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9:04 am, Jan 28, 2010

Alameda County Environmental Health

ARCADIS U.S., Inc. 100 Montgomery Street, Suite 300 San Francisco, California 94105 Tel 415.374.2744 Fax 415.374.2745 www.arcadis-us.com

Re: Fourth Quarter 2009 Ground-Water Monitoring Report Former BP Station #11109 4280 Foothill Blvd.

Oakland, California

ACEH Case #RO0000426

"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:

01/25/2010

ENVIRONMENTAL

Contact:

Hollis E. Phillips

Phone:

415.374.2744 ext 13

Hollis.phillips@arcadisus.com

Our ref:

GP09BPNA.C106

Submitted by:

ARCADIS U.S., Inc.

Hollis E. Phillips, PG Project Manager



Fourth Quarter 2009 Ground-Water Monitoring Report

Former BP Station #11109 4280 Foothill Blvd., Oakland, California ACEH Case #RO0000426

Prepared for

Ms. Hollis Phillips, PG
Senior Geologist
ARCADIS-US, Inc.
100 Montgomery Street, Ste. 300
San Francisco, California 94104

On behalf of

Atlantic Richfield Company P.O. Box 1257 San Ramon, California 94583

Prepared by



1324 Mangrove Avenue, Suite 212 Chico, California 95926 (530) 566-1400 www.broadbentinc.com

25 January 2010

Project No. 09-88-646



25 January 2010

Project No. 09-88-646

ARCADIS-US, Inc. 100 Montgomery Street, Suite 300 San Francisco, California 94104 Submitted via ENFOS

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

Re: Fourth Quarter 2009 Ground-Water Monitoring Report, Former BP Service Station

#11109, 4280 Foothill Boulevard, Oakland, Alameda County, California;

ACEH Case #RO0000426

Dear Ms. Phillips:

Provided herein is the Fourth Quarter 2009 Ground-Water Monitoring Report for Former BP Service Station #11109 located at 4280 Foothill Boulevard, Oakland, California (Site). This report presents a summary of results from ground-water monitoring conducted at the Site during the Fourth Quarter of 2009.

Should you have questions regarding the work performed or results obtained, please do not hesitate to contact us at (530) 566-1400.

Sincerely,

BROADBENT & ASSOCIATES, INC.

Jason Duda Project Scientist

Thomas A. Venus, P.E.

Senior Engineer

Enclosure

Mr. Paresh Khatri, Alameda County Environmental Health (Submitted via ACEH ftp Site) cc:

Ms. Shelby Lathrop, ConocoPhillips, 76 Broadway, Sacramento, California 95818

Electronic copy uploaded to GeoTracker

NEVADA

ARIZONA

CALIFORNIA

TEXAS

STATION #11109 GROUND-WATER MONITORING REPORT

Facility: #11109 Address: 4280 Foothill Boulevard, Oakland

ARCADIS Project Manager: Ms. Hollis Phillips, PG

Consulting Co./Contact Persons: Broadbent & Associates, Inc.(BAI)/Jason Duda & Tom Venus

(530) 566-1400

Primary Agency/Regulatory ID No.: Alameda County Environmental Health (ACEH)

ACEH Case #RO0000426

Consultant Project No.: 09-88-646

WORK PERFORMED THIS QUARTER (Fourth Quarter 2009):

1. Prepared and submitted *Third Quarter 2009 Ground-Water Monitoring Report* (BAI, 10/30/2009).

- 2. Conducted ground-water monitoring/sampling for Fourth Quarter 2009. Work performed on 28 October 2009 by BAI.
- 3. Performed monthly free product gauging and bailing of wells MW-5 and MW-10 through MW-12. Work performed on 28 October, 13 November, and 11 December 2009 by BAI.
- 4. Prepared and submitted Feasibility Study and Corrective Action Plan (ARCADIS, 12/9/2009).

WORK PROPOSED FOR NEXT QUARTER (First Quarter 2010):

- 1. Prepared and submitted this *Fourth Quarter 2009 Ground-Water Monitoring Report* (contained herein).
- 2. Perform monthly free product gauging and bailing of wells MW-5 and MW-10 through MW-12.
- 3. Conduct ground-water monitoring/sampling for First Quarter 2009.

QUARTERLY RESULTS SUMMARY:

Current phase of project: Ground-water monitoring/sampling/DPE IRM

Frequency of ground-water Monthly: MW-5, MW-10, MW-11, and MW-12 (Measure/

monitoring: Bail FP if present)

Semi-Annually (1Q & 3Q): MW-2 through MW-12

Frequency of ground-water sampling: Quarterly: MW-10, MW-11, and MW-12 (one year)

Semi-Annually (10 & 30): MW-2, MW-3, MW-4,

MW-6, and MW-7

Current remediation techniques: Monthly Free Product Bailing

Is Free Product (FP) present on-site: **Yes** (**MW-5**)

FP recovered this quarter: 1.5 gallons (FP/water mixture)

Depth to ground water (below TOC):

8.00 ft (MW-11) to 15.63 ft (MW-6)

General ground-water flow direction:

Northwest

Approximate hydraulic gradient: Northwest 0.04 ft/ft

DISCUSSION:

Fourth quarter 2009 semi-annual ground-water monitoring and sampling was conducted at Former BP Station #11109 on 28 October 2009 by BAI. Water levels were gauged in the eleven wells at the Site. Well MW-2 was reported as dry even though the well was originally drilled to a total depth of 20 feet below ground surface (bgs). A root mass is suspected to be present at approximately 13 feet bgs. No other irregularities were noted during water level gauging. Depth to water measurements across the Site ranged from 8.00 ft at MW-11 to 15.63 ft at MW-6. Resulting ground-water surface elevations

Broadbent & Associates, Inc. Chico, California

ranged from 32.04 ft in well MW-11 to 24.63 ft in well MW-8. Water level elevations associated with Station #11109 yielded a potentiometric ground-water flow direction and gradient of approximately 0.04 ft/ft to the northwest. Ground-water monitoring field data sheets for Station #11109 are provided within Appendix A. Measured depths to ground water and respective ground-water elevations are summarized in Table 1. Current and historic ground-water flow directions and gradients are provided in Table 3. A Site Location Map is provided as Drawing 1. Potentiometric ground-water elevation contours for Station #11109 are presented in Drawing 2. Co-operative ground-water monitoring was not conducted at Chevron Station #9-0076 during Fourth Quarter 2009 as it is scheduled for semi-annual monitoring during the first and third quarters of each calendar year.

Ground-water samples were collected from wells MW-10, MW-11, and MW-12. Wells MW-10 and MW-12 purged dry before three casing volumes were removed but recovered sufficiently prior to sampling. No other irregularities were reported during sampling. Samples were submitted under chain-of-custody documentation to TestAmerica Laboratories, Inc. (Pleasanton, California) to be analyzed for Gasoline Range Organics (GRO, C6-C12); Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX); Methyl Tert-Butyl Ether (MTBE), Ethyl Tert-Butyl Ether (ETBE), Tert-Amyl Methyl Ether (TAME), Di-Isopropyl Ether (DIPE), 1,2-Dibromomethane (EDB), 1,2-Dichloroethane (1,2-DCA), Tert-Butyl Alcohol (TBA), and Ethanol by EPA Method 8260B. No significant irregularities were encountered during laboratory analysis of the samples. Ground-water sampling field data sheets and the laboratory analytical report, including chain-of-custody documentation, are provided in Appendix A.

Gasoline Range Organics (GRO) were detected above laboratory reporting limits in each of the three wells sampled at concentrations up to 62,000 micrograms per liter (μ g/L) in MW-10. Benzene was detected above the laboratory reporting limit in each of the three wells sampled at concentrations up to 8,300 μ g/L in well MW-10. Toluene was detected above the laboratory reporting limit in each of the three wells sampled at concentrations up to 5,300 μ g/L in well MW-10. Ethylbenzene was detected above the laboratory reporting limit in each of the three wells sampled at concentrations up to 3,100 μ g/L in well MW-10. Total Xylenes were detected above the laboratory reporting limit in each of the three wells sampled at concentrations up to 12,000 μ g/L in well MW-10. The remaining fuel constituents were not detected above their laboratory reporting limits in the three wells sampled this quarter. Historic laboratory analytical results for Former BP Station #11109 are summarized in Table 1 and Table 2. Drawing 2 provides Fourth Quarter 2009 laboratory analytical results for GRO, Benzene, and MTBE constituents. Ground-water monitoring data (GEO_WELL) and laboratory analytical results (EDF) were uploaded to the GeoTracker AB2886 database. Upload confirmation receipts are provided in Appendix B.

Separate phase hydrocarbons (SPH, or Free Product – FP) in wells MW-5 and MW-10 through MW-12 were monitored and removed, if present, during each month of the Fourth Quarter 2009. On 28 October 2009 (during the scheduled semi-annual site sampling/monitoring event), no FP was measured in wells MW-5 and MW-10 through MW-12 during gauging activities. However, FP was observed during the purging activities conducted in wells MW-10 and MW-12. Approximately 35 gallons were purged from well MW-10 and 25 gallons from well MW-12. On 13 November 2009, FP thickness was measured in well MW-5 at 0.01 feet. Approximately 0.5 gallons of FP/water mixture was bailed from well MW-5 during this visit. No FP was observed in wells MW-10 through MW-12. On 11 December 2009, FP thickness was measured in well MW-5 at 0.01 feet. Approximately one gallon of FP/water mixture was bailed from well MW-5 during this visit. No FP was observed in wells MW-10 through MW-12. Table 4 contains a summary of FP removal data.

CONCLUSIONS AND RECOMMENDATIONS:

Water level elevations were between historic minimum and maximum ranges for each well gauged this quarter, with the exception of recently installed wells MW-10, MW-11, and MW-12. The potentiometric ground-water flow direction and gradient of 0.04 ft/ft to the northwest is somewhat inconsistent with historical data and might possibly be a result from the change in top of casing elevations following the recent well survey. Future gauged ground-water elevations and resultant flow directions/ gradients should be scrutinized for this potential change. Concentrations of GRO, BTEX, and MTBE are significant, justifying efforts to determine the viability of potential remediation technologies for the Site. In the letter dated 13 August 2009, the ACEH requested the preparation and submittal of a Feasibility Study and/or Corrective Action Plan. In correspondence dated 12 October 2009 ARCADIS-US, Inc. requested an extension for the submittal of the Feasibility Study and/or Corrective Action Plan that was approved by ACEH in a reply dated 20 October 2009. ARCADIS-US, Inc. submitted the Feasibility Study and Corrective Action Plan on 2 December 2009. Due to the limited amount of FP observed this quarter, monthly FP gauging will not be conducted during the First Quarter of 2010. Gauging and bailing of FP, if present, will be conducted during the scheduled quarterly ground-water monitoring/sampling event in the First Quarter of 2010.

CLOSURE:

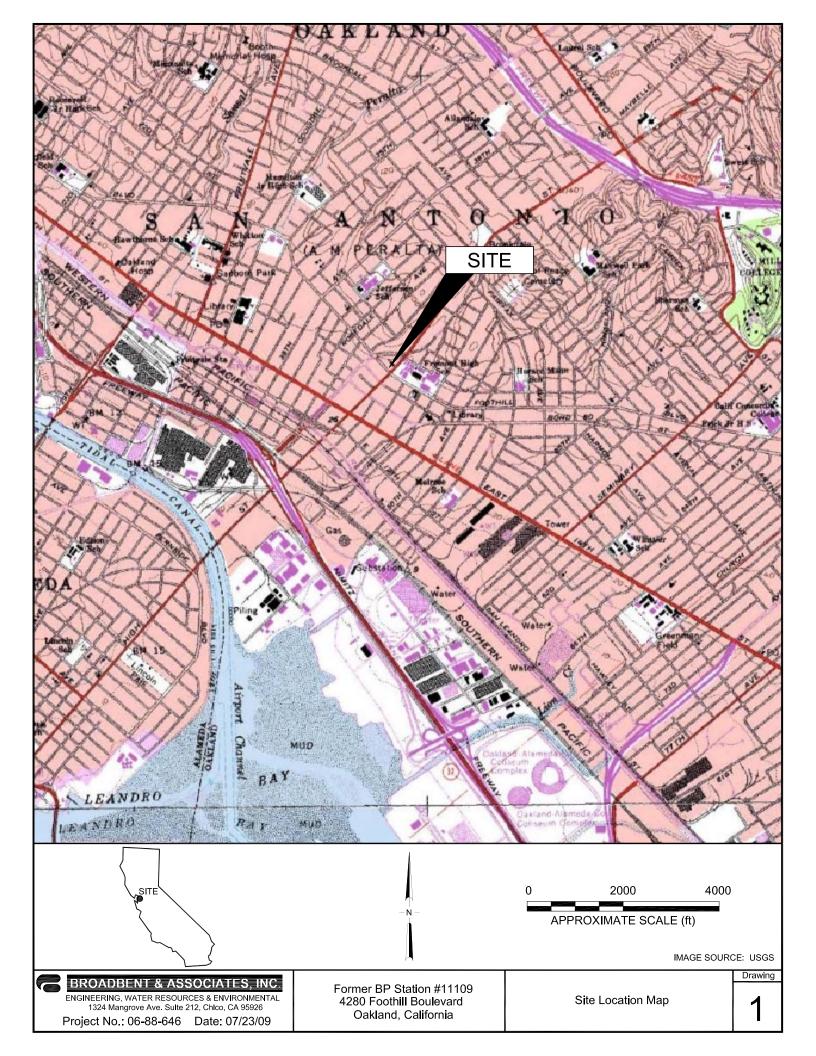
The findings presented in this report are based upon: observations of BAI field personnel (see Appendix A), the points investigated, and results of laboratory tests performed by TestAmerica Laboratories, Inc. (Pleasanton, California). Our services were performed in accordance with the generally accepted 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 (a BP affiliated company). It is possible that variations in soil or ground-water 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.

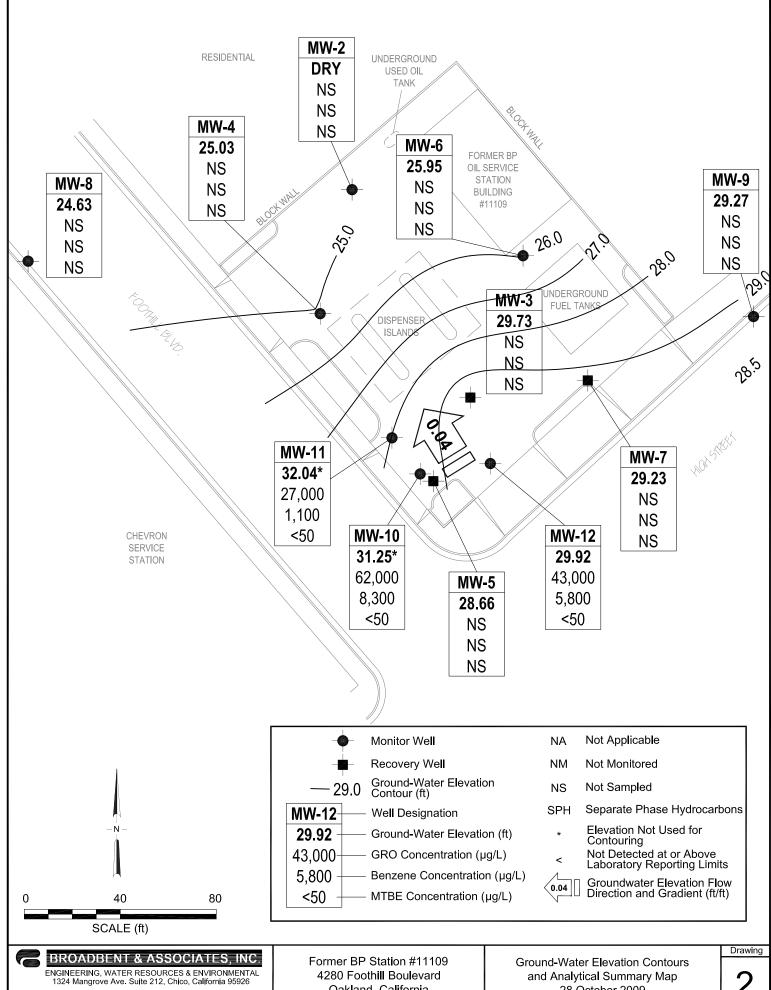
ATTACHMENTS:

- Drawing 1. Site Location Map, Former BP Station #11109, 4280 Foothill Boulevard, Oakland, California
- Drawing 2. Ground-Water Elevation Contours and Analytical Summary Map, 28 October 2009, Former BP Station #11109, 4280 Foothill Boulevard, Oakland, California
- Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses, Station #11109, 4280 Foothill Blvd., Oakland, California
- Table 2. Summary of Fuel Additives Analytical Data, Station #11109, 4280 Foothill Blvd., Oakland, California
- Table 3. Historical Ground-Water Flow Direction and Gradient, Station #11109, 4280 Foothill Blvd., Oakland, California
- Table 4. Summary of Free Product Removal, Former BP Service Station #11109, 4280 Foothill Boulevard, Oakland, California

