8/7/2003	--		5.52	0.00	2.09	510	--	<5.0	<5.0	<5.0	<5.0	520	--	--	--	--	
11/20/2003	--		5.79	0.00	1.82	330	--	<2.5	<2.5	<2.5	<2.5	270	--	--	--	--	
4/28/2004	--		5.20	0.00	2.41	<250	--	<2.5	<2.5	<2.5	<2.5	71	--	--	--	--	

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						GRO/ TPHg	DRO/ TPHd	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE	TOG	HVOC			
MW-7 Cont.																	
8/26/2004	--	7.61	5.65	0.00	1.96	450	--	<2.5	<2.5	<2.5	2.8	150	--	--	--	--	
8/26/2004	--		5.65	0.00	1.96	450	--	<2.5	<2.5	<2.5	2.8	150	--	--	--	--	
12/1/2004	--		5.79	0.00	1.82	100	--	<1.0	<1.0	<1.0	<1.0	25	--	--	--	--	
2/2/2005	--		4.92	0.00	2.69	81	--	<0.50	<0.50	<0.50	<0.50	31	--	--	--	--	
4/25/2005	--	10.11	4.88	0.00	5.23	67	--	<0.50	<0.50	<0.50	0.64	41	--	--	--	--	
9/30/2005	--		5.62	0.00	4.49	58	--	<0.50	<0.50	<0.50	<1.0	18	--	--	--	--	b (GRO)
12/28/2005	--		4.93	0.00	5.18	<500	--	<5.0	<5.0	<5.0	<10	7.4	--	--	--	--	
3/23/2006	--		4.63	0.00	5.48	71	--	<0.50	<0.50	<0.50	<1.0	25	--	--	--	--	
6/5/2006	--		5.08	0.00	5.03	57	--	<0.50	<0.50	<0.50	<1.0	14	--	--	--	--	
9/19/2006	--		5.60	0.00	4.51	<50	--	<0.50	<0.50	<0.50	<1.0	14	--	--	--	--	
12/1/2006	--		6.00	0.00	4.11	<250	--	<2.5	<2.5	<2.5	<5.0	6.7	--	--	--	--	
3/1/2007	--		5.69	0.00	4.42	<250	--	<2.5	<2.5	<2.5	<5.0	4.0	--	--	--	--	
6/1/2007	--		5.97	0.00	4.14	120	--	<0.50	<0.50	<0.50	<1.0	7.5	--	--	--	--	
9/13/2007	--		6.31	0.00	3.80	<50	--	<0.50	<0.50	<0.50	<1.0	10	--	--	--	--	
11/21/2007	--		6.39	0.00	3.72	55	--	<0.50	<0.50	<0.50	<1.0	8.4	--	--	--	--	
2/29/2008	--		5.78	0.00	4.33	<50	--	<0.50	<0.50	<0.50	<1.0	6.2	--	--	--	--	
5/23/2008	--		6.27	0.00	3.84	53	--	<0.50	<0.50	<0.50	<1.0	9.6	--	--	--	--	
9/26/2008	--		6.52	0.00	3.59	<50	--	<1.0	<1.0	<1.0	<1.0	7.5	--	--	--	--	
12/23/2008	--		6.40	0.00	3.71	59	--	<1.0	<1.0	<1.0	<1.0	5.7	--	--	--	--	
3/9/2009	--		5.65	0.00	4.46	<50	--	<1.0	<1.0	<1.0	<1.0	4.4	--	--	--	--	
5/28/2009	--		5.91	0.00	4.20	<50	--	<1.0	<1.0	<1.0	<1.0	5.7	--	--	1.77	--	
12/10/2009	--		5.88	0.00	4.23	62	--	<0.50	<0.50	<0.50	<1.0	6.5	--	--	0.56	--	
6/29/2010	P		5.48	0.00	4.63	<50	--	<0.50	<0.50	<0.50	<1.0	3.0	--	--	0.63	7.32	
12/30/2010	P		4.80	0.00	5.31	<50	--	<0.50	<0.50	<0.50	<1.0	5.6	--	--	0.65	7.28	
6/29/2011	P		5.18	0.00	4.93	<500	--	<5.0	<5.0	<5.0	<10	<5.0	--	--	0.47	7.5	
1/30/2012	**P**		**5.29**	**0.00**	**4.82**	**<50**	**--**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**4.0**	**--**	**--**	**0.69**	**7.69**	
MW-8																	
10/12/1993	--	8.60	5.86	0.00	2.74	<50	--	<0.50	<0.50	<0.50	<0.50	11	--	--	--	--	
2/15/1994	--		5.50	0.00	3.10	380	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	3.3	--	
5/11/1994	--		5.09	0.00	3.51	330	--	<0.50	1.2	<0.50	1.9	<5.0	--	--	8.5	--	

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Well ID and Date Monitored	P/NP	TOC Elevation (feet)	DTW (feet)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L									DO (mg/L)	pH	Footnote
						GRO/ TPHg	DRO/ TPHd	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE	TOG	HVOC			
MW-8 Cont.																	
8/1/1994	--	8.60	5.20	0.00	3.40	260	--	<0.50	1.2	2.9	5.8	<5.0	--	--	2.3	--	
10/18/1994	--		5.70	0.00	2.90	82	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	6.4	--	
1/13/1995	--		4.96	0.00	3.64	<50	--	<0.50	<0.50	<0.50	<1.0	--	--	--	6.9	--	
4/13/1995	--		5.40	0.00	3.20	270	--	<0.50	<0.50	<0.50	4.4	--	--	--	8.4	--	
7/11/1995	--		6.01	0.00	2.59	320	--	<0.50	<0.50	<0.50	3.5	--	--	--	8.0	--	
11/2/1995	--		6.81	0.00	1.79	100	--	<0.50	<0.50	<0.50	<1.0	<5.0	--	--	8.7	--	
2/5/1996	--		6.12	0.00	2.48	<50	--	<5.0	<10	<10	<10	<100	--	--	1.5	--	
4/24/1996	--		6.23	0.00	2.37	<50	--	<5.0	<10	<10	<10	<100	--	--	8.7	--	
7/15/1996	--		6.70	0.00	1.90	<250	--	<2.5	<5.0	<5.0	<5.0	<50	--	--	8.4	--	
7/30/1996	--		6.64	0.00	1.96	--	--	--	--	--	--	--	--	--	--	--	
11/4/1996	--		8.36	0.00	0.24	--	--	--	--	--	--	--	--	--	--	--	
11/5/1996	--		--	--	--	<50	--	<0.50	<1.0	<1.0	<1.0	<10	--	--	7.2	--	
5/17/1997	--		7.03	0.00	1.57	--	--	--	--	--	--	--	--	--	--	--	
8/11/1997	--		6.05	0.00	2.55	--	--	--	--	--	--	--	--	--	--	--	
11/17/1997	--		9.14	0.00	-0.54	<50	--	<0.50	<1.0	<1.0	<1.0	<10	--	--	7.7	--	
1/29/1998	--		7.90	0.00	0.70	--	--	--	--	--	--	--	--	--	--	--	
6/22/1998	--		7.72	0.00	0.88	--	--	--	--	--	--	--	--	--	--	--	
12/30/1998	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	INA
3/9/1999	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	INA
6/23/1999	--		4.70	0.00	3.90	--	--	--	--	--	--	--	--	--	--	--	
9/23/1999	--		4.22	0.00	4.38	--	--	--	--	--	--	--	--	--	--	--	
12/28/1999	--		4.12	0.00	4.48	--	--	--	--	--	--	--	--	--	--	--	
3/22/2000	--		4.71	0.00	3.89	--	--	--	--	--	--	--	--	--	--	--	
5/26/2000	--		4.98	0.00	3.62	--	--	--	--	--	--	--	--	--	--	--	
9/15/2000	--		4.62	0.00	3.98	--	--	--	--	--	--	--	--	--	--	--	
12/11/2000	--		4.77	0.00	3.83	--	--	--	--	--	--	--	--	--	--	--	
3/29/2001	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	INA
6/27/2001	--		5.11	0.00	3.49	570	--	<2.5	<2.5	2.6	<7.5	3.4	--	--	--	--	
9/19/2001	--		5.00	0.00	3.60	<500	--	<5.0	<5.0	<5.0	<15	<5.0	--	--	--	--	
12/28/2001	--		4.15	0.00	4.45	440	--	<0.50	<0.50	0.98	<1.0	6.3	--	--	--	--	

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Well ID and Date Monitored	P/NP	TOC Elevation (feet)	DTW (feet)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L									DO (mg/L)	pH	Footnote
						GRO/ TPHg	DRO/ TPHd	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE	TOG	HVOC			
MW-8 Cont.																	
3/12/2002	--	8.60	4.35	0.00	4.25	330	--	<2.5	<2.5	<2.5	<5.0	8.7	--	--	--	--	
6/13/2002	--		5.09	0.00	3.51	<500	--	<5.0	<5.0	<5.0	<10	16	--	--	--	--	
9/6/2002	--		5.18	0.00	3.42	98	--	<0.50	<0.50	<0.50	<0.50	76	--	--	--	--	
12/13/2002	--		4.84	0.00	3.76	120	--	<0.50	<0.50	0.94	0.52	140	--	--	--	--	EPA 8015B/8021B used
2/19/2003	--		4.45	0.00	4.15	<2,500	--	<25	<25	<25	<25	800	--	--	--	--	
6/6/2003	--		5.00	0.00	3.60	<50,000	--	<500	<500	<500	<500	17,000	--	--	--	--	
8/7/2003	--		4.84	0.00	3.76	<2,500	--	<25	<25	<25	<25	2,400	--	--	--	--	
11/20/2003	--		4.48	0.00	4.12	<2,500	--	<25	<25	<25	<25	1,400	--	--	--	--	
4/28/2004	--		9.66	0.00	-1.06	730	--	<2.5	<2.5	<2.5	<2.5	170	--	--	--	--	
8/26/2004	--		4.73	0.00	3.87	<2,500	--	<25	<25	<25	<25	170	--	--	--	--	
12/1/2004	--		4.80	0.00	3.80	<250	--	<2.5	<2.5	<2.5	<2.5	36	--	--	--	--	
2/2/2005	--		4.50	0.00	4.10	810	--	<0.50	<0.50	<0.50	<0.50	41	--	--	--	--	
4/25/2005	--	11.08	4.99	0.00	6.09	1,400	--	<12	<12	<12	<12	32	--	--	--	--	
9/30/2005	--		4.89	0.00	6.19	840	--	<5.0	<5.0	<5.0	<10	17	--	--	--	--	
12/28/2005	--		4.81	0.00	6.27	<250	--	<2.5	<2.5	<2.5	<5.0	17	--	--	--	--	
3/23/2006	--		4.22	0.00	6.86	660	--	<2.5	<2.5	<2.5	<5.0	21	--	--	--	--	
6/5/2006	--		4.63	0.00	6.45	<2,500	--	<25	<25	<25	<50	30	--	--	--	--	
9/19/2006	--		4.82	0.00	6.26	<500	--	<5.0	<5.0	<5.0	<10	17	--	--	--	--	Well purged dry
12/1/2006	--		4.83	0.00	6.25	350	--	<2.5	<2.5	<2.5	<5.0	16	--	--	--	--	
3/1/2007	--		4.43	0.00	6.65	<500	--	<5.0	<5.0	<5.0	<10	20	--	--	--	--	
6/1/2007	--		4.74	0.00	6.34	<500	--	<5.0	<5.0	<5.0	<10	8.7	--	--	--	--	
9/13/2007	--		5.25	0.00	5.83	230	--	<0.50	<0.50	<0.50	<1.0	9.4	--	--	--	--	
11/21/2007	--		5.13	0.00	5.95	350	--	<0.50	<0.50	<0.50	<1.0	8.7	--	--	--	--	
2/29/2008	--		4.75	0.00	6.33	<1,000	--	<10	<10	<10	<20	16	--	--	--	--	
5/23/2008	--		5.01	0.00	6.07	<1,000	--	<10	<10	<10	<20	15	--	--	--	--	
9/26/2008	--		5.43	0.00	5.65	190	--	<1.0	<1.0	<1.0	<1.0	14	--	--	--	--	
12/23/2008	--		5.25	0.00	5.83	270	--	<1.0	<1.0	<1.0	<1.0	10	--	--	--	--	
3/9/2009	--		4.36	0.00	6.72	210	--	<1.0	<1.0	<1.0	<1.0	15	--	--	--	--	
5/28/2009	--		4.98	0.00	6.10	270	--	<1.0	<1.0	<1.0	<1.0	6.5	--	--	2.14	--	
12/10/2009	--		5.06	0.00	6.02	90	--	<0.50	<0.50	<0.50	<1.0	9.0	--	--	0.47	--	

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						GRO/ TPHg	DRO/ TPHd	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE	TOG	HVOC			
MW-8 Cont.																	
6/29/2010	P	11.08	4.71	0.00	6.37	170	--	<0.50	<0.50	<0.50	<1.0	10	--	--	0.38	6.94	
12/30/2010	P		4.37	0.00	6.71	190	--	<0.50	<0.50	<0.50	<1.0	6.6	--	--	0.52	7.02	
6/29/2011	P		4.57	0.00	6.51	140	1,000	--	--	--	--	4.7	--	--	0.62	7.2	
1/30/2012	**P**		**4.63**	**0.00**	**6.45**	**240**	**1,500**	**--**	**--**	**--**	**--**	**3.8**	**--**	**--**	**1.52**	**7.37**	
MW-9																	
10/12/1993	--	8.08	5.66	0.08	2.48	--	--	--	--	--	--	--	--	--	--	--	
2/15/1994	--		5.32	0.05	2.80	--	--	--	--	--	--	--	--	--	--	--	
5/11/1994	--		5.57	0.00	2.51	--	--	--	--	--	--	--	--	--	--	--	
8/1/1994	--		6.25	0.00	1.83	--	--	--	--	--	--	--	--	--	--	--	
10/18/1994	--		5.59	0.13	2.59	--	--	--	--	--	--	--	--	--	--	--	
1/13/1995	--		4.42	0.14	3.77	--	--	--	--	--	--	--	--	--	--	--	
4/13/1995	--		4.06	0.11	4.10	--	--	--	--	--	--	--	--	--	--	--	
7/11/1995	--		4.21	0.08	3.93	--	--	--	--	--	--	--	--	--	--	--	
11/2/1995	--		5.22	0.05	2.90	--	--	--	--	--	--	--	--	--	--	--	
2/5/1996	--		4.76	0.01	3.33	--	--	--	--	--	--	--	--	--	--	--	
4/24/1996	--		4.62	0.09	3.53	--	--	--	--	--	--	--	--	--	--	--	
7/15/1996	--		5.11	0.04	3.00	--	--	--	--	--	--	--	--	--	--	--	
7/30/1996	--		5.15	0.00	2.93	--	--	--	--	--	--	--	--	--	--	--	
11/4/1996	--		6.75	0.01	1.34	--	--	--	--	--	--	--	--	--	--	--	
5/17/1997	--		5.42	0.00	2.66	97,000	--	16,000	8,200	2,300	17,300	39,000	--	--	--	--	DUP
5/17/1997	--		5.42	0.00	2.66	97,000	--	16,000	7,700	2,300	18,400	40,000	--	--	7.0	--	
8/11/1997	--		5.37	0.00	2.71	71,000	--	12,000	340	2,100	4,300	26,000	--	--	9.1	--	
8/11/1997	--		5.37	0.00	2.71	100,000	--	14,000	360	3,200	5,790	27,000	--	--	--	--	DUP
11/17/1997	--		5.62	Sheen	2.46	100,000	--	22,000	4,800	3,100	17,900	32,000	--	--	8.3	--	
11/17/1997	--		5.62	Sheen	2.46	100,000	--	24,000	5,300	3,500	19,300	35,000	--	--	--	--	DUP
1/29/1998	--		4.07	Sheen	4.01	250,000	--	20,000	21,000	3,100	18,500	110,000	--	--	6.6	--	
1/29/1998	--		4.07	Sheen	4.01	250,000	--	20,000	20,000	3,100	18,400	110,000	--	--	--	--	DUP
6/22/1998	--		4.28	0.00	3.80	280,000	--	21,000	18,000	3,800	21,200	110,000	--	--	5.8	--	
6/22/1998	--		4.28	0.00	3.80	290,000	--	20,000	17,000	3,800	21,200	110,000	--	--	--	--	DUP
12/30/1998	--		4.95	0.00	3.13	150,000	--	10,000	3,800	2,000	9,600	86,000	--	--	--	--	

