RECEIVED



4:57 pm, Oct 29, 2010

Alameda County
Environmental Health

ARCADIS U.S., Inc.
100 Montgomery Street, Suite 300
San Francisco, California 94104
Tel 415.374.2744
Fax 415.374.2745
www.arcadis-us.com

Re: Third Quarter 2010 Ground-Water Monitoring Report Former BP Station #11266

1541 Park Street Alameda, California ACEH Case #RO0000318

ENVIRONMENTAL

"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:

10/27/2010

Contact:

Hollis E. Phillips

Phone:

415.374.2744 ext 13

mail:

Hollis.phillips@arcadisus.com

Our ref:

GP09BPNA.C001

Submitted by:

ARCADIS U.S., Inc.

Hollis E. Phillips, PG Project Manager



Third Quarter 2010 Ground-Water Monitoring Report

Former BP Service Station #11266 1541 Park Street, Alameda, California ACEH Case #RO0000318

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
PO Box 1257
San Ramon, California 94583

Prepared by



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

October 27, 2010

Project No. 09-88-658



October 27, 2010

Project No. 09-88-658

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

Attn.: Ms. Hollis Phillips, PG

Re: Third Quarter 2010 Ground-Water Monitoring Report, Former BP Station #11266

1541 Park Street, Alameda, California; ACEH Case #RO0000318.

Dear Ms. Phillips:

Provided herein is the *Third Quarter 2010 Ground-Water Monitoring Report* for Former BP Service Station #11266 (herein referred to as Station #11266) located at 1541 Park Street, Alameda, California. This report presents the results of reassessment ground-water monitoring conducted at the Site during the Third Quarter of 2010.

Should you have questions regarding this submission, 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

Enclosures

cc:

Mr. Paresh Khatri, Alameda County Environmental Health (Submitted via ACEH FTP site)

Mr. Raymond Yeung, 1541 Park Street, Alameda, CA 94501

Electronic copy uploaded to GeoTracker

NEVADA

ARIZONA

CALIFORNIA

TEXAS

STATION #11266 GROUND-WATER MONITORING REPORT

Facility: #11266 Address: 1541 Park Street, Alameda, California

ARCADIS Project Manager: Ms. Hollis Phillips, PG

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

(530) 566-1400

Consultant Project No.: 09-88-658

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

ACEH Case #RO0000318

WORK PERFORMED THIS QUARTER (Third Quarter 2010):

1. Conducted ground-water monitoring/sampling for Third Quarter 2010.

WORK PROPOSED FOR NEXT QUARTER (Fourth Quarter 2010):

- 1. Prepared and submitted this Third Quarter 2010 Ground-Water Monitoring Report (contained herein).
- 2. No field work is currently anticipated at Station #11266 during the Fourth Quarter of 2010.

QUARTERLY RESULTS SUMMARY:

Current phase of project:

Frequency of ground-water sampling:

Frequency of ground-water monitoring:

Frequency of ground-water monitoring:

Frequency of ground-water monitoring:

Frequency of ground-water monitoring:

Semi-Annually (1Q & 3Q): MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, and RW-1

No

No

No

Depth to ground water (below TOC):

NA

8.13 ft (MW-5) to 9.60 ft (MW-2)

General ground-water flow direction: East
Approximate hydraulic gradient: 0.02 ft/ft

DISCUSSION:

Third Quarter 2010 ground-water monitoring and sampling was conducted at the Site on July 12, 2010 by BAI. Water levels were gauged in six of the seven wells (MW-1 through MW-5 and RW-1) associated with the Site. Well MW-6 was not gauged due to the need for traffic control, which will be obtained prior to the next monitoring event. No other difficulties or irregularities were encountered during gauging activities. Measured depths to ground water ranged from 8.13 ft in MW-5 to 9.60 ft in MW-2. Calculated water level elevations ranged from 20.65 ft above datum at MW-4 to 19.16 ft at MW-2. Calculated water level elevations yielded a potentiometric ground-water flow direction and gradient of 0.02 ft/ft to the east. Ground-water monitoring field data sheets are provided within Appendix A. Measured depths to ground-water and respective ground-water elevations are summarized in Table 1. A Site Location Map is presented as Drawing 1. Potentiometric ground-water elevation contours are presented in Drawing 2.

Ground-water samples were collected from wells MW-2 through MW-5 and RW-1 on July 12, 2010. Well MW-1 was not sampled due to an obstrution in the well at approximately eight feet below ground surface. Well MW-6 was not be sampled due to its location within Lincoln Avenue and the need for traffic control. No other irregularities were reported during sampling activities. The samples were

submitted under chain-of-custody protocol to TestAmerica Laboratories, Inc. (Pleasanton, California) for analysis of Gasoline Range Organics (GRO, C6-12), Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX), Methyl Tert-Butyl Ether (MTBE), Ethyl Tert-Butyl Ether (ETBE), Di-Isopropyl Ether (DIPE), Tert-Amyl Methyl Ether (TAME), Tert-Butyl Alcohol (TBA), 1,2-Dibromomethane (EDB), 1,2-Dichloroethane (1,2-DCA), and Ethanol by EPA Method 8260B, and Total Lead by EPA Method 200.7. No significant irregularities were reported during 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 the laboratory reporting limit in wells RW-1 and MW-3 at concentrations of 900 micrograms per liter (μ g/L) and 79 μ g/L, respectively. Benzene, Toluene, Ethylbenzene, and Total Xylenes were detected above laboratory reporting limits in well RW-1 at concentrations of 5.0 μ g/L, 27 μ g/L, 48 μ g/L, and 220 μ g/L, respectively. MTBE was detected above the laboratory reporting limit in well MW-2 at a concentration of 6.0 μ g/L. Lead was detected at the laboratory reporting limit in well RW-1 at a concentration of 5.0 μ g/L. The remaining analytes were not detected above their respective laboratory reporting limits in the five wells sampled this quarter. Laboratory analytical results are summarized in Table 1 and Table 2. Analytical results for GRO, Benzene, and MTBE are reported adjacent to their respective well on Drawing 2. Copies of the GeoTracker Upload Confirmations for the data in this report are provided as Appendix B.

CONCLUSIONS AND RECOMMENDATIONS:

Water level elevations were within historic minimum and maximum ranges for each well. The potentiometric ground-water flow direction and gradient of 0.02 ft/ft to the east is consistent with historical data. Detected concentrations of petroleum hydrocarbons were within the historic minimum and maximum ranges for each well with the exception of historic minimum concentrations of MTBE in well MW-2 and TBA in well MW-5 and a historic maximum concentration of Benzene in well RW-1. No environmental work is currently scheduled to occur at the site during the Fourth Quarter of 2010. The next semi-annual ground-water monitoring and sampling event is scheduled to be conducted during the First Quarter of 2011.

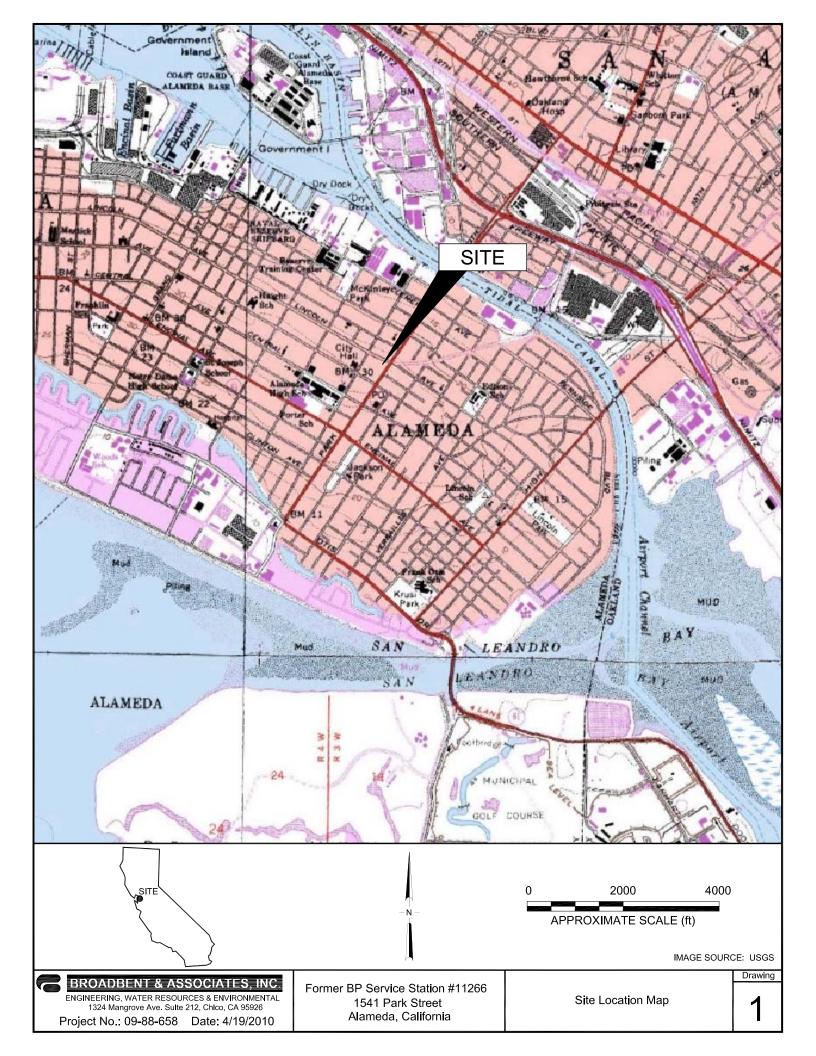
CLOSURE:

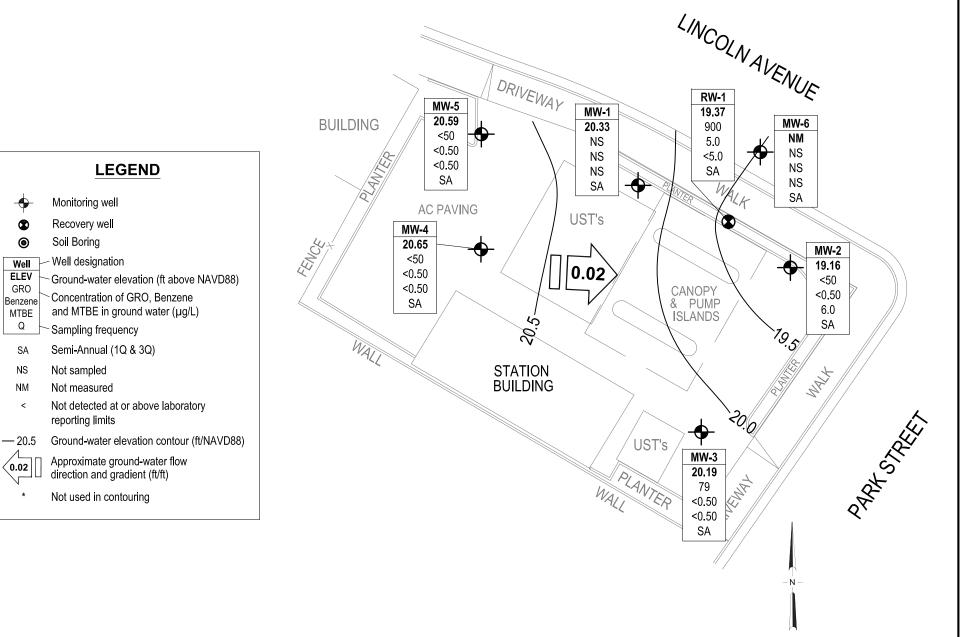
The findings presented in this report are based upon: observations of BAI field personnel (see Appendix A), the points investigated, and results of laboratory tests performed by Test America (Pleasanton, California). Our services were performed in accordance with the generally accepted standard of practice 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 Service Station #11266, 1541 Park Street, Alameda, California

- Drawing 2. Ground-Water Elevation Contours and Analytical Summary Map, July 12, 2010, Former BP Service Station #11266, 1541 Park Street, Alameda, California
- Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses, Station #11266, 1541 Park Street, Alameda, California
- Table 2. Summary of Fuel Additives Analytical Data, Station #11266, 1541 Park Street, Alameda, California
- Appendix A. BAI Ground-Water Sampling Data (Includes Field Data Sheets, Non-Hazardous Waste Data Form, Laboratory Report, Chain of Custody Documentation, and Field Procedures)
- Appendix B. GeoTracker Upload Confirmations





0 30 60 SCALE (ft)

BROADBENT & ASSOCIATES, INC.

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

Project No.: 09-88-658 Date: 08/06/10

Former BP Service Station #11266 1541 Park Street Alameda, California Ground-Water Elevation Contour and Analytical Summary Map July 12, 2010 Drawing

2

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Former BP Station #11266, 1541 Park Street, Alameda, CA

	TOC Depth to Water Level Concentrations in (µg/L)													
Well and		Elevation	Water	Elevation	GRO/	DRO/			Ethyl-	Total			DO	
Sample Date	P/NP	(feet msl)	(feet bgs)	(feet msl)	TPHg	TPHd	Benzene	Toluene	Benzene	Xylenes	MtBE	Lead	(mg/L)	Comments
MW-1														
8/24/2006	P	19.19	7.75	11.44	1,900	1,000	6.4	1.9	48	41	1.2	<100		
6/30/2009	P	28.62	8.85	19.77	11,000		5.1	29	310	1,200	< 0.50	54.2	2.98	b, c
3/18/2010	P	28.62	7.37	21.25	2,100		<5.0	5.6	24	170	< 5.0	25	0.82	c
7/12/2010		28.62	8.29	20.33				-						e
MW-2														
8/24/2006	P	19.32	8.25	11.07	55	<47	0.57	< 0.50	< 0.50	1.0	47	<100		
6/30/2009	P	28.76	9.85	18.91	<50		< 0.50	< 0.50	< 0.50	< 0.50	17	7.44	3.13	b
3/18/2010	P	28.76	8.27	20.49	<50		< 0.50	< 0.50	< 0.50	<1.0	6.3	<5.0	0.93	
7/12/2010	P	28.76	9.60	19.16	<50		<0.50	<0.50	<0.50	<1.0	6.0	<5.0	1.31	
MW-3														
8/24/2006	P	19.99	9.61	10.38	96	130	< 0.50	0.52	< 0.50	< 0.50	1.2	<100		
6/30/2009	P	29.43	10.03	19.40	< 50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	<5.0	2.40	b
3/18/2010	P	29.43	8.82	20.61	100		< 0.50	< 0.50	< 0.50	<1.0	< 0.50	<5.0	0.78	
7/12/2010	P	29.43	9.24	20.19	79		<0.50	< 0.50	<0.50	<1.0	<0.50	<5.0		
MW-4														
8/24/2006	P	20.17	8.98	11.19	< 50	<47	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	<100		
6/30/2009	P	29.61	9.47	20.14	< 50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	35.7	3.53	b
3/18/2010	P	29.61	7.85	21.76	<50		< 0.50	< 0.50	< 0.50	<1.0	< 0.50	<5.0	1.30	
7/12/2010	P	29.61	8.96	20.65	<50		<0.50	< 0.50	<0.50	<1.0	<0.50	<5.0		
MW-5														
8/24/2006	P	19.41	8.12	11.29	<50	<47	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	<100		
6/30/2009		28.72	8.61	20.11										b, d
3/18/2010	P	28.72	6.84	21.88	<50		< 0.50	< 0.50	< 0.50	<1.0	< 0.50	<5.0	1.30	
7/12/2010	P	28.72	8.13	20.59	<50		<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	1.77	
MW-6														
8/24/2006	P	19.40	8.26	11.14	<50	<47	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	<100		
6/30/2009	P	28.82	9.83	18.99	< 50		<10	<10	<10	<10	<10	9.95	2.56	a, b
3/18/2010	P	28.82	8.04	20.78	<50		< 0.50	< 0.50	< 0.50	<1.0	< 0.50	<5.0	0.94	

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Former BP Station #11266, 1541 Park Street, Alameda, CA

Well and Sample Date	P/NP	TOC Elevation (feet msl)	Depth to Water (feet bgs)	Water Level Elevation (feet msl)	GRO/ TPHg	DRO/ TPHd	Concer	ntrations in	Ethyl- Benzene	Total Xylenes	MtBE	Lead	DO (mg/L)	Comments
- Sample Date	1/111	(reet msi)	(reet bgs)	(reet msi)	IIIIg	11110	Delizene	Totalene	Delizene	Aylenes	MILDE	Leau	(IIIg/L)	Comments
MW-6 Cont.														
7/12/2010														f
RW-1														
6/30/2009	P	28.63	10.16	18.47	290		< 0.50	15	9.6	51	< 0.50	5.47	3.34	b
3/18/2010	P	28.63	7.64	20.99	1,000		3.9	82	59	280	<2.5	14	1.17	
7/12/2010	P	28.63	9.26	19.37	900		5.0	27	48	220	<5.0	5.0	1.05	

NOTES:

- a = Reporting limits raised due to high levels of non-target analytes.
- b = Well surveyed 6/22/2009.
- c = Sheen in well.
- d = Insufficient water to sample.
- e = Well obstructed.
- f = Not sampled, traffic control needed.

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

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 Former BP Station #11266, 1541 Park Street, Alameda, CA

Well and				Concentrati					
Sample Date	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
MW-1									
8/24/2006	<600	<40	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	
6/30/2009	<50	10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
3/18/2010	<1,000	<40	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
MW-2	11,000			0.0	0.0	0.0	0.0		
8/24/2006	<300	<20	47	< 0.50	< 0.50	2.2	< 0.50	< 0.50	
6/30/2009	<50	<10	17	< 0.50	< 0.50	1.0	< 0.50	< 0.50	
3/18/2010	<100	<4.0	6.3	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
7/12/2010	<100	<4.0	6.0	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-3									
8/24/2006	<300	<20	1.2	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
6/30/2009	<50	<10	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
3/18/2010	<100	<4.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
7/12/2010	<100	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-4									
8/24/2006	<300	<20	< 0.50	<0.50	< 0.50	< 0.50	< 0.50	< 0.50	
6/30/2009	<50	<10	< 0.50	<0.50	<0.50	<0.50	<0.50	< 0.50	
3/18/2010	<100	<4.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
7/12/2010	<100	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-5									
8/24/2006	<300	<20	< 0.50	<0.50	< 0.50	<0.50	< 0.50	< 0.50	
3/18/2010	<100	4.2	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
7/12/2010	<100	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50	< 0.50	
MW-6									
8/24/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	< 0.50	
6/30/2009	<1,000	<200	<10	<10	<10	<10	<10	<10	
3/18/2010	<100	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
RW-1									
	.70	.10	.0.50	.0.50	.0.50	.0.50	.0.50	.0.50	
6/30/2009	<50	<10	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	

Table 2. Summary of Fuel Additives Analytical Data

Former BP Station #11266, 1541 Park Street, Alameda, CA

Well and				Concentration	ons in (µg/L)				
Sample Date	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
RW-1 Cont.									
3/18/2010	< 500	<20	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	
7/12/2010	<1,000	<40	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	

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.

