



Atlantic Richfield Company  
(a BP affiliated company)

P.O. Box 1257  
San Ramon, CA 94583  
Phone: (925) 275-3801  
Fax: (925) 275-3815



**RECEIVED**

1:14 pm, Jul 31, 2008

Alameda County  
Environmental Health

July 25, 2008

Re: Second Quarter, 2008 Semi-Annual Ground-Water Monitoring Report  
Atlantic Richfield Company Station #6113  
785 East Stanley Boulevard  
Livermore, CA  
ACEH Case No. RO0000393

“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.”

Submitted by:

Paul Supple  
Environmental Business Manager

**Second Quarter, 2008 Semi-Annual Ground-Water Monitoring  
Report**

Atlantic Richfield Company Station #6113  
785 East Stanley Boulevard  
Livermore, California

Prepared for

Mr. Paul Supple  
Environmental Business Manager  
Atlantic Richfield Company  
P.O. Box 1257  
San Ramon, California 94583

Prepared by



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

July 2008

Project No. 06-02-637

July 25, 2008

Project No. 06-02-637

Atlantic Richfield Company  
P.O. Box 1257  
San Ramon, CA 94583  
Submitted via ENFOS

Attn.: Mr. Paul Supple

Re: Second Quarter, 2008 Semi-Annual Ground-Water Monitoring Report, Atlantic Richfield Company (a BP affiliated company) Station #6113, 785 East Stanley Boulevard, Livermore, CA. ACEH Case No. RO0000393.

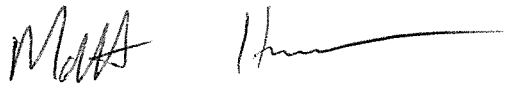
Dear Mr. Supple:

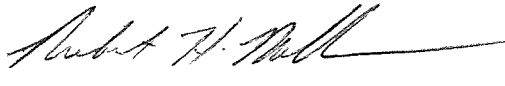
Attached is the *Second Quarter, 2008 Semi-Annual Ground-Water Monitoring Report* for Atlantic Richfield Company Station #6113 (herein referred to as Station #6113) located at 785 East Stanley Boulevard, Livermore, CA (Property). This report presents a summary of Second Quarter, 2008 ground-water monitoring results.

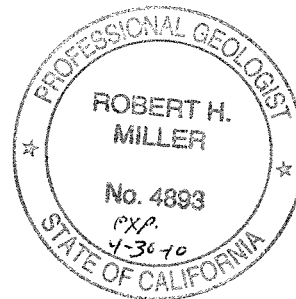
Should you have questions regarding the work performed or results obtained, please do not hesitate to contact us at (530) 566-1400.

Sincerely,

BROADBENT & ASSOCIATES, INC.

  
Matthew G. Herrick, P.G.  
Senior Hydrogeologist

  
Robert H. Miller, P.G., C.HG.  
Principal Hydrogeologist



Enclosures

cc: Mr. Paresh Khatri, Alameda County Environmental Health (submitted via ACEH ftp site)  
Mr. Paul M. Smith/Ms. Danielle Stefani, Livermore-Pleasanton Fire Department (submitted via GeoTracker)  
GeoTracker

## STATION # 6113 SEMI-ANNUAL GROUND-WATER MONITORING REPORT

Facility: 6113 Address: 785 East Stanley Boulevard, Livermore, CA  
Station 6113 Environmental Business  
Manager: Mr. Paul Supple  
Consulting Co./Contact Persons: Broadbent & Associates, Inc. (BAI) / Rob Miller & Matt Herrick  
Primary Agency/Regulatory ID No.: Alameda County Environmental Health (ACEH) / ACEH Case No. RO0000393  
Consultant Project No.: 06-02-637  
Facility Permits/Permitting Agency.: NA

### WORK PERFORMED THIS QUARTER (Second Quarter, 2008):

1. Submit First Quarter, 2008 Status Report. Report completed by BAI.
2. Conducted ground-water monitoring/sampling for Second Quarter, 2008. Work performed by Stratus Environmental, Inc. (Stratus).
3. Abandon wells MW-1 and MW-8 to facilitate the scheduled raze and rebuild of the station building.

### WORK PROPOSED FOR NEXT QUARTER (Third Quarter, 2008):

1. Submit Second Quarter, 2008 Report (contained herein).
2. No ground-water monitoring/sampling activities are scheduled to be completed on the Property during the Third Quarter, 2008.

### QUARTERLY RESULTS SUMMARY:

Current phase of project: Groundwater monitoring/sampling  
Frequency of ground-water sampling: Wells MW-4, MW-6, MW-7, MW-11 through MW-13, VW-1: Semi Annually (2Q and 4Q)  
Wells MW-3, MW-9, and MW-10: Annually (4Q)  
Frequency of ground-water monitoring: Semi-Annually (2Q and 4Q)  
Is free product (FP) present on-site: No  
FP recovered this quarter: NA  
Bulk Soil Removed to Date: 288 cubic yards TPH impacted soil  
Current remediation techniques: Air Diffusion  
Depth to ground water (below TOC): 23.40 (VW-4) to 26.62 (MW-10)  
General ground-water flow direction: North-Northwest  
Approximate hydraulic gradient: 0.013 feet per foot

### DISCUSSION:

Gasoline range organics were detected in wells MW-6 and MW-13 at concentration of 15,000 micrograms per liter ( $\mu\text{g/L}$ ) and 1,400  $\mu\text{g/L}$ , respectively. Benzene was detected in wells MW-6 and MW-13 at 5,300  $\mu\text{g/L}$  and 4.5  $\mu\text{g/L}$ , respectively. Toluene was detected in wells MW-6, MW-7, and MW-13 at concentrations ranging from 0.99  $\mu\text{g/L}$  in MW-7 to 200  $\mu\text{g/L}$  in MW-6. Ethylbenzene was detected in MW-6 and MW-13 at 620  $\mu\text{g/L}$  and 9.4  $\mu\text{g/L}$ , respectively. Xylenes were detected in MW-6 at 470  $\mu\text{g/L}$  and MW-13 at 15  $\mu\text{g/L}$ . Methyl tert-butyl ether was detected in wells MW-6, MW-7, MW-11, MW-13, and VW-1 with concentrations ranging from 4.5  $\mu\text{g/L}$  (VW-1) to 4,200  $\mu\text{g/L}$  (MW-6). Tert-butyl Alcohol (TBA) was detected in two wells at 1,500  $\mu\text{g/L}$  (MW-6) and 14  $\mu\text{g/L}$  (MW-13). No other analytes were detected in samples collected during the Second Quarter, 2008.

Ground-water samples were not collected from well MW-4 during Second Quarter, 2008 as the well was dry. Stratus could not locate well MW-12; therefore, the well was not sampled during Second Quarter, 2008.

Drawing 1 depicts the ground-water elevation contour and an analytical summary map for the Second Quarter, 2008. Table 1 includes a summary of ground-water monitoring data including relative water elevations and laboratory analyses. Table 2 provides a summary of fuel additives analytical data. Table 3 lists historical ground-water flow direction and gradient data.

Analytes detected during Second Quarter, 2008 were all within the historic minimum and maximum concentration ranges recorded for each well, with the following exceptions: GRO, benzene, toluene, ethylbenzene, xylenes, and MTBE in MW-6 are the highest concentrations historically detected in the well (data collected since March 1995) and GRO, benzene, toluene, ethylbenzene, xylenes, and MTBE in MW-13 are the lowest concentrations historically detected in the well. Ground-water elevations measured during the Second Quarter, 2008 were at historic minimum elevations in wells MW-13 and VW-4. It is important to note that both these wells were dry during the last monitoring event completed on October 17, 2007.

Ground-water elevations rebounded approximately 12 feet across the property relative to the Fourth Quarter, 2007 monitoring event. The ground-water flow direction remains generally consistent with prior directions (northerly) and the gradient magnitude has returned to a value that is more consistent with values observed over recent years. The historic high and low analyte concentrations observed in wells MW-6 and MW-13 discussed above are believed to be a result of the significant rebound in ground-water elevations that have occurred on the Property.

Station #6113 is in the process of being divested. The new property owner plans to raze and rebuild the station building. The new station building will be constructed along the southern boundary of the Property. The new station building will require abandonment of wells MW-1 and MW-8 prior to commencement of construction. The ACEH approved recommendations to abandon wells MW-1 and MW-8 in their June 5, 2008 email. Accordingly, wells MW-1 and MW-8 were properly abandoned by Stratus on June 18, 2008. A Stratus data package summarizing well abandonment work activities has not been received. Once the data package is received it will be included in submittal of the next report.