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						GRO/ TPHg	DRO/ TPHd	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE	TOG	HVOC			
MW-9 Cont.																	
3/9/1999	--	8.08	3.95	0.00	4.13	82,000	--	6,800	570	1,400	4,700	100,000	--	--	--	--	
6/23/1999	--		5.12	0.00	2.96	41,000	--	11,000	820	2,300	5,200	92,000	--	--	--	--	
9/23/1999	--		4.74	0.00	3.34	57,000	--	12,000	5,400	1,900	9,500	89,000	--	--	--	--	
12/28/1999	--		4.58	0.00	3.50	46,000	--	15,000	490	2,500	3,500	100,000	--	--	--	--	
3/22/2000	--		3.90	0.00	4.18	86,000	--	18,000	1,800	2,300	6,800	120,000	--	--	--	--	
5/26/2000	--		4.15	0.00	3.93	82,000	--	17,000	680	1,800	3,800	100,000	--	--	--	--	
9/6/2000	--		4.47	0.00	3.61	100,000	--	19,000	280	2,400	6,400	84,000	--	--	--	--	
9/15/2000	--		4.34	0.00	3.74	--	--	--	--	--	--	--	--	--	--	--	
12/11/2000	--		4.41	0.00	3.67	110,000	--	14,400	768	2,610	6,670	123,000	--	--	--	--	
3/29/2001	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	INA
6/26/2001	--		5.03	0.13	3.15	--	--	--	--	--	--	--	--	--	--	--	GW Elev. Estimated
9/19/2001	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
12/28/2001	--		3.73	0.00	4.35	110,000	--	15,000	1,500	2,280	5,530	60,900	--	--	--	--	
3/12/2002	--		4.93	0.00	3.15	88,000	--	12,500	2,600	2,800	8,950	44,000	--	--	--	--	
6/13/2002	--		4.13	0.00	3.95	59,000	--	9,870	161	2,560	5,560	35,600	--	--	--	--	
9/6/2002	--		4.39	0.00	3.69	47,000	--	10,000	<100	2,100	4,600	31,000	--	--	--	--	
12/13/2002	--		3.97	0.00	4.11	57,000	--	11,000	1,000	2,300	5,800	28,000	--	--	--	--	EPA 8015B/8021B used
2/19/2003	--		3.25	0.00	4.83	76,000	--	10,000	2,100	3,000	8,900	11,000	--	--	--	--	
6/6/2003	--		3.94	0.00	4.14	66,000	--	9,000	<500	2,500	4,400	17,000	--	--	--	--	
8/7/2003	--		3.92	Sheen	4.16	53,000	--	7,600	<250	2,600	4,700	17,000	--	--	--	--	
11/20/2003	--		4.89	0.00	3.19	40,000	--	6,800	<250	860	1,100	16,000	--	--	--	--	
4/28/2004	--		3.19	Sheen	4.89	47,000	--	5,600	690	2,300	6,800	8,500	--	--	--	--	
8/26/2004	--		3.61	0.00	4.47	35,000	--	3,700	500	1,300	5,300	6,500	--	--	--	--	Past holding time (TBA)
8/26/2004	--		3.61	0.00	4.47	35,000	--	3,700	500	1,300	5,300	6,500	--	--	--	--	Past holding time (TBA)
12/1/2004	--		3.99	0.00	4.09	36,000	--	3,500	<250	1,200	4,300	8,300	--	--	--	--	
2/2/2005	--		3.71	Sheen	4.37	21,000	--	1,800	130	670	2,000	3,600	--	--	--	--	
4/25/2005	--	10.55	3.31	Sheen	7.24	5,900	--	190	<5.0	120	77	540	--	--	--	--	
9/30/2005	--		4.02	0.00	6.53	26,000	--	2,400	360	1,600	4,200	2,400	--	--	--	--	
12/28/2005	--		2.99	0.00	7.56	14,000	--	1,400	22	350	450	2,200	--	--	--	--	
3/23/2006	--		2.50	0.00	8.05	4,100	--	250	<10	130	110	330	--	--	--	--	

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

Former BP Station #11126, 1700 Powell Street, Emeryville, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	DTW (feet)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L									DO (mg/L)	pH	Footnote
						GRO/ TPHg	DRO/ TPHd	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE	TOG	HVOC			
MW-9 Cont.																	
6/5/2006	--	10.55	3.34	0.00	7.21	8,200	--	2,200	79	500	1,200	1,800	--	--	--	--	Well purged dry
9/19/2006	--		4.06	0.00	6.49	9,000	--	2,600	15	440	370	3,100	--	--	--	--	Well purged dry
12/1/2006	--		3.88	0.00	6.67	5,400	--	1,600	15	310	140	1,400	--	--	--	--	Well purged dry
3/1/2007	--		2.79	0.00	7.76	6,300	--	250	<13	270	75	240	--	--	--	--	
6/1/2007	--		3.53	0.00	7.02	6,500	--	980	16	250	95	1,800	--	--	--	--	
9/13/2007	--		4.78	0.00	5.77	4,500	--	170	14	79	27	640	--	--	--	--	
11/21/2007	--		4.41	0.00	6.14	4,600	--	790	<13	97	34	2,000	--	--	--	--	
2/29/2008	--		3.41	0.00	7.14	6,800	--	700	19	250	98	1,100	--	--	--	--	
5/23/2008	--		4.53	0.00	6.02	5,300	--	390	22	130	68	1,200	--	--	--	--	
9/26/2008	--		5.07	0.00	5.48	10,000	--	94	11	26	35	280	--	--	--	--	
12/23/2008	--		4.04	0.00	6.51	2,600	--	420	7.9	110	84	870	--	--	--	--	
3/9/2009	--		3.45	0.00	7.10	3,400	--	45	2.2	51	18	180	--	--	--	--	
5/28/2009	--		4.17	0.00	6.38	4,400	--	420	14	270	170	720	--	--	0.94	--	
12/10/2009	--		4.11	Sheen	6.44	4400	--	240	7.9	17	19	780	--	--	--	--	
6/29/2010	P		4.30	0.00	6.25	4,200	--	680	15	110	130	1,200	--	--	0.37	6.98	
12/30/2010	P		2.79	0.00	7.76	420	--	6.7	<0.50	2.1	2.0	13	--	--	0.79	7.23	
6/29/2011	P		3.72	0.00	6.83	4,700	--	600	13	370	120	900	--	--	0.48	7.2	
1/30/2012	**P**		**4.09**	**0.00**	**6.46**	**2,300**	**--**	**210**	**5.1**	**10**	**20**	**630**	**--**	**--**	**0.75**	**7.35**	
MW-10																	
4/25/2005	--	12.53	8.37	0.00	4.16	<50	--	<0.50	<0.50	<0.50	<0.50	1.5	--	--	--	--	
9/30/2005	--		8.41	0.00	4.12	<50	--	<0.50	<0.50	<0.50	<1.0	1.5	--	--	--	--	
12/28/2005	--		7.78	0.00	4.75	<50	--	<0.50	<0.50	<0.50	<1.0	0.78	--	--	--	--	
3/23/2006	--		7.77	0.00	4.76	<50	--	<0.50	<0.50	<0.50	<1.0	0.67	--	--	--	--	
6/5/2006	--		8.38	0.00	4.15	<50	--	<0.50	<0.50	<0.50	<1.0	1.8	--	--	--	--	
9/19/2006	--		7.99	0.00	4.54	<50	--	<0.50	<0.50	<0.50	<1.0	0.59	--	--	--	--	
12/1/2006	--		5.47	0.00	7.06	<50	--	<0.50	<0.50	<0.50	<1.0	0.89	--	--	--	--	Well purged dry
3/1/2007	--		7.92	0.00	4.61	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	--	
6/1/2007	--		8.55	0.00	3.98	<50	--	<0.50	<0.50	<0.50	<1.0	1.2	--	--	--	--	
9/13/2007	--		8.71	0.00	3.82	<50	--	<0.50	<0.50	<0.50	<1.0	0.94	--	--	--	--	
11/21/2007	--		8.84	0.00	3.69	<50	--	<0.50	<0.50	<0.50	<1.0	2.2	--	--	--	--	

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

Former BP Station #11126, 1700 Powell Street, Emeryville, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	DTW (feet)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L									DO (mg/L)	pH	Footnote
						GRO/ TPHg	DRO/ TPHd	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE	TOG	HVOC			
MW-10 Cont.																	
2/29/2008	--	12.53	8.20	0.00	4.33	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	--	
5/23/2008	--		8.49	0.00	4.04	<50	--	<0.50	<0.50	<0.50	<1.0	2.2	--	--	--	--	
9/26/2008	--		9.91	0.00	2.62	<50	--	<1.0	<1.0	<1.0	<1.0	3.0	--	--	--	--	
12/23/2008	--		8.60	0.00	3.93	<50	--	<1.0	<1.0	<1.0	<1.0	2.7	--	--	--	--	
3/9/2009	--		7.68	0.00	4.85	<50	--	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	
5/28/2009	--		8.71	0.00	3.82	<50	--	<1.0	<1.0	<1.0	<1.0	1.3	--	--	2.76	--	
12/10/2009	--		8.35	0.00	4.18	<50	--	<0.50	<0.50	<0.50	<1.0	1.5	--	--	1.81	--	
6/29/2010	P		8.43	0.00	4.10	<50	--	<0.50	<0.50	<0.50	<1.0	1.6	--	--	1.00	7.05	
12/30/2010	P		6.62	0.00	5.91	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	1.26	6.95	
6/29/2011	P		7.16	0.00	5.37	--	--	--	--	--	--	<0.50	--	--	0.49	7.4	
1/30/2012	**--**		**7.33**	**0.00**	**5.20**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	
MW-11																	
4/25/2005	--	14.55	9.29	0.00	5.26	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	
9/30/2005	--		10.23	0.00	4.32	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	--	
12/28/2005	--		9.09	0.00	5.46	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	--	
3/23/2006	--		8.75	0.00	5.80	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	--	
6/5/2006	--		9.47	0.00	5.08	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	--	
9/19/2006	--		10.16	0.00	4.39	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	--	
12/1/2006	--		10.46	0.00	4.09	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	--	
3/1/2007	--		9.62	0.00	4.93	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	--	
6/1/2007	--		9.97	0.00	4.58	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	--	
9/13/2007	--		10.42	0.00	4.13	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	--	
11/21/2007	--		10.64	0.00	3.91	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	--	
2/29/2008	--		9.76	0.00	4.79	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	--	
5/23/2008	--		10.51	0.00	4.04	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	--	
9/26/2008	--		10.51	0.00	4.04	<50	--	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	
12/23/2008	--		10.74	0.00	3.81	<50	--	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	
3/9/2009	--		9.50	0.00	5.05	<50	--	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	
5/28/2009	--		10.40	0.00	4.15	<50	--	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	3.06	--	
12/10/2009	--		10.41	0.00	4.14	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	1.03	--	Obstruction

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

Former BP Station #11126, 1700 Powell Street, Emeryville, CA

Well ID and Date Monitored	P/NP	TOC Elevation (feet)	DTW (feet)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in µg/L									DO (mg/L)	pH	Footnote
						GRO/ TPHg	DRO/ TPHd	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE	TOG	HVOC			
MW-11 Cont.																	
6/29/2010	P	14.55	10.19	0.00	4.36	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	0.47	7.43	
12/30/2010	P		9.22	0.00	5.33	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	0.63	6.97	
6/29/2011	P		9.40	0.00	5.15	--	--	--	--	--	--	<0.50	--	--	0.75	7.4	
1/30/2012	**--**		**9.49**	**0.00**	**5.06**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	

Symbols & Abbreviations:
TPHg = Total petroleum hydrocarbons as gasoline
TPHd = Total petroleum hydrocarbons as diesel
GRO = Gasoline range organics
DRO = Diesel range organics
TOG = Total petroleum hydrocarbons as oil and grease
ORO = Motor oil range organics
MTBE = Methyl tert-butyl ether
HVOC = Halogenated volatile organic compounds
DO = Dissolved Oxygen; rounded to the nearest tenth
TOC = Top of casing
P/NP = Well purged/not purged prior to sampling
GWE adjusted assuming a specific gravity of 0.75 for free product.
mg/L = Milligrams per liter
µg/L = Micrograms per liter
< = Analyte was not detected above the specified method detection limit
-- = Not measured or analyzed
ND = Not detected (historical data; reporting limit not reported)
DUP = Duplicate sample
INA = Well inaccessible; not sampled
NS = Well not sampled

Footnotes:
a = DRO and ORO samples collected from MW-3 on 12/10/2009.
b = Identity of contaminant uncertain (hydrocarbon pattern atypical of indicated analyte); see lab report

Notes:
Beginning in the first quarter 2003, TPHg and VOCs analyzed by EPA Method 8260B

Beginning in the fourth quarter 2009, TOG replaced by ORO by EPA Method 8015B

The data within this table collected prior to December 2009 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 #11126, 1700 Powell Street, Emeryville, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-1									
10/12/1993	--	--	6,111	--	--	--	--	--	
2/15/1994	--	--	5,495	--	--	--	--	--	
5/11/1994	--	--	705	--	--	--	--	--	
8/1/1994	--	--	9,718	--	--	--	--	--	
8/1/1994	--	--	9,800	--	--	--	--	--	DUP
10/18/1994	--	--	15,668	--	--	--	--	--	DUP
10/18/1994	--	--	--	--	--	--	--	--	DUP
1/13/1995	--	--	--	--	--	--	--	--	DUP
1/13/1995	--	--	--	--	--	--	--	--	DUP
11/2/1995	--	--	52,000	--	--	--	--	--	
2/5/1996	--	--	8,700	--	--	--	--	--	
4/24/1996	--	--	4,500	--	--	--	--	--	
7/16/1996	--	--	63,000	--	--	--	--	--	DUP
7/16/1996	--	--	64,000	--	--	--	--	--	
8/12/1996	--	--	440,000	--	--	--	--	--	
11/5/1996	--	--	42,000	--	--	--	--	--	
5/17/1997	--	--	140,198	--	--	--	--	--	
8/11/1997	--	--	360,000	--	--	--	--	--	
11/17/1997	--	--	400,000	--	--	--	--	--	
1/29/1998	--	--	<50	--	--	--	--	--	
6/22/1998	--	--	57,000	--	--	--	--	--	
12/30/1998	--	--	15,000	--	--	--	--	--	
3/9/1999	--	--	13,000	--	--	--	--	--	
6/23/1999	--	--	24,000	--	--	--	--	--	
9/23/1999	--	--	7,100	--	--	--	--	--	
12/28/1999	--	--	5,500	--	--	--	--	--	
3/22/2000	--	--	4,900	--	--	--	--	--	
5/26/2000	--	--	320,000	--	--	--	--	--	
9/6/2000	--	--	19,000	--	--	--	--	--	
12/11/2000	--	--	3,900	--	--	--	--	--	
3/29/2001	--	--	--	--	--	--	--	--	INA
6/27/2001	--	--	1,780	--	--	--	--	--	

Table 2. Summary of Fuel Additives Analytical Data

Former BP Station #11126, 1700 Powell Street, Emeryville, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-1 Cont.									
9/19/2001	--	--	1,090	--	--	--	--	--	
12/28/2001	--	--	1,120	--	--	--	--	--	
3/12/2002	--	--	1,020	--	--	--	--	--	
6/13/2002	--	--	6,490	--	--	--	--	--	
9/6/2002	--	--	550	--	--	--	--	--	
12/13/2002	--	--	470	--	--	--	--	--	EPA 8015B/8021B used
2/19/2003	--	--	610	--	--	--	--	--	
6/6/2003	<5,000	<1,000	1,400	<25	<25	<25	--	--	
8/7/2003	<1,000	560	920	<5.0	<5.0	12	<5.0	<5.0	
11/20/2003	1,800	<200	250	<5.0	<5.0	<5.0	--	--	a (ethanol)
4/28/2004	<1,000	950	200	<5.0	<5.0	<5.0	<5.0	<5.0	
8/26/2004	<5.0	320	180	<2.5	<2.5	<2.5	<2.5	<2.5	e (ethanol)
8/26/2004	<500	320	180	<2.5	<2.5	<2.5	<2.5	<2.5	b (ethanol)
12/1/2004	<1,000	300	170	<5.0	<5.0	<5.0	<5.0	<5.0	
2/2/2005	<500	6,700	160	<2.5	<2.5	<2.5	<2.5	<2.5	b (ethanol)
4/25/2005	<500	5,000	200	<2.5	<2.5	<2.5	<2.5	<2.5	
9/30/2005	<500	1,200	250	13	<5.0	<5.0	<5.0	<5.0	
12/28/2005	<1,000	1,800	140	<10	<5.0	<5.0	<5.0	--	
3/23/2006	<1,000	2,800	40	<10	<5.0	<5.0	<5.0	<5.0	
6/5/2006	<500	1,900	160	<5.0	<2.5	<2.5	<2.5	<2.5	
9/19/2006	<1,300	1,000	180	<5.0	<2.5	<2.5	<2.5	<2.5	Well purged dry
12/1/2006	<1,300	930	150	<5.0	<2.5	<2.5	<2.5	<2.5	
3/1/2007	<1,000	510	160	<4.0	<2.0	2.0	<2.0	<2.0	
6/1/2007	<1,000	1,500	140	<4.0	<2.0	2.2	<2.0	<2.0	
9/13/2007	1,100	1,300	59	<4.0	<2.0	<2.0	<2.0	<2.0	
11/21/2007	<1,000	1,300	200	<4.0	<2.0	2.7	<2.0	<2.0	
2/29/2008	<250	1,200	25	<1.0	<0.50	<0.50	<0.50	<0.50	
5/23/2008	<250	1,800	120	<1.0	<0.50	1.4	<0.50	<0.50	
9/26/2008	<250	1,400	120	<1.0	<1.0	1.9	<1.0	<1.0	
12/23/2008	<250	940	75	<1.0	<1.0	<1.0	<1.0	<1.0	
3/9/2009	<250	1,300	88	<1.0	<1.0	1.7	<1.0	<1.0	
5/28/2009	<250	1,800	48	<1.0	<1.0	1.3	<1.0	<1.0	

Table 2. Summary of Fuel Additives Analytical Data

Former BP Station #11126, 1700 Powell Street, Emeryville, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-1 Cont.									
12/10/2009	<100	560	65	<0.50	<0.50	1.1	<0.50	<0.50	
6/29/2010	<100	2,000	<0.50	<0.50	<0.50	1.2	<0.50	<0.50	
12/30/2010	<250	1,900	46	<0.50	<0.50	1.0	<0.50	<0.50	
6/29/2011	--	840	3.9	--	--	<0.50	--	--	
1/30/2012	**--**	**900**	**64**	**--**	**--**	**1.3**	**--**	**--**	
MW-2									
11/4/1992	--	--	--	--	--	--	--	--	DUP
11/4/1992	--	--	--	--	--	--	--	--	DUP
10/12/1993	--	--	442	--	--	--	--	--	
2/15/1994	--	--	127	--	--	--	--	--	DUP
5/11/1994	--	--	740	--	--	--	--	--	DUP
5/11/1994	--	--	953	--	--	--	--	--	
8/1/1994	--	--	1,676	--	--	--	--	--	
10/18/1994	--	--	2,417	--	--	--	--	--	
1/13/1995	--	--	--	--	--	--	--	--	
4/13/1995	--	--	--	--	--	--	--	--	
4/13/1995	--	--	--	--	--	--	--	--	DUP
7/11/1995	--	--	--	--	--	--	--	--	
7/11/1995	--	--	--	--	--	--	--	--	DUP
11/2/1995	--	--	19,000	--	--	--	--	--	DUP
11/2/1995	--	--	15,000	--	--	--	--	--	
2/5/1996	--	--	93	--	--	--	--	--	DUP
2/5/1996	--	--	99	--	--	--	--	--	
4/24/1996	--	--	<100	--	--	--	--	--	
4/24/1996	--	--	<50	--	--	--	--	--	DUP
7/16/1996	--	--	1,400	--	--	--	--	--	
11/5/1996	--	--	1,100	--	--	--	--	--	DUP
11/5/1996	--	--	1,100	--	--	--	--	--	DUP
5/17/1997	--	--	210	--	--	--	--	--	
8/11/1997	--	--	2,400	--	--	--	--	--	
11/17/1997	--	--	130	--	--	--	--	--	