APPENDIX A

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

DATE: PERSO	NNEL: (110 3. firm			PROJE COMMI	CT NO.: ENTS:	09.	FF 65	8			-
WEATH	ER: Cle	/			Equip:	Geosguirt	Tubing	Bailers	DO	wli	Ec/pH	
Well ID	Time	MEASURING POINT	DTW (FT)	PRODUCT THICKNESS	рН	Cond. (X100)	Temp. (C/F)	DO (mg/l)	Redox (mV)	Iron (mg/l)	Alk. (mg/l)	WELL HEAD CONDITION: VAULT, BOLTS, CAP, LOCK, ETC
May	1213		8,29	5/1	11.0	代表: 2 ^で :						
MV-7	[053		9.60		. 47.3							
MV	1011		9.24			47						
Mr. 4	1300		8.95			·						
MV-5	1335		8.13	1 1								
Mm. C						45	<u> </u>					TRAFIC Control
Rp.1	1127		9.26			1.0		2000 - 1000 2000 - 1000	ļ	5.1	- *	\$.
			<u> </u>				· ·		<u>-</u> نــــ	<u> </u>		
		ļ					<u> </u>		<u> </u>	ļ		
							ļ			<u> </u>		
						·			<u> </u>	ļ <u>.</u>	20	
			ļ		ļ		 	**		-	100	
		<u> </u>	 		<u> </u>	<u> </u>	-	*		-		
									-	<u> </u>	<u> </u>	
		<u> </u>						<u> </u>		 	-	
<u> </u>				ļ ———	 	-			 	-		-
	<u> </u>	-		<u> </u>	-			 	-	╁──	<u> </u>	<u> </u>
				<u> </u>	-		-	-	 	-		
				<u> </u>	<u> </u>		-		├─	 		
			<u> </u>	ļ	1	1	 	-				
	 			 	-	-	 	-	+	 	<u> </u>	
	<u> </u>		-				-	 	-	-		



			ma	- Ï	•	•					
Well I.D.			111-0				 				
Project N			<u>B</u> P	1126	<u> </u>			Project :	#: 7/12/16)		
Sampler's			<u> </u>	ern.				Date: (39 98-659 2		
Purging E	quipme	nt:	<u></u>	-							
Sampling	Equipm	ent:	<u></u>	dr		 					
Casing Ty	rpe: PVC	:		_)		•	6.17			
Casing Di	ameter:			· _0	<u> </u>	_inch	•	*UNIT	CASING VOLUMES		
Total Wel	l Depth:			<u> </u>	ىرى,	_feet	•	2.4	= 0.16 gal/lin ft.		
Depth to	Water:			<u>- ४.२</u>		_feet ·			= 0.37 gal/lin ft		
Water Co	umn Th	ickness:	·	= 16:	77	_feet	4" = 0.65 gal/lin ft.				
Unit Casir	ng Volun	ne*:		x 0.1,	6	_ gallon / fo		= 1.47 gal/lin ft.			
Casing W	ater Vol	ume:		= 2.6	8	gallons	× 9. 5		_ gay iii ic		
Casing Vo	lume:			×	3 .	each	٠,				
Estimated	Purge \	Volume:		= 8.	05	- gallons					
Free prod	uct mea	sureme	nt (if pr								
Purged	Time	DO	ORP	Fe	Cor	iductance	Temperature	рН	Observations		
(gallons)	(24:00)	<u> </u>	(mV)		<u> </u>	(µS)	(Fahrenheit)		Obset validits		
G		•									
		76			-						
		Х	X	X	<u> </u>						
		х	x	x							
·		х	X	Х		. <u>1</u>					
		х	х	Х		- TOX	<u>ë</u>				
		х	х	×		· · · · · · · · · · · · · · · · · · ·	A.V. many				
		х	х	×							
		x	х	×							
Total Wate	r Volum	e Purge	d:				gallons				
Depth to W	/ater at	Sample	Collect	ion:			feet		•		
Sample C	ollectio	n Tíme:	;	_		<u></u>		Pum	ed Dry? (Y/N)		
Comments	: [~c	.1/	ab	Fraci	ted	10 9	5 / - hna		ta		
ration	reve	5	inm p	He.	<u></u>	·					
											
								يورو. ما المناق			
				· ·				ere (menere en	A Company of the Comp		
	j		•				, N	_ X-14-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	The second of th		
	 !							' "	* *		



and statement of the second

Well I.D.:											
Project N	lame/Lo	cation:	_B	P	117-60			Project	#: 09.88.68		
Sampler'	s Name:	:	Ė.	FERRE			•	Date:	7 (121/0		
Purging 8	quipme	nt:	B	7-							
Sampling	Equipm	nent:	Ba	سعا.	,						
Casing Ty	ype: PV0	2					•		•		
Casing Di	iameter:	•		·	2	inch	•	*UNT	T CASING VOLUMES		
Total Wel	ll Depth:	:			·cu	feet	•		' = 0.16 gal/lin ft.		
Depth to	Water:			- 9.6	\mathcal{G}	feet			' = 0.37 gal/lin ft.		
Water Co	Water Column Thickness: = 1					. 4" = 0.65 gal/lin ft.					
Unit Casing Volume*: x O.					gallon / foot $6'' = 1.47$ gal/lin f						
Casing Water Volume: = 2					46	gallons					
Casing Vo	Casing Volume: x					each					
Estimated	Estimated Purge Volume: = (gallons					
Free prod	luct mea	suremer	nt (if pr	eșent):		•					
Purged	Time	DO	ORP	Fe	Con	ductance	Temperature	рН	Observations		
(gallons)	(24:00)		(mV)		<u> </u>	(μ5)	(Fahrenheit)		Observations		
U	1058	1.31	<u></u>	<u> </u>	28	2.4	73.4	6.98	·		
15	1101	х	X	х	575	.4	71.8	6.81			
3	103	x	Х	×.	579	5,8	70.3	6.76			
		х	х	X							
		х	Х	х							
		х	х	×	7						
		х	х	х							
		х	х	x							
Total Wate	er Volum	ie Purge	d:			Z?	gallons				
Depth to V	Vater at	Sample	Collect	ion:			feet				
Sample C	•			•	7	107	1000	Puer	ged Dry? (Y/N)		
	•			•	<u> </u>	·		ı uıç	CODY: (T/W/)		
Comments	:		· <u> </u>				·				
							· · · · · · · · · · · · · · · · · · ·				
-		·- ·- ·- ·- ·- ·- ·- ·- ·- ·- ·- ·- ·									
						- - -	-				
		1		 -							
		Ì									



Well I.D.:				N-3		149			
Project Na	ame/Loc	ation:	BP	11268			Project	#: 09.88.658	
Sampler's	Name:					•	Date:	7/12/10	
Purging E	quipmer	nt:	BniL	-		+ S-			
Sampling	Equipm	ent:	Pail	/					
Casing Ty	pe: PVC								
Casing Di	ameter:			<u>٠ </u>	inch	•	*UNIT	CASING VOLUMES	
Total Wel	Depth:			<u> 25.</u>	C o feet		2"	= 0.16 gal/lin ft.	
Depth to	Water:			- 9.5	2 ⁴ feet		3" = 0.37 gal/lin ft.		
Water Co	lumn Thi	ckness		= <u>15,</u>	76 feet	1.2.2	= 0.65 gal/lin ft.		
Unit Casir	ıg Volun	1e*:	···	_x_ <i>-/</i>	<u>ς</u> gallon / f	oot		= 1.47 gal/lin ft.	
Casing Wa	ater Volu	ıme:		= <u>3</u> .	57 gallons	.*	r		
Casing Vo	lume:			.×	3 each			-	
Estimated	Purge \	/olume:		<u> </u>	S6 gallons			•	
Free prod	uct mea	sureme	nt (if pr	eșent):			<u> </u>	y:	
Purged	Time	DO	ORP	Fe	Conductance	Temperature	рH	Observations	
(gallons)	(24:00)		(mV)	<u> </u>	(µS)	(Fahrenhelt)			
Ø.	1096		-1		5/17	70.4	6.63		
1,5	1039	х	х	х	409.0	71.2	C.SC		
3	1831	X	х	х	422:7	71.5	C,59	, s	
		х	х	X					
	•	х	х	Х	:				
		х	х	×					
		х	х	х					
		×	х	х					
Total Wate	er Volum	e Purge	ed:		ク	galions	·		
Depth to V	Vater at	Sample	Collect	ion:	9.36	feet		s.	
Sample C	ollectio	n Time	:	•	0435 -	1035-	Pur	ged Dry? (Y/(N²)	
				•				, 42 3.7. (176)	
Comments	<u>:</u>						-		
								æ.	
· · ·									
	·							· · ·	
	₩.								