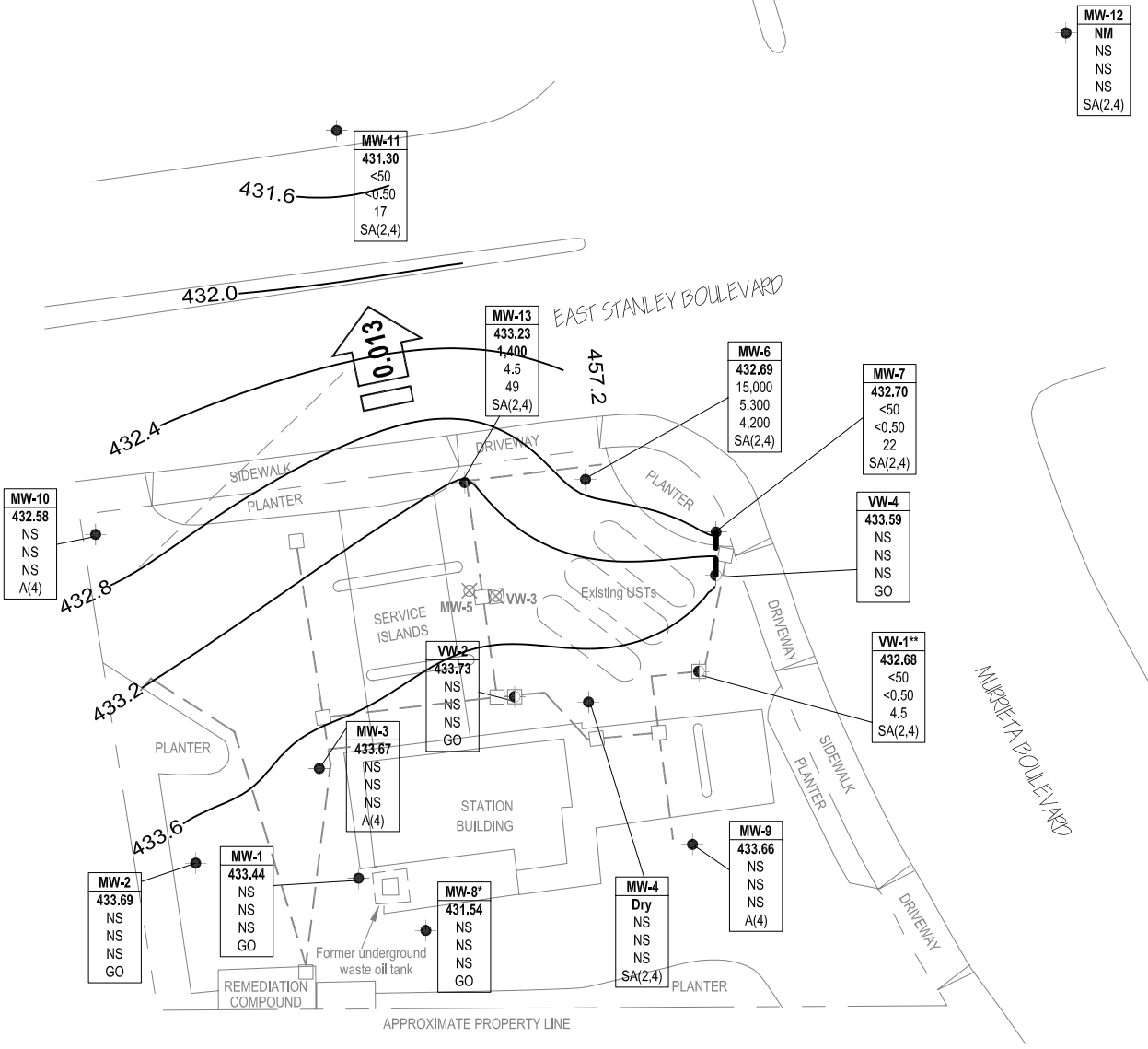
#### **CLOSURE:**

The findings presented in this report are based upon: observations of Stratus Environmental, Inc. and/or their subcontractors' field personnel (see Appendix A), the points investigated, and results of laboratory tests performed by Calscience (Garden Grove, CA). 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 Atlantic Richfield 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. Ground-Water Elevation Contour and Analytical Summary Map, Station #6113, Livermore, CA

- Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses, Station #6113, Livermore CA
- Table 2. Summary of Fuel Additives Analytical Data, Station #6113, Livermore, CA
- Table 3. Historical Ground-Water Flow Direction and Gradient, Station #6113, Livermore, CA
- Appendix A. Stratus Environmental, Inc. Groundwater Sampling Data Package (Field Data Sheets, Non-Hazardous Waste Data Form, Chain of Custody Documentation, Certified Analytical Results, and Field Procedures for Groundwater Sampling).
- Appendix B. GeoTracker Upload Confirmation.



MW-12  
 NM  
 NS  
 NS  
 NS  
 SA(2,4)

MW-11  
 431.30  
 <50  
 <0.50  
 17  
 SA(2,4)

MW-13  
 433.23  
 4,400  
 4.5  
 49  
 SA(2,4)

MW-6  
 432.69  
 15,000  
 5,300  
 4,200  
 SA(2,4)

MW-7  
 432.70  
 <50  
 <0.50  
 22  
 SA(2,4)

VW-4  
 433.59  
 NS  
 NS  
 NS  
 GO

VW-1\*\*  
 432.68  
 <50  
 <0.50  
 4.5  
 SA(2,4)

VW-2  
 433.73  
 NS  
 NS  
 NS  
 GO

MW-3  
 433.67  
 NS  
 NS  
 NS  
 A(4)

MW-9  
 433.66  
 NS  
 NS  
 NS  
 A(4)

MW-2  
 433.69  
 NS  
 NS  
 NS  
 GO

MW-1  
 433.44  
 NS  
 NS  
 NS  
 GO

MW-8\*  
 431.54  
 NS  
 NS  
 NS  
 GO

MW-4  
 Dry  
 NS  
 NS  
 NS  
 SA(2,4)

MW-10  
 432.58  
 NS  
 NS  
 NS  
 A(4)

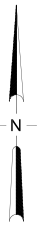
### LEGEND

- Monitoring well
- ⊖ Vapor extraction well
- ⊗ Abandoned well
- 432.4 Ground-water elevation contour (ft/MSL)

Well	Well Designation
ELEV	Ground-water Elevation
GRO	GRO, Benzene and MTBE concentration (µg/L)
Benzene	
MTBE	
A/SA	Sampling frequency
A(4)	Sampled annually, 4th quarter
SA(2,4)	Semi-annual sampling, 2nd and 4th quarters
GO	Gauge only
NS	Not Sampled
NM	Not Measured
*	Not used in contouring due to screen interval
**	Not used in contouring

- ← 0.013 Approximate ground-water flow direction and gradient (ft/ft)
- Vault box
- - - Piping trench

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



**BROADBENT & ASSOCIATES, INC.**  
 ENGINEERING, WATER RESOURCES & ENVIRONMENTAL  
 1324 Mangrove Ave, Suite 212, Chico, California 95926  
 Project No.: 06-02-637 Date: 7/18/2008

Station #6113  
 785 East Stanley Boulevard  
 Livermore, California

Ground-Water Elevation Contour  
 and Analytical Summary Map  
 April 24, 2008

Drawing  
**1**

**Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses**

**Station #6113, 785 East Stanley Blvd., Livermore, CA**

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-1</b>															
3/23/1995	--	e	457.04	29.0	44.0	14.12	442.92	--	--	--	--	--	--	--	--
5/31/1995	--	e	457.04	29.0	44.0	14.45	442.59	--	--	--	--	--	--	--	--
8/31/1995	--	e	457.04	29.0	44.0	17.12	439.92	--	--	--	--	--	--	--	--
11/28/1995	--		457.04	29.0	44.0	16.34	440.70	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/22/1996	--	e	457.04	29.0	44.0	13.23	443.81	--	--	--	--	--	--	--	--
5/23/1996	--	e	457.04	29.0	44.0	14.02	443.02	--	--	--	--	--	--	--	--
8/8/1996	--	e	457.04	29.0	44.0	16.13	440.91	--	--	--	--	--	--	--	--
11/7/1996	--		457.04	29.0	44.0	17.28	439.76	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
3/27/1997	--	e	457.04	29.0	44.0	14.91	442.13	--	--	--	--	--	--	--	--
5/19/1997	--	e	457.04	29.0	44.0	16.47	440.57	--	--	--	--	--	--	--	--
5/18/1998	--	e	457.04	29.0	44.0	14.69	442.35	--	--	--	--	--	--	--	--
11/2/1998	--		457.04	29.0	44.0	25.94	431.10	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
6/4/1999	--	e	457.04	29.0	44.0	17.38	439.66	--	--	--	--	--	--	--	--
11/11/1999	P		457.04	29.0	44.0	18.63	438.41	<50	<0.5	<0.5	<0.5	<1	<3	1.03	--
6/20/2000	--	e	457.04	29.0	44.0	17.09	439.95	--	--	--	--	--	--	3.1	--
8/29/2000	--	e	457.04	29.0	44.0	18.20	438.84	--	--	--	--	--	--	2.66	--
11/29/2000	P		457.04	29.0	44.0	20.30	436.74	<50.0	<0.500	<0.500	<0.500	1.36	<2.50	0.71	--
5/2/2001	--	e	457.04	29.0	44.0	22.39	434.65	--	--	--	--	--	--	--	--
8/15/2001	--	e	457.04	29.0	44.0	24.97	432.07	--	--	--	--	--	--	--	--
10/5/2001	P		457.04	29.0	44.0	25.09	431.95	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.78	--
1/21/2002	--	e	457.04	29.0	44.0	24.58	432.46	--	--	--	--	--	--	--	--
4/26/2002	--	e	457.04	29.0	44.0	24.19	432.85	--	--	--	--	--	--	--	--
10/7/2002	--		457.04	29.0	44.0	20.13	436.91	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.8	--
05/01/2003	--	r	457.04	29.0	44.0	17.98	439.06	--	--	--	--	--	--	--	--
10/27/2005	--		459.41	29.0	44.0	18.45	440.96	--	--	--	--	--	--	--	--
04/12/2006	--		459.41	29.0	44.0	15.18	444.23	--	--	--	--	--	--	--	--
10/31/2006	--		459.41	29.0	44.0	19.18	440.23	--	--	--	--	--	--	--	--
4/19/2007	--		459.41	29.0	44.0	23.20	436.21	--	--	--	--	--	--	--	--
10/16/2007	--		459.41	29.0	44.0	38.28	421.13	--	--	--	--	--	--	--	--
<b>4/24/2008</b>	--		<b>459.41</b>	<b>29.0</b>	<b>44.0</b>	<b>25.97</b>	<b>433.44</b>	--	--	--	--	--	--	--	--
<b>6/18/2008</b>	--	<b>k</b>	--	<b>29.0</b>	<b>44.0</b>	--	--	--	--	--	--	--	--	--	--



**Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses**

**Station #6113, 785 East Stanley Blvd., Livermore, CA**

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-1</b>															
<b>MW-2</b>															
3/23/1995	--		457.74	28.0	38.0	14.15	443.59	--	--	--	--	--	--	--	--
5/31/1995	--	e	457.74	28.0	38.0	14.67	443.07	--	--	--	--	--	--	--	--
8/31/1995	--	e	457.74	28.0	38.0	17.24	440.50	--	--	--	--	--	--	--	--
11/28/1995	--		457.74	28.0	38.0	16.40	441.34	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/22/1996	--	e	457.74	28.0	38.0	13.55	444.19	--	--	--	--	--	--	--	--
5/23/1996	--	e	457.74	28.0	38.0	14.29	443.45	--	--	--	--	--	--	--	--
8/8/1996	--	e	457.74	28.0	38.0	16.19	441.55	--	--	--	--	--	--	--	--
11/7/1996	--		457.74	28.0	38.0	17.50	440.24	65	0.6	7.4	2.1	12	5	--	--
3/27/1997	--	e	457.74	28.0	38.0	15.32	442.42	--	--	--	--	--	--	--	--
5/19/1997	--	e	457.74	28.0	38.0	16.62	441.12	--	--	--	--	--	--	--	--
5/18/1998	--	e	457.74	28.0	38.0	15.12	442.62	--	--	--	--	--	--	--	--
11/2/1998	--		457.74	28.0	38.0	26.66	431.08	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
6/4/1999	--	e	457.74	28.0	38.0	17.74	440.00	--	--	--	--	--	--	--	--
11/11/1999	P		457.74	28.0	38.0	18.75	438.99	<50	<0.5	<0.5	<0.5	<1	<3	0.82	--
6/20/2000	--	e	457.74	28.0	38.0	17.21	440.53	--	--	--	--	--	--	2.6	--
8/29/2000	--	e	457.74	28.0	38.0	18.25	439.49	--	--	--	--	--	--	2.65	--
11/29/2000	P		457.74	28.0	38.0	20.69	437.05	<50.0	<0.500	0.581	0.827	4.38	<2.50	0.88	--
5/2/2001	--	e	457.74	28.0	38.0	22.69	435.05	--	--	--	--	--	--	--	--
8/15/2001	--	e	457.74	28.0	38.0	25.15	432.59	--	--	--	--	--	--	--	--
10/5/2001	P		457.74	28.0	38.0	25.22	432.52	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.8	--
1/21/2002	--	e	457.74	28.0	38.0	24.70	433.04	--	--	--	--	--	--	--	--
4/26/2002	--	e	457.74	28.0	38.0	24.53	433.21	--	--	--	--	--	--	--	--
10/7/2002	--		457.74	28.0	38.0	19.45	438.29	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.5	--
05/01/2003	--	r	457.74	28.0	38.0	18.18	439.56	--	--	--	--	--	--	--	--
10/27/2005	--	t	460.07	28.0	38.0	--	--	--	--	--	--	--	--	--	--
04/12/2006	--		460.07	28.0	38.0	15.30	444.77	--	--	--	--	--	--	--	--
10/31/2006	--		460.07	28.0	38.0	19.48	440.59	--	--	--	--	--	--	--	--
4/19/2007	--		460.07	28.0	38.0	23.85	436.22	--	--	--	--	--	--	--	--
10/16/2007	--		460.07	28.0	38.0	36.78	423.29	--	--	--	--	--	--	--	--

**Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses**

**Station #6113, 785 East Stanley Blvd., Livermore, CA**

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-2 Cont.</b>															
4/24/2008	--		460.07	28.0	38.0	26.38	433.69	--	--	--	--	--	--	--	--
<b>MW-3</b>															
3/23/1995	--	e	456.97	28.5	38.5	14.13	442.84	--	--	--	--	--	--	--	--
5/31/1995	--	e	456.97	28.5	38.5	14.46	442.51	--	--	--	--	--	--	--	--
8/31/1995	--	e	456.97	28.5	38.5	17.06	439.91	--	--	--	--	--	--	--	--
11/28/1995	--		456.97	28.5	38.5	16.27	440.70	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/22/1996	--	e	456.97	28.5	38.5	13.14	443.83	--	--	--	--	--	--	--	--
5/23/1996	--	e	456.97	28.5	38.5	13.95	443.02	--	--	--	--	--	--	--	--
8/8/1996	--	e	456.97	28.5	38.5	16.03	440.94	--	--	--	--	--	--	--	--
11/7/1996	--		456.97	28.5	38.5	17.26	439.71	<50	<0.5	0.9	<0.5	1.5	<3	--	--
3/27/1997	--	e	456.97	28.5	38.5	14.85	442.12	--	--	--	--	--	--	--	--
5/19/1997	--	e	456.97	28.5	38.5	16.40	440.57	--	--	--	--	--	--	--	--
5/18/1998	--	e	456.97	28.5	38.5	14.66	442.31	--	--	--	--	--	--	--	--
11/2/1998	--		456.97	28.5	38.5	25.85	431.12	<1,000	<10	<10	<10	<10	1,700	--	--
6/4/1999	--	e	456.97	28.5	38.5	17.35	439.62	--	--	--	--	--	--	--	--
11/11/1999	P		456.97	28.5	38.5	18.58	438.39	<50	<0.5	<0.5	<0.5	<1	<3	0.79	--
6/20/2000	--	e	456.97	28.5	38.5	17.03	439.94	--	--	--	--	--	--	2.8	--
8/29/2000	--	e	456.97	28.5	38.5	18.25	438.72	--	--	--	--	--	--	3.39	--
11/29/2000	--		456.97	28.5	38.5	20.27	436.70	<50.0	<0.500	<0.500	1.08	3.34	<2.50	0.67	--
5/2/2001	--	e	456.97	28.5	38.5	22.33	434.64	--	--	--	--	--	--	--	--
8/15/2001	--	e	456.97	28.5	38.5	25.03	431.94	--	--	--	--	--	--	--	--
10/5/2001	P		456.97	28.5	38.5	25.17	431.80	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.79	--
1/21/2002	--	e	456.97	28.5	38.5	24.79	432.18	--	--	--	--	--	--	--	--
4/26/2002	--	e	456.97	28.5	38.5	24.27	432.70	--	--	--	--	--	--	--	--
10/7/2002	--		456.97	28.5	38.5	20.20	436.77	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	--
05/01/2003	--	c, e	456.97	28.5	38.5	18.27	438.70	--	--	--	--	--	--	--	--
10/03/2003	P	d	456.97	28.5	38.5	20.07	436.90	<50	<0.50	<0.50	<0.50	<0.50	<0.50	5.2	7.3
04/06/2004	--	e	459.32	28.5	38.5	17.24	442.08	--	--	--	--	--	--	--	--
10/28/2004	P		459.32	28.5	38.5	19.38	439.94	<50	<0.50	<0.50	<0.50	<0.50	<0.50	8.1	7.3
04/13/2005	--		459.32	28.5	38.5	16.02	443.30	--	--	--	--	--	--	--	--

**Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses**

**Station #6113, 785 East Stanley Blvd., Livermore, CA**

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-3 Cont.</b>															
10/27/2005	--	t	459.32	28.5	38.5	--	--	--	--	--	--	--	--	--	--
04/12/2006	--		459.32	28.5	38.5	15.12	444.20	--	--	--	--	--	--	--	--
10/31/2006	P		459.32	28.5	38.5	19.14	440.18	400	5.5	<0.50	5.5	9.6	22	--	7.64
4/19/2007	--		459.32	28.5	38.5	23.07	436.25	--	--	--	--	--	--	--	--
10/16/2007	--	f	459.32	28.5	38.5	--	--	--	--	--	--	--	--	--	--
<b>4/24/2008</b>	<b>--</b>		<b>459.32</b>	<b>28.5</b>	<b>38.5</b>	<b>25.65</b>	<b>433.67</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>MW-4</b>															
3/23/1995	--		456.55	21.0	27.0	15.39	441.16	210	2.1	0.6	0.8	2.1	--	--	--
5/31/1995	--		456.55	21.0	27.0	15.32	441.23	190	1.6	<0.5	0.7	0.9	--	--	--
8/31/1995	--		456.55	21.0	27.0	17.86	438.69	160	1.2	0.7	<0.5	<2	<3	--	--
11/28/1995	--		456.55	21.0	27.0	17.18	439.37	150	0.7	<0.5	0.7	1.4	<3	--	--
2/22/1996	--		456.55	21.0	27.0	14.80	441.75	100	<0.5	<0.5	<0.6	0.8	<3	--	--
5/23/1996	--		456.55	21.0	27.0	14.43	442.12	86	<0.5	<0.5	<0.5	<0.7	<3	--	--
8/8/1996	--		456.55	21.0	27.0	16.80	439.75	98	<0.5	<0.5	<0.5	1.3	<3	--	--
11/7/1996	--		456.55	21.0	27.0	17.90	438.65	140	<0.5	<0.5	<0.9	1.3	<3	--	--
3/27/1997	--		456.55	21.0	27.0	15.22	441.33	<50	1.1	<0.5	<0.5	1.6	<3	--	--
5/19/1997	--		456.55	21.0	27.0	16.98	439.57	62	<0.5	<0.5	<0.5	0.6	<3	--	--
5/18/1998	--		456.55	21.0	27.0	14.99	441.56	<50	<0.5	<0.5	<0.5	<0.5	64	--	--
11/2/1998	--		456.55	21.0	27.0	25.29	431.26	74	<0.5	<0.5	<0.5	<0.5	96	--	--
6/4/1999	P		456.55	21.0	27.0	17.95	438.60	100	<0.5	<0.5	<0.5	<0.5	38	--	--
11/11/1999	P		456.55	21.0	27.0	19.25	437.30	88	<0.5	<0.5	<0.5	<1	10	0.77	--
6/20/2000	P		456.55	21.0	27.0	17.79	438.76	<50.0	<0.500	<0.500	<0.500	<0.500	82.4	1.3	--
6/20/2000	--	q	456.55	21.0	27.0	--	--	<50.0	<0.500	<0.500	<0.500	<0.500	62.3	--	--
8/29/2000	P		456.55	21.0	27.0	18.90	437.65	56	<0.500	<0.500	<0.500	<0.500	47.9	0.97	--
11/29/2000	P	s	456.55	21.0	27.0	20.50	436.05	<50.0	<0.500	<0.500	<0.500	<0.500	9.88/10.4	0.59	--
5/2/2001	P	q, s	456.55	21.0	27.0	22.65	433.90	<50.0	<0.500	<0.500	<0.500	<0.500	61.1/70.9	0.74	--
5/2/2001	--	s	456.55	21.0	27.0	--	--	<50.0	<0.500	<0.500	<0.500	<0.500	59.4/68.4	--	--
8/15/2001	--	f	456.55	21.0	27.0	--	--	--	--	--	--	--	--	--	--
10/5/2001	--	f	456.55	21.0	27.0	--	--	--	--	--	--	--	--	--	--
1/21/2002	--	f	456.55	21.0	27.0	--	--	--	--	--	--	--	--	--	--