Table 2. Summary of Fuel Additives Analytical Data

Former BP Station #11126, 1700 Powell Street, Emeryville, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-2 Cont.									
1/29/1998	--	--	<10	--	--	--	--	--	
6/22/1998	--	--	560	--	--	--	--	--	
9/23/1999	--	--	910	--	--	--	--	--	
3/22/2000	--	--	2,800	--	--	--	--	--	
9/6/2000	--	--	12,000	--	--	--	--	--	
3/29/2001	--	--	--	--	--	--	--	--	INA
6/27/2001	--	--	--	--	--	--	--	--	INA
9/19/2001	--	--	--	--	--	--	--	--	INA
12/28/2001	--	--	--	--	--	--	--	--	INA
3/12/2002	--	--	37,300	--	--	--	--	--	
6/13/2002	--	--	84,600	--	--	--	--	--	
9/6/2002	--	--	45,000	--	--	--	--	--	
12/13/2002	--	--	98,000	--	--	--	--	--	EPA 8015B/8021B used
2/19/2003	--	--	81,000	--	--	--	--	--	
6/6/2003	<200,000	<40,000	72,000	<1,000	<1,000	1,300	--	--	
8/7/2003	<100,000	45,000	83,000	<500	<500	1,300	<500	<500	
11/20/2003	<20,000	48,000	18,000	<100	<100	200	--	--	
4/28/2004	<50,000	59,000	31,000	<250	<250	<250	<250	<250	
8/26/2004	23	<10,000	11,000	<250	<250	320	<250	<250	e (ethanol)
8/26/2004	<50,000	<10,000	11,000	<250	<250	320	<250	<250	b (ethanol)
12/1/2004	<20,000	<4,000	10,000	<100	<100	230	<100	<100	
2/2/2005	<20,000	4,000	10,000	<100	<100	260	<100	<100	b (ethanol)
4/25/2005	<10,000	3,700	8,200	<50	<50	220	<50	<50	
9/30/2005	<5,000	4,700	16,000	<50	<50	270	<50	<50	
12/28/2005	<20,000	6,300	22,000	<200	<100	410	<100	--	
3/23/2006	<20,000	5,800	13,000	<200	<100	290	<100	<100	
6/5/2006	<10,000	3,300	8,000	<100	<50	280	<50	<50	
9/19/2006	<25,000	4,800	16,000	<100	<50	370	<50	<50	
12/1/2006	<25,000	3,900	10,000	<100	<50	270	<50	<50	
3/1/2007	<25,000	2,700	8,300	<100	<50	210	<50	<50	
6/1/2007	<50,000	4,900	17,000	260	<100	310	<100	<100	
9/13/2007	<25,000	42,000	2,300	<100	<50	50	<50	<50	

Table 2. Summary of Fuel Additives Analytical Data

Former BP Station #11126, 1700 Powell Street, Emeryville, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-2 Cont.									
11/21/2007	<25,000	5,000	5,200	<100	<50	160	<50	<50	
2/29/2008	<25,000	2,500	4,900	<100	<50	120	<50	<50	
5/23/2008	<25,000	29,000	2,500	140	<50	60	<50	<50	
9/26/2008	<250	77,000	960	<1.0	2.8	42	<1.0	<1.0	
12/23/2008	<500	57,000	1,800	<2.0	2.4	51	<2.0	<2.0	
3/9/2009	<5,000	21,000	2,200	<20	<20	82	<20	<20	
5/28/2009	<2,500	2,000	2,800	<10	<10	110	<10	<10	
12/10/2009	<100	44,000	360	0.52	1.4	8.7	<0.50	<0.50	
6/29/2010	<5,000	31,000	770	<25	<25	<25	<25	<25	
12/30/2010	<12,000	4,700	1,700	<25	<25	56	<25	<25	
6/29/2011	--	2,400	2,100	<25	<25	77	<25	<25	
1/30/2012	**--**	**1,900**	**1,700**	**<20**	**<20**	**60**	**<20**	**<20**	
MW-3									
10/12/1993	--	--	96	--	--	--	--	--	DUP
2/15/1994	--	--	30	--	--	--	--	--	
5/11/1994	--	--	51	--	--	--	--	--	
8/1/1994	--	--	18	--	--	--	--	--	
10/18/1994	--	--	21	--	--	--	--	--	
11/2/1995	--	--	270	--	--	--	--	--	
2/5/1996	--	--	11	--	--	--	--	--	
4/24/1996	--	--	150	--	--	--	--	--	
7/15/1996	--	--	<50	--	--	--	--	--	
11/5/1996	--	--	30	--	--	--	--	--	
5/17/1997	--	--	52	--	--	--	--	--	
8/11/1997	--	--	170	--	--	--	--	--	
11/17/1997	--	--	46	--	--	--	--	--	
1/29/1998	--	--	330	--	--	--	--	--	
6/22/1998	--	--	130	--	--	--	--	--	
3/9/1999	--	--	19	--	--	--	--	--	
3/22/2000	--	--	2,900	--	--	--	--	--	
12/11/2000	--	--	--	--	--	--	--	--	DTW anomalous

Table 2. Summary of Fuel Additives Analytical Data

Former BP Station #11126, 1700 Powell Street, Emeryville, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-3 Cont.									
3/29/2001	--	--	680	--	--	--	--	--	
6/27/2001	--	--	560	--	--	--	--	--	
9/19/2001	--	--	464	--	--	--	--	--	
12/28/2001	--	--	180	--	--	--	--	--	
3/12/2002	--	--	443	--	--	--	--	--	
6/13/2002	--	--	395	--	--	--	--	--	
9/6/2002	--	--	650	--	--	--	--	--	
12/13/2002	--	--	60	--	--	--	--	--	EPA 8015B/8021B used
2/19/2003	--	--	120	--	--	--	--	--	
6/6/2003	<1,000	<200	180	<5.0	<5.0	16	--	--	
8/7/2003	<1,000	<200	290	<5.0	<5.0	20	<5.0	<5.0	
11/20/2003	<100	<20	17	<0.50	<0.50	1.4	--	--	
4/28/2004	<200	<40	87	<1.0	<1.0	3.9	<1.0	<1.0	
8/26/2004	<100	260	34	<0.50	<0.50	2.0	<0.50	<0.50	b (ethanol)
8/26/2004	<5.0	260	34	<0.50	<0.50	2.0	<0.50	<0.50	e (ethanol)
12/1/2004	<200	610	7.4	<1.0	<1.0	<1.0	<1.0	<1.0	
2/2/2005	<200	<40	20	<1.0	<1.0	1.1	<1.0	<1.0	b (ethanol)
4/25/2005	<500	160	220	<2.5	<2.5	10	<2.5	<2.5	b (ethanol)
9/30/2005	<50	270	8.2	<0.50	<0.50	0.68	<0.50	<0.50	
12/28/2005	<100	<5.0	0.66	<1.0	<0.50	<0.50	<0.50	--	
3/23/2006	<100	130	13	<1.0	<0.50	0.63	<0.50	<0.50	
6/5/2006	<100	510	29	<1.0	<0.50	1.6	<0.50	<0.50	
9/19/2006	<250	420	4.1	<1.0	<0.50	<0.50	<0.50	<0.50	
12/1/2006	<250	250	2.0	<1.0	<0.50	<0.50	<0.50	<0.50	
3/1/2007	<250	77	3.8	<1.0	<0.50	<0.50	<0.50	<0.50	
6/1/2007	<250	320	3.7	<1.0	<0.50	<0.50	<0.50	<0.50	
9/13/2007	<1,300	2,000	2.6	<5.0	<2.5	<2.5	<2.5	<2.5	
11/21/2007	<1,300	2,600	3.4	<5.0	<2.5	<2.5	<2.5	<2.5	
2/29/2008	<250	540	0.90	<1.0	<0.50	<0.50	<0.50	<0.50	
5/23/2008	<2,500	3,200	<5.0	<10	<5.0	<5.0	<5.0	<5.0	
9/26/2008	<250	6,900	4.8	<1.0	<1.0	<1.0	<1.0	<1.0	
12/23/2008	<250	8,200	4.9	<1.0	<1.0	<1.0	<1.0	<1.0	

Table 2. Summary of Fuel Additives Analytical Data

Former BP Station #11126, 1700 Powell Street, Emeryville, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-3 Cont.									
3/9/2009	<250	55	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
5/28/2009	<250	580	2.1	<1.0	<1.0	<1.0	<1.0	<1.0	
12/10/2009	<100	270	0.86	<0.50	<0.50	<0.50	<0.50	<0.50	
6/29/2010	<100	2,900	1.9	<0.50	<0.50	<0.50	<0.50	<0.50	
12/30/2010	<250	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
6/29/2011	--	73	0.73	--	--	<0.50	--	--	
1/30/2012	**--**	**65**	**<0.50**	**--**	**--**	**<0.50**	**--**	**--**	
MW-4									
10/12/1993	--	--	261	--	--	--	--	--	
2/15/1994	--	--	118	--	--	--	--	--	
5/11/1994	--	--	137	--	--	--	--	--	
8/1/1994	--	--	138	--	--	--	--	--	
10/18/1994	--	--	197	--	--	--	--	--	
11/2/1995	--	--	140	--	--	--	--	--	
2/5/1996	--	--	200	--	--	--	--	--	
4/24/1996	--	--	510	--	--	--	--	--	
7/15/1996	--	--	550	--	--	--	--	--	
11/5/1996	--	--	620	--	--	--	--	--	
11/17/1997	--	--	880	--	--	--	--	--	
3/9/1999	--	--	2,000	--	--	--	--	--	
3/22/2000	--	--	3,800	--	--	--	--	--	
3/29/2001	--	--	--	--	--	--	--	--	INA
6/27/2001	--	--	4,220	--	--	--	--	--	
9/19/2001	--	--	3,340	--	--	--	--	--	
12/28/2001	--	--	5,330	--	--	--	--	--	
3/12/2002	--	--	8,440	--	--	--	--	--	
6/13/2002	--	--	6,870	--	--	--	--	--	
9/6/2002	--	--	9,600	--	--	--	--	--	
12/13/2002	--	--	8,600	--	--	--	--	--	EPA 8015B/8021B used
2/19/2003	--	--	8,000	--	--	--	--	--	
6/6/2003	<10,000	2,500	6,800	<50	<50	190	--	--	

Table 2. Summary of Fuel Additives Analytical Data

Former BP Station #11126, 1700 Powell Street, Emeryville, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-4 Cont.									
8/7/2003	<10,000	2,400	6,600	<50	<50	160	<50	<50	
11/20/2003	<20,000	<4,000	11,000	<100	<100	310	--	--	
4/28/2004	<50,000	15,000	3,600	<250	<250	<250	<250	<250	
8/26/2004	<5.0	16,000	1,800	<25	<25	60	<25	<25	
12/1/2004	<2,000	19,000	450	<10	<10	10	<10	<10	
2/2/2005	<1,000	19,000	410	<5.0	<5.0	10	<5.0	<5.0	b (ethanol)
4/25/2005	<1,000	18,000	170	<5.0	<5.0	<5.0	<5.0	<5.0	
9/30/2005	<2,500	30,000	110	<25	<25	<25	<25	<25	
12/28/2005	<5,000	27,000	34	<50	<25	<25	<25	--	
3/23/2006	<5,000	34,000	120	<50	<25	<25	<25	<25	
6/5/2006	<10,000	34,000	<50	<100	<50	<50	<50	<50	Well purged dry
9/19/2006	<25,000	27,000	110	<100	<50	<50	<50	<50	Well purged dry
12/1/2006	<25,000	31,000	68	<100	<50	<50	<50	<50	Well purged dry
3/1/2007	<25,000	31,000	<50	<100	<50	<50	<50	<50	
6/1/2007	<13,000	32,000	31	<50	<25	<25	<25	<25	
9/13/2007	<13,000	10,000	<25	<50	<25	<25	<25	<25	
11/21/2007	<13,000	38,000	<25	<50	<25	<25	<25	<25	
2/29/2008	<25,000	32,000	<50	<100	<50	<50	<50	<50	
5/23/2008	<25,000	42,000	<50	<100	<50	<50	<50	<50	
9/26/2008	<250	39,000	14	<1.0	2.8	<1.0	<1.0	<1.0	
12/23/2008	<250	37,000	15	<1.0	3.2	<1.0	<1.0	<1.0	
3/9/2009	<250	27,000	18	<1.0	3.5	<1.0	<1.0	<1.0	
5/28/2009	<250	36,000	21	<1.0	2.9	1.1	<1.0	<1.0	
12/10/2009	<100	39,000	10	<0.50	2.7	<0.50	<0.50	<0.50	Well purged dry
6/29/2010	<1,000	38,000	7.3	<5.0	<5.0	<5.0	<5.0	<5.0	
12/30/2010	<2,500	31,000	11	<5.0	<5.0	<5.0	<5.0	<5.0	
6/29/2011	--	30,000	11	--	--	<5.0	--	--	
1/30/2012	**--**	**23,000**	**11**	**--**	**--**	**0.50**	**--**	**--**	
MW-5									
2/15/1994	--	--	153	--	--	--	--	--	
5/11/1994	--	--	165	--	--	--	--	--	

Table 2. Summary of Fuel Additives Analytical Data

Former BP Station #11126, 1700 Powell Street, Emeryville, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-5 Cont.									
8/1/1994	--	--	196	--	--	--	--	--	
10/18/1994	--	--	559	--	--	--	--	--	
11/3/1995	--	--	200	--	--	--	--	--	
2/5/1996	--	--	<50	--	--	--	--	--	
4/24/1996	--	--	<100	--	--	--	--	--	
7/16/1996	--	--	<100	--	--	--	--	--	
8/12/1996	--	--	<50	--	--	--	--	--	
11/5/1996	--	--	1,700	--	--	--	--	--	
5/17/1997	--	--	46	--	--	--	--	--	
8/11/1997	--	--	1,900	--	--	--	--	--	
11/17/1997	--	--	13,000	--	--	--	--	--	
1/29/1998	--	--	180,000	--	--	--	--	--	
6/22/1998	--	--	47	--	--	--	--	--	
12/30/1998	--	--	63	--	--	--	--	--	
3/9/1999	--	--	24	--	--	--	--	--	
6/23/1999	--	--	7,500	--	--	--	--	--	
9/23/1999	--	--	580	--	--	--	--	--	
12/28/1999	--	--	4,800	--	--	--	--	--	
3/22/2000	--	--	--	--	--	--	--	--	INA
5/26/2000	--	--	--	--	--	--	--	--	INA
9/6/2000	--	--	--	--	--	--	--	--	INA
9/15/2000	--	--	--	--	--	--	--	--	INA
12/11/2000	--	--	--	--	--	--	--	--	INA
3/29/2001	--	--	--	--	--	--	--	--	INA
6/27/2001	--	--	--	--	--	--	--	--	INA
9/19/2001	--	--	--	--	--	--	--	--	INA
12/28/2001	--	--	72	--	--	--	--	--	
3/12/2002	--	--	32	--	--	--	--	--	
6/13/2002	--	--	616	--	--	--	--	--	
9/6/2002	--	--	230	--	--	--	--	--	
12/13/2002	--	--	110	--	--	--	--	--	EPA 8015B/8021B used
2/19/2003	--	--	6.4	--	--	--	--	--	

Table 2. Summary of Fuel Additives Analytical Data

Former BP Station #11126, 1700 Powell Street, Emeryville, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-5 Cont.									
6/6/2003	<1,000	<200	<5.0	<5.0	<5.0	<5.0	--	--	
8/7/2003	<1,000	<200	18	<5.0	<5.0	<5.0	<5.0	<5.0	
11/20/2003	<500	<100	12	<2.5	<2.5	<2.5	--	--	
4/28/2004	<500	<100	11	<2.5	<2.5	<2.5	<2.5	<2.5	
8/26/2004	8.3	<100	74	<2.5	<2.5	<2.5	<2.5	<2.5	
12/1/2004	<1,000	<200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
2/2/2005	<500	<100	11	<2.5	<2.5	<2.5	<2.5	<2.5	b (ethanol)
4/25/2005	<500	<100	12	<2.5	<2.5	<2.5	<2.5	<2.5	
9/30/2005	<100	27	16	<1.0	<1.0	<1.0	<1.0	<1.0	
12/28/2005	<400	<20	3.8	14	<2.0	<2.0	<2.0	--	
3/23/2006	<400	37	8.6	<4.0	<2.0	<2.0	<2.0	<2.0	
6/5/2006	<500	90	11	<5.0	<2.5	<2.5	<2.5	<2.5	
9/19/2006	<1,300	53	12	<5.0	<2.5	<2.5	<2.5	<2.5	
12/1/2006	<1,300	<25	14	<5.0	<2.5	2.7	<2.5	<2.5	
3/1/2007	<1,300	<25	<2.5	<5.0	<2.5	<2.5	<2.5	<2.5	
6/1/2007	<1,300	40	11	32	<2.5	<2.5	<2.5	5.8	
9/13/2007	<1,300	<25	8.5	<5.0	<2.5	<2.5	<2.5	<2.5	
11/21/2007	<1,300	310	11	<5.0	<2.5	<2.5	<2.5	<2.5	
2/29/2008	<250	<5.0	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	
5/23/2008	<1,200	<25	3.9	<5.0	<2.5	<2.5	<2.5	<2.5	
9/26/2008	<250	<5.0	2.8	<1.0	<1.0	<1.0	<1.0	<1.0	
12/23/2008	<250	<5.0	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
3/9/2009	<250	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
5/28/2009	<250	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
12/10/2009	--	--	--	--	--	--	--	--	INA, Need traffic control
6/29/2010	--	--	--	--	--	--	--	--	INA, Need traffic control
12/30/2010	--	--	--	--	--	--	--	--	INA, Need traffic control
6/29/2011	--	<4.0	1.9	--	--	<0.50	--	--	
1/30/2012	**--**	**17**	**2.1**	**--**	**--**	**<0.50**	**--**	**--**	
MW-6									
10/12/1993	--	--	44	--	--	--	--	--	