Appendix A. BAI Ground-Water Sampling Data Package (Includes Field Data Sheets, Laboratory Report, Chain of Custody Documentation, and Field Procedures)

Appendix B. GeoTracker Upload Confirmation Receipts





Project No.: 09-88-646 Date: 1/5/09 Oakland, California

28 October 2009

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11109, 4280 Foothill Blvd., Oakland, CA

			TOC		Product	Water Level		C	oncontrati	ong in (ug/	T)					DRO/		
Well and			Elevation	DTW	Thickness	Elevation	GRO/		опсенитан	ons in (µg/ Ethyl-	Total		DO			TPHd	TOG	HVOC
Sample Date	P/NP	Footnote	(feet)	(feet bgs)	(feet)	(feet)	TPHg	Benzene	Toluene		Xylenes	MtBE	(mg/L)	Lab	pН	(μg/L)	(μg/L)	(μg/L)
MW-1			` /	. 37	` ,		3								•	,,,,	(18)	,,,,
1/31/1990			38.19	15.41		22.78												
2/5/1990		c	38.19															
MW-2																		
2/5/1990			41.22	21.90		19.32	1,300	14	< 0.1	9	13			SUP				
2/14/1991		d	41.22	21.16		20.06	< 50	< 0.3	< 0.3	< 0.3	< 0.3			SUP		<10000	< 5000	51
5/13/1991		e	41.22	21.32		19.90	< 50	< 0.3	< 0.3	< 0.3	< 0.3			SUP		<50	6,000	0.5
7/24/1991			41.22	22.92		18.30												
10/3/1991		e	41.22	24.90		16.32	<50	<0.3	0.8	< 0.3	< 0.3			SUP		<50	< 5000	0.7
10/15/1991			41.22	24.10		17.12												
12/4/1991		f	41.22															
12/16/1991			41.22	23.95		17.27												
1/6/1992			41.22	23.30		17.92	< 50	< 0.3	< 0.3	< 0.3	<0.3			ANA		<50	< 5000	
1/22/1992			41.22	23.14		18.08												
1/28/1992			41.22	22.99		18.23												
2/5/1992			41.22	22.63		18.59												
2/12/1992			41.22	22.04		19.18												
2/17/1992			41.22	20.84		20.38												
4/3/1992			41.22	18.29		22.93												
4/8/1992			41.22	18.86		22.36	< 50	< 0.5	< 0.5	< 0.5	< 0.5			ANA		63	< 5000	
4/14/1992			41.22	19.45		21.77												
4/29/1992			41.22	20.35		20.87												
5/7/1992			41.22	20.84		20.38												
7/3/1992			41.22	22.34		18.88	<50	< 0.5	< 0.5	< 0.5	< 0.5			ANA				
10/8/1992			41.22	23.73		17.49	<50	<0.5	<0.5	<0.5	<0.5			ANA				
12/31/1992			41.22	21.12		20.10	<50	< 0.5	< 0.5	< 0.5	< 0.5			ANA				
4/21/1993		g, n	41.22	17.68		23.54	<50	<0.5	<0.5	<0.5	< 0.5			PACE		<50	<5000	
7/7/1993		e, n	41.22	20.30		20.92	<50	< 0.5	< 0.5	< 0.5	< 0.5			PACE				1.0
9/21/1993		n	41.22	21.93		19.29	<50	0.9	0.7	0.7	2.6	21.54		PACE				
12/17/1993			41.22	21.48		19.74												
12/23/1993		n	41.22				<50	< 0.5	< 0.5	< 0.5	0.7			PACE				

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11109, 4280 Foothill Blvd., Oakland, CA

			тос		Product	Water Level		C	oncentrati	ons in (µg/	L)					DRO/		
Well and			Elevation	DTW	Thickness	Elevation	GRO/			Ethyl-	Total		DO			TPHd	TOG	HVOC
Sample Date	P/NP	Footnote	(feet)	(feet bgs)	(feet)	(feet)	TPHg	Benzene	Toluene	Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	(µg/L)	$(\mu g/L)$	(µg/L)
MW-2 Cont.																		
4/7/1994		n	41.22	20.25		20.97	< 50	< 0.5	< 0.5	< 0.5	< 0.5	12.2	5.9	PACE				
7/6/1994		n	41.22	20.59		20.63	< 50	< 0.5	< 0.5	< 0.5	< 0.5		3.1	PACE				
10/7/1994		n	41.22	22.04		19.18	< 50	< 0.5	< 0.5	< 0.5	< 0.5	15.2	2.8	PACE				
1/27/1995			41.22	26.12		15.10	< 50	< 0.5	< 0.5	< 0.5	<1		4.8	ATI		440	< 5000	
3/30/1995			41.22	12.34		28.88	< 50	< 0.50	< 0.50	< 0.50	<1.0		7.2	ATI				
6/20/1995			41.22	16.42		24.80	< 50	< 0.50	< 0.50	< 0.50	<1.0		6.0	ATI				
10/3/1995			41.22	20.06		21.16	< 50	< 0.50	< 0.50	< 0.50	<1.0	< 5.0	5.7	ATI				
12/6/1995			41.22	21.31		19.91	< 50	< 0.50	< 0.50	< 0.50	<1.0	46	5.4	ATI				
3/21/1996			41.22	12.28		28.94	< 50	< 0.5	<1.0	<1.0	<1.0	<1.0	7.4	SPL				
6/21/1996			41.22	13.28		27.94	< 50	< 0.5	<1	<1	<1	<10	7.3	SPL				
9/6/1996			41.22	13.94		27.28												
9/9/1996			41.22				< 50	< 0.5	<1.0	<1.0	<1.0	<10	7.4	SPL				
12/19/1996			41.22	12.19		29.03	< 50	< 0.5	<1.0	<1.0	<1.0	<10	7.9	SPL				
3/17/1997			41.22	11.59		29.63												
8/12/1997			41.22	13.21		28.01												
12/10/1997			41.22	12.34		28.88												
3/12/1998			41.22	11.04		30.18												
6/23/1998			41.22	11.77		29.45												
3/31/1999			41.22	12.38		28.84												
8/25/1999			41.22	17.72		23.50												
3/9/2000			41.22	11.94		29.28												
3/8/2001			41.22	10.31		30.91												
3/8/2002			41.22	14.35		26.87												
3/18/2002			41.22	13.11		28.11												
3/11/2003			41.22	13.24		27.98												
12/09/2003	P	q	41.22	18.58		22.64	350	< 0.50	< 0.50	0.56	2.8	24		SEQM	6.2			
03/09/2004	P		41.22	12.52		28.70	74	< 0.50	< 0.50	0.83	4.7	27		SEQM	6.5			
09/17/2004	P		41.22	18.05		23.17	59	< 0.50	< 0.50	< 0.50	< 0.50	21		SEQM	6.3			
03/07/2005		p	41.22	2.32		38.90												
09/06/2005		r	41.22															
03/06/2006		p	41.22															

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11109, 4280 Foothill Blvd., Oakland, CA

			тос		Product	Water Level		C	oncentrati	ons in (µg/l	L)					DRO/		
Well and			Elevation	DTW	Thickness	Elevation	GRO/			Ethyl-	Total		DO			TPHd	TOG	HVOC
Sample Date	P/NP	Footnote	(feet)	(feet bgs)	(feet)	(feet)	TPHg	Benzene	Toluene	Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	$(\mu g/L)$	$(\mu g/L)$	$(\mu g/L)$
MW-2 Cont.																		
9/5/2006		p	41.22	10.46		30.76	79	< 0.50	5.1	< 0.50	0.73	< 0.50		TAMC	6.4			
3/5/2007		p	41.22	12.25		28.97												
9/7/2007		r	41.22															
3/6/2008		w	41.22	12.33		28.89												
9/3/2008		r	41.22															
3/4/2009		r	41.22															
9/30/2009		r, x	41.22															
10/28/2009		r	41.22															
MW-3																		
2/5/1990			40.74	17.45		23.29	1,400	15	<2.5	11	8			SUP				
2/14/1991			40.74	18.52		22.22	320	8	< 0.3	8	1			SUP				
5/13/1991			40.74	19.32		21.42	640	13	< 0.3	18	1			SUP				
7/24/1991			40.74	20.69		20.05												
10/3/1991			40.74	19.47		21.27	940	21	< 0.3	23	2.1			SUP				
10/15/1991			40.74	20.46		20.28												
12/4/1991			40.74	18.29		22.45												
12/16/1991			40.74	18.34		22.40												
1/6/1992			40.74	18.50		22.24	580	6.1	1	6.1	7.1			ANA				
1/22/1992			40.74	17.86		22.88												
1/28/1992			40.74	15.84		24.90												
2/5/1992			40.74	17.53		23.21												
2/12/1992			40.74	17.15		23.59												
2/17/1992			40.74	16.18		24.56												
4/3/1992			40.74	14.80		25.94												
4/8/1992			40.74	17.06		23.68	1,100	30	4.6	32	11			ANA				
4/14/1992			40.74	15.22		25.52												
4/29/1992			40.74	15.90		24.84												
5/7/1992			40.74	16.35		24.39												
7/3/1992			40.74	17.74		23.00	1,200	38	<2.5	24	<2.5			ANA				
10/8/1992			40.74	19.06		21.68	1,400	31	< 0.5	25	13			ANA				

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11109, 4280 Foothill Blvd., Oakland, CA

			тос		Product	Water Level		C	oncentrati	ons in (µg/l	L)					DRO/		
Well and			Elevation	DTW	Thickness	Elevation	GRO/			Ethyl-	Total		DO			TPHd	TOG	HVOC
Sample Date	P/NP	Footnote	(feet)	(feet bgs)	(feet)	(feet)	TPHg	Benzene	Toluene	Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	(µg/L)	(μg/L)	(µg/L)
MW-3 Cont.																		
12/31/1992			40.74	16.61		24.13	820	12	4.1	13	5.9			ANA				
12/31/1992		h	40.74				960	11	3.6	10	3.8			ANA				
4/21/1993		h, n	40.74				390	5	< 0.5	3.7	1.5			PACE				
4/21/1993		n	40.74	14.24		26.50	420	5.6	< 0.5	3.9	1.4			PACE				
7/7/1993		i, n	40.13	15.19		24.94	54	0.6	0.6	< 0.5	<0.5	12.68		PACE				
9/21/1993		n	40.13	16.58		23.55	540	7.9	0.9	4.7	2.4			PACE				
12/17/1993			40.13	15.82		24.31												
12/23/1993		h	40.13				480	9.2	< 0.5	5.4	5.3			PACE				
12/23/1993		n	40.13				500	9.8	1.5	3.3	2.1			PACE				
4/7/1994		n	40.13	28.50		11.63	460	20	7.4	8.9	11	18.2		PACE				
4/7/1994		h	40.13				460	20	7.7	9	11			PACE				
7/6/1994		n	40.13				300	10	0.6	1.7	6.4	5.54	4.8	PACE				
10/7/1994		n	40.13	27.65		12.48	620	28	<0.5	2.2	12	31.4	4.4	PACE			31	
1/27/1995		j	40.13	27.65		12.48												
3/30/1995			40.13	26.05		14.08	300	10	6	3.4	18		7.6	ATI				
6/20/1995			40.13	19.49		20.64	170	7.2	3.4	0.85	15			ATI				
10/3/1995			40.13	24.93		15.20	170	2.1	< 0.50	0.81	8	6.7		ATI				
12/6/1995			40.13	25.14		14.99	1,700	6.7	3.1	2.8	210	64		ATI				
12/6/1995		h	40.13				1,400	6.1	3	1.7	190	53		ATI				
3/21/1996			40.13	9.48		30.65	< 50	0.5	<1	<1	1	<10	7.3	SPL				
6/21/1996			40.13	11.60		28.53	<50	13	<1	<1	<1	12	7.6	SPL				
9/6/1996			40.13	12.23		27.90												
9/9/1996			40.13				<250	6.5	<5.0	<5.0	<5.0	<50	7.6	SPL				
12/19/1996			40.13	10.46		29.67	< 50	4.1	<1.0	<1.0	<1.0	<10	8.4	SPL				
3/17/1997			40.13	9.86		30.27	50	<5	<1.0	<1.0	<1.0	<10	7.4	SPL				
8/12/1997			40.13	12.11		28.02	< 50	0.79	<1.0	<1.0	<1.0	10	6.1	SPL				
12/10/1997			40.13	10.90		29.23	<50	<0.5	<1.0	<1.0	<1.0	<10	3.2	SPL				
3/12/1998		h	40.13				< 50	< 0.5	<1.0	<1.0	<1.0	<10		SPL				
3/12/1998			40.13	10.20		29.93	<50	<0.5	<1.0	<1.0	<1.0	<10	6.3	SPL				
6/23/1998			40.13	10.17		29.96	50	< 0.5	<1.0	<1.0	<1.0	<10	3.4	SPL				
3/31/1999			40.13	11.45		28.68	60	<1.0	<1.0	<1.0	<1.0	6.2		SPL				

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11109, 4280 Foothill Blvd., Oakland, CA

			тос		Product	Water Level		C	oncentrati	ons in (µg/	L)					DRO/		
Well and			Elevation	DTW	Thickness	Elevation	GRO/			Ethyl-	Total		DO			TPHd	TOG	HVOC
Sample Date	P/NP	Footnote	(feet)	(feet bgs)	(feet)	(feet)	TPHg	Benzene	Toluene	Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	$(\mu g/L)$	(µg/L)	(µg/L)
MW-3 Cont.																		
8/25/1999			40.13	12.52		27.61	<50	<1.0	<1.0	<1.0	<1.0	7.7		SPL				
3/9/2000			40.13	12.39		27.74	< 50	< 0.5	0.54	< 0.5	1.7	6.3		PACE				
3/8/2001			40.13	10.41		29.72	< 50	< 0.5	< 0.5	< 0.5	0.59	7.7		PACE				
3/8/2002			40.13	9.83		30.30	62	< 0.5	< 0.5	< 0.5	<1.0	11.6		PACE				
3/18/2002			40.13	9.20		30.93												
3/11/2003			40.13	10.54		29.59	< 50	< 0.50	< 0.50	< 0.50	< 0.50	6.7		SEQ				
12/09/2003	P		40.13	12.88		27.25	< 50	< 0.50	< 0.50	< 0.50	< 0.50	6.4		SEQM	6.3			
03/09/2004	P		40.13	9.49		30.64	< 50	< 0.50	< 0.50	< 0.50	0.63	6.9		SEQM	6.1			
09/17/2004			40.13	12.76		27.37												
03/07/2005	P		40.13	7.30		32.83	< 50	< 0.50	< 0.50	< 0.50	0.52	5.1		SEQM	7.0			
09/06/2005			42.92	10.81		32.11												
03/06/2006	P	u	42.92	8.85		34.07	< 50	< 0.50	< 0.50	< 0.50	< 0.50	6.9		SEQM	6.8			
9/5/2006			42.92	9.86		33.06												
3/5/2007	P		42.92	8.33		34.59	< 50	< 0.50	< 0.50	< 0.50	< 0.50	5.4	2.31	TAMC	6.95			
9/7/2007			42.92	11.10		31.82												
3/6/2008	P		42.92	8.92		34.00	< 50	< 0.50	< 0.50	< 0.50	< 0.50	4.2	2.5	CEL	6.86			
9/3/2008			42.92	12.19		30.73												
3/4/2009	P		42.92	8.28		34.64	< 50	< 0.50	< 0.50	< 0.50	< 0.50	4.9	1.19	CEL	6.71			
9/30/2009	P	X	40.13	11.60		28.53	< 50	< 0.50	< 0.50	< 0.50	< 0.50	6.8		CEL	7.12			
10/28/2009			40.13	10.40		29.73												
MW-4																		
2/5/1990			40.11	20.75		19.36	620	< 0.5	9	< 0.5	10			SUP				
2/14/1991			40.11	21.73		18.38	180	< 0.3	< 0.3	0.4	2			SUP				
5/13/1991			40.11	18.55		21.56	72	0.7	< 0.3	<0.3	<0.3			SUP				
7/24/1991			40.11	21.31		18.80												
10/3/1991			40.11	22.57		17.54	57	<0.3	<0.3	<0.3	<0.3			SUP				
10/15/1991			40.11	22.88		17.23												
12/4/1991			40.11	22.54		17.57												
12/16/1991			40.11	22.59		17.52												
1/6/1992			40.11	22.00		18.11	480	0.8	3.2	1.9	7.7			ANA				

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11109, 4280 Foothill Blvd., Oakland, CA