Well I.D.:	;		MW	- 61							
Project N	ame/Loc	ation:	BP	1126	66			Project	#: 09 .88.658		
Sampler's	s Name:		$\epsilon . \epsilon$	en .			•	Date:	7/18/10		
Purging E	quipmer	nt:	Bai) er				· · · · · · · · · · · · · · · · · · ·			
Sampling	Equipm	ent:	B_{2}	Le					····		
Casing Ty	pe: PVC				<u> </u>				· · · · · · · · · · · · · · · · · · ·		
Casing Di	ameter:			· <u>'</u>	<u> </u>	inch		*UNI	CASING VOLUMES		
Total Wel	l Depth:			25		feet	•		= 0.16 gal/lin ft.		
Depth to	Water:			- 8,5	76	- feet ·	3" = 0.37 gal/lin				
Water Co	lumn Thi	ickness	:	= 16.	04	- feet			= 0.65 gal/lin ft.		
Unit Casir	ng Volun	ne*:		x 0.	16	gallon / f	oot		= 1.47 gal/lin ft.		
Casing W	ater Volu	ıme:		= 2.	56	gallons		_			
Casing Vo	lume:			x <u>[</u> 2	3	_each					
Estimated	Purge \	/olume:	;	/	166	gallons					
Free, prod	uct mea	sureme	nt (if pr			<u> </u>	·				
Purged	Time	DO	ORP	Fe	Cor	nductance	Temperature	рН	Observations		
(gallons)	(24:00)		(mV)	<u> </u>	 	(μ5)	(Fahrenheit)				
U.	1309	<u></u>	38			oe, 1	73.0	6.90	,		
1.5	1305	x	Х	х	7	33,0	70.9	6.63			
3	1308	x	х	х	7	24,6	70,2	6.5			
		х	х	Х							
		х	х	х		:		:			
		х	х	×							
		х	х	х							
		х	х	х	· · · ·			2			
Total Wate	r Volum	e Purge			3		gallons	<u> </u>			
Depth to W		_		ion:	9.	<i>c</i> 9	feet		•		
Sample Co		-		_	131			Draw	ed Dry? (Y KN)		
Comments				-	· ·		<u>.</u>	ruig	leg pths ('A VID)		
							- 				
			, e			•					
								-	3 ***		
	· I	· · · · · · ·			 -	···	<u> </u>		27		
									-		



Well I.D.:	,	, ,	Mh	<i>~5</i>				
Project Na	ame/Lo	cation:	BP	11265			Project :	#:09-88-68
Sampler's	Name:	:	E.fo	me			Date:	7/14/10
Purging E	quipme	nt:	B	Me		·		
Sampling	Equipm	ent:	Bn	·Ze				-
Casing Ty	pe: PV0	3						
Casing Di	ameter:	<u> </u>	-	<u>・´ </u>	inch		*UNIT	CASING VOLUMES
Total Well	Depth:	:		න	feet	• .		= 0.16 gal/lin ft.
Depth to	Water:			-8.1	3 feet		3"	= 0.37 gal/lin ft.
Water Col	lumn Th	ickness	:	= 16	feet			= 0.65 gal/lin ft.
Unit Casir	ıg Volur	ne*:		x 0,	gallon / f	oot		= 1.47 gal/lin ft.
Casing Wa	ater Vol	ume:		= Q.				· · · gal/illi lei
Casing Vo	lume:			х	3 each		5 -	
Estimated	Purge '	Volume:		= 8,0	gallons			
Free produ	uct mea	sureme	nt (if pr	eșent):				
Purged	Time	DO	ORP	Fe	Conductance	Temperature	pН	Observations
(gallons)	(24:00)	<u> </u>	(mV)	<u> </u>	(μ5)	(Fahrenheit)		Observadoris
O ₂	1230	[7]	-11		801,3	75,8	6,99	
1.5	13143	х	х	х	887.9	72.0	6.75	
7	1240	×	х	Х	869,5	71.5	6.71	j.
		х	х	Χ.				·
	•	х	х	Х				
		х	х	×				
·		х	х	х				
		х	х	×				
Total Wate	r Volum	ie Purge	ed:		3	gallons		<u></u>
Depth to W	ater at	Sample	Collect	ion:	8.23	feet		
Sample Co		-		-	1320	1000	Dive	ad Burn 4114 601 /
Comments:		14 ,	arti	12/14	obstru	ctal	rurg ./ tri	ed Dry? (Y/N)
10015	í					1001 4	<u>~/ </u>	a
		· · · · · · · · · · · · · · · · · · ·		· .		·		
		·					y Mari	
				· · ·				<u> </u>



Well I.D.:			RW.	1				
Project N	ame/Loc	ation:	BP 1	1768			Project	#: 09.89,659
Sampler's	Name:		Cf			•	Date:	7/12//0
Purging E	quipme	nt:	Bail	- باد	- 3			6.
Sampling	Equipm	ent:	BuiL	v:	-3	-		
Casing Ty	pe: PVC	:)			
Casing Di	ameter:			ط .	inch	•	*UNI	T CASING VOLUMES
Total Wel	Depth:			. 30	シfeet	•		' = 0.16 gal/lin ft.
Depth to	Water:			<u>- 9.2</u>	6 feet			' = 0.37 gal/lin ft.
Water Co	lumn Th	ickness		= 1.6/	7207 Yeet			' = 0.65 gal/lin ft.
Unit Casir	ıg Volun	ne*:		x 1.4	gallon / f	oot		' = 1.47 gal/lin ft.
Casing W	ater Vol	ume:		_= <u>`3~</u> ,	u() gallons			
Casing Vo	lume:			×	3 each			•
Estimated	Purge \	Volume:		= 41	gallons			•
Free prod	uct mea	sureme	nt (if pr	eșent):	•			
Purged	Time	DO	ORP	Fe	Conductance	Temperature	pH	Observations
(gailons)	(24:00)	1 -	(mV)		(μ5)	(Fahrenheit)		
0.	1132	1,05	-3		609.8	10.2	6.98	
θ	11117	X	Х	X	605.M	67.4	6.95	
Jo	1/57	×	Х	х	607,0	66.8	C.17	
•		х	х	Χ .	ħw.		1 - 44. 1 - 4	
	•	Х	х	Х				
		х	х	×				
		х	х	х		1.	1 84	•
		х	х	х	- Paris			
Total Wate	r Volum	e Purge	:d:	,	20	gallons		
Depth to V	Vater at	Sample	Collect	ion:	· · · · · · · · · · · · · · · · · · ·	feet	,	
Sample C		•		•	Ree		Pite	ged Dry? (Y/N)
				•			· ur	Sen DIAL (L V M)
Comments	:					<u> </u>		
					· · ·		=	
				<u> </u>				
	= 4 ² ;							A Comment
rogia gr		!		· · ·				The same of the sa

NON-HAZARDOUS WASTE DATA FORM

	BESI #
Generator's Name and Malling Address	Generator's Site Address (if different than mailing address)
-	- · · · · · · · · · · · · · · · · · · ·
BP WEST COAST PRODUCTS, LLC	11266 4544 DADIG ST
P.O. BOX 80249	1541 PARK ST
RANCHO SANTA MARGARITA, CA 92688	ALAMEDA, CA
Generator's Phone: 949-460-5200	1
Container type removed from site:	Container type transported to receiving facility:
☐ Drums XX Vacuum Truck ☐ Roll-off Truck ☐ Dump Truck	Drums D Vacuum Truck D Roll-off Truck D Dump Truck
☐ Other	☐ Other
72 11	
Quantity 33 gullons	Quantity Volume
WASTE DESCRIPTION NON-HAZARDOUS WATER	GENERATING PROCESS WELL PURGING / DECON WATER
COMPONENTS OF WASTE PPM %	COMPONENTS OF WASTE PPM %
, WATER 99-100%	б з
2. TPH <1%	6 4
Wasta Profile	☐ SOLID XX LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER
Waste I Tollie FROPERITES. pt : 7-10	a sorio Wa ridolo a stobac a stobut.
HANDLING INSTRUCTIONS: WEAR ALL APPROPRIATE PERSON	NAL PROTECTIVE EQUIPMENT.
Generator Printed/Typed Name Signature	Month Day Yo
FMILY GAMES	
On behalf of BP West Coast Products, LLC	
The Generator certifies that the waste as described is 100% non-hazerdous	
Transportery Company Name	767-455-7290
DAT	<u> </u>
Transporter 1 Printed/Typed Name Signature	Month Day Ye
Este fortal	7/15/4
Transporter Acknowledgment of Receipt of Materials Transporter 2 Company Name	Phone#
Transporter 2 Printed/Typed Name Signature	Month Day Y
·	
Transporter Acknowledgment of Receipt of Materials	The second secon
Designated Facility Name and Site Address INSTRAT, INC.	Phone# 530-753-1829
1105 AIRPORT RD.	000-100*1020
RIO VISTA, CA 94571	
	•
Printed/Typed Name Signature	Month Day Y
Designated Facility Owner or Operator: Certification of receipt of materials covered by this data	A form.
I Survey a warred exterior or executors exteriorous of togethr of triatetime notation by till a gard	



ANALYTICAL REPORT

Job Number: 720-29238-1

Job Description: BP #11266, Alameda

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

Attention: Hollis Phillips

Surmider Sidhu

Approved for release. Surinder Sidhu Customer Service Manager 7/26/2010 5:34 PM

Designee for
Dimple Sharma
Project Manager I
dimple.sharma@testamericainc.com
07/26/2010

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.

TestAmerica Laboratories, Inc.

TestAmerica San Francisco 1220 Quarry Lane, Pleasanton, CA 94566 Tel (925) 484-1919 Fax (925) 600-3002 www.testamericainc.com

Job Narrative 720-29238-1

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.

Metals

No analytical or quality issues were noted.