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

Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-4 Cont.</b>															
4/26/2002	P		456.55	21.0	27.0	20.15	436.40	110	<0.50	<0.50	<0.50	<0.50	150	0.21	--
10/7/2002	P	a	456.55	21.0	27.0	20.76	435.79	96	<0.50	<0.50	0.54	<0.50	260	1.0	--
05/01/2003	P	c	456.55	21.0	27.0	19.67	436.88	120	1.3	<0.50	<0.50	<0.50	86	1.7	--
10/03/2003	P	d	456.55	21.0	27.0	20.23	436.32	<50	<0.50	<0.50	<0.50	<0.50	22	13.5	6.8
04/06/2004	P		458.88	21.0	27.0	18.13	440.75	96	<0.50	<0.50	<0.50	<0.50	17	1.6	6.8
10/28/2004	P		458.88	21.0	27.0	20.02	438.86	<50	<0.50	<0.50	<0.50	<0.50	4.5	1.2	6.7
04/13/2005	P		458.88	21.0	27.0	16.68	442.20	<50	<0.50	<0.50	<0.50	<0.50	2.8	0.8	6.7
10/27/2005	P		458.88	21.0	27.0	19.05	439.83	400	14	<0.50	11	1.8	22	1.0	6.9
04/12/2006	P		458.88	21.0	27.0	15.47	443.41	100	<0.50	<0.50	<0.50	<0.50	1.9	1.6	7.2
10/31/2006	P		458.88	21.0	27.0	19.67	439.21	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	7.63
4/19/2007	NP		458.88	21.0	27.0	22.72	436.16	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.92	7.36
10/16/2007	--	f	458.88	21.0	27.0	--	--	--	--	--	--	--	--	--	--
<b>4/24/2008</b>	<b>--</b>	<b>f</b>	<b>458.88</b>	<b>21.0</b>	<b>27.0</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>MW-5</b>															
3/23/1995	--		455.84	43.0	63.0	13.97	441.87	68	4.2	3.4	2.3	12	--	--	--
5/31/1995	--	g	455.84	43.0	63.0	--	--	--	--	--	--	--	--	--	--
8/31/1995	--	g	455.84	43.0	63.0	--	--	--	--	--	--	--	--	--	--
11/28/1995	--		455.84	43.0	63.0	16.46	439.38	960	41	24	38	210	<5	--	--
2/22/1996	--	f	455.84	43.0	63.0	13.34	442.50	--	--	--	--	--	--	--	--
5/23/1996	--		455.84	43.0	63.0	14.36	441.48	7,100	440	180	270	1,700	<50	--	--
8/8/1996	--	f	455.84	43.0	63.0	16.38	439.46	--	--	--	--	--	--	--	--
11/7/1996	--		455.84	43.0	63.0	17.26	438.58	5,600	230	86	210	1,100	<80	--	--
3/27/1997	--	f	455.84	43.0	63.0	15.95	439.89	--	--	--	--	--	--	--	--
5/19/1997	--		455.84	43.0	63.0	16.64	439.20	7,600	480	140	400	1,200	<40	--	--
5/18/1998	--		455.84	43.0	63.0	14.75	441.09	990	46	13	45	180	4	--	--
11/2/1998	--		455.84	43.0	63.0	27.83	428.01	14,000	690	140	550	2,200	100	--	--
6/4/1999	P		455.84	43.0	63.0	17.47	438.37	8,300	690	370	90	440	1,400	--	--
11/11/1999	P		455.84	43.0	63.0	18.80	437.04	18,000	900	190	1,100	3,200	72	0.86	--
6/20/2000	P		455.84	43.0	63.0	17.14	438.70	10,200	618	122	832	2,020	<50.0	1.6	--
8/29/2000	P		455.84	43.0	63.0	18.60	437.24	12,300	436	166	711	2,120	517	0.79	--

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**Station #6113, 785 East Stanley Blvd., Livermore, CA**

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-5 Cont.</b>															
11/29/2000	P	s	455.84	43.0	63.0	20.57	435.27	26,000	491	149	1,090	3,810	671/<20.0	0.51	--
5/2/2001	--	k	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>MW-6</b>															
3/23/1995	--		454.93	48.0	68.0	13.38	441.55	<50	1.5	<0.5	<0.5	0.9	--	--	--
5/31/1995	--		454.93	48.0	68.0	13.96	440.97	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
8/31/1995	--		454.93	48.0	68.0	16.71	438.22	150	9	1.8	4	12	<3	--	--
11/28/1995	--		454.93	48.0	68.0	15.65	439.28	<50	0.6	<0.5	<0.5	0.8	<3	--	--
2/22/1996	--		454.93	48.0	68.0	12.53	442.40	<50	1.9	<0.5	0.8	2.1	<3	--	--
5/23/1996	--		454.93	48.0	68.0	13.24	441.69	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
8/8/1996	--		454.93	48.0	68.0	16.65	438.28	<50	0.5	<0.5	<0.5	0.5	<3	--	--
11/7/1996	--		454.93	48.0	68.0	16.65	438.28	110	5.3	1.3	3.1	6.6	<3	--	--
3/27/1997	--		454.93	48.0	68.0	14.25	440.68	<50	2.3	<0.5	0.9	3.5	4	--	--
5/19/1997	--		454.93	48.0	68.0	15.87	439.06	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
5/18/1998	--		454.93	48.0	68.0	14.00	440.93	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
11/2/1998	--		454.93	48.0	68.0	24.95	429.98	<50	1.2	<0.5	<0.5	<0.5	3	--	--
6/4/1999	P		454.93	48.0	68.0	16.68	438.25	310	41	3.8	11	19	33	--	--
11/11/1999	P		454.93	48.0	68.0	16.12	438.81	<50	0.5	<0.5	<0.5	<1	<3	0.92	--
6/20/2000	P		454.93	48.0	68.0	16.63	438.30	<50.0	<0.500	<0.500	<0.500	<0.500	17.3	1.9	--
8/29/2000	P		454.93	48.0	68.0	17.91	437.02	<50.0	<0.500	0.551	<0.500	<0.500	<2.50	1.67	--
8/29/2000	--	q	454.93	48.0	68.0	--	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	--	--
11/29/2000	P		454.93	48.0	68.0	20.30	434.63	<50.0	<0.500	<0.500	<0.500	1.03	<2.50	0.79	--
5/2/2001	P	s	454.93	48.0	68.0	22.20	432.73	3,230	1,300	33.6	89.4	136	1,810/2,310	0.95	--
8/15/2001	P	s	454.93	48.0	68.0	27.95	426.98	<50	<0.50	<0.50	<0.50	<0.50	21/25	0.63	--
10/5/2001	P		454.93	48.0	68.0	28.05	426.88	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.85	--
1/21/2002	P		454.93	48.0	68.0	26.81	428.12	<50	<0.50	<0.50	<0.50	<0.50	<5.0	0.91	--
4/26/2002	P		454.93	48.0	68.0	26.27	428.66	<50	<0.50	<0.50	<0.50	<0.50	17	0.75	--
10/7/2002	P	a	454.93	48.0	68.0	20.05	434.88	60	13	1.7	1.7	3.5	8	2.8	--
05/01/2003	P	c	454.93	48.0	68.0	17.62	437.31	<50	5.4	<0.50	0.63	1.3	12	1.6	--
10/03/2003	P	d	454.93	48.0	68.0	19.62	435.31	80	2.6	<2.5	<2.5	<2.5	120	5.1	6.9
04/06/2004	P		457.24	48.0	68.0	16.88	440.36	<2,500	<25	<25	<25	<25	1,700	4.1	7.0