			TOC		Product	Water Level		C	oncentrati	ons in (μg/l		ı				DRO/		
Well and			Elevation	DTW	Thickness	Elevation	GRO/			Ethyl-	Total		DO			TPHd	TOG	HVOC
Sample Date	P/NP	Footnote	(feet)	(feet bgs)	(feet)	(feet)	TPHg	Benzene	Toluene	Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	(µg/L)	(µg/L)	(µg/L)
MW-4 Cont.																		
1/22/1992			40.11	21.58		18.53												
1/28/1992			40.11	21.42		18.69												
2/5/1992			40.11	21.10		19.01												
2/12/1992			40.11	20.74		19.37												
2/17/1992			40.11	19.78		20.33												
4/3/1992			40.11	16.80		23.31												
4/8/1992			40.11	17.13		22.98	< 50	< 0.5	< 0.5	< 0.5	< 0.5			ANA				
4/14/1992			40.11	17.74		22.37												
4/29/1992			40.11	18.56		21.55												
5/7/1992			40.11	19.10		21.01												
7/3/1992			40.11	20.71		19.40	< 50	0.6	< 0.5	< 0.5	< 0.5			ANA				
10/8/1992			40.11	22.43		17.68	270	< 0.5	2.1	2.5	3.2			ANA				
12/31/1992			40.11	19.58		20.53	150	< 0.5	< 0.5	< 0.5	1.3			ANA				
4/21/1993		n	40.11	17.79		22.32	< 50	< 0.5	< 0.5	< 0.5	< 0.5			PACE				
7/7/1993		n	40.11	18.44		21.67	160	1.2	5.4	3.8	19	5.51		PACE				
9/21/1993		n	40.11	20.14		19.97	71	< 0.5	1.9	< 0.5	2.1			PACE				
12/17/1993			40.11	19.80		20.31												
12/23/1993		n	40.11				< 50	3.1	1.6	0.8	3.8	5.7		PACE				
4/7/1994		n	40.11	19.12		20.99	< 50	< 0.5	< 0.5	< 0.5	< 0.5	11.7	6.6	PACE				
7/6/1994		n	40.11	19.90		20.21	62	< 0.5	< 0.5	< 0.5	< 0.5		4.1	PACE				
10/7/1994		n	40.11	20.07		20.04	<50	< 0.5	< 0.5	< 0.5	< 0.5	7.38	3.6	PACE				
1/27/1995			40.11	13.72		26.39	< 50	< 0.5	< 0.5	< 0.5	<1		2.7	ATI				
3/30/1995			40.11	11.46		28.65	< 50	< 0.50	< 0.50	< 0.50	<1.0		8.3	ATI				
6/20/1995			40.11	14.78		25.33	< 50	< 0.50	< 0.50	< 0.50	<1.0			ATI				
10/3/1995			40.11	19.62		20.49	< 50	< 0.50	< 0.50	< 0.50	<1.0	5	5.8	ATI				
12/6/1995			40.11	19.91		20.20	< 50	< 0.50	< 0.50	< 0.50	<1.0	47	5.7	ATI				
3/21/1996			40.11	11.12		28.99	< 50	< 0.5	<1	<1	<1	<10	7.8	SPL				
6/21/1996			40.11	12.21		27.90	< 50	< 0.5	<1	<1	<1	<10	7.9	SPL				
9/6/1996			40.11	12.89		27.22												
9/9/1996			40.11				< 50	< 0.5	<1.0	<1.0	<1.0	<10	7.2	SPL				
12/19/1996			40.11	11.01		29.10	< 50	< 0.5	<1.0	<1.0	<1.0	<10	8.4	SPL				

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11109, 4280 Foothill Blvd., Oakland, CA

			TOC		Product	Water Level		C	oncentrati	ons in (µg/l	L)					DRO/		
Well and			Elevation	DTW	Thickness	Elevation	GRO/			Ethyl-	Total		DO			TPHd	TOG	HVOC
Sample Date	P/NP	Footnote	(feet)	(feet bgs)	(feet)	(feet)	TPHg	Benzene	Toluene	Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	$(\mu g/L)$	(µg/L)	(µg/L)
MW-4 Cont.																		
3/17/1997			40.11	10.42		29.69					-							
8/12/1997			40.11	12.77		27.34												
12/10/1997			40.11	11.22		28.89												
3/12/1998			40.11	10.81		29.30												
6/23/1998			40.11	10.61		29.50												
3/31/1999			40.11	11.46		28.65												
8/25/1999			40.11	16.16		23.95												
3/9/2000			40.11	12.23		27.88												
3/8/2001			40.11	11.04		29.07												
3/8/2002			40.11	12.73		27.38												
3/18/2002			40.11	11.62		28.49												
3/11/2003			40.11	13.44		26.67												
12/09/2003	P		40.11	15.03		25.08	<250	<2.5	<2.5	<2.5	<2.5	130		SEQM	6.1			
03/09/2004	P		40.11	11.04		29.07	< 50	< 0.50	< 0.50	< 0.50	< 0.50	35		SEQM	5.5			
09/17/2004	P		40.11	16.75		23.36	<250	<2.5	<2.5	<2.5	<2.5	140		SEQM	6.5			
03/07/2005	P		40.11	11.02		29.09	67	< 0.50	< 0.50	< 0.50	< 0.50	42		SEQM	6.6			
09/06/2005	P	s, t	42.88	14.64		28.24	81	< 0.50	< 0.50	< 0.50	<1.5	180		SEQM	6.7			
03/06/2006	P		42.88	12.42		30.46	<100	<1.0	<1.0	<1.0	<1.0	110		SEQM	6.4			
9/5/2006			42.88	13.81		29.07	130	<1.0	<1.0	<1.0	<1.0	190		TAMC	6.5			
3/5/2007	P		42.88	10.63		32.25	< 50	< 0.50	< 0.50	< 0.50	< 0.50	13	3.34	TAMC	7.11			
9/7/2007	P	s, v (MTBE)	42.88	14.77		28.11	90	<0.50	<0.50	<0.50	<0.50	130	1.14	TAMC	6.68			
3/6/2008	P		42.88	11.30		31.58	< 50	< 0.50	< 0.50	< 0.50	< 0.50	170	1.76	CEL	6.62			
9/3/2008	P		42.88	16.11		26.77	< 50	<5.0	< 5.0	<5.0	< 5.0	150	1.97	CEL	6.33			
3/4/2009	P		42.88	10.78		32.10	140	< 5.0	< 5.0	< 5.0	< 5.0	110	1.31	CEL	6.47			
9/30/2009	P	x, y (GRO)	40.10	16.48		23.62	240	<2.0	<2.0	<2.0	<2.0	140	0.08	CEL	6.88			
10/28/2009			40.10	15.07		25.03												
MW-5																		
10/3/1991			39.55	18.08		21.47	79,000	13,000	7,400	1,400	6,200			SUP				
10/15/1991			39.55	18.55		21.00												

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11109, 4280 Foothill Blvd., Oakland, CA

			TOG		D 1 (***				• ()	•					DDO/		
Well and			TOC Elevation	DTW	Product	Water Level	GRO/	C	oncentrati 	ons in (µg/	L) Total		DO			DRO/ TPHd	TOG	HVOC
Sample Date	P/NP	Footnote	(feet)	(feet bgs)	Thickness (feet)	Elevation (feet)	TPHg	Benzene	Toluene	Ethyl- Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	(µg/L)	10G (μg/L)	HVOC (μg/L)
Sample Date	1/111	roomote	(IEEI)	(leet bgs)	(IEEL)	(ICCI)	IIIIg	Denzene	Totache	Delizene	Aylenes	MILDE	(IIIg/L)	Lau	pm	(μg/L)	(μg/L)	(μg/L)
MW-5 Cont.																		
12/4/1991		a	39.55	18.44	0.13	20.98												
12/16/1991		a	39.55	18.66	0.01	20.88												
1/6/1992		a	39.55	19.12	0.11	20.32												
1/22/1992			39.55	14.59		24.96												
1/28/1992			39.55	15.25		24.30												
2/5/1992		q	39.55	15.58		23.97												
2/12/1992		a	39.55	15.54	0.01	24.00												
2/17/1992		q	39.55	13.98		25.57												
4/3/1992		a	39.55	13.63	0.04	25.88												
4/8/1992		a	39.55	13.17	0.01	26.37												
4/14/1992		a	39.55	13.45	0.01	26.09												
4/29/1992		a	39.55	13.75	0.07	25.73												
5/7/1992		a	39.55	16.15	0.04	23.36												
7/3/1992		a	39.55	17.67	0.08	21.80												
9/1/1992		a	39.55	17.83	0.50	21.22												
10/8/1992		a	39.55	17.86	0.92	20.77												
12/31/1992		q	39.55	15.20		24.35												
4/21/1993		a	39.55	12.64	0.02	26.89												
7/7/1993		a, i	39.14	12.68	0.82	25.64												
9/21/1993		q	39.14	14.35		24.79												
12/17/1993		a	39.14	12.61	0.41	26.12												
4/7/1994		n	39.14	30.00		9.14	66,000	3,000	1,700	250	6,800	2,002		PACE				
7/6/1994		n	39.14				29,000	1,900	330	63	2,700	1,141		PACE				
10/7/1994		n	39.14	28.70		10.44	250,000	2,600	660	830	5,200	37.7	4.2	PACE				
10/7/1994		h	39.14				45,000	2,900	540	260	2,600			PACE				
1/27/1995			39.14	28.70		10.44												
3/30/1995		h	39.14				43,000	7,900	2,500	440	6,200			ATI				
3/30/1995			39.14	28.95		10.19	50,000	7,900	2,600	520	6,400		5.5	ATI				
6/20/1995			39.14	22.54		16.60	34,000	5,100	1,900	300	3,700			ATI				
6/20/1995		h	39.14				26,000	3,500	290	<25	3,300			ATI				
10/3/1995			39.14	18.84		20.30	12,000	68	42	11	1,600	330		ATI				
																		4

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11109, 4280 Foothill Blvd., Oakland, CA

			тос		Product	Water Level		C	oncentrati	ons in (µg/l	L)					DRO/		
Well and			Elevation	DTW	Thickness	Elevation	GRO/			Ethyl-	Total		DO			TPHd	TOG	HVOC
Sample Date	P/NP	Footnote	(feet)	(feet bgs)	(feet)	(feet)	TPHg	Benzene	Toluene	Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	$(\mu g/L)$	$(\mu g/L)$	(µg/L)
MW-5 Cont.																		
10/3/1995		h	39.14				12,000	46	39	10	1,600	320		ATI				
12/6/1995			39.14	19.07		20.07	16,000	1,200	93	51	700	600		ATI				
3/21/1996		h	39.14				1,900	92	30	7	270	<10		SPL				
3/21/1996			39.14	7.43		31.71	1,500	89	28	6	250	<10	7.2	SPL				
6/21/1996			39.14	9.87		29.27	3,500	740	150	19	400	<100	7.1	SPL				
6/21/1996		h	39.14				2,700	680	140	20	400	< 50		SPL				
9/6/1996			39.14	10.52		28.62												
9/9/1996		h	39.14				90,000	2,900	1,600	670	6,900	<2500		SPL				
9/9/1996			39.14				82,000	3,100	1,700	850	9,100	<2500	7.5	SPL				
12/19/1996		h	39.14				26,000	490	430	63	1,140	< 500		SPL				
12/19/1996			39.14	8.62		30.52	41,000	790	820	120	2,040	< 500	7.7	SPL				
3/17/1997			39.14	8.22		30.92	5,500	1.9	2.4	<1.0	<1.0	29	6.4	SPL				
3/17/1997		h	39.14				6,600	2.5	2.7	<1.0	<1.0	28		SPL				
8/12/1997		h	39.14				36,000	6,100	2,500	720	4,500	< 500		SPL				
8/12/1997		a	39.14	12.18	0.22	26.74	33,000	6,400	2,400	680	4,400	<1000	6.8	SPL				
12/10/1997		a	39.14	10.78	0.06	28.30	31,000	3,000	2,500	560	5,100	500	1.8	SPL				
12/10/1997		h	39.14				37,000	2,900	2,500	440	4,800			SPL				
3/12/1998		a	39.14	10.11	0.22	28.81	100,000	1,600	870	250	2,600	<250	6.1	SPL				
6/23/1998		a	39.14	10.20	0.02	28.92	27,000	2,500	840	370	2,900	<250	2.1	SPL				
6/23/1998		h	39.14				27,000	2,600	840	400	2,950	< 500		SPL				
3/31/1999		f	39.14															
8/25/1999		a	39.14	14.69	0.38	24.07	180,000	2,700	400	830	2,800	26		SPL				
3/9/2000		a	39.14	14.83	0.60	23.71	53,000	12,000	2,600	1,900	9,100	< 5.0		PACE				
3/8/2001		f	39.14															
3/8/2002		a	39.14	11.45	1.50	26.19	33,000	8,240	1,080	1,010	2,900	34.3		PACE				
3/18/2002			39.14	8.03		31.11												
3/11/2003		a	39.14	9.60	0.45	29.09												
12/09/2003		a	39.14	11.44	0.03	27.72												
03/09/2004	P		39.14	7.91		31.23	31,000	3,900	1,100	780	3,600	< 50		SEQM	6.6			
09/17/2004		a	39.14	12.13	0.15	27.13												
03/07/2005		a	39.14	8.62	0.02	27.13												

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11109, 4280 Foothill Blvd., Oakland, CA

			TOC		Product	Water Level		C	oncentrati	ons in (µg/l	L)					DRO/		
Well and			Elevation	DTW	Thickness	Elevation	GRO/			Ethyl-	Total		DO			TPHd	TOG	HVOC
Sample Date	P/NP	Footnote	(feet)	(feet bgs)	(feet)	(feet)	TPHg	Benzene	Toluene	Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	$(\mu g/L)$	$(\mu g/L)$	(µg/L)
MW-5 Cont.																		
09/06/2005		a	41.98	11.16	0.18	30.96												
03/06/2006	P	a, q	41.98	8.60	SHEEN	33.38	32,000	7,500	810	1,200	2,300	<50		SEQM	6.4			
9/5/2006		a	41.98	6.16	0.03	35.82												
3/5/2007	P	q	41.98	8.34	SHEEN	33.64	90,000	10,000	4,200	1,900	7,900	< 50	1.30	TAMC	6.91			
9/7/2007		a	41.98	15.15	0.15	26.94												
1/14/2008		a	41.98	10.30	0.49	32.05												
2/27/2008		a	41.98	13.22	0.12	28.85												
3/6/2008		a	41.98	12.90	0.14	29.19												
9/3/2008		a	41.98	12.90	0.99	29.82												
3/4/2009		a	41.98	8.45	0.16	33.65												
4/8/2009		X	39.14	9.05	0.67	30.59												
5/11/2009			39.14	9.10	0.32	30.28												
6/16/2009			39.14	9.15	0.02	30.01												
7/22/2009			39.14	9.33	0.12	29.90												
8/6/2009			39.14	10.05	0.01	29.10												
9/30/2009			39.14	10.55	0.06	28.64												
10/28/2009			39.14	10.48		28.66												
MW-6																		
10/3/1991			41.59	20.73		20.86	< 50	0.7	0.8	< 0.3	1.3			SUP				
10/15/1991			41.59	21.20		20.39												
12/4/1991			41.59	21.26		20.33												
12/16/1991			41.59	21.12		20.47												
1/6/1992			41.59	20.29		21.30	< 50	< 0.5	< 0.5	< 0.5	1.6			ANA				
1/22/1992			41.59	20.12		21.47												
1/28/1992			41.59	20.20		21.39												
2/5/1992			41.59	20.09		21.50												
2/12/1992			41.59	19.15		22.44												
2/17/1992			41.59	18.02		23.57												
4/3/1992			41.59	16.62		24.97												
4/8/1992			41.59	17.06		24.53	< 50	0.6	< 0.5	0.8	< 0.5			ANA				

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11109, 4280 Foothill Blvd., Oakland, CA