EXECUTIVE SUMMARY - Detections

Client: ARCADIS U.S., Inc. Job Number: 720-29238-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-29238-1	MW-2 (7/12/10)				
MTBE		6.0	0.50	ug/L	8260B/CA_LUFTMS
720-29238-2	MW-3 (7/12/10)				
Gasoline Range C	Organics (GRO)-C6-C12	79	50	ug/L	8260B/CA_LUFTMS
720-29238-5	RW-1 (7/12/10)				
Benzene		5.0	5.0	ug/L	8260B/CA_LUFTMS
Ethylbenzene		48	5.0	ug/L	8260B/CA_LUFTMS
Toluene		27	5.0	ug/L	8260B/CA_LUFTMS
Xylenes, Total		220	10	ug/L	8260B/CA_LUFTMS
Gasoline Range C	Organics (GRO)-C6-C12	900	500	ug/L	8260B/CA_LUFTMS
Lead		0.0050	0.0050	mg/L	200.7 Rev 4.4

METHOD SUMMARY

Client: ARCADIS U.S., Inc.

Job Number: 720-29238-1

Description	Lab Location	Method	Preparation Method	
Matrix: Water				
8260B / CA LUFT MS	TAL SF	SW846 8260I	B/CA_LUFTMS	
Purge and Trap	TAL SF		SW846 5030B	
Metals (ICP)	TAL SF	EPA 200.7 R	ev 4.4	
Preparation, Total Metals	TAL SF		EPA 200.7	

Lab References:

TAL SF = TestAmerica San Francisco

Method References:

EPA = US Environmental Protection Agency

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: 720-29238-1

			Date/Time	Date/Time
Lab Sample ID	Client Sample ID	Client Matrix	Sampled	Received
720-29238-1	MW-2 (7/12/10)	Water	07/12/2010 1107	07/12/2010 1413
720-29238-2	MW-3 (7/12/10)	Water	07/12/2010 0935	07/12/2010 1413
720-29238-3	MW-4 (7/12/10)	Water	07/12/2010 1313	07/12/2010 1413
720-29238-4	MW-5 (7/12/10)	Water	07/12/2010 1250	07/12/2010 1413
720-29238-5	RW-1 (7/12/10)	Water	07/12/2010 1200	07/12/2010 1413

Job Number: 720-29238-1 Client: ARCADIS U.S., Inc.

Client Sample ID: MW-2 (7/12/10)

Lab Sample ID: 720-29238-1 Date Sampled: 07/12/2010 1107

Client Matrix: Water Date Received: 07/12/2010 1413

8260B/CA_LUFTMS 8260B / CA LUFT MS

Method: 8260B/CA_LUFTMS Instrument ID: CHMSV2 Analysis Batch: 720-74518 Preparation: 5030B Lab File ID: 07141013.D Dilution: Initial Weight/Volume: 10 mL 10 mL

07/14/2010 1549 Date Analyzed: Final Weight/Volume:

07/14/2010 1549 Date Prepared:

Analyte	Result (ug/L)	Qualifier	RL
MTBE	6.0		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
Gasoline Range Organics (GRO)-C6-C12	ND		50
TBA	ND		4.0
Ethanol	ND		100
DIPE	ND		0.50
TAME	ND		0.50
Ethyl t-butyl ether	ND		0.50
Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	87		67 - 130
1 2-Dichloroethane-d4 (Surr)	82		67 - 130

Client: ARCADIS U.S., Inc. Job Number: 720-29238-1

Client Sample ID: MW-3 (7/12/10)

Lab Sample ID: 720-29238-2 Date Sampled: 07/12/2010 0935

Client Matrix: Water Date Received: 07/12/2010 1413

OOCODIO A	LUCTRAC	00000 / 04	LUCT MC
8260B/CA	LUFIMS	8260B/CA	LUFIMS

Method: 8260B/CA_LUFTMS Analysis Batch: 720-74584 Instrument ID: CHMSV2 Preparation: 5030B Lab File ID: 07151013.D Dilution: Initial Weight/Volume: 10 mL 07/15/2010 1614 Date Analyzed: Final Weight/Volume: 10 mL

Date Prepared: 07/15/2010 1614

Date Frepared.			
Analyte	Result (ug/L)	Qualifier	RL
MTBE	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
Gasoline Range Organics (GRO)-C6-C12	79		50
TBA	ND		4.0
Ethanol	ND		100
DIPE	ND		0.50
TAME	ND		0.50
Ethyl t-butyl ether	ND		0.50
Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	98		67 - 130
1,2-Dichloroethane-d4 (Surr)	96		67 - 130
Toluene-d8 (Surr)	99		70 - 130

Client: ARCADIS U.S., Inc. Job Number: 720-29238-1

Client Sample ID: MW-4 (7/12/10)

Lab Sample ID: 720-29238-3 Date Sampled: 07/12/2010 1313

Client Matrix: Water Date Received: 07/12/2010 1413

8260B/CA II	ミストラン はっちんしょうしょう	$I \cap A \cup I$	HET MS

Method: 8260B/CA_LUFTMS Analysis Batch: 720-74518 Instrument ID: CHMSV2 Preparation: 5030B Lab File ID: 07141015.D Dilution: Initial Weight/Volume: 10 mL 07/14/2010 1654 Date Analyzed: Final Weight/Volume: 10 mL

Date Prepared: 07/14/2010 1654

Analyte	Result (ug/L)	Qualifier	RL
MTBE	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
Gasoline Range Organics (GRO)-C6-C12	ND		50
TBA	ND		4.0
Ethanol	ND		100
DIPE	ND		0.50
TAME	ND		0.50
Ethyl t-butyl ether	ND		0.50
Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	86		67 - 130
1,2-Dichloroethane-d4 (Surr)	85		67 - 130
Toluene-d8 (Surr)	93		70 - 130

Job Number: 720-29238-1 Client: ARCADIS U.S., Inc.

Client Sample ID: MW-5 (7/12/10)

Lab Sample ID: 720-29238-4 Date Sampled: 07/12/2010 1250 Client Matrix:

Water Date Received: 07/12/2010 1413

8260B/CA	LUFTMS	8260B /	CA	LUFT	MS
	_				

Method: 8260B/CA_LUFTMS Instrument ID: CHMSV2 Analysis Batch: 720-74518 Preparation: 5030B Lab File ID: 07141016.D Dilution: Initial Weight/Volume: 10 mL 07/14/2010 1726 Date Analyzed: Final Weight/Volume: 10 mL

07/14/2010 1726 Date Prepared:

·			
Analyte	Result (ug/L)	Qualifier	RL
MTBE	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
Gasoline Range Organics (GRO)-C6-C12	ND		50
TBA	ND		4.0
Ethanol	ND		100
DIPE	ND		0.50
TAME	ND		0.50
Ethyl t-butyl ether	ND		0.50
Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	84		67 - 130
1,2-Dichloroethane-d4 (Surr)	86		67 - 130
Toluene-d8 (Surr)	91		70 - 130

Client: ARCADIS U.S., Inc. Job Number: 720-29238-1

Client Sample ID: RW-1 (7/12/10)

Lab Sample ID: 720-29238-5 Date Sampled: 07/12/2010 1200

Client Matrix: Water Date Received: 07/12/2010 1413

8260B/CA	LUFTMS	8260R	/ CA	LUFT	MS

Method: 8260B/CA_LUFTMS CHMSV2 Analysis Batch: 720-74584 Instrument ID: Preparation: 5030B Lab File ID: 07151018.D Dilution: Initial Weight/Volume: 10 mL Date Analyzed: 07/15/2010 1856 Final Weight/Volume: 10 mL

Date Prepared: 07/15/2010 1856

Analyte	Result (ug/L)	Qualifier	RL
MTBE	ND		5.0
Benzene	5.0		5.0
EDB	ND		5.0
1,2-DCA	ND		5.0
Ethylbenzene	48		5.0
Toluene	27		5.0
Xylenes, Total	220		10
Gasoline Range Organics (GRO)-C6-C12	900		500
TBA	ND		40
Ethanol	ND		1000
DIPE	ND		5.0
TAME	ND		5.0
Ethyl t-butyl ether	ND		5.0
Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	97		67 - 130
1,2-Dichloroethane-d4 (Surr)	95		67 - 130
Toluene-d8 (Surr)	96		70 - 130

Client: ARCADIS U.S., Inc. Job Number: 720-29238-1

Client Sample ID: MW-2 (7/12/10)

Lab Sample ID: 720-29238-1 Date Sampled: 07/12/2010 1107

Client Matrix: Water Date Received: 07/12/2010 1413

200.7 Rev 4.4 Metals (ICP)

 Method:
 200.7 Rev 4.4
 Analysis Batch: 720-74517
 Instrument ID:
 Thermo ICP

 Preparation:
 200.7
 Prep Batch: 720-74470
 Lab File ID:
 07131006.txt

Dilution: 1.0 Initial Weight/Volume: 40 mL

Date Analyzed: 07/13/2010 1857 Final Weight/Volume: 40 mL

Date Prepared: 07/13/2010 0955

Analyte Result (mg/L) Qualifier RL

 Lead
 ND
 0.0050

Client: ARCADIS U.S., Inc. Job Number: 720-29238-1

Client Sample ID: MW-3 (7/12/10)

Lab Sample ID: 720-29238-2 Date Sampled: 07/12/2010 0935

Client Matrix: Water Date Received: 07/12/2010 1413

200.7 Rev 4.4 Metals (ICP)

 Method:
 200.7 Rev 4.4
 Analysis Batch: 720-74517
 Instrument ID:
 Thermo ICP

 Preparation:
 200.7
 Prep Batch: 720-74470
 Lab File ID:
 07131006.txt

Dilution: 1.0 Initial Weight/Volume: 40 mL

Date Analyzed: 07/13/2010 1901 Final Weight/Volume: 40 mL Date Prepared: 07/13/2010 0955

