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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 #11120  
6400 Dublin Boulevard  
Dublin, California  
ACEH Case #RO0002431

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:  
01/19/2010

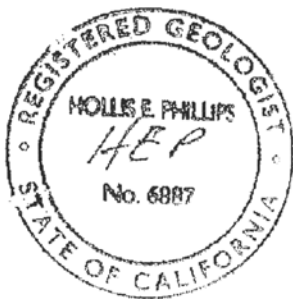
Submitted by:  
ARCADIS U.S., Inc.

Contact:  
Hollis E. Phillips

Phone:  
415.374.2744 ext 13

Hollis E. Phillips, PG  
Project Manager

Email:  
Hollis.phillips@arcadis-us.com



Our ref:  
GP09BPNA.C040

**Fourth Quarter 2009 Ground-Water Monitoring Report**  
Former BP Station #11120  
6400 Dublin Boulevard, Dublin, California  
ACEH Case #RO0002431

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*

January 19, 2010

Project No. 09-88-651

Broadbent & Associates, Inc.  
1324 Mangrove Ave., Suite 212  
Chico, CA 95926  
Voice (530) 566-1400  
Fax (530) 566-1401



January 19, 2010

Project No. 09-88-651

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

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

Re: Fourth Quarter 2009 Ground-Water Monitoring Report, Former BP Station #11120, 6400  
Dublin Boulevard, Dublin, California. ACEH Case #RO0002431.

Dear Ms. Phillips:

Provided herein is the *Fourth Quarter, 2009 Ground-Water Monitoring Report* for Former BP Station #11120 (herein referred to as Station #11120) located at 6400 Dublin Boulevard, Dublin, California (Property). This report presents a summary of Fourth Quarter, 2009 ground-water monitoring results.

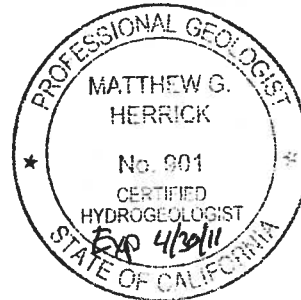
Should you have questions regarding the work performed or results obtained, please do not hesitate to contact us at (530) 566-1400.

Sincerely,

BROADBENT & ASSOCIATES, INC.

Jason Duda  
Project Scientist

Matthew G. Herrick, P.G., C.HG.  
Senior Hydrogeologist



Enclosures

cc: Mr. Paresh Khatri, Alameda County Environmental Health (submitted via ACEH ftp site)  
Ms. Shelby Lathrop, ConocoPhillips, 76 Broadway, Sacramento, CA 95818  
Mr. Tejinder Singh, Property Owner, 6400 Dublin Boulevard, Dublin, CA 94568  
GeoTracker

## STATION #11120 GROUND-WATER MONITORING REPORT

Facility: #11120	Address: 6400 Dublin Boulevard, Dublin, CA
ARCADIS Project Manager:	Ms. Hollis Phillips, PG
Consulting Co./Contact Persons:	Broadbent & Associates, Inc. (BAI) / Jason Duda & Matthew Herrick (530) 566-1400
Primary Agency/Regulatory ID No.:	Alameda County Environmental Health (ACEH) / ACEH Case # RO0002431
Consultant Project No.:	09-88-651
Facility Permits/Permitting Agency.:	NA

### WORK PERFORMED THIS QUARTER (Fourth Quarter 2009):

1. Submitted *Third Quarter 2009 Ground-Water Monitoring Report* (BAI, 10/26/2009).
2. Conducted ground-water monitoring/sampling for Fourth Quarter 2009. Work performed by BAI on 26 October 2009.

### WORK PROPOSED FOR NEXT QUARTER (First Quarter 2010):

1. Prepared and submitted Fourth Quarter 2009 Ground-Water Monitoring Report (contained herein).
2. No environmental work is scheduled to be conducted at the Site during the First Quarter of 2010.

### QUARTERLY RESULTS SUMMARY:

Current phase of project:	<b>Ground-water monitoring/sampling</b>
Frequency of ground-water sampling:	<b>Semi-Annually (2Q and 4Q): Wells MW-8, MW-10, and MW-11</b>
Frequency of ground-water monitoring:	<b>Semi-Annually (2Q and 4Q): Wells MW-8, MW-10, and MW-11</b>
Is free product (FP) present on-site:	<b>No</b>
Current remediation techniques:	<b>NA</b>
Depth to ground water (below TOC):	<b>5.77 ft (MW-10) to 6.93 ft (MW-11)</b>
General ground-water flow direction:	<b>Southeast</b>
Approximate hydraulic gradient:	<b>0.012 ft/ft</b>

### DISCUSSION:

Fourth quarter 2009 ground-water monitoring/sampling was conducted at Station #11120 on 26 October 2009 by BAI personnel. Water levels were gauged in the three wells at the Site. No irregularities were noted during water level gauging. Depth-to-water level measurements ranged from 5.77 ft at MW-10 to 6.93 ft at MW-11. Resulting ground-water surface elevations ranged from 323.03 ft above datum at well MW-11 to 321.67 ft at well MW-10. 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 provided as Drawing 1. Potentiometric ground-water elevation contours are presented in Drawing 2.

Consistent with the current ground-water sampling schedule, water samples were collected from wells MW-8, MW-10, and MW-11. No irregularities were reported during sampling. Samples were submitted to TestAmerica Laboratories, Inc. (Pleasanton, California) under chain-of-custody protocol for laboratory analysis of Gasoline Range Organics (GRO, C6-C12); Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX); Methyl Tert-Butyl Ether (MTBE), Ethyl Tert-Butyl Ether (ETBE), Ethanol, 1,2-

Dichloroethane (1,2-DCA), 1,2-Dibromomethane (EDB), Di-Isopropyl Ether (DIPE), Tert-Butyl Alcohol (TBA), and Tert-Amyl Methyl Ether (TAME) 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.

MTBE was detected above the laboratory reporting limit in two of the three wells sampled at concentrations of 46 micrograms per liter ( $\mu\text{g/L}$ ) in well MW-8 and 7.6  $\mu\text{g/L}$  in well MW-11. Toluene was detected above the laboratory reporting limit in two of the three wells sampled at concentrations of 0.51  $\mu\text{g/L}$  in well MW-8 and 0.53  $\mu\text{g/L}$  in well MW-11. Remaining fuel constituents were not detected above their respective laboratory reporting limits in the three wells sampled this quarter. Historic laboratory analytical results are summarized in Table 1 and Table 2. The most recent GRO, Benzene, and MTBE concentrations are also presented in Drawing 2. Historical ground-water analytical data for former wells abandoned in 1999 are provided in Appendix B. Ground-water monitoring data (GEO\_WELL) and laboratory analytical results (EDF) were uploaded to the GeoTracker AB2886 database. Upload confirmation pages are provided in Appendix C.

## CONCLUSIONS AND RECOMMENDATIONS:

Water level elevations were between historic minimum and maximum ranges for each well, as summarized in Table 1. Water level elevations yielded a potentiometric ground-water flow direction and gradient to the southeast at approximately 0.012 ft/ft, consistent with historical data (see Table 3). Detected analyte concentrations were within the historic minimum and maximum ranges recorded for each well, with the exception of Toluene detected at a historic maximum in wells MW-8 and MW-11 (0.51  $\mu\text{g/L}$  and 0.53  $\mu\text{g/L}$ , respectively). It is important to note that this is the first time Toluene has been detected in groundwater and the concentrations are very close to the laboratory reporting limit. The next semi-annual ground-water monitoring and sampling will be conducted during the Second Quarter of 2010.

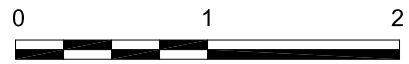
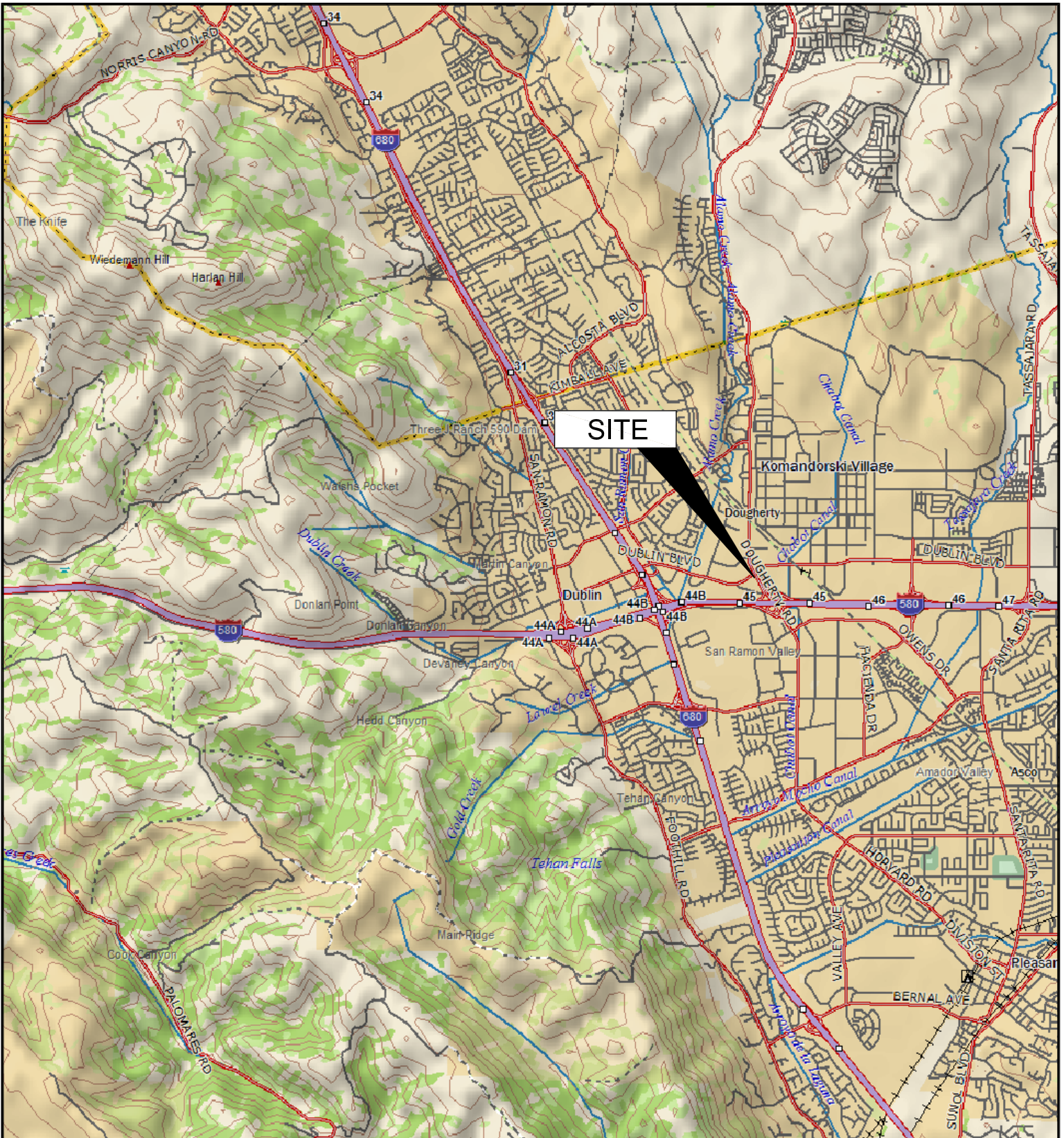
Results of Fourth Quarter 2009 ground-water sampling activities indicate dissolved MTBE concentrations remain relatively consistent with those observed during previous quarters. A downward trend in MTBE concentrations in MW-8 and MW-11 has been observed over the last couple years. The *Evaluation Residual MTBE, Review Historic Gradient, and Conduit and Sensitive Receptor Survey Report* submitted on 20 December 2006 recommended that a formal closure request be completed and submitted to the ACEH for review. Although a response from the ACEH has not been received, completion of a formal closure request report is being considered.