			тос		Product	Water Level		С	oncentrati	ons in (µg/l	L)					DRO/		
Well and			Elevation	DTW	Thickness	Elevation	GRO/			Ethyl-	Total		DO			TPHd	TOG	HVOC
Sample Date	P/NP	Footnote	(feet)	(feet bgs)	(feet)	(feet)	TPHg	Benzene	Toluene	Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	(µg/L)	(µg/L)	(µg/L)
MW-6 Cont.																		
4/14/1992			41.59	17.23		24.36												
4/29/1992			41.59	18.12		23.47												
5/7/1992			41.59	18.52		23.07												
7/3/1992			41.59	19.71		21.88	< 50	< 0.5	< 0.5	< 0.5	< 0.5			ANA				
10/8/1992		h	41.59				< 50	< 0.5	< 0.5	< 0.5	< 0.5			ANA				
10/8/1992			41.59	21.22		20.37	< 50	< 0.5	< 0.5	< 0.5	< 0.5			ANA				
12/31/1992			41.59	21.33		20.26	< 50	< 0.5	< 0.5	< 0.5	< 0.5			ANA				
4/21/1993		n	41.59	16.45		25.14	< 50	< 0.5	< 0.5	< 0.5	< 0.5			PACE				
7/7/1993		j, n	41.59	18.68		22.91	< 50	< 0.5	< 0.5	< 0.5	< 0.5	28.96		PACE			29	
9/21/1993		n	41.59	19.64		21.95	< 50	< 0.5	< 0.5	< 0.5	1.6			PACE				
12/17/1993			41.59	21.08		20.51												
12/23/1993		n	41.59				< 50	< 0.5	0.5	< 0.5	0.6	13.95		PACE				
4/7/1994		n	41.59	21.27		20.32	<50	< 0.5	< 0.5	< 0.5	< 0.5	35.1	6.1	PACE				
7/6/1994		h	41.59				< 50	< 0.5	< 0.5	< 0.5	< 0.5			PACE				
7/6/1994		n	41.59	19.81		21.78	<50	< 0.5	< 0.5	< 0.5	< 0.5		4.0	PACE				
10/7/1994		j, n	41.59	21.25		20.34	< 50	< 0.5	< 0.5	< 0.5	< 0.5	24.3	3.5	PACE			24	
1/27/1995			41.59	12.39		29.20	< 50	< 0.5	< 0.5	< 0.5	<1		4.2	ATI				
3/30/1995			41.59	11.34		30.25	< 50	< 0.50	< 0.50	< 0.50	<1.0		6.1	ATI				
6/20/1995			41.59	15.12		26.47	< 50	< 0.50	< 0.50	< 0.50	<1.0			ATI				
10/3/1995			41.59	20.68		20.91	< 50	< 0.50	< 0.50	< 0.50	<1.0	66	6.4	ATI				
12/6/1995			41.59	23.77		17.82	< 50	< 0.50	< 0.50	< 0.50	<1.0	45	5.7	ATI				
3/21/1996			41.59	11.55		30.04	< 50	< 0.5	<1	<1	<1	41	9.1	SPL				
6/21/1996			41.59	12.60		28.99	< 50	<0.5	<1	<1	<1	<10	8.6	SPL				
9/6/1996			41.59	13.25		28.34												
9/9/1996		k	41.59				< 50	<0.5	<1.0	<1.0	<1.0	22/22	7.9	SPL				
12/19/1996			41.59	11.45		30.14	< 50	< 0.5	<1.0	<1.0	<1.0	<10	7.7	SPL				
3/17/1997			41.59	10.80		30.79												
8/12/1997			41.59	13.11		28.48												
12/10/1997			41.59	13.84		27.75												
3/12/1998			41.59	11.17		30.42												
6/23/1998			41.59	13.27		28.32												

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11109, 4280 Foothill Blvd., Oakland, CA

Well and			TOC Elevation	DTW	Product Thickness	Water Level Elevation	GRO/	C	oncentrati	ons in (µg/l Ethyl-	L) Total		DO			DRO/ TPHd	TOG	нуос
Sample Date	P/NP	Footnote	(feet)	(feet bgs)	(feet)	(feet)	TPHg	Benzene	Toluene	Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	μg/L)	(μg/L)	(μg/L)
MW-6 Cont.																		
3/31/1999			41.59	12.91		28.68												
8/25/1999			41.59	15.93		25.66												
3/9/2000			41.59	11.49		30.10												
3/8/2001			41.59	10.81		30.78												
3/8/2002			41.59	14.28		27.31												
3/18/2002			41.59	13.10		28.49												
3/11/2003			41.59	13.63		27.96												
12/09/2003	P		41.59	14.26		27.33	< 50	< 0.50	< 0.50	< 0.50	< 0.50	12		SEQM	6.4			
03/09/2004	NP		41.59	11.87		29.72	< 50	< 0.50	< 0.50	< 0.50	< 0.50	10		SEQM	7.1			
09/17/2004			41.59	16.45		25.14												
03/07/2005	P		41.59	13.65		27.94	< 50	< 0.50	< 0.50	< 0.50	< 0.50	5.8		SEQM	6.7			
09/06/2005			44.37	14.23		30.14												
03/06/2006	P	u	44.37	12.89		31.48	< 50	< 0.50	< 0.50	< 0.50	< 0.50	8.1		SEQM	6.8			
9/5/2006			44.37	14.10		30.27												
3/5/2007	P		44.37	11.43		32.94	< 50	< 0.50	< 0.50	< 0.50	< 0.50	5.6	2.57	TAMC	7.70			
9/7/2007			44.37	16.00		28.37												
3/6/2008	P		44.37	11.84		32.53	< 50	< 0.50	< 0.50	< 0.50	< 0.50	1.9	2.34	CEL	6.81			
9/3/2008			44.37	16.24		28.13												
3/4/2009	P		44.37	11.68		32.69	< 50	< 0.50	< 0.50	< 0.50	< 0.50	2.8	4.66	CEL	6.82			
9/30/2009	P	x	41.58	16.83		24.75	< 50	< 0.50	< 0.50	< 0.50	< 0.50	4.4	0.10	CEL	7.00			
10/28/2009			41.58	15.63		25.95												
MW-7																		
10/3/1991			40.64	14.93		25.71	360	62	13	3.4	20			SUP				
10/15/1991			40.64	15.16		25.48												
12/4/1991			40.64	15.41		25.23												
12/16/1991			40.64	15.21		25.43												
1/6/1992			40.64	14.56		26.08	1,100	170	< 0.5	24	23			ANA				
1/22/1992			40.64	14.63		26.01												
1/28/1992			40.64	14.73		25.91												
2/5/1992			40.64	14.58		26.06												

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11109, 4280 Foothill Blvd., Oakland, CA

			TOG		B 1 4	***	,			• ()						DDO/		
Well and			TOC Elevation	DTW	Product Thickness	Water Level Elevation	GRO/	C	oncentrati	ons in (µg/ Ethyl-	L) Total		DO			DRO/ TPHd	TOG	HVOC
Sample Date	P/NP	Footnote	(feet)	(feet bgs)	(feet)	(feet)	TPHg	Benzene	Toluene	Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	μg/L)	10G (μg/L)	μg/L)
•	1/11	Toothote	(Icct)	(Icct bgs)	(Icct)	(ICCI)	Ting	Denzene	Totache	Belizene	Aylenes	MIDL	(IIIg/L)	Lub	pm	(µg/L)	(µg/L)	(µg/L)
MW-7 Cont.																		
2/12/1992			40.64	13.94		26.70												
2/17/1992			40.64	13.10		27.54												
4/3/1992			40.64	12.66		27.98												
4/8/1992			40.64	12.77		27.87	750	150	< 0.5	23	9.9			ANA				
4/14/1992			40.64	13.02		27.62												
4/29/1992			40.64	13.59		27.05												
5/7/1992			40.64	13.95		26.69												
7/3/1992			40.64	14.73		25.91	660	210	<2.5	33	8			ANA				
10/8/1992			40.64	15.75		24.89	320	49	1.4	13	6.2			ANA				
12/31/1992			40.64	13.57		27.07	900	100	<2.5	28	4.3			ANA				
4/21/1993		n	40.64	14.56		26.08	510	83	1.2	10	5.8			PACE				
7/7/1993		h, n	40.32				1,100	170	1.9	29	2.84	9.84		PACE				
7/7/1993		i, n	40.32	13.40		26.92	1,100	160	2	27	4	10.84		PACE				
9/21/1993		h, n	40.32				640	140	1.7	23	2.4			PACE				
9/21/1993		n	40.32	14.40		25.92	690	150	3.1	26	5.7			PACE				
12/17/1993			40.32	13.65		26.67												
12/23/1993		n	40.32				250	64	1.2	9	1.8	7.81		PACE				
4/7/1994		n	40.32	30.62		9.70	140	32	1.4	< 0.5	< 0.5	6.32		PACE				
7/6/1994		n	40.32	16.88		23.44	410	94	1.3	10	3.5	< 5.0	4.4	PACE				
10/7/1994		n	40.32	25.59		14.73	< 50	9.2	< 0.5	< 0.5	< 0.5	< 5.0	4.9	PACE				
1/27/1995			40.32	9.82		30.50	810	570	3	60	17		0.0	ATI				
1/27/1995		h	40.32				930	620	4	77	21			ATI				
3/30/1995			40.32	9.15		31.17	180	65	0.53	2	<1.0		7.8	ATI				
6/20/1995			40.32	11.38		28.94	2,800	980	< 5.0	<5.0	43			ATI				
10/3/1995			40.32	29.95		10.37	<50	< 0.50	< 0.50	< 0.50	<1.0	< 5.0		ATI				
12/6/1995			40.32	29.85		10.47	<50	< 0.50	< 0.50	< 0.50	<1.0	< 5.0		ATI				
3/21/1996			40.32	9.76		30.56	1,000	390	2	40	13	<10	7.4	SPL				
6/21/1996			40.32	11.01		29.31	<250	40	<5	<5	<5	< 50	7.4	SPL				
9/6/1996			40.32	11.68		28.64												
9/9/1996			40.32				<250	13	<5.0	<5.0	<5.0	<50	7.2	SPL				
12/19/1996			40.32	10.78		29.54	70	1.2	<1.0	1	<1.0	<10	8.3	SPL				

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11109, 4280 Foothill Blvd., Oakland, CA

Well and			TOC Elevation	DTW	Product Thickness	Water Level Elevation	GRO/	C	oncentrati	ons in (µg/l	L) Total		DO			DRO/ TPHd	TOG	HVOC
Sample Date	P/NP	Footnote	(feet)	(feet bgs)	(feet)	(feet)	TPHg	Benzene	Toluene	Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	(μg/L)	(μg/L)	(μg/L)
MW-7 Cont.																		
3/17/1997			40.32	9.96		30.36												
8/12/1997			40.32	11.44		28.88												
12/10/1997			40.32	10.42		29.90												
3/12/1998			40.32	9.51		30.81												
6/23/1998			40.32	9.98		30.34												
3/31/1999			40.32	10.38		29.94												
8/25/1999			40.32	12.38		27.94												
3/9/2000			40.32	8.48		31.84												
3/8/2001			40.32	8.37		31.95												
3/8/2002		f	40.32															
3/18/2002			40.32	9.94		30.38												
3/11/2003			40.32	11.26		29.06												
12/09/2003	P		40.32	12.76		27.56	270	26	< 0.50	< 0.50	< 0.50	8.7		SEQM	6.1			
03/09/2004	P		40.32	10.91		29.41	320	49	0.73	1.8	0.59	6.9		SEQM	6.2			
09/17/2004	P		40.32	13.20		27.12	330	17	< 0.50	< 0.50	< 0.50	7.0		SEQM	6.6			
03/07/2005	P		40.32	8.18		32.14	340	41	0.79	0.79	0.73	7.2		SEQM	6.9			
09/06/2005	P		43.10	11.80		31.30	1,100	130	1.2	1.8	<1.5	16		SEQM	6.7			
03/06/2006	P		43.10	8.39		34.71	440	31	0.78	0.74	0.81	8.3		SEQM	7.1			
9/5/2006			43.10	11.45		31.65	2,000	260	3.1	5.9	<2.5	12		TAMC	6.6			
3/5/2007	P		43.10	9.31		33.79	2,200	110	2.2	4.0	1.8	7.6	1.06	TAMC	7.26			
9/7/2007	P		43.10	12.18		30.92	220	8.4	< 0.50	< 0.50	< 0.50	1.2	0.98	TAMC	6.89			
3/6/2008	P		43.10	10.05		33.05	1,800	54	1.2	1.1	<1.0	<1.0		CEL	7.02			
9/3/2008	P		43.10	13.17		29.93	540	13	0.69	< 0.50	< 0.50	5.5	4.77	CEL	6.88			
3/4/2009	P		43.10	8.25		34.85	720	15	0.59	0.53	< 0.50	3.4	1.29	CEL	6.93			
9/30/2009	P	X	40.40	12.70		27.70	1,200	44	1.0	0.74	0.79	3.3	0.11	CEL	6.94			
10/28/2009			40.40	11.17		29.23												
MW-8																		
10/3/1991			38.18	22.37		15.81	< 50	< 0.3	0.6	< 0.3	0.9			SUP				
10/15/1991			38.18	22.70		15.48												
12/4/1991			38.18	22.44		15.74												

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11109, 4280 Foothill Blvd., Oakland, CA

			тос		Product	Water Level		С	oncentrati	ons in (μg/	L)					DRO/		
Well and			Elevation	DTW	Thickness	Elevation	GRO/			Ethyl-	Total		DO			TPHd	TOG	HVOC
Sample Date	P/NP	Footnote	(feet)	(feet bgs)	(feet)	(feet)	TPHg	Benzene	Toluene	Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	(µg/L)	(µg/L)	(µg/L)
MW-8 Cont.																		
12/16/1991			38.18	22.47		15.71												
1/6/1992			38.18	21.94		16.24	< 50	< 0.5	< 0.5	< 0.5	< 0.5			ANA				
1/22/1992			38.18	21.44		16.74												
1/28/1992			38.18	21.20		16.98												
2/5/1992			38.18	20.88		17.30												
2/12/1992			38.18	20.54		17.64												
2/17/1992			38.18	19.99		18.19												
4/3/1992			38.18	16.75		21.43												
4/8/1992			38.18	16.57		21.61	< 50	< 0.5	< 0.5	< 0.5	< 0.5			ANA				
4/14/1992		f	38.18															
4/29/1992			38.18	18.61		19.57												
5/7/1992			38.18	18.41		19.77												
7/3/1992			38.18	20.35		17.83	<50	<0.5	< 0.5	< 0.5	< 0.5			ANA				
10/8/1992		f	38.18	21.74		16.44												
12/31/1992			38.18	19.09		19.09	<50	<0.5	< 0.5	< 0.5	< 0.5			ANA				
4/21/1993		n	38.18	18.92		19.26	<50	< 0.5	< 0.5	< 0.5	< 0.5			PACE				
7/7/1993		n	38.18	17.76		20.42	<50	<0.5	< 0.5	< 0.5	< 0.5	< 5.0		PACE				
9/21/1993		n	38.18	19.71		18.47	<50	2.9	2.2	2.2	7.1			PACE				
12/17/1993			38.18	21.33		16.85												
12/23/1993		n	38.18				<50	< 0.5	< 0.5	< 0.5	0.6	< 5.0		PACE				
4/7/1994		n	38.18	21.51		16.67	<50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	6.6	PACE				
7/6/1994		n	38.18	17.41		20.77	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	4.4	PACE				
10/7/1994		n	38.18	19.20		18.98	<50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	3.7	PACE				
1/27/1995			38.18	12.25		25.93	<50	< 0.5	< 0.5	< 0.5	<1		2.9	ATI				
3/30/1995			38.18	10.35		27.83	<50	< 0.50	< 0.50	< 0.50	<1.0		8.3	ATI				
6/20/1995			38.18	13.37		24.81	< 50	< 0.50	< 0.50	< 0.50	<1.0		6.9	ATI				
10/3/1995		f	38.18															
12/6/1995			38.18	18.42		19.76	<50	< 0.50	< 0.50	< 0.50	<1.0	47	5.3	ATI				
3/21/1996		f	38.18															
6/21/1996			38.18	13.03		25.15	<50	< 0.5	<1	<1	<1	<10	7.0	SPL				
9/6/1996			38.18	13.70		24.48												

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11109, 4280 Foothill Blvd., Oakland, CA

			тос		Product	Water Level		C	oncentrati	ons in (µg/l	[.)					DRO/		
Well and			Elevation	DTW	Thickness	Elevation	GRO/			Ethyl-	Total		DO			TPHd	TOG	HVOC
Sample Date	P/NP	Footnote	(feet)	(feet bgs)	(feet)	(feet)	TPHg	Benzene	Toluene	Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	(μg/L)	(μg/L)	(μg/L)
MW-8 Cont.											-				-			
9/9/1996			38.18				<50	<0.5	<1.0	<1.0	<1.0	<10	7.0	SPL				
12/19/1996			38.18	11.93		26.25	< 50	<0.5	<1.0	<1.0	<1.0	<10	7.6	SPL				
3/17/1997			38.18	11.29		26.89												
8/12/1997			38.18	13.73		24.45												
12/10/1997			38.18	11.88		26.30												
3/12/1998			38.18	11.89		26.29												
6/23/1998			38.18	11.33		26.85												
3/31/1999			38.18	12.68		25.50												
8/25/1999			38.18	14.93		23.25												
3/9/2000			38.18	9.14		29.04												
3/8/2001			38.18	8.41		29.77												
3/8/2002			38.18	11.18		27.00												
3/18/2002			38.18	10.72		27.46												
3/11/2003			38.18	10.46		27.72												
03/09/2004	P		38.18	9.79		28.39	< 50	< 0.50	< 0.50	< 0.50	< 0.50	0.50		SEQM	7.2			
09/17/2004			38.18	15.35		22.83												
03/07/2005	P		38.18	7.94		30.24	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		SEQM	6.7			
09/06/2005			40.95	13.06		27.89												
03/06/2006	P	u	40.95	9.26		31.69	< 50	< 0.50	< 0.50	< 0.50	< 0.50	0.59		SEQM	7.2			
9/5/2006			40.95	12.61		28.34												
3/5/2007	P		40.95	9.12		31.83	< 50	< 0.50	< 0.50	< 0.50	0.53	< 0.50	6.79	TAMC	7.17			
9/7/2007			40.95	13.56		27.39												
3/6/2008	P		40.95	9.80		31.15	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.14	CEL	6.86			
9/3/2008			40.95	14.20		26.75												
3/4/2009	P		40.95	9.51		31.44	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.62	CEL	6.96			
9/30/2009		х	38.19	14.92		23.27												
10/28/2009			38.19	13.56		24.63												
MW-9																		
10/3/1991			41.25	14.12		27.13	< 50	<0.3	0.4	< 0.3	< 0.3			SUP				
10/15/1991			41.25	14.27		26.98												