Table 2. Summary of Fuel Additives Analytical Data

Former BP Station #11126, 1700 Powell Street, Emeryville, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-6 Cont.									
2/15/1994	--	--	38	--	--	--	--	--	
5/11/1994	--	--	49	--	--	--	--	--	
8/1/1994	--	--	60	--	--	--	--	--	
10/18/1994	--	--	85	--	--	--	--	--	
11/2/1995	--	--	35	--	--	--	--	--	
2/5/1996	--	--	<100	--	--	--	--	--	
4/24/1996	--	--	62	--	--	--	--	--	
7/15/1996	--	--	<50	--	--	--	--	--	
11/5/1996	--	--	<10	--	--	--	--	--	
11/17/1997	--	--	<10	--	--	--	--	--	
3/29/2001	--	--	820	--	--	--	--	--	
6/27/2001	--	--	968	--	--	--	--	--	
9/19/2001	--	--	879	--	--	--	--	--	
12/28/2001	--	--	--	--	--	--	--	--	NS
3/12/2002	--	--	244	--	--	--	--	--	
6/13/2002	--	--	413	--	--	--	--	--	
9/6/2002	--	--	240	--	--	--	--	--	
12/13/2002	--	--	200	--	--	--	--	--	EPA 8015B/8021B used
2/19/2003	--	--	150	--	--	--	--	--	
6/6/2003	<1,000	<200	140	<5.0	<5.0	21	--	--	
8/7/2003	<1,000	<200	160	<5.0	<5.0	20	<5.0	<5.0	
11/20/2003	<100	<20	74	<0.50	<0.50	12	--	--	
4/28/2004	<500	<100	120	<2.5	<2.5	12	<2.5	<2.5	
8/26/2004	<500	<100	110	<2.5	<2.5	12	<2.5	<2.5	b (ethanol)
8/26/2004	11	<100	110	<2.5	<2.5	12	<2.5	<2.5	e (ethanol)
12/1/2004	<500	<100	86	<2.5	<2.5	11	<2.5	<2.5	
2/2/2005	<100	32	41	<0.50	<0.50	6.2	<0.50	<0.50	b (ethanol)
4/25/2005	<100	45	50	<0.50	<0.50	6.0	<0.50	<0.50	b (ethanol)
9/30/2005	<200	280	51	<2.0	<2.0	4.4	<2.0	<2.0	
12/28/2005	<100	160	16	<1.0	<0.50	2.0	<0.50	--	
3/23/2006	<100	35	5.6	<1.0	<0.50	0.91	<0.50	<0.50	
6/5/2006	<100	110	14	<1.0	<0.50	1.5	<0.50	<0.50	

Table 2. Summary of Fuel Additives Analytical Data

Former BP Station #11126, 1700 Powell Street, Emeryville, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-6 Cont.									
9/19/2006	<250	190	8.8	<1.0	<0.50	1.4	<0.50	<0.50	
12/1/2006	<250	98	5.9	<1.0	<0.50	0.94	<0.50	<0.50	
3/1/2007	<250	96	6.0	<1.0	<0.50	0.68	<0.50	<0.50	
6/1/2007	<250	160	7.4	<1.0	<0.50	0.77	<0.50	<0.50	
9/13/2007	<250	120	6.7	<1.0	<0.50	0.87	<0.50	<0.50	
11/21/2007	<250	210	8.4	<1.0	<0.50	1.0	<0.50	<0.50	
2/29/2008	<250	46	7.1	<1.0	<0.50	0.92	<0.50	<0.50	
5/23/2008	<250	53	8.4	<1.0	<0.50	0.95	<0.50	<0.50	
9/26/2008	<250	56	5.1	<1.0	<1.0	<1.0	<1.0	<1.0	
12/23/2008	<250	54	5.3	<1.0	<1.0	<1.0	<1.0	<1.0	
3/9/2009	<250	62	3.5	<1.0	<1.0	<1.0	<1.0	<1.0	
5/28/2009	<250	55	6.6	<1.0	<1.0	<1.0	<1.0	<1.0	
12/10/2009	<100	40	2.0	<0.50	<0.50	<0.50	<0.50	<0.50	
6/29/2010	<100	49	2.7	<0.50	<0.50	<0.50	<0.50	<0.50	
12/30/2010	<250	44	2.2	<0.50	<0.50	<0.50	<0.50	<0.50	
6/29/2011	--	37	3.6	--	--	<0.50	--	--	
1/30/2012	**--**	**110**	**4.0**	**--**	**--**	**<0.50**	**--**	**--**	
MW-7									
10/12/1993	--	--	<5.0	--	--	--	--	--	
2/15/1994	--	--	<5.0	--	--	--	--	--	
5/11/1994	--	--	12	--	--	--	--	--	
8/1/1994	--	--	182	--	--	--	--	--	
10/18/1994	--	--	52	--	--	--	--	--	
11/2/1995	--	--	55	--	--	--	--	--	
2/5/1996	--	--	40	--	--	--	--	--	
4/24/1996	--	--	53	--	--	--	--	--	
7/15/1996	--	--	<50	--	--	--	--	--	
11/5/1996	--	--	<10	--	--	--	--	--	
11/17/1997	--	--	<10	--	--	--	--	--	
3/29/2001	--	--	636	--	--	--	--	--	
6/27/2001	--	--	739	--	--	--	--	--	

Table 2. Summary of Fuel Additives Analytical Data

Former BP Station #11126, 1700 Powell Street, Emeryville, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-7 Cont.									
9/19/2001	--	--	1,190	--	--	--	--	--	
12/28/2001	--	--	856	--	--	--	--	--	
3/12/2002	--	--	675	--	--	--	--	--	
6/13/2002	--	--	1,470	--	--	--	--	--	
9/6/2002	--	--	690	--	--	--	--	--	
12/13/2002	--	--	1,800	--	--	--	--	--	EPA 8015B/8021B used
2/19/2003	--	--	1,600	--	--	--	--	--	
6/6/2003	<1,000	<200	510	<5.0	<5.0	41	--	--	
8/7/2003	<1,000	<200	520	<5.0	<5.0	43	<5.0	<5.0	
11/20/2003	<500	1,300	270	<2.5	<2.5	8.9	--	--	
4/28/2004	<500	880	71	<2.5	<2.5	3.5	<2.5	<2.5	
8/26/2004	<500	4,800	150	<2.5	<2.5	7.8	<0.50	<0.50	
8/26/2004	6.0	4,800	150	<2.5	<2.5	7.8	<0.50	<0.50	e (ethanol)
12/1/2004	<200	1,400	25	<1.0	<1.0	1.1	<1.0	<1.0	
2/2/2005	<100	830	31	<0.50	<0.50	1.8	<0.50	<0.50	b (ethanol)
4/25/2005	<100	520	41	<0.50	<0.50	2.1	<0.50	<0.50	b (ethanol)
9/30/2005	<50	450	18	<0.50	<0.50	1.5	<0.50	<0.50	
12/28/2005	<1,000	1,600	7.4	<10	<5.0	<5.0	<5.0	--	
3/23/2006	<100	340	25	<1.0	<0.50	1.7	<0.50	<0.50	
6/5/2006	<100	200	14	<1.0	<0.50	1.2	<0.50	<0.50	
9/19/2006	<250	280	14	<1.0	<0.50	1.6	<0.50	<0.50	
12/1/2006	<1,300	1,400	6.7	<5.0	<2.5	<2.5	<2.5	<2.5	
3/1/2007	<1,300	1,000	4.0	<5.0	<2.5	<2.5	<2.5	<2.5	
6/1/2007	<250	600	7.5	<1.0	<0.50	0.59	<0.50	<0.50	
9/13/2007	<250	260	10	<1.0	<0.50	0.80	<0.50	<0.50	
11/21/2007	<250	1,500	8.4	<1.0	<0.50	0.87	<0.50	<0.50	
2/29/2008	<250	960	6.2	<1.0	<0.50	0.73	<0.50	<0.50	
5/23/2008	<250	300	9.6	<1.0	<0.50	0.96	<0.50	<0.50	
9/26/2008	<250	800	7.5	<1.0	<1.0	<1.0	<1.0	<1.0	
12/23/2008	<250	3,500	5.7	<1.0	<1.0	<1.0	<1.0	<1.0	
3/9/2009	<250	1,300	4.4	<1.0	<1.0	<1.0	<1.0	<1.0	
5/28/2009	<250	110	5.7	<1.0	<1.0	<1.0	<1.0	<1.0	

Table 2. Summary of Fuel Additives Analytical Data

Former BP Station #11126, 1700 Powell Street, Emeryville, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-7 Cont.									
12/10/2009	<100	1,200	6.5	<0.50	<0.50	0.56	<0.50	<0.50	
6/29/2010	<100	2,000	3.0	<0.50	<0.50	<0.50	<0.50	<0.50	
12/30/2010	<250	3,900	5.6	<0.50	<0.50	0.58	<0.50	<0.50	
6/29/2011	--	2,200	<5.0	--	--	<5.0	--	--	
1/30/2012	**--**	**2,700**	**4.0**	**--**	**--**	**<0.50**	**--**	**--**	
MW-8									
10/12/1993	--	--	11	--	--	--	--	--	
2/15/1994	--	--	<5.0	--	--	--	--	--	
5/11/1994	--	--	<5.0	--	--	--	--	--	
8/1/1994	--	--	<5.0	--	--	--	--	--	
10/18/1994	--	--	<5.0	--	--	--	--	--	
11/2/1995	--	--	<5.0	--	--	--	--	--	
2/5/1996	--	--	<100	--	--	--	--	--	
4/24/1996	--	--	<100	--	--	--	--	--	
7/15/1996	--	--	<50	--	--	--	--	--	
11/5/1996	--	--	<10	--	--	--	--	--	
11/17/1997	--	--	<10	--	--	--	--	--	
12/30/1998	--	--	--	--	--	--	--	--	INA
3/9/1999	--	--	--	--	--	--	--	--	INA
3/29/2001	--	--	--	--	--	--	--	--	INA
6/27/2001	--	--	3.4	--	--	--	--	--	
9/19/2001	--	--	<5.0	--	--	--	--	--	
12/28/2001	--	--	6.3	--	--	--	--	--	
3/12/2002	--	--	8.7	--	--	--	--	--	
6/13/2002	--	--	16	--	--	--	--	--	
9/6/2002	--	--	76	--	--	--	--	--	
12/13/2002	--	--	140	--	--	--	--	--	EPA 8015B/8021B used
2/19/2003	--	--	800	--	--	--	--	--	
6/6/2003	<100,000	<20,000	17,000	<500	<500	<500	--	--	
8/7/2003	<5,000	<1,000	2,400	<25	<25	44	<25	<25	
11/20/2003	<5,000	4,100	1,400	<25	<25	<25	--	--	b

Table 2. Summary of Fuel Additives Analytical Data

Former BP Station #11126, 1700 Powell Street, Emeryville, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-8 Cont.									
4/28/2004	<500	42,000	170	<2.5	<2.5	<2.5	<2.5	<2.5	c
8/26/2004	<5.0	47,000	170	<25	<25	<25	<25	<25	
12/1/2004	<500	9,700	36	<2.5	<2.5	<2.5	<2.5	<2.5	
2/2/2005	<100	<20	41	<0.50	0.72	0.64	<0.50	<0.50	b (ethanol)
4/25/2005	<2,500	45,000	32	<12	<12	<12	<12	<12	
9/30/2005	<500	8,500	17	<5.0	<5.0	<5.0	<5.0	<5.0	
12/28/2005	<500	7,400	17	<5.0	<2.5	<2.5	<2.5	--	
3/23/2006	<500	11,000	21	<5.0	<2.5	<2.5	<2.5	<2.5	
6/5/2006	<5,000	34,000	30	<50	<25	<25	<25	<25	
9/19/2006	<2,500	7,500	17	<10	<5.0	<5.0	<5.0	<5.0	Well purged dry
12/1/2006	<1,300	1,900	16	<5.0	<2.5	<2.5	<2.5	<2.5	
3/1/2007	<2,500	6,200	20	<10	<5.0	<5.0	<5.0	<5.0	
6/1/2007	<2,500	3,700	8.7	<10	<5.0	<5.0	<5.0	<5.0	
9/13/2007	<250	630	9.4	<1.0	<0.50	<0.50	<0.50	<0.50	
11/21/2007	<250	360	8.7	<1.0	<0.50	<0.50	<0.50	<0.50	
2/29/2008	<5,000	7,500	16	<20	<10	<10	<10	<10	
5/23/2008	<5,000	4,800	15	<20	<10	<10	<10	<10	
9/26/2008	<250	1,800	14	<1.0	<1.0	<1.0	<1.0	<1.0	
12/23/2008	<250	770	10	<1.0	<1.0	<1.0	<1.0	<1.0	
3/9/2009	<250	3,300	15	<1.0	<1.0	<1.0	<1.0	<1.0	
5/28/2009	<250	710	6.5	<1.0	<1.0	<1.0	<1.0	<1.0	
12/10/2009	<100	960	9.0	<0.50	<0.50	<0.50	<0.50	<0.50	
6/29/2010	<100	1,700	10	<0.50	<0.50	<0.50	<0.50	<0.50	
12/30/2010	<250	1,500	6.6	<0.50	<0.50	<0.50	<0.50	<0.50	
6/29/2011	--	2,000	4.7	--	--	<0.50	--	--	
1/30/2012	**--**	**250**	**3.8**	**--**	**--**	**<0.50**	**--**	**--**	
MW-9									
5/17/1997	--	--	39,000	--	--	--	--	--	DUP
5/17/1997	--	--	40,000	--	--	--	--	--	
8/11/1997	--	--	26,000	--	--	--	--	--	
8/11/1997	--	--	27,000	--	--	--	--	--	DUP

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Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-9 Cont.									
11/17/1997	--	--	32,000	--	--	--	--	--	DUP
11/17/1997	--	--	35,000	--	--	--	--	--	DUP
1/29/1998	--	--	110,000	--	--	--	--	--	DUP
1/29/1998	--	--	110,000	--	--	--	--	--	DUP
6/22/1998	--	--	110,000	--	--	--	--	--	DUP
6/22/1998	--	--	110,000	--	--	--	--	--	DUP
12/30/1998	--	--	86,000	--	--	--	--	--	
3/9/1999	--	--	100,000	--	--	--	--	--	
6/23/1999	--	--	92,000	--	--	--	--	--	
9/23/1999	--	--	89,000	--	--	--	--	--	
12/28/1999	--	--	100,000	--	--	--	--	--	
3/22/2000	--	--	120,000	--	--	--	--	--	
5/26/2000	--	--	100,000	--	--	--	--	--	
9/6/2000	--	--	84,000	--	--	--	--	--	
12/11/2000	--	--	123,000	--	--	--	--	--	
3/29/2001	--	--	--	--	--	--	--	--	INA
6/26/2001	--	--	--	--	--	--	--	--	GW Elev. Estimated
12/28/2001	--	--	60,900	--	--	--	--	--	
3/12/2002	--	--	44,000	--	--	--	--	--	
6/13/2002	--	--	35,600	--	--	--	--	--	
9/6/2002	--	--	31,000	--	--	--	--	--	
12/13/2002	--	--	28,000	--	--	--	--	--	EPA 8015B/8021B used
2/19/2003	--	--	11,000	--	--	--	--	--	
6/6/2003	<100,000	<20,000	17,000	<500	<500	<500	--	--	
8/7/2003	<50,000	<10,000	17,000	<250	<250	350	<250	<250	
11/20/2003	<50,000	12,000	16,000	<250	<250	<250	--	--	
4/28/2004	<25,000	<5,000	8,500	<120	<120	170	<120	<120	
8/26/2004	13	2,600	6,500	<50	<50	140	<50	<50	e (ethanol)
8/26/2004	--	2,600	6,500	<50	<50	140	<50	<50	d (TBA)
12/1/2004	<50,000	<10,000	8,300	<250	<250	<250	<250	<250	
2/2/2005	<10,000	5,600	3,600	<50	<50	88	<50	<50	b (ethanol)
4/25/2005	<1,000	1,400	540	<5.0	<5.0	14	<5.0	<5.0	b (ethanol)

Table 2. Summary of Fuel Additives Analytical Data

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Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-9 Cont.									
9/30/2005	<2,000	520	2,400	<20	<20	61	<20	<20	
12/28/2005	<2,000	1,800	2,200	<20	<10	49	<10	--	
3/23/2006	<2,000	2,400	330	<20	<10	<10	<10	<10	
6/5/2006	<2,500	1,100	1,800	<25	<13	75	<13	<13	Well purged dry
9/19/2006	<6,300	3,900	3,100	<25	<13	100	<13	<13	Well purged dry
12/1/2006	<6,300	2,400	1,400	<25	<13	46	<13	<13	Well purged dry
3/1/2007	<6,300	580	240	<25	<13	<13	<13	<13	
6/1/2007	<6,300	2,300	1,800	<25	<13	50	<13	<13	
9/13/2007	<6,300	7,300	640	<25	<13	28	<13	<13	
11/21/2007	<6,300	3,500	2,000	<25	<13	42	<13	<13	
2/29/2008	<6,300	2,400	1,100	<25	<13	35	<13	<13	
5/23/2008	<6,200	6,800	1,200	<25	<12	33	<12	<12	
9/26/2008	<250	12,000	280	<1.0	<1.0	6.2	<1.0	<1.0	
12/23/2008	<250	1,000	870	<1.0	<1.0	23	<1.0	<1.0	
3/9/2009	<250	610	180	<1.0	<1.0	4.0	<1.0	<1.0	
5/28/2009	<250	840	720	<1.0	<1.0	21	<1.0	<1.0	
12/10/2009	<500	4,200	780	<2.5	<2.5	15	<2.5	<2.5	
6/29/2010	<2,000	4,200	1,200	<10	<10	30	<10	<10	
12/30/2010	<250	22	13	<0.50	<0.50	<0.50	<0.50	<0.50	
6/29/2011	--	960	900	--	--	29	--	--	
1/30/2012	**--**	**1,600**	**630**	**--**	**--**	**20**	**--**	**--**	
MW-10									
4/25/2005	<100	<20	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	b (ethanol)
9/30/2005	<50	<5.0	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	
12/28/2005	<100	<5.0	0.78	<1.0	<0.50	<0.50	<0.50	--	
3/23/2006	<100	<5.0	0.67	<1.0	<0.50	<0.50	<0.50	<0.50	
6/5/2006	<100	<5.0	1.8	<1.0	<0.50	<0.50	<0.50	<0.50	
9/19/2006	<250	<5.0	0.59	<1.0	<0.50	<0.50	<0.50	<0.50	
12/1/2006	<250	<5.0	0.89	<1.0	<0.50	<0.50	<0.50	<0.50	Well purged dry
3/1/2007	<250	<5.0	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	
6/1/2007	<250	<5.0	1.2	<1.0	<0.50	<0.50	<0.50	<0.50	