## 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, Station #11120, Dublin, California
- Drawing 2. Ground-Water Elevation Contour and Analytical Summary Map, October 26, 2009, Station #11120, Dublin, California
- Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses, Station #11120, Dublin, California
- Table 2. Summary of Fuel Additives Analytical Data, Station #11120, Dublin, California
- Table 3. Historical Ground-Water Flow Direction and Gradient, Station #11120, Dublin, California
- Appendix A. BAI Ground-Water Sampling Data Package (Includes Field Data Sheets, Chain-of-Custody Documentation, Certified Analytical Results, and Field Procedures)
- Appendix B. Historical Ground-Water Analytical Data for Former Wells Abandoned in 1999 (Source: Alisto Engineering)
- Appendix C. GeoTracker Upload Confirmation Receipts



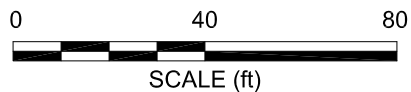
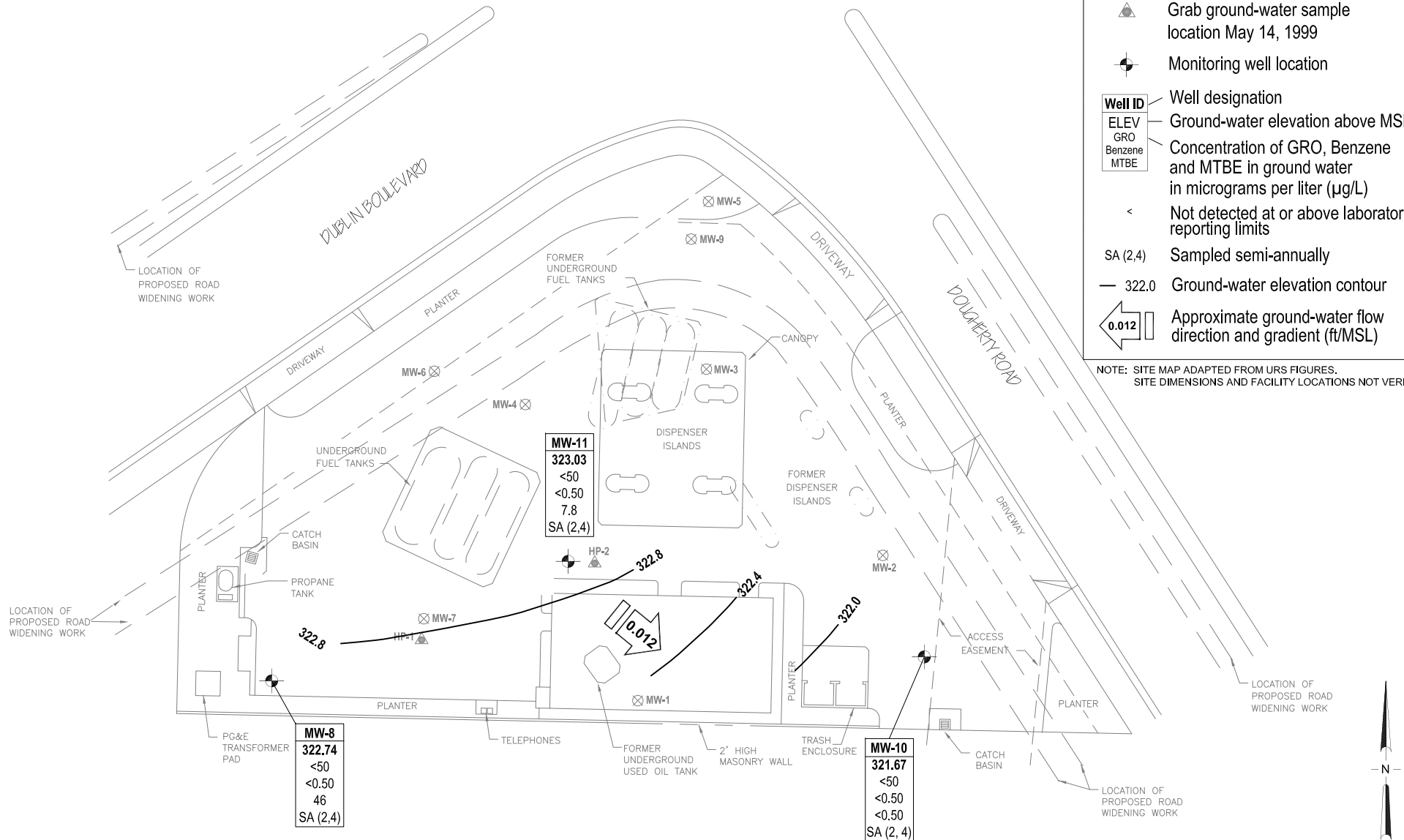
APPROXIMATE SCALE (mi)

IMAGE SOURCE: DELORME

### LEGEND

- ⊗ Destroyed ground-water monitoring well
- ▲ Grab ground-water sample location May 14, 1999
- ⊕ Monitoring well location
- Well ID Well designation
- ELEV Ground-water elevation above MSL
- GRO Concentration of GRO, Benzene and MTBE in ground water in micrograms per liter (µg/L)
- Benzene
- MTBE
- < Not detected at or above laboratory reporting limits
- SA (2,4) Sampled semi-annually
- 322.0 Ground-water elevation contour
- 0.012 Approximate ground-water flow direction and gradient (ft/MSL)

NOTE: SITE MAP ADAPTED FROM URS FIGURES.  
SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.



**BROADBENT & ASSOCIATES, INC.**  
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL  
2000 Kirman Ave., Reno, NV  
Project No.: 09-88-651 Date: 1/6/09

Former BP Station #11120  
6400 Dublin Boulevard  
Dublin, California

Ground-Water Elevation Contour  
and Analytical Summary Map  
October 26, 2009

Drawing

2



**Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses**  
**Station #11120, 6400 Dublin Blvd., Dublin, CA**

Well and Sample Date	P/NP	TOC Elevation (feet)	Depth to Water (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	Comments
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE				
<b>MW-8</b>															
02/25/2002	--	328.94	6.02	--	322.92	<50	<0.5	<0.5	<0.5	<0.5	1.98	--	PACE	--	
09/30/2002	--	328.94	6.16	--	322.78	<50	<0.5	<0.5	<0.5	<0.5	2.9/4.8	--	SEQM	--	a
12/13/2002	--	328.94	5.81	--	323.13	<50	<0.5	<0.5	<0.5	<0.5	5.9/6.4	--	SEQM	--	a
03/12/2003	--	328.94	5.80	--	323.14	<50	<0.50	<0.50	<0.50	<0.50	4.3/3.8	--	SEQM	--	
06/28/2003	--	328.94	5.70	--	323.24	<50	<0.50	<0.50	<0.50	<0.50	4.1	--	SEQM	--	b
09/30/2003	--	328.94	5.90	--	323.04	<50	<0.50	<0.50	<0.50	<0.50	4.1	--	SEQM	--	
12/05/2003	P	328.94	5.89	--	323.05	<50	<0.50	<0.50	<0.50	<0.50	6.7	--	SEQM	7.2	
03/10/2004	P	328.94	4.74	--	324.20	<50	<0.50	<0.50	<0.50	<0.50	5.1	--	SEQM	6.7	
06/21/2004	P	328.94	6.12	--	322.82	<50	<0.50	<0.50	<0.50	<0.50	7.5	--	SEQM	7.0	
09/17/2004	P	328.94	6.38	--	322.56	<50	<0.50	<0.50	<0.50	<0.50	6.6	--	SEQM	7.2	
12/13/2004	P	328.94	5.47	--	323.47	<50	<0.50	<0.50	<0.50	<0.50	6.7	--	SEQM	6.8	
03/03/2005	P	328.94	4.43	--	324.51	<50	<0.50	<0.50	<0.50	<0.50	5.6	--	SEQM	6.9	
06/10/2005	P	328.94	5.35	--	323.59	<50	<0.50	<0.50	<0.50	<0.50	6.2	--	SEQM	6.9	
09/16/2005	P	328.94	6.58	--	322.36	<50	<0.50	<0.50	<0.50	<0.50	5.7	--	SEQM	6.9	
12/15/2005	P	328.94	8.54	--	320.40	<50	<0.50	<0.50	<0.50	<0.50	2.6	--	SEQM	7.0	
03/01/2006	P	328.94	7.55	--	321.39	<50	<0.50	<0.50	<0.50	<0.50	2.8	--	SEQM	7.1	
6/23/2006	P	328.94	8.14	--	320.80	<50	<0.50	<0.50	<0.50	<0.50	35	--	TAMC	7.2	
9/19/2006	P	328.94	7.33	--	321.61	82	<1.0	<1.0	<1.0	<1.0	130	--	TAMC	7.2	c
12/19/2006	P	328.94	7.55	--	321.39	82	<1.0	<1.0	<1.0	<1.0	120	3.28	TAMC	7.51	
3/29/2007	P	328.94	7.44	--	321.50	120	<0.50	<0.50	<0.50	<0.50	180	3.19	TAMC	7.51	
6/5/2007	P	328.94	7.58	--	321.36	77	<1.0	<1.0	<1.0	<1.0	130	4.87	TAMC	7.59	c
9/11/2007	P	328.94	8.00	--	320.94	76	<0.50	<0.50	<0.50	<0.50	130	2.43	TAMC	--	c, d (MTBE)
12/26/2007	P	328.94	6.45	--	322.49	97	<0.50	<0.50	<0.50	<0.50	150	4.32	TAMC	7.53	c
3/25/2008	P	328.94	5.82	--	323.12	<50	<0.50	<0.50	<0.50	<0.50	100	4.85	CEL	7.96	
6/10/2008	P	328.94	6.51	--	322.43	<50	<2.5	<2.5	<2.5	<2.5	95	4.71	CEL	6.89	
9/9/2008	P	328.94	6.60	--	322.34	<50	<2.5	<2.5	<2.5	<2.5	62	4.56	CEL	6.96	
12/4/2008	P	328.94	6.80	--	322.14	<50	<0.50	<0.50	<0.50	<0.50	38	4.47	CEL	7.18	
3/5/2009	P	328.94	4.82	--	324.12	<50	<0.50	<0.50	<0.50	<0.50	75	4.43	CEL	7.30	
6/3/2009	P	328.94	6.60	--	322.34	65	<1.0	<1.0	<1.0	<1.0	52	3.81	CEL	7.21	
9/16/2009	P	328.94	6.82	--	322.12	<50	<1.0	<1.0	<1.0	<1.0	63	4.29	CEL	7.14	
<b>10/26/2009</b>	<b>P</b>	<b>328.94</b>	<b>6.20</b>	<b>--</b>	<b>322.74</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>0.51</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>46</b>	<b>--</b>	<b>TAMC</b>	<b>6.9</b>	

**Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses  
Station #11120, 6400 Dublin Blvd., Dublin, CA**

Well and Sample Date	P/NP	TOC Elevation (feet)	Depth to Water (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	Comments
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE				
<b>MW-8</b>															
<b>MW-9</b>															
02/25/2002	--	329.96	5.90	--	324.06	<250	<2.50	<2.50	<2.50	<5.00	<2.50	--	PACE	--	
09/30/2002	--	329.96	6.92	--	323.04	<50	<0.5	<0.5	<0.5	<0.5	1.4/3.3	--	SEQM	--	a
12/13/2002	--	329.96	6.51	--	323.45	<50	<0.5	<0.5	<0.5	<0.5	0.53/<2.5	--	SEQM	--	a
03/12/2003	--	329.96	6.86	--	323.10	<50	<0.50	<0.50	<0.50	<0.50	0.59/<2.5	--	SEQM	--	
06/28/2003	--	329.96	5.95	--	324.01	<50	<0.50	<0.50	<0.50	<0.50	1.0	--	SEQM	--	b
09/30/2003	--	329.96	6.24	--	323.72	<50	<0.50	<0.50	<0.50	<0.50	16	--	SEQM	--	
12/05/2003	P	329.96	7.21	--	322.75	<50	<0.50	<0.50	<0.50	<0.50	33	--	SEQM	7.6	
03/10/2004	P	329.96	5.37	--	324.59	<50	<0.50	<0.50	<0.50	<0.50	2.4	--	SEQM	7.1	
06/21/2004	P	329.96	6.67	--	323.29	<50	<0.50	<0.50	<0.50	<0.50	1.6	--	SEQM	7.8	
09/17/2004	P	329.96	7.89	--	322.07	<50	<0.50	<0.50	<0.50	<0.50	0.72	--	SEQM	7.5	
12/13/2004	P	329.96	5.22	--	324.74	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	SEQM	7.6	
03/03/2005	P	329.96	5.12	--	324.84	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	SEQM	7.6	
06/10/2005	P	329.96	5.90	--	324.06	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	SEQM	7.5	
09/16/2005	P	329.96	6.99	--	322.97	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	SEQM	7.6	
12/15/2005	P	329.96	8.52	--	321.44	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	SEQM	7.7	
03/01/2006	P	329.96	8.06	--	321.90	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	SEQM	7.7	
6/23/2006	P	329.96	8.56	--	321.40	<50	<0.50	<0.50	<0.50	<0.50	1.1	--	TAMC	7.3	
7/21/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Abandoned
<b>MW-10</b>															
02/25/2002	--	327.44	4.21	--	323.23	53	2.58	<0.5	2.83	8.46	<0.5	--	PACE	--	
09/30/2002	--	327.44	4.71	--	322.73	<50	<0.5	<0.5	<0.5	<0.5	0.51/2.8	--	SEQM	--	a
12/13/2002	--	327.44	6.36	--	321.08	<50	<0.5	<0.5	<0.5	<0.5	<0.5/<2.5	--	SEQM	--	a
03/12/2003	--	327.44	7.96	--	319.48	<50	<0.50	<0.50	<0.50	<0.50	0.76/<2.5	--	SEQM	--	
06/28/2003	--	327.44	7.70	--	319.74	<50	<0.50	<0.50	<0.50	<0.50	0.68	--	SEQM	--	b
09/30/2003	--	327.44	7.57	--	319.87	<50	<0.50	<0.50	<0.50	<0.50	0.71	--	SEQM	--	
12/05/2003	P	327.44	6.64	--	320.80	<50	<0.50	<0.50	<0.50	<0.50	0.78	--	SEQM	7.1	
03/10/2004	P	327.44	5.20	--	322.24	<50	<0.50	<0.50	<0.50	<0.50	0.58	--	SEQM	6.4	
06/21/2004	P	327.44	7.45	--	319.99	<50	<0.50	<0.50	<0.50	<0.50	1.1	--	SEQM	7.0	

**Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses**  
**Station #11120, 6400 Dublin Blvd., Dublin, CA**

Well and Sample Date	P/NP	TOC Elevation (feet)	Depth to Water (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	Comments
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE				
<b>MW-10 Cont.</b>															
09/17/2004	P	327.44	7.49	--	319.95	<50	<0.50	<0.50	<0.50	<0.50	0.82	--	SEQM	7.0	
12/13/2004	P	327.44	5.19	--	322.25	<50	<0.50	<0.50	<0.50	<0.50	0.73	--	SEQM	6.8	
03/03/2005	P	327.44	4.86	--	322.58	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	SEQM	6.9	
06/10/2005	P	327.44	4.00	--	323.44	<50	<0.50	<0.50	<0.50	<0.50	1.2	--	SEQM	6.8	
09/16/2005	P	327.44	4.78	--	322.66	<50	<0.50	<0.50	<0.50	<0.50	0.98	--	SEQM	6.9	
12/15/2005	P	327.44	6.67	--	320.77	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	SEQM	7.0	
03/01/2006	P	327.44	5.67	--	321.77	<50	<0.50	<0.50	<0.50	<0.50	0.59	--	SEQM	7.1	
6/23/2006	P	327.44	5.83	--	321.61	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	TAMC	7.0	
9/19/2006	P	327.44	6.87	--	320.57	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	TAMC	7.1	
12/19/2006	--	327.44	7.10	--	320.34	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.61	TAMC	7.29	
3/29/2007	P	327.44	5.25	--	322.19	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.85	TAMC	7.25	
6/5/2007	P	327.44	6.94	--	320.50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.65	TAMC	7.31	
9/11/2007	P	327.44	5.88	--	321.56	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.68	TAMC	--	
12/26/2007	P	327.44	5.02	--	322.42	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.75	TAMC	7.31	
3/25/2008	P	327.44	6.46	--	320.98	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.22	CEL	7.83	
6/10/2008	P	327.44	6.67	--	320.77	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.10	CEL	7.05	
9/9/2008	P	327.44	4.84	--	322.60	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.07	CEL	7.04	
12/4/2008	P	327.44	4.80	--	322.64	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.98	CEL	6.64	
3/5/2009	P	327.44	3.40	--	324.04	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.02	CEL	7.31	
6/3/2009	P	327.44	4.90	--	322.54	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.12	CEL	7.58	
9/16/2009	P	327.44	5.50	--	321.94	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.06	CEL	7.07	
<b>10/26/2009</b>	<b>P</b>	<b>327.44</b>	<b>5.77</b>	<b>--</b>	<b>321.67</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;0.50</b>	<b>--</b>	<b>TAMC</b>	<b>6.88</b>	
<b>MW-11</b>															
02/25/2002	--	329.75	6.02	--	323.73	1,800	1.34	<0.5	<0.5	<1.0	2,550	--	PACE	--	
09/30/2002	--	329.75	7.12	--	322.63	<50	<0.5	<0.5	<0.5	<0.5	1,500/1,400	--	SEQM	--	a
12/13/2002	--	329.75	6.60	--	323.15	1,300	<10	<10	<10	<10	1,400/2,000	--	SEQM	--	a
03/12/2003	--	329.75	5.79	--	323.96	<500	<5.0	<5.0	<5.0	<5.0	650/2,900	--	SEQM	--	
06/28/2003	--	329.75	5.68	--	324.07	<5,000	<50	<50	<50	<50	2,500	--	SEQM	--	b
09/30/2003	--	329.75	6.68	--	323.07	5,100	<25	<25	<25	<25	3,200	--	SEQM	--	
12/05/2003	P	329.75	6.69	--	323.06	<5,000	<50	<50	<50	<50	3,500	--	SEQM	7.2	

**Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses  
Station #11120, 6400 Dublin Blvd., Dublin, CA**

Well and Sample Date	P/NP	TOC Elevation (feet)	Depth to Water (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	Comments
						GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE				
<b>MW-11 Cont.</b>															
03/10/2004	P	329.75	5.29	--	324.46	3,000	<25	<25	<25	<25	1,800	--	SEQM	6.8	
06/21/2004	P	329.75	6.65	--	323.10	<5,000	<50	<50	<50	<50	1,900	--	SEQM	7.1	
09/17/2004	P	329.75	7.02	--	322.73	<2,500	<25	<25	<25	<25	1,700	--	SEQM	7.1	
12/13/2004	P	329.75	6.01	--	323.74	650	<5.0	<5.0	<5.0	<5.0	610	--	SEQM	6.9	
03/03/2005	P	329.75	5.13	--	324.62	250	<2.5	<2.5	<2.5	<2.5	190	--	SEQM	7.0	c
06/10/2005	P	329.75	6.00	--	323.75	<100	4.1	<1.0	<1.0	<1.0	100	--	SEQM	7.0	
09/16/2005	P	329.75	7.24	--	322.51	<100	<1.0	<1.0	<1.0	<1.0	52	--	SEQM	7.0	
12/15/2005	P	329.75	8.91	--	320.84	<50	<0.50	<0.50	<0.50	<0.50	9.0	--	SEQM	7.1	
03/01/2006	P	329.75	8.05	--	321.70	<50	<0.50	<0.50	<0.50	<0.50	21	--	SEQM	7.2	
6/23/2006	P	329.96	8.65	--	321.31	<50	<0.50	<0.50	<0.50	<0.50	23	--	TAMC	7.2	
9/19/2006	P	329.96	8.07	--	321.89	<50	<0.50	<0.50	<0.50	<0.50	26	--	TAMC	7.3	
12/19/2006	P	329.96	8.17	--	321.79	<50	<0.50	<0.50	<0.50	<0.50	42	3.07	TAMC	7.47	
3/29/2007	P	329.96	8.05	--	321.91	<50	<0.50	<0.50	<0.50	<0.50	65	1.84	TAMC	7.46	
6/5/2007	P	329.96	8.22	--	321.74	53	<0.50	<0.50	<0.50	<0.50	74	2.23	TAMC	7.53	c
9/11/2007	P	329.96	8.62	--	321.34	<50	<0.50	<0.50	<0.50	<0.50	55	2.94	TAMC	--	
12/26/2007	P	329.96	7.12	--	322.84	<50	<0.50	<0.50	<0.50	<0.50	45	4.81	TAMC	7.45	
3/25/2008	P	329.96	6.51	--	323.45	<50	<0.50	<0.50	<0.50	<0.50	22	3.50	CEL	7.93	
6/10/2008	P	329.96	7.25	--	322.71	<50	<0.50	<0.50	<0.50	<0.50	15	3.38	CEL	7.16	
9/9/2008	P	329.96	7.33	--	322.63	<50	<0.50	<0.50	<0.50	<0.50	9.1	3.29	CEL	7.16	
12/4/2008	P	329.96	7.53	--	322.43	<50	<0.50	<0.50	<0.50	<0.50	7.1	3.14	CEL	7.50	
3/5/2009	P	329.96	5.60	--	324.36	<50	<0.50	<0.50	<0.50	<0.50	7.3	3.08	CEL	7.49	
6/3/2009	P	329.96	7.26	--	322.70	<50	<0.50	<0.50	<0.50	<0.50	5.4	3.60	CEL	7.38	
9/16/2009	P	329.96	7.55	--	322.41	<50	<0.50	<0.50	<0.50	<0.50	7.3	2.97	CEL	7.53	
<b>10/26/2009</b>	<b>P</b>	<b>329.96</b>	<b>6.93</b>	<b>--</b>	<b>323.03</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>0.53</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>7.6</b>	<b>--</b>	<b>TAMC</b>	<b>7.1</b>	