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11109, 4280 Foothill Blvd., Oakland, CA

							,			Jakianu, V								
Well and			TOC	DTW	Product	Water Level	GRO/	С	oncentrati 	ons in (µg/l	L) Total		DO			DRO/ TPHd	TOG	HVOC
Sample Date	P/NP	Footnote	Elevation (feet)	(feet bgs)	Thickness (feet)	Elevation (feet)	TPHg	Benzene	Toluono	Ethyl- Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	(µg/L)	10G (μg/L)	HVOC (μg/L)
Sample Date	1/111	Footnote	(Ieet)	(leet bgs)	(Ieet)	(ICCI)	IIIIg	Delizene	Totache	Delizene	Aylenes	MILDE	(IIIg/L)	Lau	pm	(μg/L)	(μg/L)	(μg/L)
MW-9 Cont.																		
12/4/1991			41.25	13.84		27.41												
12/16/1991			41.25	14.18		27.07												
1/6/1992			41.25	13.42		27.83	<50	<0.5	<0.5	< 0.5	0.9			ANA				
1/22/1992			41.25	13.75		27.50												
1/28/1992			41.25	14.76		26.49												
2/5/1992			41.25	13.38		27.87												
2/12/1992			41.25	11.86		29.39												
2/17/1992			41.25	10.78		30.47												
4/3/1992			41.25	11.63		29.62												
4/8/1992			41.25	12.25		29.00	<50	< 0.5	< 0.5	< 0.5	< 0.5			ANA				
4/14/1992			41.25	12.32		28.93												
4/29/1992			41.25	13.07		28.18												
5/7/1992			41.25	14.43		26.82												
7/3/1992			41.25	13.85		27.40	<50	< 0.5	< 0.5	< 0.5	< 0.5			ANA				
10/8/1992			41.25	14.89		26.36	<50	< 0.5	< 0.5	< 0.5	< 0.5			ANA				
12/31/1992			41.25	11.90		29.35	<50	< 0.5	< 0.5	< 0.5	< 0.5			ANA				
4/21/1993		n	41.25	13.68		27.57	<50	< 0.5	< 0.5	< 0.5	< 0.5			PACE				
7/7/1993		n	41.25	13.12		28.13	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0		PACE				
9/21/1993		n	41.25	14.00		27.25	<50	< 0.5	< 0.5	< 0.5	0.9			PACE				
12/17/1993			41.25	12.98		28.27												
12/23/1993		n	41.25				< 50	< 0.5	< 0.5	< 0.5	0.9	<5.0		PACE				
4/7/1994		n	41.25	13.24		28.01	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	4.7	PACE				
7/6/1994		n	41.25	13.77		27.48	< 50	< 0.5	< 0.5	< 0.5	< 0.5		3.9	PACE				
10/7/1994		n	41.25	14.60		26.65	<50	< 0.5	< 0.5	< 0.5	< 0.5	<5.0	3.0	PACE				
1/27/1995			41.25	8.47		32.78	< 50	< 0.5	< 0.5	< 0.5	<1		2.5	ATI				
3/30/1995			41.25	8.19		33.06	<50	< 0.50	< 0.50	< 0.50	<1.0		8.4	ATI				
6/20/1995			41.25	11.25		30.00	< 50	< 0.50	< 0.50	< 0.50	<1.0		8.1	ATI				
10/3/1995			41.25	14.68		26.57	<50	< 0.50	< 0.50	< 0.50	<1.0	<5.0	6.0	ATI				
12/6/1995			41.25	16.07		25.18	<50	< 0.50	< 0.50	< 0.50	<1.0	46	5.4	ATI				
3/21/1996			41.25	9.60		31.65	<50	<0.5	<1	<1	<1	<10	8.0	SPL				
6/21/1996			41.25	10.86		30.39	<50	<0.5	<1	<1	<1	<10	7.8	SPL				

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11109, 4280 Foothill Blvd., Oakland, CA

				тос		Product	Water Level		С	oncentrati	ons in (μg/	L)					DRO/		
NW-9 Cont.	Well and			Elevation	DTW	Thickness	Elevation	GRO/			Ethyl-	Total		DO			TPHd	TOG	HVOC
961996 -	Sample Date	P/NP	Footnote	(feet)	(feet bgs)	(feet)	(feet)	TPHg	Benzene	Toluene	Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	$(\mu g/L)$	$(\mu g/L)$	(µg/L)
9-91996	MW-9 Cont.																		
1219/1996	9/6/1996			41.25	11.52		29.73												
3/17/1997 41.25 9.87 31.38	9/9/1996		k	41.25				< 50	< 0.5	<1.0	<1.0	<1.0	20/21	7.3	SPL				
S121997	12/19/1996			41.25	10.43		30.82	<50	< 0.5	<1.0	<1.0	<1.0	<10	7.3	SPL				
12/10/1997 41.25 10.44 30.81	3/17/1997			41.25	9.87		31.38												
3/12/1998	8/12/1997			41.25	11.44		29.81												
6/23/1998 41.25 10.06 31.19	12/10/1997			41.25	10.44		30.81												
3/31/1999 41.25 9.06 32.19	3/12/1998			41.25	9.50		31.75												
8/25/1999 41.25 12.00 29.25 -	6/23/1998			41.25	10.06		31.19												
3.9/2000 41.25 10.57 30.68	3/31/1999			41.25	9.06		32.19												
3/8/2002 41.25 9.73 31.52	8/25/1999			41.25	12.00		29.25												
3/8/2002 41.25 11.89 29.36	3/9/2000			41.25	10.57		30.68												
3/18/2002 41.25 9.68 31.57	3/8/2001			41.25	9.73		31.52												
3/11/2003 41.25 9.21 32.04	3/8/2002			41.25	11.89		29.36												
03/09/2004 41.25 10.99 30.26 <50	3/18/2002			41.25	9.68		31.57												
09/17/2004 41.25 13.35 27.90	3/11/2003			41.25	9.21		32.04												
03/07/2005 P 41.25 8.94 32.31 <50	03/09/2004			41.25	10.99		30.26	<50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		SEQM	6.6			
09/06/2005 44.06 11.99 32.07	09/17/2004			41.25	13.35		27.90												
03/06/2006 P u 44.06 8.26 35.80 <50	03/07/2005	P		41.25	8.94		32.31	<50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		SEQM	6.9			
9/5/2006 44.06 11.63 32.43	09/06/2005			44.06	11.99		32.07												
3/5/2007 P 44.06 9.33 34.73 <50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <0.50 <	03/06/2006	P	u	44.06	8.26		35.80	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		SEQM	6.9			
9/7/2007 44.06 12.28 31.78	9/5/2006			44.06	11.63		32.43												
3/6/2008 P 44.06 10.11 33.95 <50 <0.50 <0.50 <0.50 <0.50 <0.50 3.72 CEL 6.90 3/4/2008 44.06 13.49 30.57	3/5/2007	P		44.06	9.33		34.73	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.22	TAMC	7.03			
9/3/2008 44.06 13.49 30.57	9/7/2007			44.06	12.28		31.78												
3/4/2009 P 44.06 8.15 35.91 <50 <0.50 <0.50 <0.50 <0.50 <0.50 4.03 CEL 6.84	3/6/2008	P		44.06	10.11		33.95	<50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.72	CEL	6.90			
9/30/2009 x 41.25 12.98 28.27	9/3/2008			44.06	13.49		30.57												
9/30/2009 x 41.25 12.98 28.27	3/4/2009	P		44.06	8.15		35.91	<50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.03	CEL	6.84			
10/28/2009 41.25 11.98 29.27			X																
MW-10				41.25	11.98		29.27												
	MW-10																		
6/16/2009 x 39.78 8.60 0.01 31.19	6/16/2009		X	39.78	8.60	0.01	31.19												

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11109, 4280 Foothill Blvd., Oakland, CA

Well and Sample Date	P/NP	Footnote	TOC Elevation (feet)	DTW (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet)	GRO/ TPHg	Benzene	oncentrati Toluene	ons in (µg/l Ethyl- Benzene	L) Total Xylenes	MtBE	DO (mg/L)	Lab	рН	DRO/ TPHd (µg/L)	TOG (µg/L)	HVOC (µg/L)
MW-10 Cont.																		
7/22/2009			39.78	9.68	0.01	30.11												
8/6/2009			39.78	9.48		30.30												
9/30/2009			39.78	9.69	0.01	30.10												
10/28/2009	P	z	39.78	8.53		31.25	62,000	8,300	5,300	3,100	12,000	<50	1.14	CEL	6.9			
MW-11																		
9/30/2009	P	x	40.04	10.55		29.49	30,000	850	1,400	1,000	3,700	27		CEL	7.09			
10/28/2009	P		40.04	8.00		32.04	27,000	1,100	2,300	1,500	5,800	<50	0.82	CEL	6.74			
MW-12																		
9/30/2009		X	40.32	11.02	0.02	29.32												
10/28/2009	P	z	40.32	10.40		29.92	43,000	5,800	800	2,900	6,800	<50	0.73	CEL	6.7			
QC-2																		
10/8/1992		1	41.25				< 50	< 0.5	< 0.5	< 0.5	< 0.5			ANA				
12/31/1992		1	41.25				< 50	< 0.5	< 0.5	< 0.5	< 0.5			ANA				
4/21/1993		l, n	41.25											PACE				
7/7/1993		l, n	41.25				< 50	< 0.5	< 0.5	< 0.5	0.6			PACE				
9/21/1993		l, n	41.25				<50	< 0.5	< 0.5	< 0.5	< 0.5			PACE				
12/23/1993		1	41.25				< 50	< 0.5	< 0.5	< 0.5	< 0.5			PACE				
4/7/1994		1	41.25				< 50	< 0.5	< 0.5	< 0.5	< 0.5			PACE				
7/6/1994		1	41.25				< 50	< 0.5	< 0.5	< 0.5	< 0.5			PACE				
10/7/1994		1	41.25				<50	<0.5	< 0.5	<0.5	< 0.5			PACE				
1/27/1995		1	41.25				< 50	< 0.5	0.5	< 0.5	<1			ATI				
3/30/1995		1	41.25				< 50	< 0.50	< 0.50	< 0.50	<1.0			ATI			-	
6/20/1995		1	41.25				< 50	< 0.50	< 0.50	< 0.50	<1.0			ATI				
10/3/1995		1	41.25				<50	< 0.50	< 0.50	< 0.50	<1.0	<5.0		ATI				
12/6/1995		1	41.25				< 50	< 0.50	< 0.50	< 0.50	<1.0	< 5.0		ATI				
3/21/1996		1	41.25				<50	<0.5	<1	<1	<1	<10		SPL				
6/21/1996		1	41.25				<50	< 0.5	<1	<1	<1	<10		SPL				

ABBREVIATIONS & SYMBOLS:

- --/--- = Not analyzed/applicable/measured/available
- < = Not detected at or above specified laboratory reporting limit

DO = Dissolved oxygen

DTW = Depth to water in ft bgs

ft bgs = Feet below ground surface

GRO = Gasoline range organics, range C4-C12

GWE = Groundwater elevation in ft

mg/L = Milligrams per liter

MTBE = Methyl tert-butyl ether

ND = Not detected

NP = Well not purged prior to sampling

P = Well purged prior to sampling

TOC = Top of casing elevation in ft

TPH-g = Total petroleum hydrocarbons as gasoline

 $\mu g/L = Micrograms per liter$

ANA = Anametrix, Inc.

PACE = Pace, Inc.

ATI = Analytical Technologies, Inc.

CEI = Ceimic Corporation

SPL = Southern Petroleum Laboratories

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

SUP = Superior Analytical Laboratory

FOOTNOTES:

- (a) Free product in well.
- (c) Well destroyed during tank removal in November 1990.
- (d) Methylene chloride.
- (e) 1,2-Dichloroethane.
- (f) Well inaccessible.
- (g) Sample collected from MW-2 for TPH-d analysis received in laboratory 7 days after collection; sample exceeded EPA recommended holding time for TPH-d on a water matrix.
- (h) Blind duplicate.
- (i) TOC lowered.
- (j) A copy of the documentation for this data is included in Appendix C of Alisto report 10-014-07-001.
- (k) EPA Methods 8020/8260 used.
- (l) Travel blank.
- (n) A copy of the documentation for this data is included in the Blaine Tech Services, Inc. report 020308-DW-2. The data for samples taken on April 21, 1993, have been destroyed. No chromatograms could be located for the samples taken on: July 7, 1993, for well MW-2 and TB; September 21, 1993, for all wells MW-3, MW-4, MW-6, MW-7, MW-8, MW-9, the DUP and TB; December 23, 1993, for wells MW-2 and MW-3; and July 6, 1994, for wells MW-2. MW-4, MW-6, and MW-9.
- (p) Well not sampled due to damage during site construction.
- (q) Sheen in well.
- (r) Well dry.
- (s) The hydrocarbon result for GRO was partly due to individual peaks in the quantification range.
- (t) MS and/or MSD were below the acceptance limits for MTBE. Matrix interference was suspected.
- (u) Possible high bias for benzene due to CCV falling outside acceptance criteria.
- (v) The sample concentration is greater than four times the spike concentration.
- (w) Insufficient water to sample.
- (x) Well surveyed 4/13/2009.
- (y) Quantitation of unknown hydrocarbon(s) in sample based on gasoline.
- (z) Free product not observed during initial gauging activities, but was observed following or during purge.

NOTES:

GWE adjusted assuming a specific gravity of 0.75 for free product.

Beginning in the fourth quarter 2003, the laboratory modified the reported analyte list. TPH-g has been changed to GRO. The resulting data may be impacted by the potential inclusion of non-TPHg analytes within the

requested fuel range resulting in a higher concentration being reported.

GRO analysis was completed by EPA method 8260B (C4-C12) for samples collected from the time period April 2006 through February 4, 2008. The analysis for GRO was changed to EPA method 8015B (C6-C12) for samples collected from the time period February 5, 2008 through September 30, 2009. GRO analysis was changed to EPA method 8260B (C6-C12) for the time period October 1, 2009 through the present.