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Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-10 Cont.									
9/13/2007	<250	<5.0	0.94	<1.0	<0.50	<0.50	<0.50	<0.50	
11/21/2007	<250	<5.0	2.2	<1.0	<0.50	<0.50	<0.50	<0.50	
2/29/2008	<250	<5.0	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	
5/23/2008	<250	<5.0	2.2	<1.0	<0.50	<0.50	<0.50	<0.50	
9/26/2008	<250	<5.0	3.0	<1.0	<1.0	<1.0	<1.0	<1.0	
12/23/2008	<250	<5.0	2.7	<1.0	<1.0	<1.0	<1.0	<1.0	
3/9/2009	<250	6.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
5/28/2009	<250	<5.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	
12/10/2009	<100	<4.0	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	
6/29/2010	<100	<4.0	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	
12/30/2010	<250	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
6/29/2011	--	--	<0.50	--	--	--	--	--	
MW-11									
4/25/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
9/30/2005	<50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
12/28/2005	<100	<5.0	<0.50	<1.0	<0.50	<0.50	<0.50	--	
3/23/2006	<100	<5.0	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	
6/5/2006	<100	<5.0	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	
9/19/2006	<250	<5.0	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	
12/1/2006	<250	<5.0	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	
3/1/2007	<250	<5.0	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	
6/1/2007	<250	<5.0	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	
9/13/2007	<250	<5.0	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	
11/21/2007	<250	<5.0	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	
2/29/2008	<250	<5.0	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	
5/23/2008	<250	<5.0	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	
9/26/2008	<250	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
12/23/2008	<250	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
3/9/2009	<250	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
5/28/2009	<250	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
12/10/2009	<100	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	Obstruction

Table 2. Summary of Fuel Additives Analytical Data

Former BP Station #11126, 1700 Powell Street, Emeryville, CA

Well ID and Date Monitored	Concentrations in µg/L								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-11 Cont.									
6/29/2010	<100	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
12/30/2010	<250	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
6/29/2011	--	--	<0.50	--	--	--	--	--	

Symbols & Abbreviations:
MTBE = Methyl tert-butyl ether
TBA = Tert-butyl alcohol
DIPE = Diisopropyl ether
ETBE = Ethyl tert-butyl ether
TAME = Tert-amyl methyl ether
1,2-DCA = 1,2-Dichloroethane
EDB = 1,2-Dibromoethane
mg/L = Milligrams per liter
µg/L = Micrograms per liter
< = Analyte was not detected above the specified method detection limit; except after 2008 Quarter 3 where reporting limits are used.
-- = Not measured or analyzed
N = Identity of contaminant uncertain (hydrocarbon pattern atypical of indicated analyte); see lab report
ND = Not detected (historical data; reporting limit not reported)
DUP = Duplicate sample
INA = Well inaccessible; not sampled
NS = Well not sampled

Footnotes:
a = Confirmatory analysis was past holding time
b = The continuing calibration verification was outside of client contractual acceptance limits. However, it was within method acceptance limits. The data should still be useful for its intended purpose
c = The concentration indicated for this analyte is an estimated value above the calibration range of the instrument
d = Initial analysis within holding time but required dilution
e = Split samples analyzed by EPA Method 8260B SIM

Notes:
Beginning in the first quarter 2003, VOCs analyzed by EPA Method 8260B

The data within this table collected prior to December 2009 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 #11126, 1700 Powell Street, Emeryville, CA

Date Measured	Approximate Gradient Direction	Approximate Gradient Magnitude (ft/ft)
3/29/2001	South	0.020
6/27/2001	South	0.020
9/19/2001	South	0.020
12/28/2001	South	0.035
3/12/2002	South-Southeast	0.018
6/13/2002	Northwest to Southeast	0.007
9/6/2002	South	0.010
12/13/2002	Southeast	0.020
2/19/2003	West-Southwest	0.025
6/6/2003	East-Southwest	-
8/7/2003	East-Southwest	-
11/20/2003	Northwest to Southeast	-
2/5/2004	Northwest to Southeast	0.020
4/28/2004	West-Southwest	-
8/26/2004	South-Southwest	0.036
12/1/2004	Northwest to Southeast	0.020
2/2/2005	South	0.020
4/25/2005	Southwest	0.020
9/30/2005	Southwest	0.081
12/28/2005	Southwest	0.081
3/23/2006	Southwest	0.040
6/5/2006	Southwest	0.020
9/19/2006	Southwest	0.013
12/1/2006	Southwest	0.030
3/1/2007	Southwest	0.010
6/1/2007	Southwest	0.025
9/13/2007	Southwest	0.025
11/21/2007	Southwest	0.025
2/29/2008	Southwest	0.060
5/23/2008	Southwest	0.067
9/26/2008	South	0.020
12/23/2008	Southwest	0.020
3/9/2009	Southwest	0.025
5/28/2009	Southwest	0.017
12/10/2009	Southwest	0.020
6/29/2010	Southwest	0.010
12/30/2010	Southwest	0.008
6/29/2011	South-Southwest	0.01

Table 3. Historical Groundwater Gradient - Direction and Magnitude

Former BP Station #11126, 1700 Powell Street, Emeryville, CA

Date Measured	Approximate Gradient Direction	Approximate Gradient Magnitude (ft/ft)
1/30/2012	**Southwest**	**0.009**

Notes:
The groundwater was flowing in two directions (Northwest and Southeast) during the second quarter of 2002, the fourth quarter of 2003, and the first and fourth quarters of 2004

The data within this table collected prior to December 2009 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 #11126, 1700 Powell Street, Emeryville, CA

Well ID and Date Monitored	Concentrations in mg/L									ORP (mV)	pH	Temp (F)	Conductivity (µS/cm)	Footnote
	Dissolved Oxygen	Nitrate (NO3)	Manganese	Ferrous Iron	Sulfate (SO4)	Dissolved CO2	Methane	Total Alkalinity	Magnesium					
MW-1														
6/29/2011	0.40	<1.0	1.4	3.7	4.5	29	0.76	340	22	--	7.6	68.72	668	
1/30/2012	0.66	--	--	--	--	--	--	--	--	-68	7.36	61.88	1,628	
MW-2														
6/29/2011	0.41	<1.0	4.5	25	<1.0	180	6.3	660	49	--	7.1	68.9	1,104	
1/30/2012	0.63	--	--	--	--	--	--	--	--	-61	7.21	62.78	995	
MW-3														
6/29/2011	0.45	<1.0	0.63	0.79	24	62	0.26	400	20	--	7.4	66.02	852	
1/30/2012	1.21	--	--	--	--	--	--	--	--	92	7.50	62.96	861	
MW-4														
6/29/2011	0.45	<1.0	0.67	5.8	<1.0	73	7.3	1,200	52	--	7.6	63.86	2,310	
1/30/2012	0.55	--	--	--	--	--	--	--	--	-103	7.71	64.76	1,856	
MW-5														
6/29/2011	0.46	<1.0	2.1	16	<1.0	73	6.2	370	30	--	7.3	67.64	764	
1/30/2012	1.09	--	--	--	--	--	--	--	--	-76	7.46	62.78	715	
MW-6														
6/29/2011	0.03	<1.0	0.63	14	12	81	5.8	590	48	--	7.4	69.26	6,060	
1/30/2012	0.61	--	--	--	--	--	--	--	--	-101	7.61	64.76	5,090	
MW-7														
6/29/2011	0.47	<1.0	0.64	3.0	<1.0	74	7.4	790	41	--	7.5	70.52	7,650	
1/30/2012	0.69	--	--	--	--	--	--	--	--	-90	7.69	66.2	4,540	
MW-8														
6/29/2011	0.62	<1.0	3.2	17	<1.0	110	5.9	780	64	--	7.2	69.8	1,627	
1/30/2012	1.52	--	--	--	--	--	--	--	--	-101	7.37	65.3	1,407	
MW-9														
6/29/2011	0.48	<1.0	0.95	8.6	<1.0	75	8.2	350	18	--	7.2	68	644	
1/30/2012	0.75	--	--	--	--	--	--	--	--	-4	7.35	62.96	609	

Table 4. Bio-Degradation Parameters

Former BP Station #11126, 1700 Powell Street, Emeryville, CA

Well ID and Date Monitored	Concentrations in mg/L									ORP (mV)	pH	Temp (F)	Conductivity (µS/cm)	Footnote
	Dissolved Oxygen	Nitrate (NO3)	Manganese	Ferrous Iron	Sulfate (SO4)	Dissolved CO2	Methane	Total Alkalinity	Magnesium					
MW-10														
6/29/2011	0.49	<1.0	0.99	5.5	17	43	2.1	470	30	--	7.4	65.3	1,018	
MW-11														
6/29/2011	0.75	<1.0	0.045	<0.10	73	48	0.0037	470	27	--	7.4	64.22	1,143	

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

APPENDIX 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 turbidity[1]. 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	± 0.2ºC (± 0.36ºF)
pH	± 0.1 standard units
Conductivity	± 3%
Dissolved oxygen	± 10%
Oxidation reduction potential	± 10 mV
Turbidity[1]	± 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 turbidity[1]. 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.

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[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.

APPENDIX B

FIELD DATA SHEETS AND NON-HAZARDOUS WASTE DATA FORM

BROADBENT & ASSOCIATES, INC.
ENVIRONMENTAL, WATER RESOURCES & ENGINEERING

GROUNDWATER MONITORING SITE SHEET

Project: Arcadis 11126 Project No.: 09-88-662 Date: 1/30/12

Field Representative: JR Elevation: _____

Formation recharge rate is historically: High 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 Diameter (inches)	As-Built Well Screen Interval (ft)	Previous Depth to Water (ft)	Time (24:00)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)*	Depth to Water (ft)	Well Total Depth (ft)						
MW-1					1429			3.82	12.00						
MW-2					1452			4.93	12.00						
MW-3					1203			5.22	12.00						
MW-4					1316			6.72	12.00						
MW-5					0959			5.24	13.50						
MW-6					1121			5.89	14.00						
MW-7					1048			5.29	14.00						
MW-8					0915			4.63	14.00						
MW-9					1401			4.09	14.00						
MW-10					1527			7.33	20.00						
MW-11					1534			9.49	24.00						

* Device used to measure LNAPL thickness: Bailer Oil/Water Interface Meter *(circle one)*

If bailer used, note bailer dimensions (inches): Entry Diameter _____ Chamber Diameter _____

Signature: James Lane

Revision: 8/19/11

BROADBENT & ASSOCIATES, INC.
ENVIRONMENTAL, WATER RESOURCES & ENGINEERING

GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1

Project: Arcadis 11126 Project No.: 09-88-662 Date: 1/30/12

Field Representative: JR

Well ID: MW-1 Start Time: _____ End Time: _____ Total Time (minutes): _____

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump ___ Flow Cell
___ Disp. Tubing ___ 12V Pump X Peristaltic Pump Other/ID#:

WELL HEAD INTEGRITY (cap, lock, vault, etc.) Comments:
(Good) Improvement Needed *(circle one)*

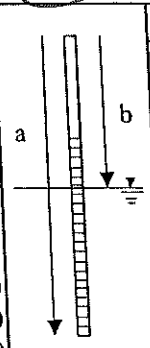
PURGING/SAMPLING METHOD Predetermined Well Volume (Low-Flow) Other: *(circle one)*

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):	12.00 (ft)
Initial Depth to Water (b):	3.82 (ft)
Water Column Height (WCH) = (a - b):	8.18 (ft)
Water Column Volume (WCV) = WCH x Unit Volume:	1.39 (gal)
Three Casing Volumes = WCV x 3:	4.17 (gal)
Five Casing Volumes = WCV x 5:	6.75 (gal)
Pump Depth (if pump used):	(ft)



LOW-FLOW

Previous Low-Flow Purge Rate:	(gpm)
Total Well Depth (a):	12.00 (ft)
Initial Depth to Water (b):	3.82 (ft)
Pump In-take Depth = b + (a-b)/2:	7.91 (ft)
Maximum Allowable Drawdown = (a-b)/8:	1.0 (ft)
Low-Flow Purge Rate:	0.25 (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 Volume (gal)	Temperature (°C)	pH	Conductivity (µS)	Other DO	ORP	NOTES Odor, color, sheen, turbidity, or other
1436	0	16.6	7.35	1627	0.73	-34	
1438	0.5	16.5	7.33	1633	0.68	-67	
1440	1.0	16.6	7.36	1626	0.67	-60	
1442	1.5	16.6	7.36	1628	0.66	-68	
Previous Stabilized Parameters							

PURGE COMPLETION RECORD X Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: _____ (ft)

Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
X Disp. Pump Tubing Other:

Sample ID: MW-1 (1/30/12) Sample Collection Time: 1447 (24:00)

Containers (#): 3 VOA (X preserved or ___ unpreserved) ___ Liter Amber
___ Other: ___ Other:
___ Other: ___ Other:

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)	1442	0.66
Ferrous Iron (mg/L)		
Redox Potential (mV)	1442	-68
Alkalinity (mg/L)		
Other:		
Other:		

Signature: James Kamm

Revision: 8/19/11

BROADBENT & ASSOCIATES, INC.
ENVIRONMENTAL, WATER RESOURCES & ENGINEERING

GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1

Project: Arcadis 11126 Project No.: 09-88-662 Date: 1/30/12

Field Representative: JR

Well ID: MW-2 Start Time: _____ End Time: _____ Total Time (minutes): _____

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump ___ Flow Cell
___ Disp. Tubing ___ 12V Pump X Peristaltic Pump Other/ID#:

WELL HEAD INTEGRITY (cap, lock, vault, etc.) Comments:
(Good) Improvement Needed *(circle one)*

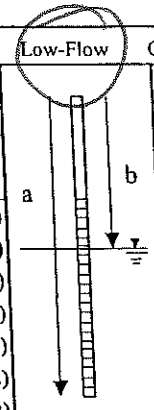
PURGING/SAMPLING METHOD Predetermined Well Volume (Low-Flow) Other: *(circle one)*

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):	12.00 (ft)
Initial Depth to Water (b):	4.93 (ft)
Water Column Height (WCH) = (a - b):	7.07 (ft)
Water Column Volume (WCV) = WCH x Unit Volume:	1.20 (gal)
Three Casing Volumes = WCV x 3:	6.60 (gal)
Five Casing Volumes = WCV x 5:	11.00 (gal)
Pump Depth (if pump used):	___ (ft)



LOW-FLOW

Previous Low-Flow Purge Rate:	___ (gpm)
Total Well Depth (a):	12.00 (ft)
Initial Depth to Water (b):	4.93 (ft)
Pump In-take Depth = b + (a-b)/2:	8.47 (ft)
Maximum Allowable Drawdown = (a-b)/8:	0.88 (ft)
Low-Flow Purge Rate:	0.25 (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 Volume (gal)	Temperature (°C)	pH	Conductivity (µS)	Other DO	ORP	NOTES Odor, color, sheen, turbidity, or other
1458	0	16.9	7.22	1064	0.78	-44	HC odor
1500	0.5	17.1	7.22	1016	0.63	-49	
1502	1.0	17.2	7.21	999	0.63	-62	
1504	1.5	17.1	7.21	995	0.63	-61	
Previous Stabilized Parameters							

PURGE COMPLETION RECORD X Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: ___ (ft)

Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
X Disp. Pump Tubing Other:

Sample ID: MW-2 (1/30/12) Sample Collection Time: 1504 (24:00)

Containers (#): 3 VOA (X preserved or ___ unpreserved) ___ Liter Amber
___ Other: ___ ___ Other: ___
___ Other: ___ ___ Other: ___

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)	1504	0.63
Ferrous Iron (mg/L)		
Redox Potential (mV)	1504	-61
Alkalinity (mg/L)		
Other:		
Other:		

Signature: James Rn

Revision: 8/19/11

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GROUNDWATER SAMPLING DATA SHEET

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Project: Arcadis 11126 Project No.: 09-88-662 Date: 1/30/12

Field Representative: JR

Well ID: MW-3 Start Time: _____ End Time: _____ Total Time (minutes): _____

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump ___ Flow Cell
___ Disp. Tubing ___ 12V Pump X Peristaltic Pump Other/ID#:

WELL HEAD INTEGRITY (cap, lock, vault, etc.) Comments:
(Good) Improvement Needed *(circle one)*

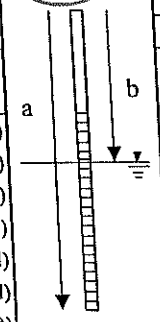
PURGING/SAMPLING METHOD Predetermined Well Volume (Low-Flow) Other: *(circle one)*

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):	12.00 (ft)
Initial Depth to Water (b):	5.22 (ft)
Water Column Height (WCH) = (a - b):	6.78 (ft)
Water Column Volume (WCV) = WCH x Unit Volume:	1.15 (gal)
Three Casing Volumes = WCV x 3:	3.45 (gal)
Five Casing Volumes = WCV x 5:	5.75 (gal)
Pump Depth (if pump used):	(ft)