ABBREVIATIONS AND SYMBOLS:

TOC = Top of casing in ft MSL  
DTW = Depth to water in ft bgs  
GWE = Groundwater elevation in ft MSL  
GRO = Gasoline range organics  
TPH-g = Total petroleum hydrocarbons as gasoline  
MTBE = Methyl tert butyl ether by EPA method 8021B (prior to 6/28/03) or 8260B  
DO = Dissolved oxygen  
µg/L = Micrograms per liter  
mg/L = Milligrams per liter  
< = Not detected at or above laboratory reporting limit  
-- = Not sampled/applicable/analyzed/measured  
PACE = Pace, Inc.  
SEQM = Sequoia Analytical Laboratory  
TAMC = TestAmerica  
CEL = Calscience Environmental Laboratories, Inc.  
P/NP = Well purged/not purged prior to sampling  
ft bgs = Feet below ground surface  
ft MSL = Feet above mean sea level

FOOTNOTES:

a = Analyzed by EPA method 8260 B; fuel oxygenates include ethanol, tert-butyl alcohol, di-isopropyl ether, ethyl tert-butyl ether, tert-amyl methyl ether; lead scavengers include: 1,2-dichloroethane & ethylene dibromide.  
b = Beginning on the second quarter 2003 monitoring event (6/28/03), TPH-g, benzene, toluene, ethylbenzene, total xylenes, MTBE and fuel oxygenates analyzed by EPA method 8260B.  
c = The hydrocarbon result for GRO was partly due to individual peaks in the quantitative range.  
d = Sample > 4x spike concentration.

NOTES:

TOC elevations surveyed relative to an elevation of 18.409 ft MSL.

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

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

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 #11120, 6400 Dublin Blvd., Dublin, CA**

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
<b>MW-8</b>									
03/12/2003	<100	<20	4.3/3.8	<0.50	<0.50	<0.50	<0.50	<0.50	
06/28/2003	<100	<20	4.1	<0.50	<0.50	<0.50	<0.50	<0.50	
09/30/2003	<100	<20	4.1	<0.50	<0.50	<0.50	<0.50	<0.50	
12/05/2003	<100	<20	6.7	<0.50	<0.50	<0.50	<0.50	<0.50	
03/10/2004	<100	<20	5.1	<0.50	<0.50	<0.50	<0.50	<0.50	a
06/21/2004	<100	<20	7.5	<0.50	<0.50	<0.50	<0.50	<0.50	
09/17/2004	16	<20	6.6	<0.50	<0.50	<0.50	<0.50	<0.50	b
12/13/2004	<100	<20	6.7	<0.50	<0.50	<0.50	<0.50	<0.50	
03/03/2005	<100	<20	5.6	<0.50	<0.50	<0.50	<0.50	<0.50	
06/10/2005	<100	<20	6.2	<0.50	<0.50	<0.50	<0.50	<0.50	
09/16/2005	<100	<20	5.7	<0.50	<0.50	<0.50	<0.50	<0.50	
12/15/2005	<100	<20	2.6	<0.50	<0.50	<0.50	<0.50	<0.50	
03/01/2006	<300	<20	2.8	<0.50	<0.50	<0.50	<0.50	<0.50	
6/23/2006	<300	<20	35	<0.50	<0.50	<0.50	<0.50	<0.50	
9/19/2006	<600	<40	130	<1.0	<1.0	<1.0	<1.0	<1.0	a (ethanol)
12/19/2006	<600	<40	120	<1.0	<1.0	<1.0	<1.0	<1.0	a, c (ethanol)
3/29/2007	<300	<20	180	<0.50	<0.50	<0.50	<0.50	<0.50	
6/5/2007	<600	<40	130	<1.0	<1.0	<1.0	<1.0	<1.0	
9/11/2007	<300	<20	130	<0.50	<0.50	<0.50	<0.50	<0.50	d (ethanol), e (MTBE)
12/26/2007	<300	<20	150	<0.50	<0.50	<0.50	<0.50	<0.50	
3/25/2008	<300	<10	100	<0.50	<0.50	<0.50	<0.50	<0.50	
6/10/2008	<1,500	<50	95	<2.5	<2.5	<2.5	<2.5	<2.5	
9/9/2008	<1,500	<50	62	<2.5	<2.5	<2.5	<2.5	<2.5	
12/4/2008	<300	<10	38	<0.50	<0.50	<0.50	<0.50	<0.50	
3/5/2009	<300	<10	75	<0.50	<0.50	<0.50	<0.50	<0.50	
6/3/2009	<600	<20	52	<1.0	<1.0	<1.0	<1.0	<1.0	
9/16/2009	<600	<20	63	<1.0	<1.0	<1.0	<1.0	<1.0	
<b>10/26/2009</b>	<b>&lt;250</b>	<b>&lt;5.0</b>	<b>46</b>	<b>&lt;1.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	
<b>MW-9</b>									
03/12/2003	<100	<20	0.59/<2.5	<0.50	<0.50	<0.50	<0.50	<0.50	
06/28/2003	<100	<20	1.0	<0.50	<0.50	<0.50	<0.50	<0.50	

**Table 2. Summary of Fuel Additives Analytical Data  
Station #11120, 6400 Dublin Blvd., Dublin, CA**

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
<b>MW-9 Cont.</b>									
09/30/2003	<100	<20	16	<0.50	<0.50	<0.50	<0.50	<0.50	
12/05/2003	<100	<20	33	<0.50	<0.50	<0.50	<0.50	<0.50	
03/10/2004	<100	<20	2.4	<0.50	<0.50	<0.50	<0.50	<0.50	a
06/21/2004	<100	<20	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	
09/17/2004	13	<20	0.72	<0.50	<0.50	<0.50	<0.50	<0.50	b
12/13/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
03/03/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
06/10/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
09/16/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
12/15/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
03/01/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
6/23/2006	<300	<20	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	
7/21/2006	--	--	--	--	--	--	--	--	Well Abandoned
<b>MW-10</b>									
03/12/2003	<100	<20	0.76/<2.5	<0.50	<0.50	<0.50	<0.50	<0.50	
06/28/2003	<100	<20	0.68	<0.50	<0.50	<0.50	<0.50	<0.50	
09/30/2003	<100	<20	0.71	<0.50	<0.50	<0.50	<0.50	<0.50	
12/05/2003	<100	<20	0.78	<0.50	<0.50	<0.50	<0.50	<0.50	
03/10/2004	<100	<20	0.58	<0.50	<0.50	<0.50	<0.50	<0.50	a
06/21/2004	<100	<20	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	
09/17/2004	9.4	<20	0.82	<0.50	<0.50	<0.50	<0.50	<0.50	b
12/13/2004	<100	<20	0.73	<0.50	<0.50	<0.50	<0.50	<0.50	
03/03/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
06/10/2005	<100	<20	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	
09/16/2005	<100	<20	0.98	<0.50	<0.50	<0.50	<0.50	<0.50	
12/15/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
03/01/2006	<300	<20	0.59	<0.50	<0.50	<0.50	<0.50	<0.50	
6/23/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
9/19/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	a (ethanol)
12/19/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	a, c (ethanol)
3/29/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	

**Table 2. Summary of Fuel Additives Analytical Data  
Station #11120, 6400 Dublin Blvd., Dublin, CA**

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
<b>MW-10 Cont.</b>									
6/5/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
9/11/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	d (ethanol)
12/26/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
3/25/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
6/10/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
9/9/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
12/4/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
3/5/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
6/3/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
9/16/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>10/26/2009</b>	<b>&lt;250</b>	<b>&lt;5.0</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	
<b>MW-11</b>									
03/12/2003	<1,000	<200	650/2,900	<5.0	<5.0	<5.0	<5.0	<5.0	
06/28/2003	<10,000	<2,000	2,500	<50	<50	<50	<50	<50	
09/30/2003	<5,000	<1,000	3,200	<25	<25	<25	<25	<25	
12/05/2003	<10,000	<2,000	3,500	<50	<50	<50	<50	<50	
03/10/2004	<5,000	<1,000	1,800	<25	<25	<25	<25	<25	a
06/21/2004	<10,000	<2,000	1,900	<50	<50	<50	<50	<50	
09/17/2004	13	<1,000	1,700	<25	<25	<25	<25	<25	b
12/13/2004	<1,000	<200	610	<5.0	<5.0	<5.0	<5.0	<5.0	
03/03/2005	<500	<100	190	<2.5	<2.5	<2.5	<2.5	<2.5	
06/10/2005	<200	<40	100	<1.0	<1.0	<1.0	<1.0	<1.0	a, c
09/16/2005	<200	<40	52	<1.0	<1.0	<1.0	<1.0	<1.0	
12/15/2005	<100	<20	9.0	<0.50	<0.50	<0.50	<0.50	<0.50	
03/01/2006	<300	<20	21	<0.50	<0.50	<0.50	<0.50	<0.50	
6/23/2006	<300	<20	23	<0.50	<0.50	<0.50	<0.50	<0.50	
9/19/2006	<300	<20	26	<0.50	<0.50	<0.50	<0.50	<0.50	a (ethanol)
12/19/2006	<300	<20	42	<0.50	<0.50	<0.50	<0.50	<0.50	a, c (ethanol)
3/29/2007	<300	<20	65	<0.50	<0.50	<0.50	<0.50	<0.50	
6/5/2007	<300	<20	74	<0.50	<0.50	<0.50	<0.50	<0.50	
9/11/2007	<300	<20	55	<0.50	<0.50	<0.50	<0.50	<0.50	d (ethanol)



**Table 2. Summary of Fuel Additives Analytical Data  
Station #11120, 6400 Dublin Blvd., Dublin, CA**

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
<b>MW-11 Cont.</b>									
12/26/2007	<300	<20	45	<0.50	<0.50	<0.50	<0.50	<0.50	
3/25/2008	<300	<10	22	<0.50	<0.50	<0.50	<0.50	<0.50	
6/10/2008	<300	<10	15	<0.50	<0.50	<0.50	<0.50	<0.50	
9/9/2008	<300	<10	9.1	<0.50	<0.50	<0.50	<0.50	<0.50	
12/4/2008	<300	<10	7.1	<0.50	<0.50	<0.50	<0.50	<0.50	
3/5/2009	<300	<10	7.3	<0.50	<0.50	<0.50	<0.50	<0.50	
6/3/2009	<300	<10	5.4	<0.50	<0.50	<0.50	<0.50	<0.50	
9/16/2009	<300	<10	7.3	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>10/26/2009</b>	<b>&lt;250</b>	<b>&lt;5.0</b>	<b>7.6</b>	<b>&lt;1.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	

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

µg/L = micrograms per liter

< = Not detected at or above laboratory reporting limits

FOOTNOTES:

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

b = Split samples were analyzed for ethanol by EPA Method 8260B SIM; ethanol was detected in trip blank at 34 micrograms per liter. Ethanol was not detected in confirmatory analysis of samples and trip blank on a different instrument; however, holding time had expired by then.

c = LCS recorded above methanol control limits. Analyte not detected. Data not impacted.

d = CCV recovery above limit; analyte not detected.

e = Sample > 4x spike concentration.