Analyte Result (mg/L) Qualifier RL

Lead ND 0.0050

Client: ARCADIS U.S., Inc. Job Number: 720-29238-1

Client Sample ID: MW-4 (7/12/10)

Lab Sample ID: 720-29238-3 Date Sampled: 07/12/2010 1313

Client Matrix: Water Date Received: 07/12/2010 1413

200.7 Rev 4.4 Metals (ICP)

 Method:
 200.7 Rev 4.4
 Analysis Batch: 720-74517
 Instrument ID:
 Thermo ICP

 Preparation:
 200.7
 Prep Batch: 720-74470
 Lab File ID:
 07131006.txt

Dilution: 1.0 Initial Weight/Volume: 40 mL

Date Analyzed: 07/13/2010 1906 Final Weight/Volume: 40 mL
Date Prepared: 07/13/2010 0955

Analyte Result (mg/L) Qualifier RL

 Lead
 ND
 0.0050

Analytical Data

Client: ARCADIS U.S., Inc. Job Number: 720-29238-1

Client Sample ID: MW-5 (7/12/10)

Lab Sample ID: 720-29238-4 Date Sampled: 07/12/2010 1250

Client Matrix: Water Date Received: 07/12/2010 1413

200.7 Rev 4.4 Metals (ICP)

 Method:
 200.7 Rev 4.4
 Analysis Batch: 720-74517
 Instrument ID:
 Thermo ICP

 Preparation:
 200.7
 Prep Batch: 720-74470
 Lab File ID:
 07131006.txt

Dilution: 1.0 Initial Weight/Volume: 40 mL

Date Analyzed: 07/13/2010 1910 Final Weight/Volume: 40 mL Date Prepared: 07/13/2010 0955

 Analyte
 Result (mg/L)
 Qualifier
 RL

 Lead
 ND
 0.0050

Analytical Data

Client: ARCADIS U.S., Inc. Job Number: 720-29238-1

Client Sample ID: RW-1 (7/12/10)

Lab Sample ID: 720-29238-5 Date Sampled: 07/12/2010 1200

Client Matrix: Water Date Received: 07/12/2010 1413

200.7 Rev 4.4 Metals (ICP)

 Method:
 200.7 Rev 4.4
 Analysis Batch: 720-74517
 Instrument ID:
 Thermo ICP

 Preparation:
 200.7
 Prep Batch: 720-74470
 Lab File ID:
 07131006.txt

Dilution: 1.0 Initial Weight/Volume: 40 mL

Date Analyzed: 07/13/2010 1914 Final Weight/Volume: 40 mL Date Prepared: 07/13/2010 1026

 Analyte
 Result (mg/L)
 Qualifier
 RL

 Lead
 0.0050
 0.0050

DATA REPORTING QUALIFIERS

Lab Section Qualifier Description

Client: ARCADIS U.S., Inc. Job Number: 720-29238-1

QC Association Summary

		Report			
Lab Sample ID	Client Sample ID	Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:720-745	18				
LCS 720-74518/5	Lab Control Sample	Т	Water	8260B/CA_LUFT	
LCS 720-74518/7	Lab Control Sample	Т	Water	8260B/CA_LUFT	
LCSD 720-74518/6	Lab Control Sample Duplicate	Т	Water	8260B/CA_LUFT	
LCSD 720-74518/8	Lab Control Sample Duplicate	Т	Water	8260B/CA_LUFT	
MB 720-74518/4	Method Blank	Т	Water	8260B/CA_LUFT	
720-29236-A-2 MS	Matrix Spike	Т	Water	8260B/CA_LUFT	
720-29236-A-2 MSD	Matrix Spike Duplicate	Т	Water	8260B/CA_LUFT	
720-29238-1	MW-2 (7/12/10)	Т	Water	8260B/CA_LUFT	
720-29238-3	MW-4 (7/12/10)	Т	Water	8260B/CA_LUFT	
720-29238-4	MW-5 (7/12/10)	Т	Water	8260B/CA_LUFT	
Analysis Batch:720-7458	84				
LCS 720-74584/5	Lab Control Sample	Т	Water	8260B/CA_LUFT	
LCS 720-74584/7	Lab Control Sample	Т	Water	8260B/CA_LUFT	
LCSD 720-74584/6	Lab Control Sample Duplicate	Т	Water	8260B/CA_LUFT	
LCSD 720-74584/8	Lab Control Sample Duplicate	Т	Water	8260B/CA_LUFT	
MB 720-74584/4	Method Blank	Т	Water	8260B/CA_LUFT	
720-29238-2	MW-3 (7/12/10)	Т	Water	8260B/CA_LUFT	
720-29238-5	RW-1 (7/12/10)	Т	Water	8260B/CA_LUFT	
720-29269-B-3 MS	Matrix Spike	Т	Water	8260B/CA_LUFT	
720-29269-B-3 MSD	Matrix Spike Duplicate	Т	Water	8260B/CA LUFT	

Report Basis

T = Total

Client: ARCADIS U.S., Inc. Job Number: 720-29238-1

QC Association Summary

		Report			
Lab Sample ID	Client Sample ID	Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 720-74470					
LCS 720-74470/2-A	Lab Control Sample	T	Water	200.7	
LCSD 720-74470/3-A	Lab Control Sample Duplicate	Т	Water	200.7	
MB 720-74470/1-A	Method Blank	Т	Water	200.7	
720-29238-1	MW-2 (7/12/10)	Т	Water	200.7	
720-29238-2	MW-3 (7/12/10)	Т	Water	200.7	
720-29238-3	MW-4 (7/12/10)	T	Water	200.7	
720-29238-4	MW-5 (7/12/10)	Т	Water	200.7	
720-29238-5	RW-1 (7/12/10)	T	Water	200.7	
720-29249-A-1-E MS	Matrix Spike	Т	Water	200.7	
720-29249-A-1-F MSD	Matrix Spike Duplicate	Т	Water	200.7	
Analysis Batch:720-7449	3				
LCS 720-74470/2-A	Lab Control Sample	Т	Water	200.7 Rev 4.4	720-74470
LCSD 720-74470/3-A	Lab Control Sample Duplicate	Т	Water	200.7 Rev 4.4	720-74470
MB 720-74470/1-A	Method Blank	Т	Water	200.7 Rev 4.4	720-74470
720-29249-A-1-E MS	Matrix Spike	Т	Water	200.7 Rev 4.4	720-74470
720-29249-A-1-F MSD	Matrix Spike Duplicate	Т	Water	200.7 Rev 4.4	720-74470
Analysis Batch:720-7451	7				
720-29238-1	MW-2 (7/12/10)	T	Water	200.7 Rev 4.4	720-74470
720-29238-2	MW-3 (7/12/10)	T	Water	200.7 Rev 4.4	720-74470
720-29238-3	MW-4 (7/12/10)	T	Water	200.7 Rev 4.4	720-74470
720-29238-4	MW-5 (7/12/10)	Т	Water	200.7 Rev 4.4	720-74470
720-29238-5	RW-1 (7/12/10)	Т	Water	200.7 Rev 4.4	720-74470

Report Basis

T = Total

Job Number: 720-29238-1 Client: ARCADIS U.S., Inc.

Method Blank - Batch: 720-74518

Method: 8260B/CA_LUFTMS

Preparation: 5030B

Lab Sample ID: MB 720-74518/4

Client Matrix: Water

Date Prepared: 07/14/2010 1047

Dilution:

1.0

Date Analyzed: 07/14/2010 1047

Analysis Batch: 720-74518

Prep Batch: N/A Units: ug/L

Instrument ID: CHMSV2 Lab File ID: 07141004.D Initial Weight/Volume: 10 mL

10 mL Final Weight/Volume:

Analyte	Result	Qual	RL
MTBE	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
Gasoline Range Organics (GRO)-C6-C12	ND		50
TBA	ND		4.0
Ethanol	ND		100
DIPE	ND		0.50
TAME	ND		0.50
Ethyl t-butyl ether	ND		0.50
Surrogate	% Rec	Acceptance Limits	
4-Bromofluorobenzene	89	67 - 130	
1,2-Dichloroethane-d4 (Surr)	86	67 - 130	
Toluene-d8 (Surr)	95	70 - 130	

Client: ARCADIS U.S., Inc. Job Number: 720-29238-1

Lab Control Sample/ Method: 8260B/CA LUFTMS

Lab Control Sample Duplicate Recovery Report - Batch: 720-74518 Preparation: 5030B

LCS Lab Sample ID: LCS 720-74518/5 Analysis Batch: 720-74518 Instrument ID:

CHMSV2 Client Matrix: Water Prep Batch: N/A Lab File ID: 07141005.D Dilution: 1.0 Units: ug/L Initial Weight/Volume: 10 mL

07/14/2010 1120 Date Analyzed: Final Weight/Volume: 10 mL Date Prepared: 07/14/2010 1120

LCSD Lab Sample ID: LCSD 720-74518/6 Analysis Batch: 720-74518 Instrument ID: CHMSV2 Client Matrix: Water Prep Batch: N/A Lab File ID: 07141006.D

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

07/14/2010 1152 Date Analyzed: Final Weight/Volume: 10 mL Date Prepared: 07/14/2010 1152