LOW-FLOW

Previous Low-Flow Purge Rate:	(gpm)
Total Well Depth (a):	12.00 (ft)
Initial Depth to Water (b):	5.22 (ft)
Pump In-take Depth = b + (a-b)/2:	8.6 (ft)
Maximum Allowable Drawdown = (a-b)/8:	0.85 (ft)
Low-Flow Purge Rate:	0.25 (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 Volume (gal)	Temperature (°C)	pH	Conductivity (µS)	Other DO	ORP	NOTES Odor, color, sheen, turbidity, or other
1212	0	16.7	7.58	937	1.93	78	
1214	0.5	17.3	7.52	865	1.76	95	
1216	1.0	17.3	7.50	861	1.30	94	
1218	1.5	17.2	7.50	861	1.21	92	
Previous Stabilized Parameters							

PURGE COMPLETION RECORD X Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: _____ (ft)

Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
X Disp. Pump Tubing Other:

Sample ID: MW-3 (1/30/12) Sample Collection Time: 1223 (24:00)

Containers (#): 3 VOA (X preserved or ___ unpreserved) ___ Liter Amber
2 Other: 1L AMBER(NP) Other: _____
___ Other: _____ ___ Other: _____

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)	1216	1.21
Ferrous Iron (mg/L)		
Redox Potential (mV)	1218	92
Alkalinity (mg/L)		
Other:		
Other:		

Signature: James Lam

Revision: 8/19/1

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Project: Arcadis 11126 Project No.: 09-88-662 Date: 1/30/12

Field Representative: JR

Well ID: MW-4 Start Time: _____ End Time: _____ Total Time (minutes): _____

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump ___ Flow Cell
___ Disp. Tubing ___ 12V Pump X 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):	12.00 (ft)
Initial Depth to Water (b):	6.72 (ft)
Water Column Height (WCH) = (a - b):	5.28 (ft)
Water Column Volume (WCV) = WCH x Unit Volume:	0.90 (gal)
Three Casing Volumes = WCV x 3:	1.70 (gal)
Five Casing Volumes = WCV x 5:	4.50 (gal)
Pump Depth (if pump used):	___ (ft)

a b

LOW-FLOW

Previous Low-Flow Purge Rate:	___ (gpm)
Total Well Depth (a):	12.00 (ft)
Initial Depth to Water (b):	6.72 (ft)
Pump In-take Depth = b + (a-b)/2:	9.36 (ft)
Maximum Allowable Drawdown = (a-b)/8:	0.66 (ft)
Low-Flow Purge Rate:	0.17 (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 Volume (gal)	Temperature (°C)	pH	Conductivity (µS)	Other DO	Other ORP	NOTES Odor, color, sheen, turbidity, or other
1323	0	17.5	7.71	1832	1.06	-73	
1326	0.5	17.8	7.71	1857	0.69	-86	
1329	1.0	18.1	7.71	1855	0.56	-105	
1332	1.5	18.2	7.71	1856	0.55	-103	
Previous Stabilized Parameters							

PURGE COMPLETION RECORD X Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: _____ (ft)

Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
X Disp. Pump Tubing Other:

Sample ID: MW-4 (1/30/12) Sample Collection Time: 1337 (24:00)

Containers (#): 3 VOA (X preserved or ___ unpreserved) ___ Liter Amber
2 Other: 1L AMBER (NP) ___ Other: _____
___ Other: _____ ___ Other: _____

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)	1332	0.55
Ferrous Iron (mg/L)		
Redox Potential (mV)	1332	-103
Alkalinity (mg/L)		
Other:		
Other:		

Signature: _____

Revision: 8/19/

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Project: Arcadis 11126 Project No.: 09-88-662 Date: 1/30/12

Field Representative: JR

Well ID: MW-5 Start Time: _____ End Time: _____ Total Time (minutes): _____

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump ___ Flow Cell
X Disp. Tubing ___ 12V Pump X Peristaltic Pump Other/ID#:

WELL HEAD INTEGRITY (cap, lock, vault, etc.) Comments:
(Good) Improvement Needed *(circle one)*

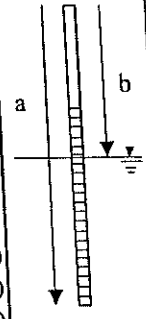
PURGING/SAMPLING METHOD Predetermined Well Volume (Low-Flow) Other: *(circle one)*

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):	13.50	(ft)
Initial Depth to Water (b):	5.24	(ft)
Water Column Height (WCH) = (a - b):	8.26	(ft)
Water Column Volume (WCV) = WCH x Unit Volume:	1.40	(gal)
Three Casing Volumes = WCV x 3:	4.20	(gal)
Five Casing Volumes = WCV x 5:	7.00	(gal)
Pump Depth (if pump used):		(ft)



LOW-FLOW

Previous Low-Flow Purge Rate:		(gpm)
Total Well Depth (a):	13.50	(ft)
Initial Depth to Water (b):	5.24	(ft)
Pump In-take Depth = b + (a-b)/2:	9.37	(ft)
Maximum Allowable Drawdown = (a-b)/8:	1.03	(ft)
Low-Flow Purge Rate:	0.17	(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 Volume (gal)	Temperature (°C)	pH	Conductivity (µS)	Other DO	ORP	NOTES Odor, color, sheen, turbidity, or other
1008	0	17.2	7.47	717	1.65	-79	
1011	0.5	17.3	7.47	715	1.44	-77	
1014	1.0	17.2	7.46	713	1.23	-77	
1017	1.5	17.1	7.46	715	1.09	-76	
Previous Stabilized Parameters							

PURGE COMPLETION RECORD X Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: _____ (ft)

Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
X Disp. Pump Tubing Other:

Sample ID: MW-5 (1/30/12) Sample Collection Time: 1023 (24:00)

Containers (#): 3 VOA (X preserved or ___ unpreserved) ___ Liter Amber
___ Other: ___ Other:
___ Other: ___ Other:

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)	1017	1.09
Ferrous Iron (mg/L)		
Redox Potential (mV)	1017	-76
Alkalinity (mg/L)		
Other:		
Other:		

Signature: James Ham

Revision: 8/19/1

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Project: Arcadis 11126 Project No.: 09-98-662 Date: 1/30/12

Field Representative: JR

Well ID: MW-6 Start Time: _____ End Time: _____ Total Time (minutes): _____

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump ___ Flow Cell
___ Disp. Tubing ___ 12V Pump X Peristaltic Pump Other/ID#:

WELL HEAD INTEGRITY (cap, lock, vault, etc.) Comments:
(Good) Improvement Needed *(circle one)*

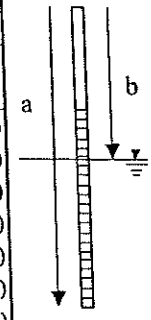
PURGING/SAMPLING METHOD Predetermined Well Volume (Low-Flow) Other: *(circle one)*

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):	14.00 (ft)
Initial Depth to Water (b):	5.89 (ft)
Water Column Height (WCH) = (a - b):	8.11 (ft)
Water Column Volume (WCV) = WCH x Unit Volume:	1.38 (gal)
Three Casing Volumes = WCV x 3:	4.14 (gal)
Five Casing Volumes = WCV x 5:	6.90 (gal)
Pump Depth (if pump used):	___ (ft)



LOW-FLOW

Previous Low-Flow Purge Rate:	___ (gpm)
Total Well Depth (a):	14.00 (ft)
Initial Depth to Water (b):	5.89 (ft)
Pump In-take Depth = b + (a-b)/2:	9.95 (ft)
Maximum Allowable Drawdown = (a-b)/8:	1.01 (ft)
Low-Flow Purge Rate:	0.25 (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 Volume (gal)	Temperature (°C)	pH	Conductivity (mS)	Other DO	ORP	NOTES Odor, color, sheen, turbidity, or other
1128	0	17.6	7.60	5.18	0.82	-73	
1130	0.5	17.9	7.60	5.45	0.64	-89	
1132	1.0	18.1	7.60	5.08	0.63	-98	
1134	1.5	18.2	7.61	5.09	0.61	-101	
Previous Stabilized Parameters							

PURGE COMPLETION RECORD X Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: _____ (ft)

Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
X Disp. Pump Tubing Other:

Sample ID: MW-6 (1/30/12) Sample Collection Time: 1139 (24:00)

Containers (#): 3 VOA (X preserved or ___ unpreserved) ___ Liter Amber
2 Other: 1L Amber NP ___ Other: _____
___ Other: _____ ___ Other: _____

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)	1134	0.61
Ferrous Iron (mg/L)		
Redox Potential (mV)	1134	-101
Alkalinity (mg/L)		
Other:		
Other:		

Signature: James Ramm

Revision: 8/19/11

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GROUNDWATER SAMPLING DATA SHEET

Project: Arcadis 11126 Project No.: 09-88-662 Date: 1/30/12

Field Representative: JR

Well ID: MW-7 Start Time: _____ End Time: _____ Total Time (minutes): _____

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump ___ Flow Cell
___ Disp. Tubing ___ 12V Pump X Peristaltic Pump Other/ID#:

WELL HEAD INTEGRITY (cap, lock, vault, etc.) Comments:
(Good) Improvement Needed *(circle one)*

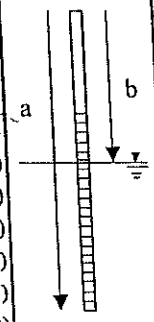
PURGING/SAMPLING METHOD Predetermined Well Volume (Low-Flow) Other: *(circle one)*

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):	14.00	(ft)
Initial Depth to Water (b):	5.29	(ft)
Water Column Height (WCH) = (a - b):	8.71	(ft)
Water Column Volume (WCV) = WCH x Unit Volume:	1.46	(gal)
Three Casing Volumes = WCV x 3:	4.44	(gal)
Five Casing Volumes = WCV x 5:	7.40	(gal)
Pump Depth (if pump used):		(ft)



LOW-FLOW

Previous Low-Flow Purge Rate:		(gpm)
Total Well Depth (a):	14.00	(ft)
Initial Depth to Water (b):	5.29	(ft)
Pump In-take Depth = b + (a-b)/2:	9.65	(ft)
Maximum Allowable Drawdown = (a-b)/8:	1.09	(ft)
Low-Flow Purge Rate:	0.25	(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 Volume (gal)	Temperature (°C)	pH	Conductivity (mS/cm)	Other DO	Other ORP	NOTES Odor, color, sheen, turbidity, or other
1056	0	18.5	7.70	5.33	1.26	-34	
1058	0.5	18.9	7.70	4.84	0.83	-59	
1100	1.0	18.9	7.69	4.66	0.70	-85	
1102	1.5	19.0	7.69	4.54	0.69	-90	
Previous Stabilized Parameters							

PURGE COMPLETION RECORD X Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: _____ (ft)

Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
X Disp. Pump Tubing Other:

Sample ID: MW-7 (1/30/12) Sample Collection Time: 1107 (24:00)

Containers (#): 3 VOA (X preserved or ___ unpreserved) ___ Liter Amber
___ Other: ___ Other:
___ Other: ___ Other:

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)	1102	0.69
Ferrous Iron (mg/L)		
Redox Potential (mV)	1102	-90
Alkalinity (mg/L)		
Other:		
Other:		

Signature: James Ram

BROADBENT & ASSOCIATES, INC.
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Project: Arcadis 111126 Project No.: 09-88-662 Date: 1/30/12

Field Representative: JR

Well ID: MW-8 Start Time: _____ End Time: _____ Total Time (minutes): _____

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump ___ Flow Cell
___ Disp. Tubing ___ 12V Pump X Peristaltic Pump Other/ID#:

WELL HEAD INTEGRITY (cap, lock, vault, etc.) Comments:
(Good) Improvement Needed *(circle one)*

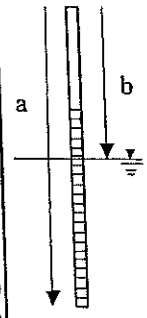
PURGING/SAMPLING METHOD Predetermined Well Volume (Low-Flow) Other: *(circle one)*

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):	14.00 (ft)
Initial Depth to Water (b):	4.63 (ft)
Water Column Height (WCH) = (a - b):	9.37 (ft)
Water Column Volume (WCV) = WCH x Unit Volume:	1.59 (gal)
Three Casing Volumes = WCV x 3:	4.77 (gal)
Five Casing Volumes = WCV x 5:	~~7.95~~ (gal)
Pump Depth (if pump used):	___ (ft)



LOW-FLOW

Previous Low-Flow Purge Rate:	___ (gpm)
Total Well Depth (a):	14.00 (ft)
Initial Depth to Water (b):	4.63 (ft)
Pump In-take Depth = b + (a-b)/2:	9.32 (ft)
Maximum Allowable Drawdown = (a-b)/8:	1.17 (ft)
Low-Flow Purge Rate:	0.25 (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 Volume ~~(gal)~~	Temperature (°C)	pH	Conductivity (µS)	Other DO	Other ORP	NOTES Odor, color, sheen, turbidity, or other
0925	0	10.3	7.35	1445	1.97	-95	
0927	0.5	18.3	7.37	1422	1.73	-97	
0929	1.0	18.4	7.37	1414	1.59	-103	
0931	1.5	18.5	7.37	1407	1.52	-101	
Previous Stabilized Parameters							

PURGE COMPLETION RECORD X Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: _____ (ft)

Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
X Disp. Pump Tubing Other:

Sample ID: MW-8 (1/30/12) Sample Collection Time: 0935 (24:00)

Containers (#): 3 VOA (X preserved or ___ unpreserved) ___ Liter Amber
2 Other: 1L AMBER NP ___ Other: _____
___ Other: _____ ___ Other: _____

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)	0931	1.52
Ferrous Iron (mg/L)		
Redox Potential (mV)	0931	-101
Alkalinity (mg/L)		
Other:		
Other:		

Signature: James Ramos

Revision: 8/19/11

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ENVIRONMENTAL, WATER RESOURCES & ENGINEERING

GROUNDWATER SAMPLING DATA SHEET

Project: Arcadis 11126 Project No.: 09-88-662 Date: 1/30/12

Field Representative: JR

Well ID: MW-9 Start Time: _____ End Time: _____ Total Time (minutes): _____

PURGE EQUIPMENT ___ Disp. Bailer ___ 120V Pump ___ Flow Cell
___ Disp. Tubing ___ 12V Pump X Peristaltic Pump Other/ID#:

WELL HEAD INTEGRITY (cap, lock, vault, etc.) Comments:
(Good) Improvement Needed *(circle one)*

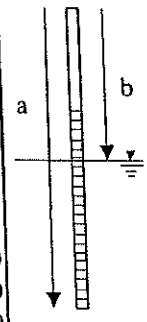
PURGING/SAMPLING METHOD Predetermined Well Volume (Low-Flow) Other: *(circle one)*

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):	14.00 (ft)
Initial Depth to Water (b):	4.09 (ft)
Water Column Height (WCH) = (a - b):	9.91 (ft)
Water Column Volume (WCV) = WCH x Unit Volume:	1.68 (gal)
Three Casing Volumes = WCV x 3:	5.04 (gal)
Five Casing Volumes = WCV x 5:	8.40 (gal)
Pump Depth (if pump used):	___ (ft)



LOW-FLOW

Previous Low-Flow Purge Rate:	___ (gpm)
Total Well Depth (a):	14.00 (ft)
Initial Depth to Water (b):	4.09 (ft)
Pump In-take Depth = b + (a-b)/2:	9.05 (ft)
Maximum Allowable Drawdown = (a-b)/8:	1.24 (ft)
Low-Flow Purge Rate:	0.25 (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 Volume (gal)	Temperature (°C)	pH	Conductivity (µS)	Other DO	Other ORP	NOTES Odor, color, sheen, turbidity, or other
1407	0	17.0	7.43	619	1.04	52	
1409	0.5	17.1	7.39	612	0.79	-3	
1411	1.0	17.1	7.36	610	0.76	-2	
1413	1.5	17.2	7.35	609	0.75	-4	
Previous Stabilized Parameters							

PURGE COMPLETION RECORD X Low Flow & Parameters Stable ___ 3 Casing Volumes & Parameters Stable ___ 5 Casing Volumes
___ Other:

SAMPLE COLLECTION RECORD

Depth to Water at Sampling: _____ (ft)

Sample Collected Via: ___ Disp. Bailer ___ Dedicated Pump Tubing
X Disp. Pump Tubing Other:

Sample ID: MW-9 (1/30/12) Sample Collection Time: 1418 (24:00)

Containers (#): 3 VOA (X preserved or ___ unpreserved) ___ Liter Amber
___ Other: ___ ___ Other: ___
___ Other: ___ ___ Other: ___

GEOCHEMICAL PARAMETERS

Parameter	Time	Measurement
DO (mg/L)	1413	0.75
Ferrous Iron (mg/L)		
Redox Potential (mV)	1413	-4
Alkalinity (mg/L)		
Other:		
Other:		

Signature: James Rann

San Francisco
1220 Quarry Lane

Pleasanton, CA 94566
phone 925.484.1919 fax 925.600.3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Sam Barkley	Site Contact:	Date:	COC No:
Broadbent and Associates, Inc.	Tel/Fax: 707-455-7290/ 707-455-7295	Lab Contact: Dimple Sharma	Carrier:	____ of ____ COCs
Address: 875 Cotting Lane, Suite G	Analysis Turnaround Time			Job No.
City/State/Zip: Vacaville, CA 95688	Calendar (C) or Work Days (W) ____			
(707) 455-7290 Phone	TAT if different from Below ___Standard_X_			SDG No.
(707) 455-7295 FAX	☐ 2 weeks			
Project Name: BP 11126	☐ 1 week			
Site: 1700 Powell St, Emeryville	☐ 2 days			
P O # GP09BPNA.C044	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	GRO by 8015M	DRO by 8015M	BTEX by 8260B	5 FO + EDB, 1,2-DCA by 8015M	TBA, MTBE, TAME by 8015M	Sample Specific Notes:
MW-1 ~~(1/29/12)~~ (1/30/12)	1/30/12	1447	GRAB	AQ	3		x		x		x	
MW-2 ~~(1/29/12)~~ (1/30/12)		1509	GRAB	AQ	3		x		x	x		
MW-3 ~~(1/29/12)~~ (1/30/12)		1223	GRAB	AQ	5		x	x			x	
MW-4 ~~(1/29/12)~~ (1/30/12)		1337	GRAB	AQ	5		x	x			x	
MW-5 ~~(1/29/12)~~ (1/30/12)		1023	GRAB	AQ	3		x		x		x	
MW-6 ~~(1/29/12)~~ (1/30/12)		1139	GRAB	AQ	5		x	x			x	
MW-7 ~~(1/29/12)~~ (1/30/12)		1101	GRAB	AQ	3		x		x		x	
MW-8 ~~(1/29/12)~~ (1/30/12)		0935	GRAB	AQ	5		x	x			x	
MW-9 ~~(1/29/12)~~ (1/30/12)	↓	1418	GRAB	AQ	3		x		x		x	
TB -11126- 01292012	1/30/12	1530		AQ	1							

ON H OLD

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	BA1	1/30/12 1550	[signature]	TASF	1-30-12 1550
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

APPENDIX C

LABORATORY REPORT
AND CHAIN-OF-CUSTODY DOCUMENTATION

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

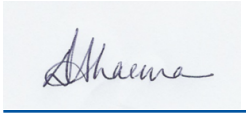
ANALYTICAL REPORT

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

TestAmerica Job ID: 720-40070-1
Client Project/Site: BP #11126, Emeryville

For:
ARCADIS U.S., Inc.
100 Montgomery Street
Suite 300
San Francisco, California 94104

Attn: Hollis Phillips



Authorized for release by:
2/13/2012 12:23:51 PM

Dimple Sharma
Project Manager I
dimple.sharma@testamericainc.com

Table of Contents

Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-40070-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-40070-1

Laboratory: TestAmerica San Francisco

Narrative

Job Narrative
720-40070-1

Comments
No additional comments.