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

Table 2. Summary of Fuel Additives Analytical Data Station #11109, 4280 Foothill Blvd., Oakland, CA

Well and				Concentrati	ons in (µg/L)				
Sample Date	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
MW-2									
12/09/2003	<100	<20	24	< 0.50	< 0.50	< 0.50			
03/09/2004	<100	<20	27	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
09/17/2004	<100	<20	21	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
9/5/2006	<300	<20	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
MW-3									
12/09/2003	<100	<20	6.4	< 0.50	< 0.50	< 0.50			
03/09/2004	<100	<20	6.9	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
03/07/2005	<100	<20	5.1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
03/06/2006	<300	<20	6.9	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
3/5/2007	<300	<20	5.4	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
3/6/2008	<300	<10	4.2	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
3/4/2009	<300	<10	4.9	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
9/30/2009	<300	<10	6.8	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
MW-4									
12/09/2003	< 500	<100	130	<2.5	<2.5	2.7			
03/09/2004	<100	<20	35	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
09/17/2004	< 500	<100	140	<2.5	<2.5	2.6	<2.5	<2.5	
03/07/2005	<100	<20	42	< 0.50	< 0.50	0.56	< 0.50	< 0.50	
09/06/2005	<150	<10	180	< 0.50	< 0.50	2.8	< 0.50	< 0.50	a
03/06/2006	<600	<40	110	<1.0	<1.0	1.4	<1.0	<1.0	
9/5/2006	<600	<40	190	<1.0	<1.0	1.7	<1.0	<1.0	
3/5/2007	<300	<20	13	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
9/7/2007	<300	<20	130	< 0.50	< 0.50	1.7	< 0.50	< 0.50	b (MTBE)
3/6/2008	<300	14	170	< 0.50	< 0.50	2.1	< 0.50	< 0.50	
9/3/2008	<3,000	<100	150	<5.0	<5.0	<5.0	<5.0	<5.0	
3/4/2009	<3,000	<100	110	<5.0	<5.0	<5.0	<5.0	<5.0	
9/30/2009	<1,200	<40	140	<2.0	<2.0	<2.0	<2.0	<2.0	
MW-5									
03/09/2004	<10,000	<2,000	<50	<50	<50	<50	96	<50	
03/06/2006	<30,000	<2,000	<50	60	<50	<50	<50	<50	

Table 2. Summary of Fuel Additives Analytical Data Station #11109, 4280 Foothill Blvd., Oakland, CA

Well and				Concentrati	ons in (µg/L)				
Sample Date	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
MW-5 Cont.									
	20,000	2 000	.50	57	.50	.50	.50	-50	
3/5/2007	<30,000	<2,000	<50	57	<50	<50	<50	<50	
MW-6									
12/09/2003	<100	<20	12	< 0.50	< 0.50	< 0.50			
03/09/2004	<100	<20	10	< 0.50	< 0.50	< 0.50	0.58	< 0.50	
03/07/2005	<100	<20	5.8	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
03/06/2006	<300	<20	8.1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
3/5/2007	<300	<20	5.6	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
3/6/2008	<300	<10	1.9	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
3/4/2009	<300	<10	2.8	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
9/30/2009	<300	<10	4.4	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
MW-7									
12/09/2003	<100	<20	8.7	< 0.50	< 0.50	<0.50			
03/09/2004	<100	<20	6.9	<0.50	<0.50	<0.50	1.2	<0.50	
09/17/2004	<100	<20	7.0	<0.50	<0.50	<0.50	<0.50	<0.50	
03/07/2005	<100	<20	7.2	<0.50	<0.50	<0.50	<0.50	<0.50	
09/06/2005	<150	30	16	0.60	<0.50	<0.50	<0.50	<0.50	
03/06/2006	<300	<20	8.3	<0.50	<0.50	<0.50	<0.50	<0.50	
9/5/2006	<1,500	<100	12	<2.5	<2.5	<2.5	<2.5	<2.5	
3/5/2007	<600	<40	7.6	<1.0	<1.0	<1.0	<1.0	<1.0	
9/7/2007	<300	<20	1.2	< 0.50	<0.50	< 0.50	< 0.50	< 0.50	
3/6/2008	<600	<20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
9/3/2008	<300	17	5.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
3/4/2009	<300	12	3.4	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
9/30/2009	<300	<10	3.3	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
MW-8									
03/09/2004	<100	<20	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
03/07/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
03/06/2006	<300	<20	0.59	<0.50	<0.50	<0.50	<0.50	< 0.50	
3/5/2007	<300	<20	<0.50	< 0.50	<0.50	< 0.50	<0.50	< 0.50	
3/6/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	< 0.50	

Table 2. Summary of Fuel Additives Analytical Data Station #11109, 4280 Foothill Blvd., Oakland, CA

Well and				Concentration	ons in (µg/L)				
Sample Date	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
MW-8 Cont.									
3/4/2009	<300	<10	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
MW-9									
03/09/2004	<100	<20	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
03/07/2005	<100	<20	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
03/06/2006	<300	<20	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
3/5/2007	<300	<20	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
3/6/2008	<300	<10	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
3/4/2009	<300	<10	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
MW-10									
10/28/2009	<10,000	<400	<50	<50	<50	<50	<50	<50	
MW-11									
9/30/2009	<6,000	<200	27	<10	<10	<10	<10	<10	
10/28/2009	<10,000	<400	<50	<50	<50	<50	<50	<50	
MW-12									
10/28/2009	<10,000	<400	<50	<50	<50	<50	<50	<50	

ABBREVIATIONS AND SYMBOLS:

TBA = tert-Butyl alcohol

MTBE = Methyl tert-butyl ether

DIPE = Di-isopropyl ether

ETBE = Ethyl tert-butyl ether

TAME = tert-Amyl methyl ether

1,2-DCA = 1,2-Dichloroethane

EDB = 1,2-Dibromoethane

 $\mu g/L = micrograms per liter$

- < = Not detected at or above specified laboratory reporting limit
- -- = Data not available, not analyzed, or not applicable

FOOTNOTES:

- (a) MS and/or MSD below acceptance limits for MTBE. Matrix interference suspected.
- (b) The sample concentration is greater than four times the spike concentration.

NOTES:

All fuel oxygenate compounds analyzed using EPA Method 8260B.

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

Table 3. Historical Ground-Water Flow Direction and Gradient Station #11109, 4280 Foothill Blvd., Oakland, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
3/6/2006	Southwest	0.05
9/5/2006	Southwest	0.05
2/21/2007	Southwest	0.02
9/7/2007	Southwest	0.03
3/6/2008	Southwest	0.01
9/3/2008	Southwest	0.006
3/4/2009	Southwest	0.02
9/30/2009	Northwest	0.07
10/28/2009	Northwest	0.04

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

Table 4 Summary of Free Product Removal

Former BP Service Station #11109 4280 Foothill Boulevard, Oakland, California

Well ID	Date of Removal Event	DTW (feet)	Product Thickness (feet)	Product Removed (gallons)	Cumulative Product Removed (gallons)
MW-5	11/5/1992			0.200	0.200
MW-5	2/25/1993			0.100	0.300
MW-5	3/18/1993			0.100	0.400
MW-5	4/13/1993			0.100	0.500
MW-5	4/23/1993			13.0*	13.500
MW-5	5/24/1993			0.100	13.600
MW-5	10/14/1993			0.300	13.900
MW-5	11/10/1993			0.400	14.300
MW-5	12/23/1993			0.400	14.700
MW-5	8/12/1997	12.18	0.22		14.700
MW-5	12/10/1997	10.78	0.06		14.700
MW-5	3/12/1998	10.11	0.22	0.200	14.900
MW-5	6/23/1998	10.20	0.02	< 0.050	14.900
MW-5	9/11/1998	11.61	0.04	0.100	15.000
MW-5	8/25/1999	14.69	0.38	0.070	15.070
MW-5	3/9/2000	14.83	0.60	0.400	15.470
MW-5	7/14/2003	12.72	0.03	0.019	15.489
MW-5	8/25/2003	14.04	0.00	0.000	15.489
MW-5	9/25/2003	14.38	0.08	0.052	15.542
MW-5	10/3/2003	12.15	0.06	0.040	15.582
MW-5	11/12/2003	12.74	0.19	0.120	15.702
MW-5	12/9/2003	11.44	0.03	0.040	15.742
MW-5	2/2/2004	6.47	0.04	0.030	15.772
MW-5	2/9/2004	10.61	0.04	0.030	15.802
MW-5	3/9/2004	7.91			15.802
MW-5	4/13/2004	9.68	0.28	0.200	16.002
MW-5	5/5/2004	11.93	Sheen		16.002
MW-5	6/3/2004	12.60	Sheen		16.002
MW-5	7/2/2004	11.11	0.10	0.060	16.062
MW-5	8/31/2004	12.80	0.05	0.132	16.194
MW-5	9/17/2004	12.13	0.15		16.194
MW-5	10/25/2004	10.66	0.26	0.170	16.364
MW-5	11/8/2004	9.98	0.02	0.020	16.384
MW-5	12/15/2004	8.76	0.01	0.010	16.394
MW-5	1/13/2005	7.12			16.394
MW-5	2/1/2005	8.10	0.01	0.007	16.400
MW-5	3/7/2005	8.62	0.02	0.013	16.413
MW-5	4/29/2005	9.39			16.413
MW-5	5/12/2005	7.51	0.01	0.007	16.420
MW-5	6/23/2005	7.70			16.420
MW-5	7/2/2005	10.81			16.420
MW-5	8/24/2005	10.51			16.420
MW-5	9/6/2005	11.16	0.18	0.119	16.539
MW-5	1/27/2006	9.02	0.02	0.013	16.433
MW-5	2/15/2006	8.38	0.02	0.013	16.446
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Table 4 Summary of Free Product Removal

Former BP Service Station #11109 4280 Foothill Boulevard, Oakland, California

Well ID	Date of Removal Event	DTW (feet)	Product Thickness (feet)	Product Removed (gallons)	Cumulative Product Removed (gallons)
MW-5	4/21/2006	8.02	0.27	0.251	16.697
MW-5	5/30/2006	9.13	0.07	0.045	16.742
MW-5	6/27/2006	9.49	0.09	0.058	16.801
MW-5	7/31/2006	10.08	0.08	0.052	16.853
MW-5	8/28/2006	10.75	0.09	0.059	16.911
MW-5	9/5/2006	6.16	0.03	0.020	16.931
MW-5	10/1/2006				16.931
MW-5	11/1/2006				16.931
MW-5	12/1/2006				16.931
MW-5	1/1/2007				16.931
MW-5	2/1/2007				16.931
MW-5	3/5/2007	8.34	Sheen		16.931
MW-5	4/1/2007				16.931
MW-5	5/1/2007				16.931
MW-5	6/1/2007				16.931
MW-5	7/1/2007				16.931
MW-5	8/1/2007				16.931
MW-5	9/7/2007	15.15	0.15		16.931
MW-5	9/18/2007	15.42	0.02	4.00*	20.931
MW-5	10/17/2007	12.50	0.35	5.5*	26.431
MW-5	11/8/2007	13.20	0.40	5.0*	31.431
MW-5	12/12/2007	12.25	0.52	3.5*	34.931
MW-5	1/14/2008	10.30	0.49	5.0*	39.931
MW-5	2/27/2008	13.22	0.12	4.0*	43.931
MW-5	3/6/2008	12.90	0.14	3.0*	46.931
MW-5	4/1/2008	9.52	0.07	4.0*	50.931
MW-5	5/20/2008	8.68	0.07	7.0*	57.931
MW-5	6/18/2008	10.46	0.18	0.00	57.931
MW-5	7/16/2008	11.25	0.00	0.0375	57.968
MW-5	8/13/2008			2.125*	60.093
MW-5	9/3/2008	12.90	0.99	3.0*	63.093
MW-5	9/15/2008	12.75	0.15	4.0*	67.093
MW-5	10/15/2008	13.43	0.50	5.0*	72.093
MW-5	11/20/2008	13.55	0.63	2.625*	74.718
MW-5	12/18/2008	12.62	0.37	3.625*	78.343
MW-5	1/14/2009	12.43	0.11	4.0*	82.343
MW-5	2/17/2009	8.80	0.33	4.0*	86.343
MW-5	3/4/2009	8.45	0.16	4.0*	90.343
MW-5	4/8/2009	9.05	0.22	6.0*	96.343
MW-5	5/11/2009	9.10	0.32	8.0*	104.343
MW-5	6/16/2009	9.15	0.02	5.5*	109.843
MW-5	7/22/2009	9.33	0.12	6.0*	115.843
MW-5	8/6/2009	10.05	0.12	5.0*	120.843
MW-5	9/30/2009	10.05	0.06	8.0*	128.843
MW-5	10/28/2009	10.33	0.00	0.00	128.843
MW-5	11/13/2009	8.61	0.00	0.5*	129.343
141 44 -7	12/11/2009	7.83	0.01	1.0*	130.343

Table 4 **Summary of Free Product Removal**

Former BP Service Station #11109 4280 Foothill Boulevard, Oakland, California

Well ID	Date of Removal Event	DTW (feet)	Product Thickness (feet)	Product Removed (gallons)	Cumulative Product Removed (gallons)
MW-10	6/16/2009	8.60	0.01	2.5*	2.500
MW-10	7/22/2009	9.68	0.01	3.0*	5.500
MW-10	8/6/2009	9.48	0.00	0.00	5.500
MW-10	9/30/2009	9.69	0.01	3.0*	8.500
MW-10	10/28/2009	8.53	0.00	0.00	8.500
MW-10	11/13/2009	9.11	0.00	0.00	8.500
MW-10	12/11/2009	8.81	0.00	0.00	8.500
MW-11	10/28/2009	8.00	0.00	0.00	0.000
MW-11	11/13/2009	9.24	0.00	0.00	0.000
MW-11	12/11/2009	9.06	0.00	0.00	0.000
MW-12	9/30/2009	11.01	0.02	4.0*	4.000
MW-12	10/28/2009	10.40	0.00	0.00	4.000
MW-12	11/13/2009	10.13	0.00	0.00	4.000
MW-12	12/11/2009	10.22	0.00	0.00	4.000
		Fr	ee Product Remo	ved this Quarter:	1.5*
			Total Free P	roduct Removed:	142.84

ABBREVIATIONS & SYMBOLS:
--- = Not available/applicable/measured/calculated
* = FP/water mixture

NOTES:

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

APPENDIX A

BAI GROUND-WATER SAMPLING DATA PACKAGE (INCLUDES FIELD DATA SHEETS, LABORATORY REPORT, CHAIN-OF-CUSTODY DOCUMENTATION, AND FIELD PROCEDURES)



Groundwater Sampling Data Sheet

Well I.D.:			\mathcal{M}_{0}	W-1.	2			
Project Na	ame/Loca	ition:	BP	11109			Project #	±: 69-88-646
Sampler's		•	1.60	ddes	E. Farrar		Date: /	0/28/09
Purging E	quipment	:: <u> </u>	Bail	4	•			
Sampling	Equipme	nt:	Bail	u				
Casing Ty	pe: PVC							
Casing Dia	ameter:				inch		*UNIT	CASING VOLUMES
Total Well	Depth:			30	. <i>00</i> feet		2"	= 0.16 gal/lin ft.
Depth to	Water:	****		- 10.6	<u>√</u> feet		3"	= 0.37 gal/lin ft.
Water Col	umn Thio	ckness:		= 19.6	feet		4"	= 0.65 gal/lin ft.
Unit Casir	ng Volum	e*:		× <u>.6</u>	5 gallon / f	foot	6"	= 1.47 gal/lin ft.
Casing Wa	ater Volu	me:		= 12.	7 gallons			
Casing Vo	lume:				3 each			
Estimated	l Purge V	olume:		= <u>38.</u>	<u>2</u> gallons			
Free prod	uct meas	sureme	nt (if pre	esent):				
Purged	Time	DO	ORP	Fe	Conductance	Temperature	рН	Observations
(gallons)	(24:00)	#5 A	(mV)		(μS)	(Fahrenheit)	f sum	
0	1547	./3n	wL		1168	21.2	61/	
15	1552	Х	X	Х	121.1	21.7	6.8	
25	1600	Х	x	Х	124.7	20.7	6.7	
		Х	Х	Х				
		Χ	X	Х				
		Χ	X	×				
		Х	×	Х				
		Х	Х	Х				
Total Wat	ter Volun	ne Pura	ed:	<u> </u>	25	gallons		
Depth to				tion:	17.60	feet		
Sample					11/00		 Pur	ged Dry? (M)/N) a+2
	21			R	1. (4 ,	, , ,		lumino.
Commen	ts: 710	rong 1	10	an-	lightprodu	uct auri	ng pur	<u>je </u>
		•	•		•			
								AND THE RESERVE OF THE PARTY OF



Groundwater Sampling Data Sheet

Well I.D.:	:			1W-1	6				
Project N	ame/Loc	cation:	BP	1109			Project	#: 09-08-646	
Sampler's	s Name:		T. 6	coldes	E. Farrar	Date: 10/28/09			
Purging E	quipme	nt:	Bail	er			***		
Sampling	ı Equipm	ent:	Bail						
Casing Ty	ype: PVC	;		Pe	16			,	
Casing Di	iameter:			4	inch		*UNI1	CASING VOLUMES	
Total Wel	ll Depth:		***************************************	30.	.o∪ feet	= 0.16 gal/lin ft.			
Depth to	Water:			- K.	53 feet		3"	= 0.37 gal/lin ft.	
Water Co	lumn Th	ickness	;	= 21.	 4 feet			= 0.65 gal/lin ft.	
Unit Casiı	ng Volun	ne*:		x .6	5 gallon / f	oot		= 1.47 gal/lin ft.	
Casing W	ater Vol	ume:		= [3	3.9 gallons			• ,	
Casing Vo	olume:			x	3 each				
Estimated		Volume:		= 4	gallons				
Free proc	duct mea	sureme	nt (if pr	esent):					
Purged	Time	DO	ORP	Fe	Conductance	Temperature	рН	Observations	
(gallons)	(24:00)	1 1 4	(mV)		(μS)	(Fahrenheit)			
<u> </u>	423	1.19			956.9	20.6	7.0		
20	1626	Х	/ ' ×	Х	993.1	21.5	68		
35	icA	X	X	Х	975.4	20.8	69		
		X	X	Х			, ,		
		Х	×	×					
		Х	Х	Х					
		X	X	Х					
		Х	Х	Х					
Total Wat	ter Volur	ne Pura	ed:		35	gallons		*	
Depth to		_		tion:	18.9	feet			
Sample		•			1640	.000	Pur	ned Dry? (V) N) 2C	
,			- ·	,	Λ.	_	, , ,	ged Dry? (Y/N) 35, 18,88,18,9 water	
Comment	ts:	Ye p	<u>ieduc</u>	x-0	Her purge	In samp	ve a	18, 88, 18,9 water	
		æ			E -			•	
								·	



Groundwater Sampling Data Sheet

Well I.D.	:		<u></u>	N-11							
Project N	ame/Loc	ation:	<u> BP</u>	11109			Project #	#: 09-88-646			
Sampler's	s Name:		T. 6-8	ddas	Project #: 09-88-646 E. Fa.rox Date: 10/28/09						
Purging E	quipmen	it:	Deil	-							
Sampling	Equipme	ent:	Bal	er							
Casing Ty	ype: PVC										
Casing D	iameter:				inch		*UNIT	CASING VOLUMES			
Total We	ll Depth:			<u>30</u>	,ooo_feet		2"	= 0.16 gal/lin ft.			
Depth to	Water:	, p.4.		- 8.	O feet		3"	= 0.37 gal/lin ft.			
Water Co	lumn Thi	ckness:).60 feet		4"	= 0.65 gal/lin ft.			
Unit Casi	ng Volum	ıe*:			gallon / f	oot	6"	= 1.47 gal/lin ft.			
Casing W	ater Volu	ıme:		= 14	. 3 gallons						
Casing Vo	olume:				3 each						
Estimate	d Purge \	/olume:		= 4/	21 gallons						
Free prod	duct mea	sureme	nt (if pr	esent):							
Purged	Time	DO	ORP	Fe	Conductance	Temperature	рН	Observations			
(gallons)	(24:00)	AP	(mV)		(μS)	(Fahrenheit)					
0	1655	. 82 ₄ /	1/2		1194	20.5	6.9				
/5	1639	×	Х	Х	1172	23.1	6.78				
30	1700	Х	х	Х	1174	21.4	6.74				
		X	Х	Х							
		Х	X	Х							
		Х	Х	Х		-					
		X	Х	Х							
		Х	х	Х							
Total Wa	ter Volum	ne Purg	ed:		30	gallons					
Depth to	Water at	: Sampl	e Collec	tion:	21.42	feet					
Sample	Collectio	on Time	e:		1715		Pur	ged Dry? (Y /(N)			
Commen	ts:				·						
						.					