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Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)					DO (mg/L)	pH	
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes			MTBE
<b>MW-6 Cont.</b>															
10/28/2004	P		457.24	48.0	68.0	19.20	438.04	3,200	<25	<25	<25	<25	3,100	6.8	6.9
04/13/2005	P		457.24	48.0	68.0	15.15	442.09	<5,000	<50	<50	<50	<50	3,900	3.9	7.0
10/27/2005	P		457.24	48.0	68.0	18.12	439.12	<5,000	<50	<50	<50	<50	2,900	3.15	7.0
04/12/2006	P		457.24	48.0	68.0	15.32	441.92	<5,000	<50	<50	<50	<50	3,400	4.3	7.6
10/31/2006	P	u, v	457.24	48.0	68.0	18.85	438.39	2,700	<25	<25	<25	<25	3,400	--	10.36
4/19/2007	P	v	457.24	48.0	68.0	22.25	434.99	970	<25	<25	<25	<25	2,200	5.54	10.52
10/16/2007	P	v, w (MTBE)	457.24	48.0	68.0	37.17	420.07	2,700	240	<25	50	55	2,600	4.56	10.26
<b>4/24/2008</b>	<b>P</b>		<b>457.24</b>	<b>48.0</b>	<b>68.0</b>	<b>24.55</b>	<b>432.69</b>	<b>15,000</b>	<b>5,300</b>	<b>200</b>	<b>620</b>	<b>470</b>	<b>4,200</b>	<b>2.15</b>	<b>6.90</b>
<b>MW-7</b>															
3/23/1995	--		454.92	48.0	68.0	13.29	441.63	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
5/31/1995	--		454.92	48.0	68.0	13.72	441.20	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
8/31/1995	--		454.92	48.0	68.0	16.53	438.39	<50	<0.5	<0.5	<0.5	1.2	<3	--	--
11/28/1995	--		454.92	48.0	68.0	15.50	439.42	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/22/1996	--		454.92	48.0	68.0	12.30	442.62	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
5/23/1996	--		454.92	48.0	68.0	13.02	441.90	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
8/8/1996	--	m	454.92	48.0	68.0	--	--	--	--	--	--	--	--	--	--
11/7/1996	--		454.92	48.0	68.0	16.50	438.42	<50	<0.5	<0.5	<0.5	0.8	<3	--	--
3/27/1997	--		454.92	48.0	68.0	14.22	440.70	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
5/19/1997	--		454.92	48.0	68.0	15.74	439.18	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
5/18/1998	--		454.92	48.0	68.0	13.82	441.10	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
11/2/1998	--		454.92	48.0	68.0	24.80	430.12	<50	<0.5	<0.5	<0.5	<0.5	4	--	--
6/4/1999	P		454.92	48.0	68.0	16.55	438.37	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
11/11/1999	P		454.92	48.0	68.0	18.02	436.90	<50	<0.5	<0.5	<0.5	<1	<3	1.03	--
6/20/2000	P		454.92	48.0	68.0	16.50	438.42	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	1.3	--
8/29/2000	P		454.92	48.0	68.0	17.80	437.12	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	1.67	--
11/29/2000	P		454.92	48.0	68.0	19.61	435.31	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	0.51	--
5/2/2001	P	s	454.92	48.0	68.0	22.05	432.87	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50/2.66	0.9	--
8/15/2001	P		454.92	48.0	68.0	27.55	427.37	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.84	--
10/5/2001	P		454.92	48.0	68.0	27.59	427.33	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.62	--
1/21/2002	P	s	454.92	48.0	68.0	26.50	428.42	<50	<0.50	<0.50	<0.50	<0.50	15/21	0.65	--

**Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses**

**Station #6113, 785 East Stanley Blvd., Livermore, CA**

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-7 Cont.</b>															
4/26/2002	P		454.92	48.0	68.0	26.22	428.70	<50	<0.50	<0.50	<0.50	<0.50	18	0.61	--
10/7/2002	--		454.92	48.0	68.0	20.04	434.88	<50	1.2	<0.50	<0.50	0.77	41	4.8	--
05/01/2003	P	c	454.92	48.0	68.0	17.47	437.45	<50	<0.50	<0.50	<0.50	0.5	43	2.7	--
10/03/2003	P	d	454.92	48.0	68.0	19.55	435.37	<50	<1.0	<1.0	<1.0	<1.0	49	5.7	7.1
04/06/2004	P		457.17	48.0	68.0	16.60	440.57	<50	<0.50	<0.50	<0.50	0.75	0.76	0.7	7.0
10/28/2004	P		457.17	48.0	68.0	19.17	438.00	<50	<0.50	<0.50	<0.50	<0.50	14	6.7	6.9
04/13/2005	P		457.17	48.0	68.0	14.84	442.33	<50	<0.50	<0.50	<0.50	<0.50	1.7	2.3	6.9
10/27/2005	P		457.17	48.0	68.0	17.38	439.79	<50	<0.50	<0.50	<0.50	<0.50	2.3	2.16	7.0
04/12/2006	P		457.17	48.0	68.0	14.84	442.33	<50	<0.50	<0.50	<0.50	<0.50	1.1	3.0	7.2
10/31/2006	P		457.17	48.0	68.0	18.74	438.43	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	7.55
4/19/2007	P		457.17	48.0	68.0	22.11	435.06	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.37	7.60
10/16/2007	P		457.17	48.0	68.0	37.23	419.94	140	68	6.8	<0.50	5.0	24	4.87	8.02
<b>4/24/2008</b>	<b>P</b>		<b>457.17</b>	<b>48.0</b>	<b>68.0</b>	<b>24.47</b>	<b>432.70</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>0.99</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>22</b>	<b>1.96</b>	<b>7.24</b>
<b>MW-8</b>															
3/23/1995	--	e	456.97	47.0	67.0	11.55	445.42	--	--	--	--	--	--	--	--
5/31/1995	--	e	456.97	47.0	67.0	12.37	444.60	--	--	--	--	--	--	--	--
8/31/1995	--	e	456.97	47.0	67.0	15.68	441.29	--	--	--	--	--	--	--	--
11/28/1995	--		456.97	47.0	67.0	14.15	442.82	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/22/1996	--	e	456.97	47.0	67.0	10.97	446.00	--	--	--	--	--	--	--	--
5/23/1996	--	e	456.97	47.0	67.0	11.90	445.07	--	--	--	--	--	--	--	--
8/8/1996	--	e	456.97	47.0	67.0	13.85	443.12	--	--	--	--	--	--	--	--
11/7/1996	--		456.97	47.0	67.0	15.08	441.89	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
3/27/1997	--	e	456.97	47.0	67.0	12.96	444.01	--	--	--	--	--	--	--	--
5/19/1997	--	e	456.97	47.0	67.0	14.35	442.62	--	--	--	--	--	--	--	--
5/18/1998	--	e	456.97	47.0	67.0	12.97	444.00	--	--	--	--	--	--	--	--
11/2/1998	--		456.97	47.0	67.0	26.01	430.96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
6/4/1999	--	e	456.97	47.0	67.0	15.53	441.44	--	--	--	--	--	--	--	--
11/11/1999	P		456.97	47.0	67.0	16.67	440.30	<50	<0.5	<0.5	<0.5	<1	<3	1.01	--
6/20/2000	--	e	456.97	47.0	67.0	15.29	441.68	--	--	--	--	--	--	2.4	--
8/29/2000	--	e	456.97	47.0	67.0	16.59	440.38	--	--	--	--	--	--	3.37	--

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

Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-8 Cont.</b>															
11/29/2000	P		456.97	47.0	67.0	19.80	437.17	<50.0	<0.500	<0.500	<0.500	0.772	<2.50	1.35	--
5/2/2001	--	e	456.97	47.0	67.0	22.12	434.85	--	--	--	--	--	--	--	--
8/15/2001	--	e	456.97	47.0	67.0	27.63	429.34	--	--	--	--	--	--	--	--
10/5/2001	P		456.97	47.0	67.0	27.65	429.32	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.07	--
1/21/2002	--	e	456.97	47.0	67.0	26.73	430.24	--	--	--	--	--	--	--	--
4/26/2002	--	e	456.97	47.0	67.0	26.39	430.58	--	--	--	--	--	--	--	--
10/7/2002	--		456.97	47.0	67.0	18.43	438.54	<50	<0.50	<0.50	<0.50	0.86	<0.50	4.2	--
05/01/2003	--	r	456.97	47.0	67.0	16.47	440.50	--	--	--	--	--	--	--	--
10/27/2005	--		456.97	47.0	67.0	17.14	439.83	--	--	--	--	--	--	--	--
04/12/2006	--		456.97	47.0	67.0	14.08	442.89	--	--	--	--	--	--	--	--
10/31/2006	--		456.97	47.0	67.0	18.12	438.85	--	--	--	--	--	--	--	--
4/19/2007	--		456.97	47.0	67.0	22.39	434.58	--	--	--	--	--	--	--	--
10/16/2007	--		456.97	47.0	67.0	38.18	418.79	--	--	--	--	--	--	--	--
4/24/2008	--		456.97	47.0	67.0	25.43	431.54	--	--	--	--	--	--	--	--
6/18/2008	--	k	--	47.0	67.0	--	--	--	--	--	--	--	--	--	--
<b>MW-9</b>															
3/23/1995	--	e	456.18	48.0	68.0	13.18	443.00	--	--	--	--	--	--	--	--
5/31/1995	--	e	456.18	48.0	68.0	12.66	443.52	--	--	--	--	--	--	--	--
8/31/1995	--	e	456.18	48.0	68.0	14.40	441.78	--	--	--	--	--	--	--	--
11/28/1995	--		456.18	48.0	68.0	14.26	441.92	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/22/1996	--	e	456.18	48.0	68.0	12.05	444.13	--	--	--	--	--	--	--	--
5/23/1996	--	e	456.18	48.0	68.0	12.07	444.11	--	--	--	--	--	--	--	--
8/8/1996	--	e	456.18	48.0	68.0	14.12	442.06	--	--	--	--	--	--	--	--
11/7/1996	--		456.18	48.0	68.0	15.42	440.76	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
3/27/1997	--	e	456.18	48.0	68.0	13.01	443.17	--	--	--	--	--	--	--	--
5/19/1997	--	e	456.18	48.0	68.0	14.60	441.58	--	--	--	--	--	--	--	--
5/18/1998	--	e	456.18	48.0	68.0	12.60	443.58	--	--	--	--	--	--	--	--
11/2/1998	--	e	456.18	48.0	68.0	25.08	431.10	--	--	--	--	--	--	--	--
6/4/1999	P		456.18	48.0	68.0	15.87	440.31	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
11/11/1999	P		456.18	48.0	68.0	17.02	439.16	<50	<0.5	<0.5	<0.5	<1	<3	0.96	--