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

GC/MS VOA
Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) percent recoveries and %RPD for batch #106982 were outside control limits. This is attributed to: non-homogeneity of the sample matrix; abundance of target analytes at concentrations significantly higher than the spike concentration; matrix interferences; etc.>>

No other analytical or quality issues were noted.

GC Semi VOA
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-40070-1

Client Sample ID: MW-1(1/30/12) — Lab Sample ID: 720-40070-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	64		0.50		ug/L	1		8260B/CA_LUFTM	Total/NA
Benzene	42		0.50		ug/L	1		8260B/CA_LUFTM	Total/NA
Ethylbenzene	0.90		0.50		ug/L	1		8260B/CA_LUFTM	Total/NA
Toluene	4.5		0.50		ug/L	1		8260B/CA_LUFTM	Total/NA
Xylenes, Total	7.2		1.0		ug/L	1		8260B/CA_LUFTM	Total/NA
Gasoline Range Organics (GRO) -C6-C12	1100		50		ug/L	1		8260B/CA_LUFTM	Total/NA
TBA	900		4.0		ug/L	1		8260B/CA_LUFTM	Total/NA
TAME	1.3		0.50		ug/L	1		8260B/CA_LUFTM	Total/NA

Client Sample ID: MW-2(1/30/12) — Lab Sample ID: 720-40070-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	1700		20		ug/L	40		8260B/CA_LUFTM	Total/NA
Benzene	3000		20		ug/L	40		8260B/CA_LUFTM	Total/NA
Ethylbenzene	640		20		ug/L	40		8260B/CA_LUFTM	Total/NA
Toluene	45		20		ug/L	40		8260B/CA_LUFTM	Total/NA
Xylenes, Total	370		40		ug/L	40		8260B/CA_LUFTM	Total/NA
Gasoline Range Organics (GRO) -C6-C12	13000		2000		ug/L	40		8260B/CA_LUFTM	Total/NA
TBA	1900		160		ug/L	40		8260B/CA_LUFTM	Total/NA
TAME	60		20		ug/L	40		8260B/CA_LUFTM	Total/NA

Client Sample ID: MW-3(1/30/12) — Lab Sample ID: 720-40070-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TBA	65		4.0		ug/L	1		8260B/CA_LUFTM	Total/NA
Diesel Range Organics [C10-C28]	160		51		ug/L	1		8015B	Total/NA

Client Sample ID: MW-4(1/30/12) — Lab Sample ID: 720-40070-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	11		0.50		ug/L	1		8260B/CA_LUFTM	Total/NA
Gasoline Range Organics (GRO) -C6-C12	72		50		ug/L	1		8260B/CA_LUFTM	Total/NA
TBA	23000		40		ug/L	10		8260B/CA_LUFTM	Total/NA
TAME	0.50		0.50		ug/L	1		8260B/CA_LUFTM	Total/NA
Diesel Range Organics [C10-C28]	530		50		ug/L	1		8015B	Total/NA

Client Sample ID: MW-5(1/30/12) — Lab Sample ID: 720-40070-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	2.1		0.50		ug/L	1		8260B/CA_LUFTM	Total/NA
Benzene	2.4		0.50		ug/L	1		8260B/CA_LUFTM	Total/NA
Toluene	1.1		0.50		ug/L	1		8260B/CA_LUFTM	Total/NA
Xylenes, Total	3.6		1.0		ug/L	1		8260B/CA_LUFTM	Total/NA
Gasoline Range Organics (GRO) -C6-C12	3200		50		ug/L	1		8260B/CA_LUFTM	Total/NA
TBA	17		4.0		ug/L	1		8260B/CA_LUFTM	Total/NA

Client Sample ID: MW-6(1/30/12) — Lab Sample ID: 720-40070-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	4.0		0.50		ug/L	1		8260B/CA_LUFTM	Total/NA
TBA	110		4.0		ug/L	1		8260B/CA_LUFTM	Total/NA

Client Sample ID: MW-6(1/30/12) (Continued) — Lab Sample ID: 720-40070-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	710		50		ug/L	1		8015B	Total/NA

Client Sample ID: MW-7(1/30/12) — Lab Sample ID: 720-40070-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	4.0		0.50		ug/L	1		8260B/CA_LUFTM	Total/NA
TBA	2700		4.0		ug/L	1		8260B/CA_LUFTM	Total/NA

Client Sample ID: MW-8(1/30/12) — Lab Sample ID: 720-40070-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	3.8		0.50		ug/L	1		8260B/CA_LUFTM	Total/NA
Gasoline Range Organics (GRO) -C6-C12	240		50		ug/L	1		8260B/CA_LUFTM	Total/NA
TBA	250		4.0		ug/L	1		8260B/CA_LUFTM	Total/NA
Diesel Range Organics [C10-C28]	1500		50		ug/L	1		8015B	Total/NA

Client Sample ID: MW-9(1/30/12) — Lab Sample ID: 720-40070-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	630		2.5		ug/L	5		8260B/CA_LUFTM	Total/NA
Benzene	210		2.5		ug/L	5		8260B/CA_LUFTM	Total/NA
Ethylbenzene	10		2.5		ug/L	5		8260B/CA_LUFTM	Total/NA
Toluene	5.1		2.5		ug/L	5		8260B/CA_LUFTM	Total/NA
Xylenes, Total	20		5.0		ug/L	5		8260B/CA_LUFTM	Total/NA
Gasoline Range Organics (GRO) -C6-C12	2300		250		ug/L	5		8260B/CA_LUFTM	Total/NA
TBA	1600		20		ug/L	5		8260B/CA_LUFTM	Total/NA
TAME	20		2.5		ug/L	5		8260B/CA_LUFTM	Total/NA

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-40070-1

Client Sample ID: MW-1(1/30/12)
Date Collected: 01/30/12 14:47
Date Received: 01/30/12 18:20

Lab Sample ID: 720-40070-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	64		0.50		ug/L			01/31/12 17:48	1
Benzene	42		0.50		ug/L			01/31/12 17:48	1
Ethylbenzene	0.90		0.50		ug/L			01/31/12 17:48	1
Toluene	4.5		0.50		ug/L			01/31/12 17:48	1
Xylenes, Total	7.2		1.0		ug/L			01/31/12 17:48	1
Gasoline Range Organics (GRO) -C6-C12	1100		50		ug/L			01/31/12 17:48	1
TBA	900		4.0		ug/L			01/31/12 17:48	1
TAME	1.3		0.50		ug/L			01/31/12 17:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*116*		*67 - 130*		*01/31/12 17:48*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*75 - 138*		*01/31/12 17:48*	*1*
Toluene-d8 (Surr)	*107*		*70 - 130*		*01/31/12 17:48*	*1*

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-40070-1

Client Sample ID: MW-2(1/30/12)
Date Collected: 01/30/12 15:09
Date Received: 01/30/12 18:20

Lab Sample ID: 720-40070-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	**1700**		20		ug/L			01/31/12 19:15	40
Benzene	**3000**		20		ug/L			01/31/12 19:15	40
EDB	ND		20		ug/L			01/31/12 19:15	40
1,2-DCA	ND		20		ug/L			01/31/12 19:15	40
Ethylbenzene	**640**		20		ug/L			01/31/12 19:15	40
Toluene	**45**		20		ug/L			01/31/12 19:15	40
Xylenes, Total	**370**		40		ug/L			01/31/12 19:15	40
Gasoline Range Organics (GRO) -C6-C12	**13000**		2000		ug/L			01/31/12 19:15	40
TBA	**1900**		160		ug/L			01/31/12 19:15	40
DIPE	ND		20		ug/L			01/31/12 19:15	40
TAME	**60**		20		ug/L			01/31/12 19:15	40
Ethyl t-butyl ether	ND		20		ug/L			01/31/12 19:15	40

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*67 - 130*		*01/31/12 19:15*	*40*
1,2-Dichloroethane-d4 (Surr)	*100*		*75 - 138*		*01/31/12 19:15*	*40*
Toluene-d8 (Surr)	*106*		*70 - 130*		*01/31/12 19:15*	*40*

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-40070-1

Client Sample ID: MW-3(1/30/12)
Date Collected: 01/30/12 12:23
Date Received: 01/30/12 18:20

Lab Sample ID: 720-40070-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		0.50		ug/L			01/31/12 19:45	1
Gasoline Range Organics (GRO) -C6-C12	ND		50		ug/L			01/31/12 19:45	1
TBA	**65**		4.0		ug/L			01/31/12 19:45	1
TAME	ND		0.50		ug/L			01/31/12 19:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*67 - 130*		*01/31/12 19:45*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*75 - 138*		*01/31/12 19:45*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*01/31/12 19:45*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**160**		51		ug/L		01/31/12 14:14	02/01/12 15:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*70*		*23 - 156*	*01/31/12 14:14*	*02/01/12 15:53*	*1*

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-40070-1

Client Sample ID: MW-4(1/30/12)
Date Collected: 01/30/12 13:37
Date Received: 01/30/12 18:20

Lab Sample ID: 720-40070-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	11		0.50		ug/L			01/31/12 20:14	1
Gasoline Range Organics (GRO) -C6-C12	72		50		ug/L			01/31/12 20:14	1
TBA	23000		40		ug/L			02/01/12 23:00	10
TAME	0.50		0.50		ug/L			01/31/12 20:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*67 - 130*		*01/31/12 20:14*	*1*
4-Bromofluorobenzene	*97*		*67 - 130*		*02/01/12 23:00*	*10*
1,2-Dichloroethane-d4 (Surr)	*105*		*75 - 138*		*01/31/12 20:14*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*75 - 138*		*02/01/12 23:00*	*10*
Toluene-d8 (Surr)	*101*		*70 - 130*		*01/31/12 20:14*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*02/01/12 23:00*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	530		50		ug/L		01/31/12 14:14	02/01/12 16:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*96*		*23 - 156*	*01/31/12 14:14*	*02/01/12 16:18*	*1*

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-40070-1

Client Sample ID: MW-5(1/30/12)
Date Collected: 01/30/12 10:23
Date Received: 01/30/12 18:20

Lab Sample ID: 720-40070-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	**2.1**		0.50		ug/L			01/31/12 20:43	1
Benzene	**2.4**		0.50		ug/L			01/31/12 20:43	1
Ethylbenzene	ND		0.50		ug/L			01/31/12 20:43	1
Toluene	**1.1**		0.50		ug/L			01/31/12 20:43	1
Xylenes, Total	**3.6**		1.0		ug/L			01/31/12 20:43	1
Gasoline Range Organics (GRO) -C6-C12	**3200**		50		ug/L			01/31/12 20:43	1
TBA	**17**		4.0		ug/L			02/01/12 23:30	1
TAME	ND		0.50		ug/L			01/31/12 20:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*67 - 130*		*01/31/12 20:43*	*1*
4-Bromofluorobenzene	*108*		*67 - 130*		*02/01/12 23:30*	*1*
1,2-Dichloroethane-d4 (Surr)	*111*		*75 - 138*		*01/31/12 20:43*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*75 - 138*		*02/01/12 23:30*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*01/31/12 20:43*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*02/01/12 23:30*	*1*

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-40070-1

Client Sample ID: MW-6(1/30/12)
Date Collected: 01/30/12 11:39
Date Received: 01/30/12 18:20

Lab Sample ID: 720-40070-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	**4.0**		0.50		ug/L			01/31/12 21:41	1
Gasoline Range Organics (GRO) -C6-C12	ND		50		ug/L			01/31/12 21:41	1
TBA	**110**		4.0		ug/L			01/31/12 21:41	1
TAME	ND		0.50		ug/L			01/31/12 21:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*67 - 130*		*01/31/12 21:41*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*75 - 138*		*01/31/12 21:41*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*01/31/12 21:41*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**710**		50		ug/L		01/31/12 14:14	02/01/12 16:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*68*		*23 - 156*	*01/31/12 14:14*	*02/01/12 16:42*	*1*

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-40070-1

Client Sample ID: MW-7(1/30/12)
Date Collected: 01/30/12 11:07
Date Received: 01/30/12 18:20

Lab Sample ID: 720-40070-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	**4.0**		0.50		ug/L			01/31/12 22:10	1
Benzene	ND		0.50		ug/L			01/31/12 22:10	1
Ethylbenzene	ND		0.50		ug/L			01/31/12 22:10	1
Toluene	ND		0.50		ug/L			01/31/12 22:10	1
Xylenes, Total	ND		1.0		ug/L			01/31/12 22:10	1
Gasoline Range Organics (GRO) -C6-C12	ND		50		ug/L			01/31/12 22:10	1
TBA	**2700**		4.0		ug/L			01/31/12 22:10	1
TAME	ND		0.50		ug/L			01/31/12 22:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*67 - 130*		*01/31/12 22:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*75 - 138*		*01/31/12 22:10*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*01/31/12 22:10*	*1*

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-40070-1

Client Sample ID: MW-8(1/30/12)
Date Collected: 01/30/12 09:35
Date Received: 01/30/12 18:20

Lab Sample ID: 720-40070-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	3.8		0.50		ug/L			01/31/12 22:39	1
Gasoline Range Organics (GRO) -C6-C12	240		50		ug/L			01/31/12 22:39	1
TBA	250		4.0		ug/L			01/31/12 22:39	1
TAME	ND		0.50		ug/L			01/31/12 22:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*67 - 130*		*01/31/12 22:39*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*75 - 138*		*01/31/12 22:39*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*01/31/12 22:39*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1500		50		ug/L		01/31/12 14:14	02/01/12 17:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*58*		*23 - 156*	*01/31/12 14:14*	*02/01/12 17:06*	*1*

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-40070-1

Client Sample ID: MW-9(1/30/12)
Date Collected: 01/30/12 14:18
Date Received: 01/30/12 18:20

Lab Sample ID: 720-40070-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	630		2.5		ug/L			02/01/12 22:29	5
Benzene	210		2.5		ug/L			02/01/12 22:29	5
Ethylbenzene	10		2.5		ug/L			02/01/12 22:29	5
Toluene	5.1		2.5		ug/L			02/01/12 22:29	5
Xylenes, Total	20		5.0		ug/L			02/01/12 22:29	5
Gasoline Range Organics (GRO) -C6-C12	2300		250		ug/L			02/01/12 22:29	5
TBA	1600		20		ug/L			02/01/12 22:29	5
TAME	20		2.5		ug/L			02/01/12 22:29	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*67 - 130*		*02/01/12 22:29*	*5*
1,2-Dichloroethane-d4 (Surr)	*101*		*75 - 138*		*02/01/12 22:29*	*5*
Toluene-d8 (Surr)	*96*		*70 - 130*		*02/01/12 22:29*	*5*

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

Lab Sample ID: MB 720-106982/4
Matrix: Water
Analysis Batch: 106982

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		0.50		ug/L			01/31/12 15:22	1
Benzene	ND		0.50		ug/L			01/31/12 15:22	1
EDB	ND		0.50		ug/L			01/31/12 15:22	1
1,2-DCA	ND		0.50		ug/L			01/31/12 15:22	1
Ethylbenzene	ND		0.50		ug/L			01/31/12 15:22	1
Toluene	ND		0.50		ug/L			01/31/12 15:22	1
Xylenes, Total	ND		1.0		ug/L			01/31/12 15:22	1
Gasoline Range Organics (GRO) -C6-C12	ND		50		ug/L			01/31/12 15:22	1
TBA	ND		4.0		ug/L			01/31/12 15:22	1
DIPE	ND		0.50		ug/L			01/31/12 15:22	1
TAME	ND		0.50		ug/L			01/31/12 15:22	1
Ethyl t-butyl ether	ND		0.50		ug/L			01/31/12 15:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*67 - 130*		*01/31/12 15:22*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*75 - 138*		*01/31/12 15:22*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*01/31/12 15:22*	*1*

Lab Sample ID: LCS 720-106982/5
Matrix: Water
Analysis Batch: 106982

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
MTBE	25.0	28.1		ug/L		112	62 - 130
Benzene	25.0	26.6		ug/L		106	79 - 120
EDB	25.0	29.6		ug/L		118	70 - 130
1,2-DCA	25.0	26.3		ug/L		105	61 - 132
Ethylbenzene	25.0	26.6		ug/L		106	84 - 120
Toluene	25.0	26.0		ug/L		104	78 - 118
TBA	500	490		ug/L		98	82 - 116
DIPE	25.0	26.6		ug/L		106	69 - 134
TAME	25.0	28.2		ug/L		113	79 - 129
Ethyl t-butyl ether	25.0	25.2		ug/L		101	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*103*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*101*		*75 - 138*
Toluene-d8 (Surr)	*103*		*70 - 130*