DATE: 10/28/69

PERSONNEL: 7.640es F. Farrar

WEATHER: 61-64 April 2000 September 1.00 September

WEATH	ER: 50A	My 60.5 Br	427		Equip:	Geosquirt	Tubing	Bailers	DO	wli	Ec/pH	
Well ID	Time	MEASURING POINT	DTW (FT)	PRODUCT THICKNESS	pН	Cond. (X100)	Temp. (C/F)	DO (mg/l)	Redox (mV)	Iron (mg/l)	Alk. (mg/l)	WELL HEAD CONDITION: VAULT, BOLTS, CAP, LOCK, ETC
MW-2			\mathcal{D}_{V}									
MW-3			10.40									
MW-4			10.40									
MW-5			10.48									
MW-6			15.63									
MW-7			11.17									
MU-8			13.56	,								
MW-9			[1.96									
MW-16	1623		8,60									
MW-11	1655		8.00									;
MW-12	1547		10.4									
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			·									
w												



ANALYTICAL REPORT

Job Number: 720-23727-1

Job Description: BP #11109, Oakland

For:
ARCADIS U.S., Inc.
155 Montgomery Street
Suite 1500
San Francisco, CA 94104

Attention: Hollis Phillips

Approved for releas Dimple Sharma Project Manager I 11/9/2009 4:16 PM

Dimple Sharma
Project Manager I
dimple.sharma@testamericainc.com
11/09/2009

cc: Mr. Jason Duda Mr. Ben McKenna

CA ELAP Certification # 2496

The Chain(s) of Custody are included and are an integral part of this report.

The report shall not be reproduced except in full, without the written approval of the laboratory. The client, by accepting this report, also agrees not to alter any reports whether in the hard copy or electronic format and to use reasonable efforts to preserve the reports in the form and substance originally provided by TestAmerica.

A trip blank is required to be provided for volatile analyses. If trip blank results are not included in the report, either the trip blank was not submitted or requested to be analyzed.

Job Narrative 720-23727-1

Comments

No additional comments.

Receipt

All samples were received in good condition within temperature requirements.

GC/MS VOA

No analytical or quality issues were noted.

EXECUTIVE SUMMARY - Detections

Client: ARCADIS U.S., Inc. Job Number: 720-23727-1

Lab Sample ID Client Sample ID		Reporting		
Analyte	Result / Qualifier	Limit	Units	Method
720-23727-1 MW-10				
Benzene	8300	50	ug/L	8260B/CA_LUFTMS
Ethylbenzene	3100	50	ug/L	8260B/CA_LUFTMS
Toluene	5300	50	ug/L	8260B/CA_LUFTMS
Xylenes, Total	12000	100	ug/L	8260B/CA_LUFTMS
Gasoline Range Organics (GRO)-C6-C12	62000	5000	ug/L	8260B/CA_LUFTMS
720-23727-2 MW-11				
Benzene	1100	50	ug/L	8260B/CA_LUFTMS
Ethylbenzene	1500	50	ug/L	8260B/CA_LUFTMS
Toluene	2300	50	ug/L	8260B/CA_LUFTMS
Xylenes, Total	5800	100	ug/L	8260B/CA_LUFTMS
Gasoline Range Organics (GRO)-C6-C12	27000	5000	ug/L	8260B/CA_LUFTMS
720-23727-3 MW-12				
Benzene	5800	50	ug/L	8260B/CA_LUFTMS
Ethylbenzene	2900	50	ug/L	8260B/CA_LUFTMS
Toluene	800	50	ug/L	8260B/CA_LUFTMS
Xylenes, Total	6800	100	ug/L	8260B/CA_LUFTMS
Gasoline Range Organics (GRO)-C6-C12	43000	5000	ug/L	8260B/CA_LUFTMS

METHOD SUMMARY

Client: ARCADIS U.S., Inc.

Job Number: 720-23727-1

Description	Lab Location	Method Preparation Method
Matrix: Water		
8260B / CA LUFT MS	TAL SF	SW846 8260B/CA_LUFTMS
Purge and Trap	TAL SF	SW846 5030B

Lab References:

TAL SF = TestAmerica San Francisco

Method References:

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

SAMPLE SUMMARY

Client: ARCADIS U.S., Inc. Job Number: 720-23727-1

			Date/Time	Date/Time
Lab Sample ID	Client Sample ID	Client Matrix	Sampled	Received
720-23727-1	MW-10	Water	10/28/2009 1640	10/29/2009 1400
720-23727-2	MW-11	Water	10/28/2009 1715	10/29/2009 1400
720-23727-3	MW-12	Water	10/28/2009 1600	10/29/2009 1400

Analytical Data

Job Number: 720-23727-1 Client: ARCADIS U.S., Inc.

Client Sample ID: MW-10

Lab Sample ID: 720-23727-1 Date Sampled: 10/28/2009 1640

Client Matrix: Date Received: 10/29/2009 1400 Water

8260B/CA_LUFTMS 8260B / CA LUFT MS

Method: 8260B/CA_LUFTMS Analysis Batch: 720-60704 Instrument ID: HP4

Preparation: 5030B Lab File ID: 11020940.D Dilution: Initial Weight/Volume: 100 10 mL 11/03/2009 0647 Date Analyzed: Final Weight/Volume: 10 mL

Date Prepared: 11/03/2009 0647			
Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		50
Benzene	8300		50
EDB	ND		50
1,2-DCA	ND		50
Ethylbenzene	3100		50
Toluene	5300		50
Xylenes, Total	12000		100
TBA	ND		400
Ethanol	ND		10000
DIPE	ND		50
TAME	ND		50
Ethyl t-butyl ether	ND		50
Gasoline Range Organics (GRO)-C6-C12	62000		5000
Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	102		67 - 130
1,2-Dichloroethane-d4 (Surr)	101		67 - 130
Toluene-d8 (Surr)	101		70 - 130

Analytical Data

Client: ARCADIS U.S., Inc. Job Number: 720-23727-1

Client Sample ID: MW-11

Lab Sample ID: 720-23727-2 Date Sampled: 10/28/2009 1715 Client Matrix:

Date Received: 10/29/2009 1400 Water

8260B/CA	LUFTMS	8260B /	CA L	.UFT	MS

Method: 8260B/CA_LUFTMS Analysis Batch: 720-60729 Instrument ID: HP12

Preparation: 5030B Lab File ID: 11030917.D Dilution: Initial Weight/Volume: 100 10 mL 11/03/2009 1744 Date Analyzed: Final Weight/Volume: 10 mL

11/03/2009 1744 Date Prepared:

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		50
Benzene	1100		50
EDB	ND		50
1,2-DCA	ND		50
Ethylbenzene	1500		50
Toluene	2300		50
Xylenes, Total	5800		100
TBA	ND		400
Ethanol	ND		10000
DIPE	ND		50
TAME	ND		50
Ethyl t-butyl ether	ND		50
Gasoline Range Organics (GRO)-C6-C12	27000		5000
Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	104		67 - 130
1,2-Dichloroethane-d4 (Surr)	97		67 - 130
T 10 (0)	100		- 0 400

Analytical Data

Client: ARCADIS U.S., Inc. Job Number: 720-23727-1

Client Sample ID: MW-12

Lab Sample ID: 720-23727-3 Date Sampled: 10/28/2009 1600

Client Matrix: Water Date Received: 10/29/2009 1400

8260B/CA_LUFTMS 8260B / CA LUFT MS

Method:8260B/CA_LUFTMSAnalysis Batch: 720-60925Instrument ID:CHMSV2Preparation:5030BLab File ID:11050918.DDilution:100Initial Weight/Volume:10mL

Date Analyzed: 11/05/2009 2017 Final Weight/Volume: 10 mL

Date Prepared: 11/05/2009 2017

4-Bromofluorobenzene	100		67 - 130
Surrogate	%Rec	Qualifier	Acceptance Limits
Gasoline Range Organics (GRO)-C6-C12	43000		5000
Ethyl t-butyl ether	ND		50
TAME	ND		50
DIPE	ND		50
Ethanol	ND		10000
TBA	ND		400
Xylenes, Total	6800		100
Toluene	800		50
Ethylbenzene	2900		50
1,2-DCA	ND		50
EDB	ND		50
Benzene	5800		50
Methyl tert-butyl ether	ND		50
Analyte	Result (ug/L)	Qualifier	RL

DATA REPORTING QUALIFIERS

Lab Section Qualifier Description

Client: ARCADIS U.S., Inc. Job Number: 720-23727-1

QC Association Summary

		Report			
Lab Sample ID	Client Sample ID	Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:720-6070	04				
LCS 720-60704/4	Lab Control Sample	T	Water	8260B/CA_LUFT	
LCS 720-60704/6	Lab Control Sample	T	Water	8260B/CA_LUFT	
LCSD 720-60704/5	Lab Control Sample Duplicate	T	Water	8260B/CA_LUFT	
LCSD 720-60704/7	Lab Control Sample Duplicate	Т	Water	8260B/CA_LUFT	
MB 720-60704/8	Method Blank	T	Water	8260B/CA_LUFT	
720-23727-1	MW-10	Т	Water	8260B/CA_LUFT	
Analysis Batch:720-6072	29				
LCS 720-60729/4	Lab Control Sample	T	Water	8260B/CA_LUFT	
LCS 720-60729/6	Lab Control Sample	T	Water	8260B/CA_LUFT	
LCSD 720-60729/5	Lab Control Sample Duplicate	T	Water	8260B/CA_LUFT	
LCSD 720-60729/7	Lab Control Sample Duplicate	T	Water	8260B/CA_LUFT	
MB 720-60729/8	Method Blank	T	Water	8260B/CA_LUFT	
720-23727-2	MW-11	Т	Water	8260B/CA_LUFT	
Analysis Batch:720-6092	25				
LCS 720-60925/4	Lab Control Sample	T	Water	8260B/CA_LUFT	
LCS 720-60925/6	Lab Control Sample	T	Water	8260B/CA_LUFT	
LCSD 720-60925/7	Lab Control Sample Duplicate	Т	Water	8260B/CA_LUFT	
LCSD 720-60925/8	Lab Control Sample Duplicate	Т	Water	8260B/CA_LUFT	
MB 720-60925/5	Method Blank	Т	Water	8260B/CA_LUFT	
720-23727-3	MW-12	Т	Water	8260B/CA_LUFT	

Report Basis

T = Total

Client: ARCADIS U.S., Inc. Job Number: 720-23727-1

Method Blank - Batch: 720-60704 Method: 8260B/CA_LUFTMS

Preparation: 5030B

Lab Sample ID: MB 720-60704/8 Analysis Batch: 720-60704 Instrument ID: Agilent 75MSD

Client Matrix: Water Prep Batch: N/A Lab File ID: 11020926.D

Dilution: 1.0 Units: ug/L Initial Weight/Volume: 10 mL

Date Analyzed: 11/02/2009 2303 Final Weight/Volume: 10 mL

Date Analyzed: 11/02/2009 2303

Date Prepared: 11/02/2009 2303

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		0.50
Benzene	ND		0.50
EDB	ND		0.50
1,2-DCA	ND		0.50
Ethylbenzene	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
TBA	ND		4.0
Ethanol	ND		100
DIPE	ND		0.50
TAME	ND		0.50
Ethyl t-butyl ether	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	ND		50
Surrogate	% Rec	Acceptance Limits	
4-Bromofluorobenzene	96	67 - 130	
1,2-Dichloroethane-d4 (Surr)	97	67 - 130	
Toluene-d8 (Surr)	99	70 - 130	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Agilent 75MSD

Instrument ID:

Client: ARCADIS U.S., Inc. Job Number: 720-23727-1

Lab Control Sample/ Method: 8260B/CA_LUFTMS

Lab Control Sample Duplicate Recovery Report - Batch: 720-60704 Preparation: 5030B

LCS Lab Sample ID: LCS 720-60704/4 Analysis Batch: 720-60704

Client Matrix: Water Prep Batch: N/A Lab File ID: 11020922.D

Dilution: 1.0 Units: ug/L Initial Weight/Volume: 10 mL

 Date Analyzed:
 11/02/2009 2051
 Final Weight/Volume:
 10 mL

 Date Prepared:
 11/02/2009 2051

LCSD Lab Sample ID: LCSD 720-60704/5 Analysis Batch: 720-60704 Instrument ID: Agilent 75MSD Client Matrix: Water Prep Batch: N/A Lab File ID: 11020923.D

Client Matrix: Water Prep Batch: N/A Lab File ID: 11020923.D

Dilution: 1.0 Units: ug/L Initial Weight/Volume: 10 mL

Date Analyzed: 11/02/2009 2126 Final Weight/Volume: 10 mL

Date Prepared: 11/02/2009 2126

		<u>% Rec.</u>					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Methyl tert-butyl ether	95	92	66 - 138	3	20		
Benzene	104	105	80 - 130	1	20		
EDB	105	103	70 - 143	2	20		
1,2-DCA	102	101	70 - 133	2	20		
Ethylbenzene	112	114	80 - 139	2	20		
Toluene	106	107	80 - 126	1	20		
TBA	102	104	70 - 130	2	20		
Ethanol	111	116	66 - 160	5	20		
DIPE	102	104	80 - 139	2	20		
TAME	93	91	80 - 131	2	20		
Ethyl t-butyl ether	96	96	70 - 141	0	20		
Surrogate	L	CS % Rec	LCSD %	Rec	Accep	tance Limits	
4-Bromofluorobenzene		103	102		67 - 130		
1,2-Dichloroethane-d4 (Surr)	Ş	98	97		6		
Toluene-d8 (Surr)	1	102	102		7	0 - 130	

Client: ARCADIS U.S., Inc. Job Number: 720-23727-1

Lab Control Sample/ Method: 8260B/CA_LUFTMS

Lab Control Sample Duplicate Recovery Report - Batch: 720-60704 Preparation: 5030B

LCS Lab Sample ID: LCS 720-60704/6 Analysis Batch: 720-60704 Instrument ID: Agilent 75MSD Client Matrix: Water Prep Batch: N/A Lab File ID: 11020924.D

Dilution: 1.0 Units: ug/L Initial Weight/Volume: 10 mL

Date Analyzed: 11/02/2009 2158 Final Weight/Volume: 10 mL Date Prepared: 11/02/2009 2158

LCSD Lab Sample ID: LCSD 720-60704/7 Analysis Batch: 720-60704 Instrument ID: Agilent 75MSD Client Matrix: Water Prep Batch: N/A Lab File ID: 11020925.D

Dilution: 1.0 Units: ug/L Initial Weight/Volume: 10 mL

Date Analyzed: 11/02/2009 2230 Final Weight/Volume: 10 mL

Date Prepared: 11/02/2009 2230

% Rec. Analyte **RPD** LCS LCSD Limit RPD Limit LCS Qual LCSD Qual Gasoline Range Organics (GRO)-C6-C12 91 90 30 - 130 0 Surrogate LCS % Rec LCSD % Rec Acceptance Limits 4-Bromofluorobenzene 103 102 67 - 130 1,2-Dichloroethane-d4 (Surr) 100 100 67 - 130 Toluene-d8 (Surr) 102 102 70 - 130

Client: ARCADIS U.S., Inc. Job Number: 720-23727-1

Method Blank - Batch: 720-60729 Method: 8260B/CA_LUFTMS

Preparation: 5030B

Lab Sample ID: MB 720-60729/8 Analysis Batch: 720-60729 Instrument ID: Chenstation 3