NOTES:

All volatile organic 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 #11120, 6400 Dublin Blvd., Dublin, CA**

<b>Date Sampled</b>	<b>Approximate Flow Direction</b>	<b>Approximate Hydraulic Gradient</b>
8/25/1993	Southwest	0.002
11/22/1993	Southwest	0.002
3/7/1994	South-Southwest	0.002
6/9/1994	Southwest	0.003
9/12/1994	Southwest	0.002
12/20/1994	Southwest	0.004
3/16/1995	Southwest	0.003
6/28/1995	West	0.005
9/6/1995	Southwest	0.002
12/22/1995	Southwest	0.005
6/26/1996	Southeast	0.01
8/20/1996	West-Southwest	0.004
10/31/1996	Southwest	0.002
12/2/1996	Northeast	0.01
3/27/1997	Northeast and Southwest	0.007 to 0.01
6/3/1997	North-Northeast	0.008
9/16/1997	North and Southeast	0.001 to 0.009
2/25/2002	South	0.009
9/30/2002	South-Southeast	0.004
12/13/2002	Southeast	0.022
3/12/2003	Southeast	0.04
6/28/2003	Southeast	0.042
9/30/2003	Southeast	0.042
12/5/2003	South-Southeast	0.036
3/10/2004	Southeast	0.021
6/21/2004	Southeast	0.034
9/17/2004	Southeast	0.027
12/13/2004	South-Southeast	0.02
3/3/2005	South-Southwest	0.02
6/10/2005	Southwest	0.004
9/16/2005	Southwest	0.004
12/15/2005	Southwest	0.007
3/1/2006	Southwest	0.003
6/23/2006	West	0.004
9/19/2006	East-Southeast	0.012
12/19/2006	East-Southeast	0.014
3/29/2007	West	0.004
6/5/2007	East-Southeast	0.012
9/11/2007	West	0.004
12/26/2007	Southwest and Southeast	0.004
3/25/2008	Southeast	0.022
6/10/2008	East-Southeast	0.018

**Table 3. Historical Ground-Water Flow Direction and Gradient  
Station #11120, 6400 Dublin Blvd., Dublin, CA**

<b>Date Sampled</b>	<b>Approximate Flow Direction</b>	<b>Approximate Hydraulic Gradient</b>
9/9/2008	Southwest	0.003
12/4/2008	West-Southwest	0.003
3/5/2009	South-Southeast	0.003
6/3/2009	Southwest	0.004
9/16/2009	Southeast	0.005
<b>10/26/2009</b>	<b>Southeast</b>	<b>0.012</b>

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 PACKAGE  
(INCLUDES FIELD DATA SHEETS, CHAIN OF CUSTODY DOCUMENTATION,  
CERTIFIED ANALYTICAL RESULTS, AND FIELD PROCEDURES)**

### Groundwater Sampling Data Sheet

Well I.D.: MW-8  
 Project Name/Location: BP 11120 Project #: 09-88-651  
 Sampler's Name: E. Farrar T. Geddes Date: 10/26/09  
 Purging Equipment: Bailer  
 Sampling Equipment: baile

Casing Type: PVC  
 Casing Diameter: 2<sup>11</sup> inch  
 Total Well Depth: 19.59 feet  
 Depth to Water: - 6.20 feet  
 Water Column Thickness: = 13.39 feet  
 Unit Casing Volume\*: x .16 gallon / foot  
 Casing Water Volume: 2.41 ~~gallons~~ gallons  
 Casing Volume: x 3 each  
 Estimated Purge Volume: = 6.4 gallons  
 Free product measurement (if present): \_\_\_\_\_

**\*UNIT CASING VOLUMES**

2" = 0.16 gal/lin ft.  
 3" = 0.37 gal/lin ft.  
 4" = 0.65 gal/lin ft.  
 6" = 1.47 gal/lin ft.

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	1442				2935	23.1	7.0	
2.5	1445	X	X	X	3109	22.7	6.9	
4	1448	X	X	X	2980	22.7	6.9	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 4 gallons  
 Depth to Water at Sample Collection: 6.31 feet  
 Sample Collection Time: 1450 Purged Dry? (Y / N)

Comments: well not pressurized but given 10 min to stabilize

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**Groundwater Sampling Data Sheet**

Well I.D.: M/W-10  
 Project Name/Location: BP 11120 Project #: 09-028-651  
 Sampler's Name: E. Farrer T. Goddes Date: 10/26/09  
 Purging Equipment: Bailer  
 Sampling Equipment: Pail

Casing Type: PVC  
 Casing Diameter: 2 inch  
 Total Well Depth: 19.55 feet  
 Depth to Water: - 6.77 feet  
 Water Column Thickness: = 13.78 feet  
 Unit Casing Volume\*: x 0.16 gallon / foot  
 Casing Water Volume: = 2.20 gallons  
 Casing Volume: x 3 each  
 Estimated Purge Volume: = 6.61 gallons

**\*UNIT CASING VOLUMES**

2" = 0.16 gal/lin ft.  
 3" = 0.37 gal/lin ft.  
 4" = 0.65 gal/lin ft.  
 6" = 1.47 gal/lin ft.

Free product measurement (if present): \_\_\_\_\_

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	1540				1384	21.5	6.97	
0.5	1543	X	X	X	7350	21.7	6.87	
3.5	1545	X	X	X	1195	22.2	6.88	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 3.5 gallons  
 Depth to Water at Sample Collection: 7.08 feet  
 Sample Collection Time: 1546 Purged Dry? ( Y / N )

Comments: Well pressurized. Allowed for equilibration

**Groundwater Sampling Data Sheet**

Well I.D.: MW-11  
 Project Name/Location: BP 1120 Project #: 09-88-651  
 Sampler's Name: E. Farrar T. Geddes Date: 10/26/09  
 Purging Equipment: Bailer  
 Sampling Equipment: Bailer

Casing Type: PVC  
 Casing Diameter: 2" inch  
 Total Well Depth: 19.34 feet  
 Depth to Water: - 6.93 feet  
 Water Column Thickness: = 12.46 feet  
 Unit Casing Volume\*: x .16 gallon / foot  
 Casing Water Volume: = 1.99 gallons  
 Casing Volume: x 3 each  
 Estimated Purge Volume: = 5.9 gallons

**\*UNIT CASING VOLUMES**

2" = 0.16 gal/lin ft.  
 3" = 0.37 gal/lin ft.  
 4" = 0.65 gal/lin ft.  
 6" = 1.47 gal/lin ft.

Free product measurement (if present): \_\_\_\_\_

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Celsius/Fahrenheit)	pH	Observations
<u>0</u>	<u>1507</u>				<u>2400</u>	<u>23.3</u>	<u>7.1</u>	
<u>3</u>	<u>1509</u>	X	X	X	<u>2364</u>	<u>22.2</u>	<u>7.1</u>	
<u>4</u>	<u>1511</u>	X	X	X	<u>2343</u>	<u>22.3</u>	<u>7.1</u>	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 4 gallons  
 Depth to Water at Sample Collection: 6.85 feet  
 Sample Collection Time: 1519 Purged Dry? (Y/N) (N)

Comments: Well not pressurized but we gave it time to equilibrate



### Wellhead Observation Form

Site: BP 111 20

Sampled by: E. Farrer T. Geeders

Date: 10/26/02

Well ID	Well Box Condition		Bolts		Bolt Hole Condition		Water in Box		Well Cap Lock		Well Cap		Additional Notes
	Cracked or broken lid	Cracked box	Missing	Replaced	Stripped	Cracked	Yes*	No	Missing	Replaced	Missing	Replaced	
MW-5							B						
MW-10							A						
MW-11							<del>C</del>		X				

\* A = Above casing  
 B = Below casing  
 C = Level with casing

San Francisco

1220 Quarry Lane

Pleasanton, CA 94566

phone 925.484.1919 fax 925.600.3002

### Chain of Custody Record

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact Broadbent and Associates, Inc. Address: 1324 Mangrove Ave. Suite 212 City/State/Zip: Chico, CA 95926 (530) 566-1400 Phone (530) 566-1401 FAX Project Name: BP 11120 Site: 6400 Dublin Blvd., Dublin, CA P O # GP09BPNA.C040		Project Manager: Jason Duda Tel/Fax: 530-566-1400		Site Contact: J. Geddes Lab Contact: Dimple Sharma		Date: 10/26/09 Carrier:		COC No: 1 of 1 COCs Job No. 09-88-681 SDG No.												
		Analysis Turnaround Time Calendar (C) or Work Days (W) <u>Standard</u> TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Filtered Sample				Sample Specific Notes:												
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	GRO (8015)	BTEX	5 Oxygenates	EDB and 1,2-DCA	Ethanol									
MW-8		10/26/09	1442		aq	6V	Y	Y	Y	Y	Y	Y								HCC
MW-10		10/26/09	1540		aq	6V	Y	Y	Y	Y	Y	Y								HCC
MW-11		10/26/09	1507		aq	6V	Y	Y	Y	Y	Y	Y								HCC
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other		Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/>		Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																
Special Instructions/QC Requirements & Comments:																				
Relinquished by:		Company: Broadbent		Date/Time: 10/26/09		Received by:		Company: TestAmerica		Date/Time: 10-26-09 1635										
Relinquished by:		Company:		Date/Time:		Received by:		Company:		Date/Time:										
Relinquished by:		Company:		Date/Time:		Received by:		Company:		Date/Time:										

## ANALYTICAL REPORT

Job Number: 720-23640-1

Job Description: BP #11120, Dublin

For:

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



Approved for release.  
Dimple Sharma  
Project Manager I  
11/4/2009 2:45 PM

---

Dimple Sharma  
Project Manager I  
dimple.sharma@testamericainc.com  
11/04/2009

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](http://www.testamericainc.com)

**Job Narrative**  
**720-23640-1**

**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: 720-23640-1

Lab Sample ID	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
<b>720-23640-1</b>	<b>MW-8</b>				
Toluene		0.51	0.50	ug/L	8260B/CA_LUFTMS
MTBE		46	0.50	ug/L	8260B/CA_LUFTMS
<b>720-23640-3</b>	<b>MW-11</b>				
Toluene		0.53	0.50	ug/L	8260B/CA_LUFTMS
MTBE		7.6	0.50	ug/L	8260B/CA_LUFTMS

## METHOD SUMMARY

Client: ARCADIS U.S., Inc.