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

Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-9 Cont.</b>															
6/20/2000	--	e	456.18	48.0	68.0	15.54	440.64	--	--	--	--	--	--	2.1	--
8/29/2000	--	e	456.18	48.0	68.0	16.81	439.37	--	--	--	--	--	--	2.59	--
11/29/2000	P		456.18	48.0	68.0	18.81	437.37	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	0.81	--
5/2/2001	--	e	456.18	48.0	68.0	22.09	434.09	--	--	--	--	--	--	--	--
8/15/2001	--	e	456.18	48.0	68.0	27.59	428.59	--	--	--	--	--	--	--	--
10/5/2001	--	q	456.18	48.0	68.0	27.63	428.55	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
10/5/2001	P		456.18	48.0	68.0	27.63	428.55	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.93	--
1/21/2002	--	e	456.18	48.0	68.0	26.77	429.41	--	--	--	--	--	--	--	--
4/26/2002	--	e	456.18	48.0	68.0	26.41	429.77	--	--	--	--	--	--	--	--
10/7/2002	P		456.18	48.0	68.0	18.85	437.33	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.6	--
05/01/2003	--	c, e	456.18	48.0	68.0	17.84	438.34	--	--	--	--	--	--	--	--
10/03/2003	P	d	456.18	48.0	68.0	18.69	437.49	<50	1.1	0.57	<0.50	<0.50	<0.50	4.9	6.8
04/06/2004	--	e	458.55	48.0	68.0	16.08	442.47	--	--	--	--	--	--	--	--
10/28/2004	P		458.55	48.0	68.0	18.35	440.20	<50	<0.50	<0.50	<0.50	<0.50	<0.50	6.8	6.9
04/13/2005	--	e	458.55	48.0	68.0	14.09	444.46	--	--	--	--	--	--	--	--
10/27/2005	P		458.55	48.0	68.0	17.41	441.14	<50	0.51	<0.50	<0.50	<0.50	1.4	2.56	7.0
04/12/2006	--		458.55	48.0	68.0	14.18	444.37	--	--	--	--	--	--	--	--
10/31/2006	P		458.55	48.0	68.0	17.97	440.58	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	7.46
4/19/2007	--		458.55	48.0	68.0	22.37	436.18	--	--	--	--	--	--	--	--
10/16/2007	P		458.55	48.0	68.0	37.75	420.80	<50	0.83	<0.50	<0.50	<0.50	<0.50	1.27	7.59
<b>4/24/2008</b>	<b>--</b>		<b>458.55</b>	<b>48.0</b>	<b>68.0</b>	<b>24.89</b>	<b>433.66</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>MW-10</b>															
3/23/1995	--	e	456.85	32.0	52.0	14.86	441.99	--	--	--	--	--	--	--	--
5/31/1995	--	e	456.85	32.0	52.0	15.63	441.22	--	--	--	--	--	--	--	--
8/31/1995	--	e	456.85	32.0	52.0	14.40	442.45	--	--	--	--	--	--	--	--
11/28/1995	--		456.85	32.0	52.0	17.24	439.61	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/22/1996	--	e	456.85	32.0	52.0	14.30	442.55	--	--	--	--	--	--	--	--
5/23/1996	--	e	456.85	32.0	52.0	14.93	441.92	--	--	--	--	--	--	--	--
8/8/1996	--	e	456.85	32.0	52.0	17.20	439.65	--	--	--	--	--	--	--	--
11/7/1996	--		456.85	32.0	52.0	18.25	438.60	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--

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**Station #6113, 785 East Stanley Blvd., Livermore, CA**

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-10 Cont.</b>															
3/27/1997	--	e	456.85	32.0	52.0	15.77	441.08	--	--	--	--	--	--	--	--
5/19/1997	--	e	456.85	32.0	52.0	17.38	439.47	--	--	--	--	--	--	--	--
5/18/1998	--	e	456.85	32.0	52.0	15.47	441.38	--	--	--	--	--	--	--	--
11/2/1998	--		456.85	32.0	52.0	26.94	429.91	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
6/4/1999	--	e	456.85	32.0	52.0	17.19	439.66	--	--	--	--	--	--	--	--
11/11/1999	P		456.85	32.0	52.0	19.35	437.50	<50	<0.5	<0.5	<0.5	<1	<3	0.68	--
6/20/2000	--	e	456.85	32.0	52.0	17.92	438.93	--	--	--	--	--	--	2.9	--
8/29/2000	--	e	456.85	32.0	52.0	19.15	437.70	--	--	--	--	--	--	1.54	--
11/29/2000	P		456.85	32.0	52.0	21.30	435.55	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	0.95	--
5/2/2001	--	e	456.85	32.0	52.0	29.95	426.90	--	--	--	--	--	--	--	--
8/15/2001	--	e	456.85	32.0	52.0	30.74	426.11	--	--	--	--	--	--	--	--
10/5/2001	P		456.85	32.0	52.0	30.95	425.90	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.89	--
1/21/2002	--	e	456.85	32.0	52.0	28.97	427.88	--	--	--	--	--	--	--	--
4/26/2002	--	e	456.85	32.0	52.0	28.50	428.35	--	--	--	--	--	--	--	--
10/7/2002	--		456.85	32.0	52.0	21.15	435.70	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.0	--
05/01/2003	--	c, e	456.85	32.0	52.0	18.90	437.95	--	--	--	--	--	--	--	--
10/03/2003	P	d	456.85	32.0	52.0	20.64	436.21	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.4	7.1
04/06/2004	--	e	459.20	32.0	52.0	17.99	441.21	--	--	--	--	--	--	--	--
10/28/2004	P		459.20	32.0	52.0	20.27	438.93	<50	<0.50	<0.50	<0.50	<0.50	<0.50	5.9	7.1
04/13/2005	--	e	459.20	32.0	52.0	16.25	442.95	--	--	--	--	--	--	--	--
10/27/2005	P		459.20	32.0	52.0	19.03	440.17	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.38	7.2
04/12/2006	--		459.20	32.0	52.0	14.95	444.25	--	--	--	--	--	--	--	--
10/31/2006	P		459.20	32.0	52.0	20.20	439.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	7.30
4/19/2007	--		459.20	32.0	52.0	24.00	435.20	--	--	--	--	--	--	--	--
10/16/2007	NP		459.20	32.0	52.0	38.99	420.21	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.20	7.36
<b>4/24/2008</b>	<b>--</b>		<b>459.20</b>	<b>32.0</b>	<b>52.0</b>	<b>26.62</b>	<b>432.58</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>MW-11</b>															
3/23/1995	--		455.07	38.0	45.0	17.34	437.73	--	--	--	--	--	--	--	--
5/31/1995	--		455.07	38.0	45.0	16.68	438.39	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
8/31/1995	--	h	455.07	38.0	45.0	20.20	434.87	--	--	--	--	--	--	--	--

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**Station #6113, 785 East Stanley Blvd., Livermore, CA**

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-11 Cont.</b>															
11/28/1995	--		455.07	38.0	45.0	17.80	437.27	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/22/1996	--	h	455.07	38.0	45.0	15.97	439.10	--	--	--	--	--	--	--	--
5/23/1996	--		455.07	38.0	45.0	15.50	439.57	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
8/8/1996	--	h	455.07	38.0	45.0	17.77	437.30	--	--	--	--	--	--	--	--
11/7/1996	--		455.07	38.0	45.0	17.45	437.62	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
3/27/1997	--	h	455.07	38.0	45.0	15.77	439.30	--	--	--	--	--	--	--	--
5/19/1997	--		455.07	38.0	45.0	16.80	438.27	<50	1.1	4.5	<0.5	2.2	<3	--	--
5/18/1998	--		455.07	38.0	45.0	15.38	439.69	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
11/2/1998	--		455.07	38.0	45.0	24.15	430.92	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
6/4/1999	P		455.07	38.0	45.0	18.39	436.68	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
11/11/1999	P		455.07	38.0	45.0	18.62	436.45	<50	<0.5	<0.5	<0.5	<1	<3	1.01	--
6/20/2000	P		455.07	38.0	45.0	17.82	437.25	<50.0	0.631	<0.500	<0.500	<0.500	<2.50	4.1	--
8/29/2000	--	h	455.07	38.0	45.0	19.50	435.57	--	--	--	--	--	--	--	--
11/29/2000	P		455.07	38.0	45.0	20.60	434.47	<50.0	<0.500	<0.500	<0.500	1.63	<2.50	0.97	--
5/2/2001	P		455.07	38.0	45.0	22.42	432.65	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	1.04	--
8/15/2001	--	h	455.07	38.0	45.0	27.41	427.66	--	--	--	--	--	--	--	--
10/5/2001	P		455.07	38.0	45.0	27.59	427.48	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.05	--
1/21/2002	--	h	455.07	38.0	45.0	26.75	428.32	--	--	--	--	--	--	--	--
4/26/2002	P		455.07	38.0	45.0	26.50	428.57	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.47	--
10/7/2002	--		455.07	38.0	45.0	20.79	434.28	<50	<0.50	<0.50	<0.50	<0.50	1.0	1.4	--
05/01/2003	P	c	455.07	38.0	45.0	20.55	434.52	<50	<0.50	<0.50	<0.50	<0.50	1.5	3.2	--
10/03/2003	P	d	455.07	38.0	45.0	20.58	434.49	<50	<0.50	<0.50	<0.50	<0.50	3.1	3.0	7.1
04/06/2004	P		457.40	38.0	45.0	17.52	439.88	<50	<0.50	<0.50	<0.50	<0.50	14	5.1	6.7
10/28/2004	P		457.40	38.0	45.0	20.32	437.08	<50	<0.50	<0.50	<0.50	<0.50	29	1.3	7.2
04/13/2005	P		457.40	38.0	45.0	16.20	441.20	<50	<0.50	<0.50	<0.50	<0.50	3.7	2.8	7.0
10/27/2005	P		457.40	38.0	45.0	21.98	435.42	<50	<0.50	<0.50	<0.50	<0.50	21	1.04	7.2
04/12/2006	--	Well inaccessible m	457.40	38.0	45.0	--	--	--	--	--	--	--	--	--	--
10/31/2006	--		457.40	38.0	45.0	--	--	--	--	--	--	--	--	--	--
4/19/2007	P		457.40	38.0	45.0	22.38	435.02	<50	<0.50	<0.50	<0.50	<0.50	12	7.11	7.57
10/16/2007	P		457.40	38.0	45.0	37.11	420.29	<50	<0.50	<0.50	<0.50	<0.50	6.6	0.60	7.57
<b>4/24/2008</b>	<b>P</b>		<b>457.40</b>	<b>38.0</b>	<b>45.0</b>	<b>26.10</b>	<b>431.30</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>17</b>	<b>1.83</b>	<b>7.26</b>

**Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses**

**Station #6113, 785 East Stanley Blvd., Livermore, CA**

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-11</b>															
<b>MW-12</b>															
3/23/1995	--	h	455.04	18.0	34.5	15.54	439.50	--	--	--	--	--	--	--	--
5/31/1995	--		455.04	18.0	34.5	15.66	439.38	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
8/31/1995	--	h	455.04	18.0	34.5	18.23	436.81	--	--	--	--	--	--	--	--
11/28/1995	--		455.04	18.0	34.5	17.53	437.51	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/22/1996	--	h	455.04	18.0	34.5	14.45	440.59	--	--	--	--	--	--	--	--
5/23/1996	--		455.04	18.0	34.5	14.88	440.16	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
8/8/1996	--	h	455.04	18.0	34.5	17.30	437.74	--	--	--	--	--	--	--	--
11/7/1996	--		455.04	18.0	34.5	18.30	436.74	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
3/27/1997	--	h	455.04	18.0	34.5	15.69	439.35	--	--	--	--	--	--	--	--
5/19/1997	--		455.04	18.0	34.5	17.41	437.63	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
5/18/1998	--		455.04	18.0	34.5	15.21	439.83	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
11/2/1998	--	m	455.04	18.0	34.5	--	--	--	--	--	--	--	--	--	--
6/4/1999	--	m	455.04	18.0	34.5	--	--	--	--	--	--	--	--	--	--
11/11/1999	--	m	455.04	18.0	34.5	--	--	--	--	--	--	--	--	--	--
6/20/2000	--	m	455.04	18.0	34.5	--	--	--	--	--	--	--	--	--	--
8/29/2000	--	m	455.04	18.0	34.5	--	--	--	--	--	--	--	--	--	--
11/29/2000	--	m	455.04	18.0	34.5	--	--	--	--	--	--	--	--	--	--
5/2/2001	--	m	455.04	18.0	34.5	--	--	--	--	--	--	--	--	--	--
8/15/2001	--	m	455.04	18.0	34.5	--	--	--	--	--	--	--	--	--	--
10/5/2001	--	m	455.04	18.0	34.5	--	--	--	--	--	--	--	--	--	--
1/21/2002	--	m	455.04	18.0	34.5	--	--	--	--	--	--	--	--	--	--
4/26/2002	--	m	455.04	18.0	34.5	--	--	--	--	--	--	--	--	--	--
10/7/2002	--	m	455.04	18.0	34.5	--	--	--	--	--	--	--	--	--	--
05/01/2003	--	c, m	455.04	18.0	34.5	--	--	--	--	--	--	--	--	--	--
10/03/2003	--	m	455.04	18.0	34.5	--	--	--	--	--	--	--	--	--	--
04/06/2004	P		457.37	18.0	34.5	18.14	439.23	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.4	6.4
10/28/2004	P		457.37	18.0	34.5	20.66	436.71	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.7	6.8
04/13/2005	P		457.37	18.0	34.5	16.25	441.12	<50	<0.50	<0.50	<0.50	0.55	<0.50	1.9	7.5
10/27/2005	P		457.37	18.0	34.5	19.77	437.60	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.81	7.0

**Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses**

**Station #6113, 785 East Stanley Blvd., Livermore, CA**

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-12 Cont.</b>															
04/12/2006	P		457.37	18.0	34.5	16.08	441.29	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.6	7.2
10/31/2006	--		457.37	18.0	34.5	--	--	--	--	--	--	--	--	--	--
4/19/2007	NP		457.37	18.0	34.5	22.34	435.03	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.66	7.28
10/16/2007	--	f	457.37	18.0	34.5	--	--	--	--	--	--	--	--	--	--
<b>4/24/2008</b>	<b>--</b>	<b>m</b>	<b>457.37</b>	<b>18.0</b>	<b>34.5</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>MW-13</b>															
1/21/2002	P		--	--	--	24.61	--	15,000	160	68	1,700	3,200	4,900/5,200	0.71	--
4/26/2002	P		--	--	--	24.20	--	17,000	98	<100	1,700	3,400	1,600	0.6	--
10/7/2002	--	b	--	--	--	20.12	--	14,000	510	<50	2,200	2,300	2,800	0.8	--
05/01/2003	P	c	--	--	--	17.82	--	21,000	230	<50	1,900	2,300	1,600	1.9	--
10/03/2003	P	d	--	--	--	19.91	--	19,000	570	55	1,900	2,300	2,400	0.8	6.9
04/06/2004	P		457.91	--	--	17.14	440.77	15,000	470	35	1,600	1,300	1,800	2.0	6.7
10/28/2004	P		457.91	--	--	18.83	439.08	18,000	350	<25	1,900	1,800	1,800	0.8	6.7
04/13/2005	P		457.91	--	--	15.23	442.68	9,700	110	<25	860	280	920	0.9	6.9
10/27/2005	P		457.91	--	--	18.45	439.46	11,000	120	12	1,500	450	580	0.75	6.8
04/12/2006	P		457.91	--	--	15.06	442.85	4,700	65	<10	450	69	470	1.2	6.8
10/31/2006	P		457.91	--	--	19.06	438.85	15,000	150	<25	1,700	400	710	--	6.87
4/19/2007	NP		457.91	--	--	22.21	435.70	14,000	60	<25	1,800	640	330	1.44	7.09
10/16/2007	--	f	457.91	--	--	--	--	--	--	--	--	--	--	--	--
<b>4/24/2008</b>	<b>NP</b>		<b>457.91</b>	<b>--</b>	<b>--</b>	<b>24.68</b>	<b>433.23</b>	<b>1,400</b>	<b>4.5</b>	<b>1.1</b>	<b>9.4</b>	<b>15</b>	<b>49</b>	<b>2.78</b>	<b>7.25</b>
<b>VW-1</b>															
8/29/2000	P		--	24	45	17.40	--	2,360	27.6	11.6	26.3	33.2	110	4.47	--
11/29/2000	P		--	24.0	45	18.75	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	0.46	--
5/2/2001	--		--	24.0	45	21.59	--	--	--	--	--	--	--	--	--
8/15/2001	P	s	--	24.0	45	24.62	--	1,200	6.3	4.3	1.7	1.3	20/17	--	--
8/15/2001	--	q	--	24.0	45	--	--	1,200	6.2	4.1	1.8	1.1	20/17	--	--
10/5/2001	P	s	--	24.0	45	24.75	--	1,500	140	55	28	82	610/660	0.71	--
1/21/2002	--	q, s	--	24.0	45	--	--	8,000	770	320	96	1,100	2,500/3,200	--	--
1/21/2002	P	s	--	24.0	45	24.59	--	6,700	810	350	270	1,100	2,600/3,400	0.69	--