% Rec. LCS **RPD** Analyte LCSD Limit RPD Limit LCS Qual LCSD Qual MTBE 98 62 - 130 20 96 1 Benzene 95 95 82 - 127 0 20 **EDB** 97 98 70 - 130 0 20 1,2-DCA 88 88 70 - 126 0 20 Ethylbenzene 108 107 86 - 135 1 20 Toluene 94 20 94 83 - 129 0 TBA 97 96 0 20 82 - 116 Ethanol 104 108 31 - 216 4 20 DIPE 95 96 74 - 155 1 20 **TAME** 98 100 2 20 79 - 129 70 - 130 20 Ethyl t-butyl ether 94 96 Surrogate LCS % Rec LCSD % Rec Acceptance Limits 4-Bromofluorobenzene 97 97 67 - 130 1,2-Dichloroethane-d4 (Surr) 83 84 67 - 130 Toluene-d8 (Surr) 98 99 70 - 130

70 - 130

Client: ARCADIS U.S., Inc. Job Number: 720-29238-1

Lab Control Sample/ Method: 8260B/CA_LUFTMS

Lab Control Sample Duplicate Recovery Report - Batch: 720-74518 Preparation: 5030B

LCS Lab Sample ID: LCS 720-74518/7 Analysis Batch: 720-74518 Instrument ID: CHMSV2

Client Matrix: Water Prep Batch: N/A Lab File ID: 07141007.D

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

Date Analyzed: 07/14/2010 1224 Final Weight/Volume: 10 mL Date Prepared: 07/14/2010 1224

LCSD Lab Sample ID: LCSD 720-74518/8 Analysis Batch: 720-74518 Instrument ID: CHMSV2
Client Matrix: Water Prep Batch: N/A Lab File ID: 07141008.D

Client Matrix: Water Prep Batch: N/A Lab File ID: 07141008.D

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

Date Analyzed: 07/14/2010 1257 Final Weight/Volume: 10 mL

Date Prepared: 07/14/2010 1257

98

% Rec. Analyte **RPD** LCS LCSD Limit RPD Limit LCS Qual LCSD Qual Gasoline Range Organics (GRO)-C6-C12 87 87 58 - 106 20 1 LCS % Rec Surrogate LCSD % Rec Acceptance Limits 4-Bromofluorobenzene 95 96 67 - 130 1,2-Dichloroethane-d4 (Surr) 83 85 67 - 130

99

Toluene-d8 (Surr)

Client: ARCADIS U.S., Inc. Job Number: 720-29238-1

Matrix Spike/ Method: 8260B/CA_LUFTMS

Matrix Spike Duplicate Recovery Report - Batch: 720-74518 Preparation: 5030B

MS Lab Sample ID: 720-29236-A-2 MS

Client Matrix: Water Dilution: 1.0

07/14/2010 1411 Date Analyzed: Date Prepared: 07/14/2010 1411

Analysis Batch: 720-74518

Prep Batch: N/A

Instrument ID: CHMSV2 Lab File ID: 07141010.D

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

MSD Lab Sample ID: 720-29236-A-2 MSD

Client Matrix: Water Dilution: 1.0

Date Analyzed: 07/14/2010 1444 07/14/2010 1444 Date Prepared:

Analysis Batch: 720-74518

Prep Batch: N/A

Instrument ID: CHMSV2 Lab File ID: 07141011.D

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

	<u>%</u>	6 Rec.					
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
MTBE	88	95	60 - 138	7	20		
Benzene	92	96	60 - 140	4	20		
EDB	90	97	60 - 140	7	20		
1,2-DCA	81	85	60 - 140	5	20		
Ethylbenzene	105	110	60 - 140	5	20		
Toluene	93	97	60 - 140	5	20		
ТВА	93	96	60 - 140	4	20		
Ethanol	105	112	60 - 140	6	20		
DIPE	89	94	60 - 140	5	20		
TAME	90	95	60 - 140	6	20		
Ethyl t-butyl ether	87	92	60 - 140	5	20		
Surrogate		MS % Rec	MSD	% Rec	Acce	eptance Limits	i
4-Bromofluorobenzene		95	94		6	7 - 130	
1,2-Dichloroethane-d4 (Surr)		80	80		6	7 - 130	
Toluene-d8 (Surr)		97	98		7	0 - 130	

Job Number: 720-29238-1 Client: ARCADIS U.S., Inc.

Method Blank - Batch: 720-74584

Method: 8260B/CA_LUFTMS

Preparation: 5030B

Lab Sample ID: MB 720-74584/4

Analysis Batch: 720-74584

Instrument ID: CHMSV2

Client Matrix: Water Dilution: 1.0

Prep Batch: N/A Units: ug/L

Lab File ID: 07151004.D Initial Weight/Volume: 10 mL

07/15/2010 1045

Final Weight/Volume: 10 mL

Date Analyzed:	07/15/2010	1045
Date Prepared:	07/15/2010	1045

Analyte	Result	Qual	RL
MTBE	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
Gasoline Range Organics (GRO)-C6-C12	ND		50
TBA	ND		4.0
Ethanol	ND		100
DIPE	ND		0.50
TAME	ND		0.50
Ethyl t-butyl ether	ND		0.50
Surrogate	% Rec	Acceptance Limits	
4-Bromofluorobenzene	92	67 - 130	
1,2-Dichloroethane-d4 (Surr)	87	67 - 130	
Toluene-d8 (Surr)	98	70 - 130	

Client: ARCADIS U.S., Inc. Job Number: 720-29238-1

Lab Control Sample/ Method: 8260B/CA_LUFTMS

Lab Control Sample Duplicate Recovery Report - Batch: 720-74584 Preparation: 5030B

LCS Lab Sample ID: LCS 720-74584/5 Analysis Batch: 720-74584 Instrument ID: CHMSV2

Client Matrix: Water Prep Batch: N/A Lab File ID: 07151005.D

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

Date Analyzed: 07/15/2010 1132 Final Weight/Volume: 10 mL Date Prepared: 07/15/2010 1132

LCSD Lab Sample ID: LCSD 720-74584/6 Analysis Batch: 720-74584 Instrument ID: CHMSV2
Client Matrix: Water Prep Batch: N/A Lab File ID: 07151006.D

Dilution: Water Prep Batch: N/A Lab File ID: 0/151006.D Units: ug/L Initial Weight/Volume: 10 mL

Date Analyzed: 07/15/2010 1205 Final Weight/Volume: 10 mL

Date Prepared: 07/15/2010 1205

% Rec. **RPD** Analyte LCS LCSD Limit RPD Limit LCS Qual LCSD Qual MTBE 100 62 - 130 20 103 3 Benzene 101 101 82 - 127 1 20 **EDB** 104 101 70 - 130 2 20 1,2-DCA 94 92 70 - 126 2 20 Ethylbenzene 104 105 86 - 135 1 20 Toluene 92 2 20 91 83 - 129 TBA 87 88 20 1 82 - 116 Ethanol 95 103 31 - 216 8 20 DIPE 101 99 74 - 155 1 20 **TAME** 106 104 2 20 79 - 129 70 - 130 101 20 Ethyl t-butyl ether 99 3 LCS % Rec LCSD % Rec Acceptance Limits Surrogate 4-Bromofluorobenzene 101 99 67 - 130 1,2-Dichloroethane-d4 (Surr) 85 83 67 - 130 Toluene-d8 (Surr) 102 102 70 - 130

67 - 130

70 - 130

Client: ARCADIS U.S., Inc. Job Number: 720-29238-1

Lab Control Sample/ Method: 8260B/CA_LUFTMS

Lab Control Sample Duplicate Recovery Report - Batch: 720-74584 Preparation: 5030B

LCS Lab Sample ID: LCS 720-74584/7 Analysis Batch: 720-74584 Instrument ID: CHMSV2

Client Matrix: Water Prep Batch: N/A Lab File ID: 07151007.D

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

Date Analyzed: 07/15/2010 1300 Final Weight/Volume: 10 mL Date Prepared: 07/15/2010 1300

LCSD Lab Sample ID: LCSD 720-74584/8 Analysis Batch: 720-74584 Instrument ID: CHMSV2
Client Matrix: Water Prep Batch: N/A Lab File ID: 07151008.D

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

Date Analyzed: 07/15/2010 1332 Final Weight/Volume: 10 mL
Date Prepared: 07/15/2010 1332

89

102

% Rec. Analyte **RPD** RPD Limit LCS Qual LCS LCSD Limit LCSD Qual Gasoline Range Organics (GRO)-C6-C12 91 87 58 - 106 20 4 Surrogate LCS % Rec LCSD % Rec Acceptance Limits 4-Bromofluorobenzene 99 100 67 - 130

88

102

1,2-Dichloroethane-d4 (Surr)

Toluene-d8 (Surr)

Client: ARCADIS U.S., Inc. Job Number: 720-29238-1

Matrix Spike/ Method: 8260B/CA_LUFTMS

Matrix Spike Duplicate Recovery Report - Batch: 720-74584 Preparation: 5030B

MS Lab Sample ID: 720-29269-B-3 MS

Client Matrix: Water
Dilution: 1.0

Date Analyzed: 07/15/2010 1719 Date Prepared: 07/15/2010 1719 Analysis Batch: 720-74584