Job Number: 720-23640-1

<b>Description</b>	<b>Lab Location</b>	<b>Method</b>	<b>Preparation Method</b>
<b>Matrix: Water</b>			
Volatile Organic Compounds by GC/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: 720-23640-1

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Client Matrix</b>	<b>Date/Time Sampled</b>	<b>Date/Time Received</b>
720-23640-1	MW-8	Water	10/26/2009 1442	10/26/2009 1635
720-23640-2	MW-10	Water	10/26/2009 1540	10/26/2009 1635
720-23640-3	MW-11	Water	10/26/2009 1507	10/26/2009 1635

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 720-23640-1

**Client Sample ID: MW-8**

Lab Sample ID: 720-23640-1

Date Sampled: 10/26/2009 1442

Client Matrix: Water

Date Received: 10/26/2009 1635

**8260B/CA\_LUFTMS Volatile Organic Compounds by GC/MS**

Method:	8260B/CA_LUFTMS	Analysis Batch: 720-60683	Instrument ID:	SAT 3900A
Preparation:	5030B		Lab File ID:	e:\data\2009\200910\
Dilution:	1.0		Initial Weight/Volume:	40 mL
Date Analyzed:	10/31/2009 1541		Final Weight/Volume:	40 mL
Date Prepared:	10/31/2009 1541			

Analyte	Result (ug/L)	Qualifier	RL
TBA	ND		5.0
Benzene	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	ND		50
TAME	ND		0.50
Ethyl tert-butyl ether	ND		0.50
Toluene	0.51		0.50
Xylenes, Total	ND		1.0
Ethanol	ND		250
MTBE	46		0.50
EDB	ND		0.50
DIPE	ND		1.0
1,2-Dichloroethane	ND		0.50
Ethylbenzene	ND		0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	95		70 - 130
1,2-Dichloroethane-d4 (Surr)	105		67 - 130



**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 720-23640-1

**Client Sample ID: MW-10**

Lab Sample ID: 720-23640-2

Date Sampled: 10/26/2009 1540

Client Matrix: Water

Date Received: 10/26/2009 1635

**8260B/CA\_LUFTMS Volatile Organic Compounds by GC/MS**

Method:	8260B/CA_LUFTMS	Analysis Batch: 720-60683	Instrument ID:	SAT 3900A
Preparation:	5030B		Lab File ID:	e:\data\2009\200910\
Dilution:	1.0		Initial Weight/Volume:	40 mL
Date Analyzed:	10/31/2009 1604		Final Weight/Volume:	40 mL
Date Prepared:	10/31/2009 1604			

Analyte	Result (ug/L)	Qualifier	RL
TBA	ND		5.0
Benzene	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	ND		50
TAME	ND		0.50
Ethyl tert-butyl ether	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
Ethanol	ND		250
MTBE	ND		0.50
EDB	ND		0.50
DIPE	ND		1.0
1,2-Dichloroethane	ND		0.50
Ethylbenzene	ND		0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	98		70 - 130
1,2-Dichloroethane-d4 (Surr)	99		67 - 130

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 720-23640-1

**Client Sample ID: MW-11**

Lab Sample ID: 720-23640-3

Date Sampled: 10/26/2009 1507

Client Matrix: Water

Date Received: 10/26/2009 1635

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**8260B/CA\_LUFTMS Volatile Organic Compounds by GC/MS**

Method: 8260B/CA\_LUFTMS      Analysis Batch: 720-60683      Instrument ID: SAT 3900A  
Preparation: 5030B      Lab File ID: e:\data\2009\200910\  
Dilution: 1.0      Initial Weight/Volume: 40 mL  
Date Analyzed: 10/31/2009 1627      Final Weight/Volume: 40 mL  
Date Prepared: 10/31/2009 1627

Analyte	Result (ug/L)	Qualifier	RL
TBA	ND		5.0
Benzene	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	ND		50
TAME	ND		0.50
Ethyl tert-butyl ether	ND		0.50
Toluene	0.53		0.50
Xylenes, Total	ND		1.0
Ethanol	ND		250
MTBE	7.6		0.50
EDB	ND		0.50
DIPE	ND		1.0
1,2-Dichloroethane	ND		0.50
Ethylbenzene	ND		0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	100		70 - 130
1,2-Dichloroethane-d4 (Surr)	101		67 - 130

## DATA REPORTING QUALIFIERS

Lab Section	Qualifier	Description
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## Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 720-23640-1

### QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
<b>GC/MS VOA</b>					
<b>Analysis Batch:720-60683</b>					
LCS 720-60683/2	Lab Control Sample	T	Water	8260B/CA_LUFT	
LCSD 720-60683/1	Lab Control Sample Duplicate	T	Water	8260B/CA_LUFT	
MB 720-60683/3	Method Blank	T	Water	8260B/CA_LUFT	
720-23640-1	MW-8	T	Water	8260B/CA_LUFT	
720-23640-2	MW-10	T	Water	8260B/CA_LUFT	
720-23640-3	MW-11	T	Water	8260B/CA_LUFT	

#### Report Basis

T = Total

## Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 720-23640-1

**Method Blank - Batch: 720-60683**

Lab Sample ID: MB 720-60683/3  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 10/31/2009 1136  
 Date Prepared: 10/31/2009 1136

Analysis Batch: 720-60683  
 Prep Batch: N/A  
 Units: ug/L

**Method: 8260B/CA\_LUFTMS  
 Preparation: 5030B**

Instrument ID: Varian 3900A  
 Lab File ID: e:\data\2009\200910\103109\1  
 Initial Weight/Volume: 40 mL  
 Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
TBA	ND		5.0
Benzene	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	ND		50
TAME	ND		0.50
Ethyl tert-butyl ether	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
Ethanol	ND		250
MTBE	ND		0.50
EDB	ND		0.50
DIPE	ND		1.0
1,2-Dichloroethane	ND		0.50
Ethylbenzene	ND		0.50
Surrogate	% Rec	Acceptance Limits	
Toluene-d8 (Surr)	96	70 - 130	
1,2-Dichloroethane-d4 (Surr)	103	67 - 130	

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

## Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 720-23640-1

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 720-60683**

**Method: 8260B/CA\_LUFTMS  
Preparation: 5030B**

LCS Lab Sample ID: LCS 720-60683/2  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 10/31/2009 1159  
Date Prepared: 10/31/2009 1159

Analysis Batch: 720-60683  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Varian 3900A  
Lab File ID: e:\data\2009\200910\103109\ld  
Initial Weight/Volume: 40 mL  
Final Weight/Volume: 40 mL

LCSD Lab Sample ID: LCSD 720-60683/1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 10/31/2009 1239  
Date Prepared: 10/31/2009 1239

Analysis Batch: 720-60683  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Varian 3900A  
Lab File ID: e:\data\2009\200910\103109\ld  
Initial Weight/Volume: 40 mL  
Final Weight/Volume: 40 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
TBA	75	82	60 - 120	9	20		
Benzene	82	84	72 - 120	3	20		
Gasoline Range Organics (GRO)-C6-C12	60	62	32 - 130	3	20		
TAME	100	106	60 - 120	6	20		
Ethyl tert-butyl ether	91	97	60 - 120	6	20		
Toluene	73	73	59 - 120	1	20		
Ethanol	97	78	60 - 120	21	20		
MTBE	102	106	64 - 130	3	20		
DIPE	97	102	60 - 120	5	20		
1,2-Dichloroethane	101	108	60 - 120	7	20		
Ethylbenzene	79	78	60 - 120	1	20		
Surrogate	LCS % Rec		LCSD % Rec	Acceptance Limits			
Toluene-d8 (Surr)	99		99	70 - 130			
1,2-Dichloroethane-d4 (Surr)	93		88	67 - 130			

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

San Francisco

1220 Quarry Lane

Pleasanton, CA 94566  
phone 925.484.1919 fax 925.600.3002


# 720-23640 Chain of Custody Record

## TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

120082

TestAmerica Laboratories, Inc.

<b>Client Contact</b> Broadbent and Associates, Inc. Address: 1324 Mangrove Ave. Suite 212 City/State/Zip: Chico, CA 95926 (530) 566-1400 Phone (530) 566-1401 FAX Project Name: BP 11120 Site: 6400 Dublin Blvd., Dublin, CA P O # GP09BPNA.C040		<b>Project Manager: Jason Duda</b> Tel/Fax: 530-566-1400		<b>Site Contact: J. Geddys</b> Lab Contact: Dimple Sharma		<b>Date: 10/26/09</b> Carrier:		COC No: 1 of 1 COCs Job No: 09-88-651 SDG No:				
		<b>Analysis Turnaround Time</b> Calendar (C) or Work Days (W) <u>Standard</u> TAT if different from Below <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Filtered Sample GRO (8015) BTEX 5 Oxygenates EDB and 1,2-DCA Ethanol				Sample Specific Notes:				
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	GRO (8015)	BTEX	5 Oxygenates	EDB and 1,2-DCA	Ethanol	Sample Specific Notes
MW-8	10/26/09	1442		aq, 6V			XXXXXX					HCL
MW-10	10/26/09	1540		aq, 6V			XXXXXX					HCL
MW-11	10/26/09	1507		aq, 6V			XXXXXX					HCL
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
<b>Possible Hazard Identification</b> <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown												
<b>Special Instructions/QC Requirements &amp; Comments:</b>												
Relinquished by: 		Company: <u>Broadbent</u>		Date/Time: <u>10/26/09</u>		Received by: <u>John Mullen</u>		Company: <u>TestAmerica</u>		Date/Time: <u>10-26-09 1635</u>		
Relinquished by:		Company:		Date/Time:		Received by:		Company:		Date/Time:		
Relinquished by:		Company:		Date/Time:		Received by:		Company:		Date/Time:		

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## Login Sample Receipt Check List

Client: ARCADIS U.S., Inc.