Client Matrix: Water Prep Batch: N/A Lab File ID: 11030908.D

Dilution: 1.0 Units: ug/L Initial Weight/Volume: 10 mL

Date Analyzed: 11/03/2009 1243 Final Weight/Volume: 10 mL

Date Prepared: 11/03/2009 1243

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		0.50
Benzene	ND		0.50
EDB	ND		0.50
1,2-DCA	ND		0.50
Ethylbenzene	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
TBA	ND		4.0
Ethanol	ND		100
DIPE	ND		0.50
TAME	ND		0.50
Ethyl t-butyl ether	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	ND		50
Surrogate	% Rec	Acceptance Limits	
4-Bromofluorobenzene	98	67 - 130	
1,2-Dichloroethane-d4 (Surr)	98	67 - 130	
Toluene-d8 (Surr)	98	70 - 130	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ARCADIS U.S., Inc. Job Number: 720-23727-1

Lab Control Sample/ Method: 8260B/CA_LUFTMS

Lab Control Sample Duplicate Recovery Report - Batch: 720-60729 Preparation: 5030B

LCS Lab Sample ID: LCS 720-60729/4

Client Matrix: Water Dilution: 1.0

Date Analyzed: 11/03/2009 1031 Date Prepared: 11/03/2009 1031 Analysis Batch: 720-60729

Prep Batch: N/A Units: ug/L Instrument ID: Chenstation 3 Lab File ID: 11030904.D

Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 720-60729/5

Client Matrix: Water Dilution: 1.0

Date Analyzed: 11/03/2009 1104 Date Prepared: 11/03/2009 1104 Analysis Batch: 720-60729

Prep Batch: N/A Units: ug/L

Instrument ID: Chenstation 3
Lab File ID: 11030905.D

Initial Weight/Volume: 10 mL Final Weight/Volume: 10 mL

	0	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual	
Methyl tert-butyl ether	103	92	66 - 138	11	20			
Benzene	105	101	80 - 130	4	20			
EDB	112	102	70 - 143	9	20			
1,2-DCA	103	94	70 - 133	9	20			
Ethylbenzene	111	106	80 - 139	5	20			
Toluene	107	102	80 - 126	5	20			
TBA	91	85	70 - 130	6	20	20		
Ethanol	94	89	66 - 160	6	20			
DIPE	100	94	80 - 139	6	20			
TAME	103	96	80 - 131	7	20			
Ethyl t-butyl ether	99	92	70 - 141	8	20			
Surrogate	L	CS % Rec	LCSD %	Rec	Accep	tance Limits		
4-Bromofluorobenzene	1	02	100		6	7 - 130		
1,2-Dichloroethane-d4 (Surr)	9	7	94		6	7 - 130		
Toluene-d8 (Surr)	1	00	99		7	0 - 130		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ARCADIS U.S., Inc. Job Number: 720-23727-1

Lab Control Sample/ Method: 8260B/CA LUFTMS

Lab Control Sample Duplicate Recovery Report - Batch: 720-60729 Preparation: 5030B

LCS Lab Sample ID: LCS 720-60729/6 Analysis Batch: 720-60729

11/03/2009 1211

Instrument ID: Chenstation 3 Client Matrix: Water Prep Batch: N/A Lab File ID: 11030906.D Dilution: 1.0 Units: ug/L Initial Weight/Volume: 10 mL

11/03/2009 1138 Final Weight/Volume: Date Analyzed: 10 mL Date Prepared: 11/03/2009 1138

LCSD Lab Sample ID: LCSD 720-60729/7 Analysis Batch: 720-60729 Instrument ID: Chenstation 3 Prep Batch: N/A Client Matrix: Water Lab File ID: 11030907.D

Units: ug/L Dilution: 1.0 Initial Weight/Volume: 10 mL 11/03/2009 1211 Date Analyzed: Final Weight/Volume: 10 mL

% Rec. **RPD** Analyte LCS LCSD Limit RPD Limit LCS Qual LCSD Qual

Gasoline Range Organics (GRO)-C6-C12 70 72 30 - 130 2 Surrogate LCS % Rec LCSD % Rec Acceptance Limits 4-Bromofluorobenzene 101 101 67 - 130 1,2-Dichloroethane-d4 (Surr) 95 97 67 - 130 Toluene-d8 (Surr) 100 101 70 - 130

Date Prepared:

Client: ARCADIS U.S., Inc. Job Number: 720-23727-1

Method Blank - Batch: 720-60925 Method: 8260B/CA_LUFTMS

Preparation: 5030B

 Lab Sample ID:
 MB 720-60925/5
 Analysis Batch:
 720-60925
 Instrument ID:
 Agilent 5973

 Client Matrix:
 Water
 Prep Batch: N/A
 Lab File ID:
 11050906.D

 Dilution:
 1.0
 Units:
 ug/L
 Initial Weight/Volume:
 10
 mL

 Date Analyzed:
 11/05/2009 1238
 Final Weight/Volume:
 10
 mL

Date Analyzed: 11/05/2009 1238

Date Prepared: 11/05/2009 1238

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		0.50
Benzene	ND		0.50
EDB	ND		0.50
1,2-DCA	ND		0.50
Ethylbenzene	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
TBA	ND		4.0
Ethanol	ND		100
DIPE	ND		0.50
TAME	ND		0.50
Ethyl t-butyl ether	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	ND		50
Surrogate	% Rec	Acceptance Limits	
4-Bromofluorobenzene	98	67 - 130	
1,2-Dichloroethane-d4 (Surr)	106	67 - 130	
Toluene-d8 (Surr)	98	70 - 130	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ARCADIS U.S., Inc. Job Number: 720-23727-1

Lab Control Sample/ Method: 8260B/CA_LUFTMS

Lab Control Sample Duplicate Recovery Report - Batch: 720-60925 Preparation: 5030B

LCS Lab Sample ID: LCS 720-60925/4 Analysis Batch: 720-60925 Instrument ID: Agilent 5973

Client Matrix: Water Prep Batch: N/A Lab File ID: 11050905.D

Dilution: 1.0 Units: ug/L Initial Weight/Volume: 10 mL

Date Analyzed: 11/05/2009 1206 Final Weight/Volume: 10 mL Date Prepared: 11/05/2009 1206

LCSD Lab Sample ID: LCSD 720-60925/8 Analysis Batch: 720-60925 Instrument ID: Agilent 5973

Client Matrix: Water Prep Batch: N/A Lab File ID: 11050909.D

Dilution: 1.0 Units: ug/L Initial Weight/Volume: 10 mL

Date Analyzed: 11/05/2009 1524 Final Weight/Volume: 10 mL

Date Prepared: 11/05/2009 1524

% Rec. Analyte **RPD** LCS LCSD Limit RPD Limit LCS Qual LCSD Qual Gasoline Range Organics (GRO)-C6-C12 87 78 30 - 130 11 Surrogate LCS % Rec LCSD % Rec Acceptance Limits 4-Bromofluorobenzene 104 104 67 - 130 1,2-Dichloroethane-d4 (Surr) 107 108 67 - 130 Toluene-d8 (Surr) 102 101 70 - 130

Client: ARCADIS U.S., Inc. Job Number: 720-23727-1

Lab Control Sample/ Method: 8260B/CA_LUFTMS

Lab Control Sample Duplicate Recovery Report - Batch: 720-60925 Preparation: 5030B

LCS Lab Sample ID: LCS 720-60925/6 Analysis Batch: 720-60925 Instrument ID: Agilent 5973

Client Matrix: Water Prep Batch: N/A Lab File ID: 11050907.D

Dilution: 1.0 Units: ug/L Initial Weight/Volume: 10 mL

 Date Analyzed:
 11/05/2009
 1419
 Final Weight/Volume:
 10 mL

 Date Prepared:
 11/05/2009
 1419

LCSD Lab Sample ID: LCSD 720-60925/7 Analysis Batch: 720-60925 Instrument ID: Agilent 5973

Client Matrix: Water Prep Batch: N/A Lab File ID: 11050908.D Dilution: 1.0 Units: ug/L Initial Weight/Volume: 10 mL

Date Analyzed: 11/05/2009 1451 Final Weight/Volume: 10 mL

Date Prepared: 11/05/2009 1451

	<u>%</u>	Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Methyl tert-butyl ether	96	107	66 - 138	10	20		
Benzene	96	102	80 - 130	5	20		
EDB	99	110	70 - 143	11	20		
1,2-DCA	101	110	70 - 133	9	20		
Ethylbenzene	104	109	80 - 139	5	20		
Toluene	98	102	80 - 126	4	20		
TBA	90	96	70 - 130	6	20		
Ethanol	97	94	66 - 160	4	20		
DIPE	97	104	80 - 139	7	20		
TAME	98	109	80 - 131	10	20		
Ethyl t-butyl ether	94	104	70 - 141	10	20		
Surrogate	LC	S % Rec	LCSD % R	Rec	Accept	tance Limits	
4-Bromofluorobenzene	102	2	103		6	7 - 130	
1,2-Dichloroethane-d4 (Surr)	103	3	106		6	7 - 130	
Toluene-d8 (Surr)	100)	100		70	0 - 130	

San Francisco

1220 Quarry Lane

720-23727
Chain of Custody Record

120173
TestAmerica
The Leader in Environmental Testing

Pleasanton, CA 94566

phone 925.484.1919 fax 925.600.3002									_							TestAmerica La	boratories, Inc.
Client Contact	Project Manager: Jason Duda Sit				Site C	Site Contact: Tay beddes Date: 11					te: 10/29/69				COC No:		
Broadbent & Associates	Tel/Fax: (5	30) 566-140	0/ (530) 56	5-1401			ab Contact: Dimple Sharma Carrier					er: J	.60	ddg		of	_ COCs
1324 Mangrove Ave Suite 212		Analysis T	urnaround													Job No.	
Chico, CA 95926	Calendar	(C) or Wo	ork Days (W	ST	D												
(530) 566-1400	T/	AT if different f	rom Below _														
(530) 566-1401		2	weeks													SDG No.	
Project Name: BP 11109		1	week														
Site: 4280 Foothill Blvd, Oakland, CA		2	2 days						DB								
P O # GP09BPNA.C106		1	day			mple 15		90	Id E				9				
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sam	BTEX	5 oxygenates	1,2 DCA and EDB	Ethanol						Sample S	Specific Notes:
MW-10	10/28/09	1640		Aa	(V	X	X	X	X	x							
MW-11	1	1715				X	X	X	X	x							
MW-12	V	1600		V	1	x	x	x	X	x I I							
TripBlank		100			•	1										HoldTr	ip Blank
							T										
									П								
							T										
						\top	T		П								
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaO	H; 6= Other						\dagger										
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant	Poison B		Unknown			Sa				al (A fee ma	y be asses Dispos				retained Archive F	For N	onth) Months
Special Instructions/QC Requirements & Comments:																	
																	5.2°C
Relinquished by Tall	Company:	ut & A55	00	Date/Ti	me: 59 140	Re	eçeiv N	dby	l	2 H.		Company:				Date/Time: 10/29/09	_ 1400
Relinquished by:	Company:			Date/Ti	me:	Re	eceive	ed by	:			Cor	npany:			Date/Time:	
Relinquished by:	Company:			Date/Ti	me:	Re	eceive	ed by	1			Cor	npany:			Date/Time:	
				Page	e 20	οĒ	21										

Login Sample Receipt Check List

Client: ARCADIS U.S., Inc. Job Number: 720-23727-1

Login Number: 23727 List Source: TestAmerica San Francisco

Creator: Hoang, Julie List Number: 1

Question	T / F/ NA	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	
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	
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	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

BROADBENT & ASSOCIATES INC. FIELD PROCEDURES

A.1 QUALITY ASSURANCE/QUALITY CONTROL FIELD PROTOCOLS

Field protocols have been implemented to enhance the accuracy and reliability of data collection, ground-water sample collection, transportation and laboratory analysis. Discussion of these protocols is provided below.

A.1.1 Water Level & Free-Product Measurement

Prior to ground-water sample collection from each monitoring well, the presence of separate-phase hydrocarbons (SPH or free product, FP) and depth to ground water shall be measured. Depth to ground water will be measured with a standard water level indicator that has been decontaminated prior to its use in accordance with procedures discussed below. Depth to groundwater will be gauged from a saw cut notch at the top of the well casing on each well head. Where FP is suspected, the initial gauging will be done with an oil-water interface probe. Once depth to water has been measured, the first retrieval of a new disposable bailer will be scrutinized for the presence of SPH/FP.

A.1.2 Monitoring Well Purging

Subsequent to measuring depth to ground water and prior to the collection of ground-water samples, purging of standing water within the monitoring will be performed if called for. Consistent with the American Society for Testing and Materials (ASTM) Standard D6452-99, Section 7.1, the well will be purged of approximately three wetted-casing volumes of water, or until the well is dewatered, or until monitored field parameters indicate stabilization. The well will be purged using a pre-cleaned disposable bailer or submersible pump and disposable plastic tubing dedicated to each individual well. The well will be purged at a low flow rate to minimize the possibility of purging the well dry. So that the sample collected is representative of formation water, several field parameters will be monitored during the purging process. The sample will not be collected until these parameters (i.e. temperature, pH, and conductivity) have stabilized to within 10% of the previously measured value. If a well is purged dry, the sample should not be collected until the well has recovered to a minimum 50% of its initial volume.

A.1.3 Ground-Water Sample Collection

Once the wells are satisfactorily purged, water samples will be collected from each well. Water samples for organic analyses will be collected using a pre-cleaned, new, disposable bailer and transferred into the appropriate, new, laboratory-prepared containers such that no head space or air bubbles are present in the sample container (if appropriate to the analysis). The samples will be properly labeled (i.e. sample identification, sampler initials, date/time of collection, site location, requested analyses), placed in an ice chest with bagged ice or ice substitute, and delivered to the contracted analytical laboratory.

A.1.4 Surface Water Sample Collection

Unless specified otherwise, surface water samples will be collected from mid-depth in the central area of the associated surface water body. Water samples will be collected into appropriate, new, laboratory-prepared containers by dipping the container into the surface water unless the container has a preservative present. If a sample preservative is present, a new, cleaned non-preserved surrogate container will be used to obtain the sample which will then be directly transferred into a new, laboratory-provided, preserved container. Samples will be properly labeled and transported as described above.

A.1.5 Decontamination Protocol

Prior to use in each well, re-usable ground-water sampling equipment (e.g., water level indicator, oil-interface probe, purge pump, etc.) will be decontaminated. Decontamination protocol will include thoroughly cleaning with a solution of Liquinox, rinsing with clean water, and final rinsing with control water (potable water of known quality, distilled, or de-ionized water). Pre-cleaned new disposable bailers and disposable plastic tubing will be dedicated to each individual well.

A.1.6 Chain of Custody Procedures

Sample identification documents will be carefully prepared so identification and chain of custody can be maintained and sample disposition can be controlled. The sample identification documents include Chain-of-Custody (COC) records and Daily Field Report forms. Chain of custody procedures are outlined below.

Field Custody Procedures

The field sampler is individually responsible for the care and custody of the samples collected until they are properly transferred.

Samples will have unique labels. The information on these labels will correspond to the COC which shows the identification of individual samples and the contents of the shipping container. The original COC will accompany the shipment and a copy will be retained by the field sampler.

Transfer of Custody and Shipment

A COC will accompany samples during transfer and shipment. When transferring samples, the individual relinquishing and the individual receiving the samples will each sign, date, and note the time on the COC. This documents the sample custody transfer.

Samples will be packaged properly for shipment and dispatched to the appropriate laboratory for analysis, with a separate COC accompanying each shipment. Shipments will be accompanied by the original COC. Samples will be delivered by BAI personnel to the laboratory, or shipped by responsible courier. When a shipping courier is utilized, the sample shipment number will be identified on the COC.

A.1.7 Field Records

In addition to sample identification numbers and COC records, Daily Field Report records will be maintained by field staff to provide daily records of significant events, observations, and measurements during field investigations. These documents will contain observed information such as: the personnel present, site conditions, sampling procedures, measurement procedures, calibration records, equipment used, supplies used, etc. Field measurements will be recorded on the appropriate forms. Entries on the data forms will be signed and dated. The data forms will be kept as permanent file records.

APPENDIX B

GEOTRACKER UPLOAD CONFIRMATION RECEIPTS

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: 4Q09 GEO_WELL 11109

Facility Global ID: T0600100217
Facility Name: BP #11109
File Name: GEO_WELL.zip

Organization Name: Broadbent & Associates, Inc.

Username: BROADBENT-C IP Address: 67.118.40.90

Submittal Date/Time: 1/5/2010 12:12:59 PM

Confirmation Number: 6707292854

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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!

<u>Submittal Type:</u> EDF - Monitoring Report - Quarterly

Submittal Title: 4Q09 GW Monitoring

Facility Global ID: T0600100217
Facility Name: BP #11109

File Name: 11109-720-23727-1.zip

Organization Name: Broadbent & Associates, Inc.

Username: BROADBENT-C IP Address: 67.118.40.90

<u>Submittal Date/Time:</u> 1/5/2010 12:14:31 PM

Confirmation Number: 5974969327

VIEW QC REPORT

VIEW DETECTIONS REPORT

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