Prep Batch: N/A

Instrument ID: CHMSV2 Lab File ID: 07151015.D

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

MSD Lab Sample ID: 720-29269-B-3 MSD

Client Matrix: Water Dilution: 1.0

Date Analyzed: 07/15/2010 1751
Date Prepared: 07/15/2010 1751

Analysis Batch: 720-74584

Prep Batch: N/A

Instrument ID: CHMSV2 Lab File ID: 07151016.D

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

	<u>%</u>	Rec.					
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
MTBE	89	89	60 - 138	0	20		
Benzene	94	93	60 - 140	1	20		
EDB	92	92	60 - 140	0	20		
1,2-DCA	84	84	60 - 140	0	20		
Ethylbenzene	109	108	60 - 140	1	20		
Toluene	95	95	60 - 140	0	20		
TBA	96	95	60 - 140	1	20		
Ethanol	109	104	60 - 140	5	20		
DIPE	92	91	60 - 140	1	20		
TAME	93	93	60 - 140	0	20		
Ethyl t-butyl ether	91	91	60 - 140	1	20		
Surrogate		MS % Rec	MSD	% Rec	Acce	ptance Limits	
4-Bromofluorobenzene		98	97		6	7 - 130	
1,2-Dichloroethane-d4 (Surr)		82	82		6	7 - 130	
Toluene-d8 (Surr)		99	98		7	0 - 130	

Client: ARCADIS U.S., Inc. Job Number: 720-29238-1

Method Blank - Batch: 720-74470

Method: 200.7 Rev 4.4 Preparation: 200.7

Lab Sample ID: MB 720-74470/1-A

Client Matrix: Water Dilution: 1.0

07/13/2010 1340 Date Analyzed: Date Prepared: 07/13/2010 0955 Analysis Batch: 720-74493 Prep Batch: 720-74470

Units: mg/L

Instrument ID: Thermo ICP Lab File ID: 07131002.txt Initial Weight/Volume: 20 mL

Final Weight/Volume: 40 mL

RL Analyte Result Qual

Lead ND 0.010

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 720-74470

Method: 200.7 Rev 4.4 Preparation: 200.7

LCS Lab Sample ID: LCS 720-74470/2-A Client Matrix: Water Dilution: 1.0

07/13/2010 1344 Date Analyzed: 07/13/2010 0955 Date Prepared:

Analysis Batch: 720-74493 Prep Batch: 720-74470

Units: mg/L

Instrument ID: Thermo ICP Lab File ID: 07131002.txt

20 mL Initial Weight/Volume: Final Weight/Volume: 40 mL

LCSD Lab Sample ID: LCSD 720-74470/3-A

Client Matrix: Water Dilution: 1.0

07/13/2010 1348 Date Analyzed: Date Prepared: 07/13/2010 0955 Analysis Batch: 720-74493

Units: mg/L

Instrument ID: Thermo ICP Lab File ID: Prep Batch: 720-74470 07131002.txt

Initial Weight/Volume: 20 mL Final Weight/Volume: 40 mL

% Rec.

LCS LCSD Limit **RPD** RPD Limit LCS Qual LCSD Qual Analyte Lead 104 103 85 - 115 1

Client: ARCADIS U.S., Inc. Job Number: 720-29238-1

Matrix Spike/ Method: 200.7 Rev 4.4

Matrix Spike Duplicate Recovery Report - Batch: 720-74470 Preparation: 200.7

MS Lab Sample ID: 720-29249-A-1-E MS Analysis Batch: 720-74493 Instrument ID: Thermo ICP

Client Matrix: Water Prep Batch: 720-74470 Lab File ID: 07131002.txt

Dilution: 1.0 Initial Weight/Volume: 20 mL

Date Analyzed: 07/13/2010 1352 Final Weight/Volume: 40 mL Date Prepared: 07/13/2010 0955

MSD Lab Sample ID: 720-29249-A-1-F MSD Analysis Batch: 720-74493 Instrument ID: Thermo ICP

Client Matrix: Water Prep Batch: 720-74470 Lab File ID: 07131002.txt

Dilution: 1.0 Initial Weight/Volume: 20 mL

 Date Analyzed:
 07/13/2010
 1356
 Final Weight/Volume:
 40 mL

 Date Prepared:
 07/13/2010
 0955

 MS
 MSD
 Limit
 RPD
 RPD Limit
 MS Qual
 MSD Qual

 Lead
 100
 100
 85 - 115
 1
 20

San Francisco

1220 Quarry Lane

Pleasanton, CA 94566

phone 925.484.1919 fax 925.600.3002

Chain of Custody Record 720-29238

TestAmerica TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Jason Duda				Site Contact: D						Date	Date:				COC	No:			111		
Broadbent and Associates, Inc.	Tel/Fax: 530-566-1400/530-566-1401			1	Lab Contact: Dimple Sharma						Carı	Carrier:					of_	(COCs			
Address: 1324 Mangrove Ave. Suite 212	Analysis Turnaround Time						T _{ss}				2						Job	No.		1-		
City/State/Zip: Chico, CA 95926	Calendar (C) or Work Days (W)				esternoment			8260B														
(530) 566-1400 Phone	T/	AT if different f	rom Below					3.										L	**************	WWww.		
(530) 566-1401 FAX	2 weeks					189	and Ethanol by	9	opada basada								SDG	No.		8		
Project Name: BP 11266		1	week				80	E	A													
Site: 1541 Park Street, Alameda, CA		2	days				E	and	8	.00												
PO# GP09BPNA.C001		1	day				8260B	Ž	3	à												
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	81.	GRO by \$260B BTEX and 5 Oxys by \$260B	EDB, 1,2-I	TYBES-by	Fotal Lead	2								Samp	le Specif	fic Notes:	
MW-1	7/12/16			AR	4	х		X		X								no	160	llect	e-d	
MW-2 (7//2//0)	1	1107			4	X	X	X	k	X									***************************************			
MW-3 (7/12/10)		0935			4	Х	(X	Х	X	X										***************************************		
MW-4 (7//2/10)		1313			4	Х	(x	X	ĸ	х											**************	
MW-5 (7/12/10)		1250			4	Х	X	X	k.	X			\perp							2712 XODTING \$2000	·	
MW-5				-	4	x	x x	X	X	X								No	it cal	lecto	o/	
RW-1 (7/12//0)	4	1200		4	4	Х	X	X	Х	X	_		\perp			-						
P						\perp		_			-		++			-		-		2.5		
						Щ.	_						\perp							<i>191</i> 1.014.0014.097.7.00	addinera raddinera.	
										•											ž.	
<u></u>						П		Τ														
TB-11266-7/12/10			V							1								Ho	1/1	TO	22.000.000.000.000.000.000.000.000.000	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=Na	OH; 6= Oth	er		hoossoossoomd	<u> </u>	T		T													¥	
Possible Hazard Identification Non-Hazard Flammable Skin Irritant		$_{nB}$	Unknown		****************	S	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return To Client Disposal By Lab Archive For Months															
Special Instructions/QC Requirements & Comments:	2 (130)			*****************	endes numbério		**********									*************						
Laboratory Proporce Total	Lew	1 5	mple	Pe	- 3	إماد	n'n	de	P/	5	:41	าน				***************************************	*			4.9	0	
Relinquished by	Company:	5++	w _{eq}	Date/Ti	me:	R	teceiv	ed by	/: Ma	1	du	0.0		Cor	npany:	Aza			Time:	2-10	146	,
Relinquished by:	Company:			Date/Ti			Receiv	~~	~~	- 1	<u>vu</u>	XX	11		npany:	100	M. L.		Time:	70	<u> </u>	4
	- vinpany.								1.1						-Lymns J							
Relinquished by:	Company:	***************************************		Date/Ti	me:	R	Receiv	ed by	/:			0	-	Cor	npany:			Date/	Time:			
N	1		N N														1.0					1

Login Sample Receipt Check List

Client: ARCADIS U.S., Inc. Job Number: 720-29238-1

List Source: TestAmerica San Francisco

Creator: Mullen, Joan

List Number: 1

Question T / F/ NA Comment Radioactivity either was not measured or, if measured, is at or below N/A background The cooler's custody seal, if present, is intact. N/A The cooler or samples do not appear to have been compromised or 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 True Is the Field Sampler's name present on COC? There are no discrepancies between the sample IDs on the containers and True the COC. True Samples are received within Holding Time. True Sample containers have legible labels. Containers are not broken or leaking. True Sample collection date/times are provided. True Appropriate sample containers are used. True Sample bottles are completely filled. True Sample Preservation Verified True There is sufficient vol. for all requested analyses, incl. any requested True MS/MSDs VOA sample vials do not have headspace or bubble is <6mm (1/4") in True diameter. If necessary, staff have been informed of any short hold time or quick TAT True needs Multiphasic samples are not present. True Samples do not require splitting or compositing. 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 CONFIRMATIONS

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: 3Q10 GEO_WELL 11266

Facility Global ID: T0600100207
Facility Name: BP #11266
File Name: GEO_WELL.zip

Organization Name: Broadbent & Associates, Inc.

<u>Username:</u> BROADBENT-C IP Address: 67.118.40.90

Submittal Date/Time: 8/23/2010 12:35:32 PM

Confirmation Number: 9481522560

Copyright © 2008 State of California

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER ESI

UPLOADING A EDF FILE

SUCCESS

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

Submittal Type: EDF - Monitoring Report - Semi-Annually

Submittal Title: 3Q10 GW Monitoring

 Facility Global ID:
 T0600100207

 Facility Name:
 BP #11266

 File Name:
 720-29238.zip

Organization Name: Broadbent & Associates, Inc.

<u>Username:</u> BROADBENT-C IP Address: 67.118.40.90

<u>Submittal Date/Time:</u> 8/23/2010 12:36:23 PM

Confirmation Number: 8449835538

VIEW QC REPORT

VIEW DETECTIONS REPORT

Copyright © 2008 State of California