Job Number: 720-23640-1

Login Number: 23640

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 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 well 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**

HISTORICAL GROUND-WATER ANALYTICAL DATA FOR FORMER WELLS  
ABANDONED IN 1999 (SOURCE: ALISTO ENGINEERING)

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING  
 BP OIL COMPANY SERVICE STATION NO. 11120  
 6400 DUBLIN BOULEVARD, DUBLIN, CALIFORNIA

ALISTO PROJECT NO. 10-170

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-1	(c) 10/27/92	328.96	8.19	320.77	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
MW-1	04/09/93	328.96	4.79	324.17	ND<50	100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-1	08/25/93	328.96	6.85	322.11	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-1	11/22/93	328.96	7.38	321.58	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-1	03/07/94	328.96	5.89	323.07	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-1	06/09/94	328.96	6.42	322.54	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	4.3	PACE
MW-1	09/12/94	328.96	7.33	321.63	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	8.8	PACE
MW-1	12/20/94	328.96	6.34	322.62	---	---	---	---	---	---	---	7.8	PACE
MW-1	03/16/95	328.96	4.97	324.59	ND<50	ND<500	ND<0.50	ND<0.50	---	---	---	---	---
MW-1	06/28/95	328.96	5.35	323.61	---	---	---	---	---	---	---	5.6	ATI
MW-1	09/06/95	328.96	6.44	322.52	ND<50	340	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---
MW-1	12/22/95	328.96	6.04	322.92	---	---	---	---	---	---	---	7.4	ATI
MW-1	08/20/96	328.96	5.65	323.31	---	---	---	---	---	---	---	---	---
MW-1	08/21/96	328.96	---	---	ND<50	160	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.8	SPL
MW-1	10/31/96	328.96	5.99	322.97	---	---	---	---	---	---	---	---	---
MW-1	(d) 12/02/96	328.96	---	---	---	---	---	---	---	---	---	---	---
MW-1	(d) 06/26/98	328.96	---	---	---	---	---	---	---	---	---	---	---
MW-2	10/27/92	328.50	7.64	320.86	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
MW-2	04/09/93	328.50	4.12	324.38	ND<50	80	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-2	08/25/93	328.50	6.31	322.19	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-2	11/22/93	328.50	7.12	321.38	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-2	03/07/94	328.50	5.60	322.90	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-2	06/09/94	328.50	5.91	322.59	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	4.3	PACE
MW-2	09/12/94	328.50	6.87	321.63	ND<50	160	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	8.2	PACE
MW-2	12/20/94	328.50	5.86	322.64	---	---	---	---	---	---	---	7.5	PACE
MW-2	03/16/95	328.50	3.77	324.73	ND<50	ND<500	ND<0.50	ND<0.50	---	---	---	---	---
MW-2	06/28/95	328.50	3.77	324.73	ND<50	ND<500	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	6.6	ATI
MW-2	09/06/95	328.50	4.33	324.17	---	---	---	---	---	---	---	6.6	ATI
MW-2	12/22/95	328.50	5.85	322.65	ND<50	210	ND<0.50	ND<0.50	---	---	---	---	---
MW-2	08/20/96	328.50	5.50	323.00	---	---	---	---	---	---	---	7.0	ATI
MW-2	08/21/96	328.50	5.07	323.43	---	---	---	---	---	---	---	---	---
MW-2	10/31/96	328.50	5.44	323.06	ND<50	ND<50	ND<0.5	ND<1.0	---	---	---	---	---
MW-2	12/02/96	328.50	5.50	323.00	---	---	---	---	---	---	---	7.0	SPL
MW-2	03/27/97	328.50	4.61	323.89	---	---	---	---	---	---	---	---	---
MW-2	06/03/97	328.50	7.14	321.36	ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.8	SPL
MW-2	09/16/97	328.50	6.10	322.40	---	---	---	---	---	---	---	---	---
MW-2	12/03/97	328.50	6.22	322.28	ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.2	SPL
MW-2	08/26/98	328.50	4.86	323.64	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.6	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING  
 BP OIL COMPANY SERVICE STATION NO. 11120  
 6400 DUBLIN BOULEVARD, DUBLIN, CALIFORNIA

AUSTO PROJECT NO. 10-170

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-3	10/27/92	329.36	8.43	320.93	210	ND<50	3	0.7	0.9	30	—	—	PACE
MW-3	04/09/93	329.36	4.90	324.46	400	260	6.1	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-3	08/25/93	329.36	7.13	322.23	2000	440	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-3	11/22/93	329.36	7.60	321.76	1800	360	ND<2.5	ND<2.5	ND<2.5	ND<2.5	3300	(e)	PACE
MW-3	03/07/94	329.36	6.08	323.28	1300	5000	22	4.0	2.2	3.8	7200	(e)	PACE
MW-3	06/09/94	329.36	6.51	322.85	8500	2600	25	8.3	0.5	15	13000	(e)	PACE
QC-1 (f)	06/09/94	—	—	—	8800	—	23	6.3	0.5	10	13000	(e)	PACE
MW-3	09/12/94	329.36	7.63	321.73	2100	3200	ND<5.0	ND<5.0	8.8	20	3800	(e)	PACE
QC-1 (f)	09/12/94	—	—	—	1800	—	ND<5.0	ND<5.0	8.0	10	3900	(e)	PACE
MW-3	12/20/94	329.36	6.41	322.95	18000	9600	79	28	89	9.3	—	(e)	PACE
QC-1 (f)	12/20/94	—	—	—	17000	—	79	33	80	ND<2.5	—	7.3	PACE
MW-3	03/18/95	329.36	4.39	324.97	6300	7000	470	ND<5.0	210	—	—	—	PACE
QC-1 (f)	03/18/95	—	—	—	6300	—	500	ND<5.0	230	—	—	5.5	ATI
MW-3	06/28/95	329.36	5.50	323.86	8000	3000	(g) ND<10	ND<10	ND<10	ND<20	—	—	ATI
QC-1 (f)	06/28/95	—	—	—	8800	—	(g) ND<10	ND<10	ND<10	ND<20	—	7.4	ATI
MW-3	09/06/95	329.36	6.66	322.70	10000	—	ND<50	ND<50	ND<50	ND<100	37000	—	ATI
QC-1 (f)	09/06/95	—	—	—	9700	2800	ND<50	ND<50	ND<50	ND<100	36000	—	ATI
MW-3	12/22/95	329.36	6.31	323.05	9200	2500	ND<50	ND<50	ND<50	ND<100	29000	—	ATI
MW-3	08/20/96	329.36	5.87	323.49	—	—	—	—	—	—	—	—	ATI
MW-3	08/21/96	329.36	—	—	3700	1900	ND<25	ND<50	ND<50	ND<50	4100	6.8	SPL
QC-1 (f)	08/21/96	—	—	—	3500	—	ND<25	ND<50	ND<50	ND<50	4000	—	SPL
MW-3	10/31/96	329.36	6.20	323.16	ND<250	ND<500	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	6.8	SPL
MW-3	12/02/96	329.36	—	—	ND<250	—	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	—	—
QC-1 (f)	12/02/96	—	—	—	ND<250	50	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	—	—
MW-3	03/27/97	329.36	—	—	ND<250	—	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	6.4	SPL
MW-3	06/03/97	329.36	5.39	323.97	470	ND<100	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	—	—
QC-1 (f)	06/03/97	—	—	—	321.44	—	ND<2.5	ND<1.0	ND<1.0	ND<1.0	490	6.2	SPL
MW-3	09/16/97	329.36	6.67	—	ND<250	100	ND<2.5	ND<5.0	ND<5.0	ND<5.0	84	5.9	SPL
MW-3	12/03/97	329.36	6.81	322.69	ND<50	—	ND<2.5	ND<5.0	ND<5.0	ND<5.0	74.0	—	—
QC-1 (f)	12/03/97	—	—	—	322.55	—	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	5.5	SPL
MW-3	06/26/98	329.36	5.08	324.28	ND<50	ND<200	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.0	SPL
					ND<250	—	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	—	SPL
							ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	4.8	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING  
 BP OIL COMPANY SERVICE STATION NO. 11120  
 6400 DUBLIN BOULEVARD, DUBLIN, CALIFORNIA

ALISTO PROJECT NO. 10-170

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-4	10/27/92	329.45	8.61	320.84	2300	190							
MW-4	04/09/93	329.45	5.25	324.20	1600	500		23	54	50			
MW-4	08/25/88	329.45	7.32	322.13	1800	380		78	3.5	68			PACE
QC-1 (f)	08/25/93	—	—	—	1600	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-4	11/22/93	329.45	7.83	321.62	1700	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2100	(e)	PACE
QC-1 (f)	11/22/93	—	—	—	1700	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2100	(e)	PACE
MW-4	03/07/94	329.45	6.29	323.16	710	—	ND<2.5	ND<2.5	ND<2.5	ND<2.5	—	—	PACE
QC-1 (f)	03/07/94	—	—	—	1600	1400	0.5	0.8	ND<0.5	ND<0.5	3500	(e)	PACE
MW-4	06/09/94	329.45	6.76	322.69	—	—	ND<0.5	ND<0.5	1.4	0.6	5900	(e)	PACE
MW-4	09/12/94	329.45	7.83	321.62	6400	1800	ND<10	ND<10	ND<10	ND<10	4200	(e)	PACE
MW-4	12/20/94	329.45	6.68	322.77	2000	2700	ND<0.5	ND<0.5	ND<0.5	ND<0.5	10000	(e)	PACE
MW-4	03/16/95	329.45	4.66	324.79	9200	2400	ND<5.0	ND<5.0	ND<5.0	ND<5.0	4200	(e)	PACE
MW-4	06/28/95	329.45	5.93	323.52	1400	960	140	ND<2.5	58	14	—	—	PACE
MW-4	09/06/95	329.45	6.83	322.62	5000	5400	(g) 240	ND<5.0	220	ND<10	—	—	ATI
MW-4	12/22/95	329.45	6.42	323.03	4400	4700	ND<13	ND<13	ND<13	ND<25	—	—	ATI
QC-1 (f)	12/22/95	—	—	—	3800	—	15	ND<13	ND<13	ND<25	12000	—	ATI
MW-4	08/20/96	329.45	6.01	323.44	3900	—	16	ND<13	ND<13	ND<25	9200	—	ATI
MW-4	08/21/96	329.45	—	—	—	—	—	—	—	—	8600	—	ATI
MW-4	10/31/96	329.45	6.37	323.08	ND<250	470	ND<12	ND<25	ND<25	ND<25	—	—	—
MW-4	12/02/96	329.45	6.71	322.74	ND<250	1600	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<250	—	7.7 SPL
MW-4	03/27/97	329.45	5.70	323.75	ND<50	13000	ND<5	ND<10	ND<10	ND<10	ND<50	—	7.1 SPL
QC-1 (f)	03/27/97	—	—	—	8300	1500	44	ND<25	ND<25	ND<25	2200	—	7.3 SPL
MW-4	06/03/97	329.45	8.97	321.08	6900	—	51	ND<25	ND<25	ND<25	8000	—	6.2 SPL
MW-4	09/16/97	329.45	6.91	322.54	2800	270	62	ND<1.0	ND<1.0	ND<1.0	8500	—	SPL
QC-1 (f)	09/16/97	—	—	—	110	1800	0.80	ND<1.0	ND<1.0	ND<1.0	7000	—	7.1 SPL
MW-4	12/03/97	329.45	7.16	322.29	130	—	1.2	ND<1.0	ND<1.0	ND<1.0	7700	—	6.2 SPL
MW-4	06/26/98	329.45	5.15	324.30	ND<50	ND<200	ND<0.5	ND<1.0	ND<1.0	1.1	7100	—	SPL
MW-5	04/09/93	329.60	5.18	324.42	520	—	0.52	ND<1.0	ND<1.0	ND<1.0	ND<10	—	6.0 SPL
MW-5	08/25/93	329.60	7.28	322.32	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1100	—	5.3 SPL
MW-5	11/22/93	329.60	7.82	321.78	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—
MW-5	03/07/94	329.60	6.27	323.33	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-5	06/09/94	329.60	6.73	322.87	ND<50	120	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-5	09/12/94	329.60	7.78	321.82	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	5.7 PACE
MW-5	12/20/94	329.60	6.63	322.97	ND<50	120	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	7.7 PACE
MW-5	03/16/95	329.60	4.65	324.95	—	—	—	—	—	—	—	—	7.2 PACE
MW-5	06/28/95	329.60	5.69	323.91	ND<50	ND<500	ND<0.50	ND<0.50	—	—	—	—	—
MW-5	09/06/95	329.60	6.82	322.78	—	—	—	—	ND<0.50	ND<1.0	—	—	—
MW-5	12/22/95	329.60	6.40	323.20	ND<50	200	ND<0.50	—	—	—	—	—	4.9 ATI
MW-5	08/20/96	329.60	5.98	323.62	—	—	—	ND<0.50	ND<0.50	ND<1.0	—	—	—
MW-5	08/21/96	329.60	—	—	—	—	—	—	—	—	ND<5.0	—	7.3 ATI
MW-5	10/31/96	329.60	—	—	ND<50	ND<50	—	—	—	—	—	—	—
MW-5	12/02/96	329.60	6.29	323.31	—	—	ND<0.50	ND<1.0	ND<1.0	ND<1.0	—	—	—
MW-5	03/27/97	329.60	6.37	323.23	—	—	—	—	ND<1.0	ND<1.0	ND<10	—	6.9 SPL
MW-5	06/03/97	329.60	5.33	324.27	—	—	—	—	—	—	—	—	—
MW-5	09/16/97	329.60	8.00	321.60	ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	—	—	—
MW-5	12/03/97	329.60	6.89	322.71	—	—	—	—	—	—	ND<10	—	5.8 SPL
MW-5	06/26/98	329.60	6.99	322.61	ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	—	—	—
MW-5			5.11	324.49	ND<50	—	—	—	—	—	27	—	—
							ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	—	—
												4.7	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING  
 BP OIL COMPANY SERVICE STATION NO. 11120  
 6400 DUBLIN BOULEVARD, DUBLIN, CALIFORNIA