Lab Sample ID: LCS 720-106982/7
Matrix: Water
Analysis Batch: 106982

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C6-C12	500	504		ug/L		101	58 - 120

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

Lab Sample ID: LCS 720-106982/7
Matrix: Water
Analysis Batch: 106982

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	*102*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*102*		*75 - 138*
Toluene-d8 (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 720-106982/6
Matrix: Water
Analysis Batch: 106982

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
MTBE			25.0	28.4		ug/L		114	62 - 130	1	20
Benzene			25.0	27.1		ug/L		108	79 - 120	2	20
EDB			25.0	29.5		ug/L		118	70 - 130	0	20
1,2-DCA			25.0	26.5		ug/L		106	61 - 132	1	20
Ethylbenzene			25.0	26.6		ug/L		106	84 - 120	0	20
Toluene			25.0	26.3		ug/L		105	78 - 118	1	20
TBA			500	491		ug/L		98	82 - 116	0	20
DIPE			25.0	27.0		ug/L		108	69 - 134	1	20
TAME			25.0	28.3		ug/L		113	79 - 129	0	20
Ethyl t-butyl ether			25.0	25.4		ug/L		102	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	*103*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*98*		*75 - 138*
Toluene-d8 (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 720-106982/8
Matrix: Water
Analysis Batch: 106982

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C6-C12			500	485		ug/L		97	58 - 120	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	*102*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*102*		*75 - 138*
Toluene-d8 (Surr)	*101*		*70 - 130*

Lab Sample ID: 720-40070-1 MS
Matrix: Water
Analysis Batch: 106982

Client Sample ID: MW-1(1/30/12)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
MTBE	64		25.0	98.9	F	ug/L		141	60 - 138
Benzene	42		25.0	75.2		ug/L		134	60 - 140
EDB	ND		25.0	34.7		ug/L		139	60 - 140
1,2-DCA	ND		25.0	30.6		ug/L		122	60 - 140
Ethylbenzene	0.90		25.0	24.8		ug/L		96	60 - 140
Toluene	4.5		25.0	28.5		ug/L		96	60 - 140

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

Lab Sample ID: 720-40070-1 MS
Matrix: Water
Analysis Batch: 106982

Client Sample ID: MW-1(1/30/12)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
TBA	900		500	1340		ug/L		88	60 - 140
DIPE	ND		25.0	32.2		ug/L		129	60 - 140
TAME	1.3		25.0	35.4		ug/L		137	60 - 140
Ethyl t-butyl ether	ND		25.0	30.8		ug/L		123	60 - 140

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*109*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*105*		*75 - 138*
Toluene-d8 (Surr)	*108*		*70 - 130*

Lab Sample ID: 720-40070-1 MSD
Matrix: Water
Analysis Batch: 106982

Client Sample ID: MW-1(1/30/12)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
MTBE	64		25.0	104	F	ug/L		160	60 - 138	5	20
Benzene	42		25.0	75.2		ug/L		134	60 - 140	0	20
EDB	ND		25.0	36.3	F	ug/L		145	60 - 140	5	20
1,2-DCA	ND		25.0	31.4		ug/L		126	60 - 140	3	20
Ethylbenzene	0.90		25.0	25.2		ug/L		97	60 - 140	2	20
Toluene	4.5		25.0	28.7		ug/L		97	60 - 140	1	20
TBA	900		500	1520		ug/L		123	60 - 140	12	20
DIPE	ND		25.0	33.0		ug/L		132	60 - 140	2	20
TAME	1.3		25.0	37.4	F	ug/L		145	60 - 140	5	20
Ethyl t-butyl ether	ND		25.0	31.8		ug/L		127	60 - 140	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*113*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*104*		*75 - 138*
Toluene-d8 (Surr)	*108*		*70 - 130*

Lab Sample ID: MB 720-107078/4
Matrix: Water
Analysis Batch: 107078

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		0.50		ug/L			02/01/12 15:48	1
Benzene	ND		0.50		ug/L			02/01/12 15:48	1
Ethylbenzene	ND		0.50		ug/L			02/01/12 15:48	1
Toluene	ND		0.50		ug/L			02/01/12 15:48	1
Xylenes, Total	ND		1.0		ug/L			02/01/12 15:48	1
Gasoline Range Organics (GRO) -C6-C12	ND		50		ug/L			02/01/12 15:48	1
TBA	ND		4.0		ug/L			02/01/12 15:48	1
TAME	ND		0.50		ug/L			02/01/12 15:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*67 - 130*		*02/01/12 15:48*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*75 - 138*		*02/01/12 15:48*	*1*

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

Lab Sample ID: MB 720-107078/4
Matrix: Water
Analysis Batch: 107078

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		70 - 130		02/01/12 15:48	1

Lab Sample ID: LCS 720-107078/5
Matrix: Water
Analysis Batch: 107078

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
MTBE	25.0	24.9		ug/L		100	62 - 130
Benzene	25.0	25.7		ug/L		103	79 - 120
Ethylbenzene	25.0	25.5		ug/L		102	84 - 120
Toluene	25.0	25.0		ug/L		100	78 - 118
TBA	500	455		ug/L		91	82 - 116
TAME	25.0	25.8		ug/L		103	79 - 129

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	98		67 - 130
1,2-Dichloroethane-d4 (Surr)	94		75 - 138
Toluene-d8 (Surr)	98		70 - 130

Lab Sample ID: LCS 720-107078/7
Matrix: Water
Analysis Batch: 107078

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C6-C12	500	559		ug/L		112	58 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	99		67 - 130
1,2-Dichloroethane-d4 (Surr)	100		75 - 138
Toluene-d8 (Surr)	99		70 - 130

Lab Sample ID: LCSD 720-107078/6
Matrix: Water
Analysis Batch: 107078

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
MTBE	25.0	25.3		ug/L		101	62 - 130	2	20
Benzene	25.0	26.5		ug/L		106	79 - 120	3	20
Ethylbenzene	25.0	27.3		ug/L		109	84 - 120	7	20
Toluene	25.0	26.6		ug/L		106	78 - 118	6	20
TBA	500	472		ug/L		94	82 - 116	4	20
TAME	25.0	26.3		ug/L		105	79 - 129	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	102		67 - 130
1,2-Dichloroethane-d4 (Surr)	91		75 - 138
Toluene-d8 (Surr)	98		70 - 130

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

Lab Sample ID: LCSD 720-107078/8
Matrix: Water
Analysis Batch: 107078

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C6-C12			500	537		ug/L		107	58 - 120	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*95*		*75 - 138*
Toluene-d8 (Surr)	*98*		*70 - 130*

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

Lab Sample ID: MB 720-106984/1-A
Matrix: Water
Analysis Batch: 107043

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 106984

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		50		ug/L		01/31/12 14:14	02/01/12 18:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*100*		*23 - 156*	*01/31/12 14:14*	*02/01/12 18:44*	*1*

Lab Sample ID: LCS 720-106984/2-A
Matrix: Water
Analysis Batch: 107043

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 106984

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]			2500	2180		ug/L		87	40 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl	*122*		*23 - 156*

Lab Sample ID: LCSD 720-106984/3-A
Matrix: Water
Analysis Batch: 107043

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 106984

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			2500	2200		ug/L		88	40 - 150	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
p-Terphenyl	*123*		*23 - 156*

GC/MS VOA

Analysis Batch: 106982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-40070-1	MW-1(1/30/12)	Total/NA	Water	8260B/CA_LUFT MS	
720-40070-1 MS	MW-1(1/30/12)	Total/NA	Water	8260B/CA_LUFT MS	
720-40070-1 MSD	MW-1(1/30/12)	Total/NA	Water	8260B/CA_LUFT MS	
720-40070-2	MW-2(1/30/12)	Total/NA	Water	8260B/CA_LUFT MS	
720-40070-3	MW-3(1/30/12)	Total/NA	Water	8260B/CA_LUFT MS	
720-40070-4	MW-4(1/30/12)	Total/NA	Water	8260B/CA_LUFT MS	
720-40070-5	MW-5(1/30/12)	Total/NA	Water	8260B/CA_LUFT MS	
720-40070-6	MW-6(1/30/12)	Total/NA	Water	8260B/CA_LUFT MS	
720-40070-7	MW-7(1/30/12)	Total/NA	Water	8260B/CA_LUFT MS	
720-40070-8	MW-8(1/30/12)	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-106982/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-106982/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-106982/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-106982/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-106982/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

Analysis Batch: 107078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-40070-4	MW-4(1/30/12)	Total/NA	Water	8260B/CA_LUFT MS	
720-40070-5	MW-5(1/30/12)	Total/NA	Water	8260B/CA_LUFT MS	
720-40070-9	MW-9(1/30/12)	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-107078/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-107078/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-107078/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-107078/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-107078/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

GC Semi VOA

Prep Batch: 106984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-40070-3	MW-3(1/30/12)	Total/NA	Water	3510C	
720-40070-4	MW-4(1/30/12)	Total/NA	Water	3510C	
720-40070-6	MW-6(1/30/12)	Total/NA	Water	3510C	
720-40070-8	MW-8(1/30/12)	Total/NA	Water	3510C	

GC Semi VOA (Continued)

Prep Batch: 106984 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-106984/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 720-106984/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 720-106984/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 107043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-40070-3	MW-3(1/30/12)	Total/NA	Water	8015B	106984
720-40070-4	MW-4(1/30/12)	Total/NA	Water	8015B	106984
720-40070-6	MW-6(1/30/12)	Total/NA	Water	8015B	106984
720-40070-8	MW-8(1/30/12)	Total/NA	Water	8015B	106984
LCS 720-106984/2-A	Lab Control Sample	Total/NA	Water	8015B	106984
LCSD 720-106984/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	106984
MB 720-106984/1-A	Method Blank	Total/NA	Water	8015B	106984

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-40070-1

Client Sample ID: MW-1(1/30/12)

Lab Sample ID: 720-40070-1

Date Collected: 01/30/12 14:47

Matrix: Water

Date Received: 01/30/12 18:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	106982	01/31/12 17:48	AC	TAL SF

Client Sample ID: MW-2(1/30/12)

Lab Sample ID: 720-40070-2

Date Collected: 01/30/12 15:09

Matrix: Water

Date Received: 01/30/12 18:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		40	106982	01/31/12 19:15	AC	TAL SF

Client Sample ID: MW-3(1/30/12)

Lab Sample ID: 720-40070-3

Date Collected: 01/30/12 12:23

Matrix: Water

Date Received: 01/30/12 18:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	106982	01/31/12 19:45	AC	TAL SF
Total/NA	Prep	3510C			106984	01/31/12 14:14	RU	TAL SF
Total/NA	Analysis	8015B		1	107043	02/01/12 15:53	EC	TAL SF

Client Sample ID: MW-4(1/30/12)

Lab Sample ID: 720-40070-4

Date Collected: 01/30/12 13:37

Matrix: Water

Date Received: 01/30/12 18:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	106982	01/31/12 20:14	AC	TAL SF
Total/NA	Analysis	8260B/CA_LUFTMS		10	107078	02/01/12 23:00	AC	TAL SF
Total/NA	Prep	3510C			106984	01/31/12 14:14	RU	TAL SF
Total/NA	Analysis	8015B		1	107043	02/01/12 16:18	EC	TAL SF

Client Sample ID: MW-5(1/30/12)

Lab Sample ID: 720-40070-5

Date Collected: 01/30/12 10:23

Matrix: Water

Date Received: 01/30/12 18:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	106982	01/31/12 20:43	AC	TAL SF
Total/NA	Analysis	8260B/CA_LUFTMS		1	107078	02/01/12 23:30	AC	TAL SF

Client Sample ID: MW-6(1/30/12)

Lab Sample ID: 720-40070-6

Date Collected: 01/30/12 11:39

Matrix: Water

Date Received: 01/30/12 18:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	106982	01/31/12 21:41	AC	TAL SF
Total/NA	Prep	3510C			106984	01/31/12 14:14	RU	TAL SF

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-40070-1

Client Sample ID: MW-6(1/30/12)

Lab Sample ID: 720-40070-6

Date Collected: 01/30/12 11:39
Matrix: Water
Date Received: 01/30/12 18:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	107043	02/01/12 16:42	EC	TAL SF

Client Sample ID: MW-7(1/30/12)

Lab Sample ID: 720-40070-7

Date Collected: 01/30/12 11:07
Matrix: Water
Date Received: 01/30/12 18:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	106982	01/31/12 22:10	AC	TAL SF

Client Sample ID: MW-8(1/30/12)

Lab Sample ID: 720-40070-8

Date Collected: 01/30/12 09:35
Matrix: Water
Date Received: 01/30/12 18:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	106982	01/31/12 22:39	AC	TAL SF
Total/NA	Prep	3510C			106984	01/31/12 14:14	RU	TAL SF
Total/NA	Analysis	8015B		1	107043	02/01/12 17:06	EC	TAL SF

Client Sample ID: MW-9(1/30/12)

Lab Sample ID: 720-40070-9

Date Collected: 01/30/12 14:18
Matrix: Water
Date Received: 01/30/12 18:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		5	107078	02/01/12 22:29	AC	TAL SF

Laboratory References:

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

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-40070-1

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

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

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-40070-1

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

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-40070-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-40070-1	MW-1(1/30/12)	Water	01/30/12 14:47	01/30/12 18:20
720-40070-2	MW-2(1/30/12)	Water	01/30/12 15:09	01/30/12 18:20
720-40070-3	MW-3(1/30/12)	Water	01/30/12 12:23	01/30/12 18:20
720-40070-4	MW-4(1/30/12)	Water	01/30/12 13:37	01/30/12 18:20
720-40070-5	MW-5(1/30/12)	Water	01/30/12 10:23	01/30/12 18:20
720-40070-6	MW-6(1/30/12)	Water	01/30/12 11:39	01/30/12 18:20
720-40070-7	MW-7(1/30/12)	Water	01/30/12 11:07	01/30/12 18:20
720-40070-8	MW-8(1/30/12)	Water	01/30/12 09:35	01/30/12 18:20
720-40070-9	MW-9(1/30/12)	Water	01/30/12 14:18	01/30/12 18:20

San Francisco
1220 Quarry Lane

Pleasanton, CA 94566
phone 925.484.1919 fax 925.600.3002

Chain of Custody Record

720-40070

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

136250
TestAmerica Laboratories, Inc.

2/13/2012

Client Contact	Project Manager: Sam Barkley	Site Contact:	Date:	COC No:
Broadbent and Associates, Inc.	Tel/Fax: 707-455-7290/ 707-455-7295	Lab Contact: Dimple Sharma	Carrier:	____ of ____ COCs
Address: 875 Cotting Lane, Suite G	Analysis Turnaround Time			Job No.
City/State/Zip: Vacaville, CA 95688	Calendar (C) or Work Days (W) ____			
(707) 455-7290 Phone	TAT if different from Below ___Standard_X_			SDG No.
(707) 455-7295 FAX	☐ 2 weeks			
Project Name: BP 11126	☐ 1 week			
Site: 1700 Powell St, Emeryville	☐ 2 days			
P O # GP09BPNA.C044	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	GRO by 8015M	DRO by 8015M	BTEX by 8260B	5 FO + EDB, 1,2-DCA by 8015M	TBA, MTBE, TAME by 8015M	Sample Specific Notes:
MW-1 ~~(1/29/12)~~ (1/30/12)	1/30/12	1447	GRAB	AQ	3		x		x		x	
MW-2 ~~(1/29/12)~~ (1/30/12)		1509	GRAB	AQ	3		x		x	x		
MW-3 ~~(1/29/12)~~ (1/30/12)		1223	GRAB	AQ	5		x	x			x	
MW-4 ~~(1/29/12)~~ (1/30/12)		1387	GRAB	AQ	5		x	x			x	
MW-5 ~~(1/29/12)~~ (1/30/12)		1023	GRAB	AQ	3		x		x		x	
MW-6 ~~(1/29/12)~~ (1/30/12)		1139	GRAB	AQ	5		x	x			x	
MW-7 ~~(1/29/12)~~ (1/30/12)		1107	GRAB	AQ	3		x		x		x	
MW-8 ~~(1/29/12)~~ (1/30/12)		0935	GRAB	AQ	5		x	x			x	
MW-9 ~~(1/29/12)~~ (1/30/12)		1418	GRAB	AQ	3		x		x		x	
TB -11126- 01292012	1/30/12	1530		AQ	1							

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____ ON H OLD

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*

Special Instructions/QC Requirements & Comments:

1.8°C

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	BAI	1/30/12 1550		TASF	1-30-12 1550
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TASF	1-30-12 1820		TestAmerica	1-30-12 1820
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 720-40070-1

Login Number: 40070

List Source: TestAmerica San Francisco

List Number: 1

Creator: Mullen, Joan

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

APPENDIX D

GEOTRACKER UPLOAD CONFIRMATION RECEIPTS

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER ESI

UPLOADING A EDF FILE

SUCCESS

Processing is complete. No errors were found!
Your file has been successfully submitted!

Submittal Type:	**EDF - Monitoring Report - Semi-Annually**
Submittal Title:	**4Q11 GW Monitoring**
Facility Global ID:	**T0600100208**
Facility Name:	**BP #11126**
File Name:	**720-40070-1.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**2/16/2012 10:52:03 AM**
Confirmation Number:	**7657872021**

VIEW QC REPORT

VIEW DETECTIONS REPORT

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER ESI

UPLOADING A GEO_WELL FILE

SUCCESS

Processing is complete. No errors were found!
Your file has been successfully submitted!

Submittal Type:	**GEO_WELL**
Submittal Title:	**4Q11 GEO_WELL 11126**
Facility Global ID:	**T0600100208**
Facility Name:	**BP #11126**
File Name:	**GEO_WELL.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**2/16/2012 10:55:13 AM**
Confirmation Number:	**3862507641**