ALISTO PROJECT NO. 10-170

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-6	04/09/93	329.55	5.37	324.18	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—
MW-6	08/25/93	329.55	7.42	322.13	ND<50	170	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-6	11/22/93	329.55	7.93	321.62	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-6	03/07/94	329.55	6.25	323.30	ND<50	90	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-6	06/09/94	329.55	6.85	322.70	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	4.2	PACE
MW-6	09/12/94	329.55	7.91	321.64	ND<50	240	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	7.0	PACE
MW-6	12/20/94	329.55	6.82	322.73	—	—	—	—	—	—	—	6.7	PACE
MW-6	03/16/95	329.55	4.78	324.77	ND<50	ND<500	ND<0.50	ND<0.50	ND<0.50	ND<1.0	—	—	—
MW-6	06/28/95	329.55	5.97	323.58	—	—	—	—	—	—	—	6.1	ATI
MW-6	09/06/95	329.55	6.94	322.61	ND<50	340	ND<0.50	—	—	—	—	—	—
MW-6	12/22/95	329.55	6.53	323.02	—	—	—	—	—	—	—	—	—
MW-6	08/20/96	329.55	6.18	323.97	—	—	—	—	—	—	—	7.2	ATI
MW-6	08/21/96	329.55	—	—	—	—	—	—	—	—	—	—	—
MW-6	10/31/96	329.55	6.52	323.03	ND<50	120	ND<0.5	—	—	—	—	—	—
MW-6	12/02/96	329.55	6.55	323.00	—	—	—	—	—	—	—	—	—
MW-6	03/27/97	329.55	5.50	324.05	—	—	—	—	—	—	—	—	—
MW-6	06/03/97	329.55	8.19	321.36	ND<50	ND<100	ND<0.5	—	—	—	—	—	—
MW-6	09/16/97	329.55	6.95	322.60	—	—	—	—	—	—	—	—	—
MW-6	12/03/97	329.55	7.22	322.33	ND<250	680	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<10	6.3	SPL
MW-6	06/26/98	329.55	5.20	322.33	—	—	—	—	—	—	—	—	—
MW-6				324.35	ND<50	—	ND<0.5	ND<1.0	ND<5.0	ND<5.0	ND<50	5.5	SPL
MW-7	04/09/93	329.49	5.36	324.13	—	—	—	—	—	—	—	—	—
MW-7	08/25/93	329.49	7.44	322.05	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	4.6	SPL
MW-7	11/22/93	329.49	7.92	321.57	ND<50	150	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—
MW-7	03/07/94	329.49	6.20	323.29	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-7	06/09/94	329.49	6.89	322.60	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-7	09/12/94	329.49	7.07	321.62	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	3.7	PACE
MW-7	12/20/94	329.49	6.77	322.72	ND<50	50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	6.8	PACE
MW-7	03/16/95	329.49	4.77	324.72	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	6.8	PACE
MW-7	06/28/95	329.49	5.94	323.55	ND<50	ND<500	ND<0.50	ND<0.50	ND<0.50	ND<0.50	—	6.5	PACE
MW-7	09/06/95	329.49	6.98	322.51	ND<50	320	ND<0.50	ND<0.50	ND<0.50	ND<1.0	—	5.9	ATI
MW-7	12/22/95	329.49	6.65	322.84	ND<50	240	ND<0.50	ND<0.50	ND<0.50	ND<1.0	—	7.8	ATI
MW-7	08/20/96	329.49	6.22	323.27	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	8.5	7.5	ATI
MW-7	08/21/96	329.49	—	—	—	—	—	—	—	—	7.2	6.9	ATI
MW-7	10/31/96	329.49	6.56	322.93	ND<50	ND<50	ND<0.5	—	—	—	—	—	—
MW-7	12/02/96	329.49	6.13	323.36	ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	—	—
MW-7	03/27/97	329.49	5.08	324.41	ND<50	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	86	6.8	SPL
MW-7	06/03/97	329.49	7.00	321.69	ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	59	7.3	SPL
MW-7	09/16/97	329.49	6.50	322.99	650	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.6	SPL
MW-7	12/03/97	329.49	6.66	322.83	120	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	630	6.8	SPL
MW-7 (h)	06/26/98	329.49	4.96	324.53	ND<50	ND<200	ND<0.5	ND<1.0	ND<1.0	ND<1.0	2200	6.0	SPL
MW-7 (h)					ND<50	—	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.0	SPL
MW-7 (h)					—	—	—	—	—	—	—	5.1	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING  
 BP OIL COMPANY SERVICE STATION NO. 11120  
 6400 DUBLIN BOULEVARD, DUBLIN, CALIFORNIA

ALISTO PROJECT NO. 10-170

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
QC-2 (i)	08/25/93	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
QC-2 (i)	11/22/93	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	03/07/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	06/09/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	09/12/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	12/20/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	03/16/95	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	06/28/95	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2 (i)	09/06/95	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2 (i)	12/22/95	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI

ABBREVIATIONS:

TPH-G Total petroleum hydrocarbons as gasoline  
 TPH-D Total petroleum hydrocarbons as diesel  
 B Benzene  
 T Toluene  
 E Ethylbenzene  
 X Total xylenes  
 MTBE Methyl tert butyl ether  
 DO Dissolved oxygen  
 ug/l Micrograms per liter  
 ppm Parts per million  
 ND Not detected above reported detection limit  
 --- Not analyzed/applicable/measured  
 PACE Pace, Inc.  
 ATI Analytical Technologies, Inc.  
 SPL Southern Petroleum Laboratories

NOTES:

- (a) Top of casing elevations surveyed to an arbitrary datum.
- (b) Groundwater elevations relative to an arbitrary datum.
- (c) Analysis did not detect total oil and grease and halogenated volatile organic compounds above reported detection limits.
- (d) Well inaccessible.
- (e) A copy of the documentation for this data is included in Appendix C of Alisto report 10-170-05-001.
- (f) Blind duplicate.
- (g) MTBE peak. Refer to documentation for this data in Appendix C of Alisto report 10-170-05-001.
- (h) Analysis did not detect volatile organic compounds above reported detection limits.
- (i) Travel blank.

FO1110-170170-5-4.WC22



TABLE 2 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING FOR EPA METHOD 8260 ANALYSIS  
 BP OIL COMPANY SERVICE STATION NO. 11120  
 6400 DUBLIN BOULEVARD, DUBLIN, CALIFORNIA

\*ALISTO PROJECT NO. 10-170

WELL ID	DATE OF SAMPLING/ MONITORING	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DIPE (ug/l)	ETBE (ug/l)	TBA (ug/l)	TAME (ug/l)	Lab
MW-4	06/26/98	ND<5	ND<5	ND<5	ND<5	ND<10	ND<10	ND<10	ND<500	ND<10	SPL
MW-7	06/26/98	ND<5	ND<5	ND<5	ND<5	ND<10	ND<10	ND<10	ND<500	ND<10	SPL

ABBREVIATIONS:

B Benzene  
 T Toluene  
 E Ethylbenzene  
 X Total xylenes  
 MTBE Methyl tert butyl ether  
 DIPE Di-isopropyl ether  
 ETBE Ethyl t-butyl ether  
 TBA t-butyl ether  
 TAME tert-amyl methyl ether  
 ug/l Micrograms per liter  
 ND Not detected above reported detection limit  
 SPL Southern Petroleum Laboratories

FA01\10-170\10-170EC.WQ2

**APPENDIX C**

**GEOTRACKER UPLOAD CONFIRMATION RECEIPTS**

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STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A GEO\_WELL FILE

**SUCCESS**

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<u>Submittal Type:</u>	GEO_WELL
<u>Submittal Title:</u>	4Q09 GEO_WELL 11120
<u>Facility Global ID:</u>	T0600101432
<u>Facility Name:</u>	BP #11120
<u>File Name:</u>	GEO_WELL.zip
<u>Organization Name:</u>	Broadbent & Associates, Inc.
<u>Username:</u>	BROADBENT-C
<u>IP Address:</u>	67.118.40.90
<u>Submittal Date/Time:</u>	1/6/2010 11:30:26 AM
<u>Confirmation Number:</u>	<b>5764169156</b>

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STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

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**SUCCESS**

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<b><u>Submittal Type:</u></b>	EDF - Monitoring Report - Quarterly
<b><u>Submittal Title:</u></b>	4Q09 GW Monitoring
<b><u>Facility Global ID:</u></b>	T0600101432
<b><u>Facility Name:</u></b>	BP #11120
<b><u>File Name:</u></b>	11120-720-23640-1.zip
<b><u>Organization Name:</u></b>	Broadbent & Associates, Inc.
<b><u>Username:</u></b>	BROADBENT-C
<b><u>IP Address:</u></b>	67.118.40.90
<b><u>Submittal Date/Time:</u></b>	1/6/2010 11:31:42 AM
<b><u>Confirmation Number:</u></b>	<b>5858788907</b>

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