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Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>VW-1 Cont.</b>															
4/26/2002	P		--	24.0	45	24.27	--	370	26	2.1	6.6	1.7	48	0.5	--
4/26/2002	--	q	--	24.0	45	--	--	350	24	1.6	5.9	1.6	45	--	--
10/7/2002	P	b	--	24.0	45	19.20	--	410	25	2.2	8	4.3	88	1.7	--
05/01/2003	P	c	--	24.0	45	16.60	--	240	6.4	<0.50	3.3	1.3	36	1.7	--
10/03/2003	P	d	--	24.0	45	18.82	--	180	1.5	<0.50	0.69	<0.50	12	1.1	7.3
04/06/2004	P		457.08	24.0	45	15.78	441.30	300	2.2	<0.50	3.0	1.3	13	2.4	7.2
10/28/2004	P		457.08	24.0	45	18.33	438.75	210	<0.50	<0.50	0.67	<0.50	<0.50	1.2	7.1
04/13/2005	P		457.08	24.0	45	14.02	443.06	740	1.8	<0.50	3.6	1.1	9.6	2.4	7.1
10/27/2005	P		457.08	24.0	45	17.65	439.43	1,500	78	73	36	81	13	1.64	7.3
04/12/2006	P		457.08	24.0	45	13.89	443.19	230	1.4	<0.50	2.2	0.76	1.6	1.4	7.3
10/31/2006	P		457.08	24.0	45	17.87	439.21	80	<0.50	<0.50	2.3	0.82	<0.50	--	7.76
4/19/2007	P		457.08	24.0	45	21.09	435.99	250	1.6	<0.50	4.7	1.3	3.0	1.15	7.66
10/16/2007	NP		457.08	24.0	45	37.10	419.98	12,000	2,300	1,900	860	2,800	150	2.65	7.61
<b>4/24/2008</b>	<b>NP</b>		<b>457.08</b>	<b>24.0</b>	<b>45</b>	<b>24.40</b>	<b>432.68</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>4.5</b>	<b>4.95</b>	<b>7.47</b>
<b>VW-2</b>															
8/29/2000	--	g	--	28	49.5	--	--	--	--	--	--	--	--	--	--
11/29/2000	--	g	--	28	49.5	--	--	--	--	--	--	--	--	--	--
5/2/2001	--		--	28	49.5	--	--	--	--	--	--	--	--	--	--
10/5/2001	--	g	--	28	49.5	--	--	--	--	--	--	--	--	--	--
1/21/2002	--	g	--	28	49.5	--	--	--	--	--	--	--	--	--	--
4/26/2002	--	m	--	28	49.5	--	--	--	--	--	--	--	--	--	--
10/7/2002	--	g	--	28	49.5	--	--	--	--	--	--	--	--	--	--
05/01/2003	--	c, g	--	28	49.5	--	--	--	--	--	--	--	--	--	--
10/03/2003	--	Well inaccessible g	--	28	49.5	--	--	--	--	--	--	--	--	--	--
04/06/2004	--		458.64	28	49.5	16.96	441.68	--	--	--	--	--	--	--	--
10/28/2004	--		458.64	28	49.5	19.35	439.29	--	--	--	--	--	--	--	--
04/13/2005	--		458.64	28	49.5	15.51	443.13	--	--	--	--	--	--	--	--
10/27/2005	--		458.64	28	49.5	18.50	440.14	--	--	--	--	--	--	--	--
04/12/2006	--		458.64	28	49.5	14.92	443.72	--	--	--	--	--	--	--	--
10/31/2006	--		458.64	28	49.5	19.01	439.63	--	--	--	--	--	--	--	--

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**Station #6113, 785 East Stanley Blvd., Livermore, CA**

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>VW-2 Cont.</b>															
4/19/2007	--		458.64	28	49.5	22.52	436.12	--	--	--	--	--	--	--	--
10/16/2007	--		458.64	28	49.5	38.58	420.06	--	--	--	--	--	--	--	--
<b>4/24/2008</b>	<b>--</b>		<b>458.64</b>	<b>28</b>	<b>49.5</b>	<b>24.91</b>	<b>433.73</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>VW-3</b>															
8/29/2000	P		--	15.5	24	17.93	--	25,400	3,540	10,600	1,280	43,000	44,700	--	--
11/29/2000	P	s	--	15.5	24	19.75	--	54,200	9,450	1,870	2,350	9,400	12,300/15,100	0.47	--
5/2/2001	--	k	--	15.5	24	--	--	--	--	--	--	--	--	--	--
<b>VW-4</b>															
8/29/2000	--	g	--	17	30	--	--	--	--	--	--	--	--	--	--
11/29/2000	--	q, s	--	17	30	--	--	36,100	3,700	206	1,850	7,890	6,430/8,460	--	--
11/29/2000	P	s	--	17	30	19.45	--	37,500	4,510	206	2,100	9,030	6,770/7,880	0.42	--
5/2/2001	--		--	17	30	21.66	--	--	--	--	--	--	--	--	--
8/15/2001	--		--	17	30	--	--	--	--	--	--	--	--	--	--
10/5/2001	--	f	--	17	30	--	--	--	--	--	--	--	--	--	--
1/21/2002	--	f	--	17	30	--	--	--	--	--	--	--	--	--	--
4/26/2002	--	f	--	17	30	--	--	--	--	--	--	--	--	--	--
10/7/2002	--		--	17	30	19.25	--	--	--	--	--	--	--	--	--
05/01/2003	--	c	--	17	30	17.29	--	--	--	--	--	--	--	--	--
10/03/2003	P	d, n	--	17	30	19.10	--	48,000	3,300	1,700	3,600	21,000	1,600	10.5	6.7
04/06/2004	--		456.99	17	30	18.05	438.94	--	--	--	--	--	--	--	--
10/28/2004	--		456.99	17	30	18.71	438.28	--	--	--	--	--	--	--	--
04/13/2005	--		456.99	17	30	14.62	442.37	--	--	--	--	--	--	--	--
10/27/2005	--		456.99	17	30	18.00	438.99	--	--	--	--	--	--	--	--
04/12/2006	--		456.99	17	30	14.42	442.57	--	--	--	--	--	--	--	--
10/31/2006	--		456.99	17	30	18.30	438.69	--	--	--	--	--	--	--	--
4/19/2007	--		456.99	17	30	20.91	436.08	--	--	--	--	--	--	--	--
10/16/2007	--	f	456.99	17	30	--	--	--	--	--	--	--	--	--	--
<b>4/24/2008</b>	<b>--</b>		<b>456.99</b>	<b>17</b>	<b>30</b>	<b>23.40</b>	<b>433.59</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>

#### ABBREVIATIONS & SYMBOLS:

-- = Not analyzed/applicable/measured/available  
< = Not detected at or above specified laboratory reporting limit  
DO = Dissolved oxygen  
DTW = Depth to water in ft bgs  
ft bgs = Feet below ground surface  
ft MSL = Feet above mean sea level  
GRO = Gasoline range organics  
GWE = Groundwater elevation measured in ft MSL  
mg/L = Milligrams per liter  
MTBE = Methyl tert-butyl ether  
NP = Well not purged prior to sampling  
P = Well purged prior to sampling  
TOC = Top of casing measured in ft MSL  
TPH-g = Total petroleum hydrocarbons as gasoline  
µg/L = Micrograms per liter

#### FOOTNOTES:

a = Hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.  
b = Chromatogram Pattern: C6-C10.  
c = TPH-g, benzene, toluene, ethylbenzene, and total xylenes (BTEX), and MTBE analyzed using EPA Method 8260B beginning second quarter 2003 (05/01/03).  
d = This sample was analyzed 3 days after the EPA recommended holding time. The results may still be useful for their intended purpose.  
e = Well sampled annually in the fourth quarter.  
f = Well dry.  
g = Well inaccessible.  
h = Well sampled semi-annually in second and fourth quarters.  
k = Well abandoned.  
m = Unable to locate well.  
n = Sheen in well.  
q = Duplicate sample.  
r = Well removed from sampling schedule.  
s = Original sample analyzed by 8021B and confirmation by 8260.  
t = Bolts securing well box cover stripped at head. Unable to sample well.  
u = Hydrocarbon result partly due to individ. peak(s) in quant. range.  
v = pH measurement is believed to be erroneous.  
w = Sample > 4x spike concentration.

#### NOTES:

Beginning in the second quarter 2003 (05/01/03) TPH-g and BTEX were analyzed using EPA Method 8260B, and MTBE was analyzed by EPA Method 8260B beginning in fourth quarter 2002. Prior to 05/01/03, TPH-g was analyzed by EPA Method 8015; BTEX by EPA Method 8021B (EPA method 8020 before 11/11/99); and MTBE by EPA Method 8021B. (EPA method 8020 before 11/11/99). Any MTBE detection by 8021B was confirmed by EPA Method 8260 beginning third quarter 2000 (08-29-00 results).

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

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

Wells were resurveyed to NAVD '88 datum by URS Corporation on March 8, 2004.

Values for DO and pH were obtained through field measurements.

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 #6113, 785 East Stanley Blvd., Livermore, CA**

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
<b>MW-1</b>									
10/7/2002	<40	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>MW-2</b>									
10/7/2002	<40	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>MW-3</b>									
10/7/2002	<40	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/03/2003	<100	<20	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	a
10/28/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/31/2006	<300	<20	22	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>MW-4</b>									
10/7/2002	<400	<200	260	<5.0	<5.0	<5.0	<5.0	<5.0	
5/1/2003	<100	25	86	<0.50	<0.50	<0.50	<0.50	<0.50	
10/03/2003	<100	<20	22	<1.0	<1.0	<1.0	<0.50	<0.50	a
04/06/2004	<100	<20	17	<0.50	<0.50	<0.50	<0.50	<0.50	
10/28/2004	<100	<20	4.5	<0.50	<0.50	<0.50	<0.50	<0.50	
04/13/2005	<100	<20	2.8	<0.50	<0.50	<0.50	<0.50	<0.50	
10/27/2005	<100	<20	22	<0.50	<0.50	<0.50	<0.50	<0.50	
04/12/2006	<300	<20	1.9	<0.50	<0.50	<0.50	<0.50	<0.50	b
10/31/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
4/19/2007	<300	<20	<0.50	<0.50	<0.50	0.66	<0.50	<0.50	
<b>MW-6</b>									
10/7/2002	<40	<20	8	<0.50	<0.50	<0.50	<0.50	<0.50	
5/1/2003	<100	<20	12	<0.50	<0.50	<0.50	<0.50	<0.50	
10/03/2003	<500	<100	120	<5.0	<5.0	<5.0	<2.5	<2.5	a
04/06/2004	<5,000	<1,000	1,700	<25	<25	<25	<25	<25	
10/28/2004	<5,000	<1,000	3,100	<25	<25	<25	<25	<25	
04/13/2005	<10,000	<2,000	3,900	<50	<50	<50	<50	<50	
10/27/2005	<10,000	<2,000	2,900	<50	<50	<50	<50	<50	b
04/12/2006	<30,000	<2,000	3,400	<50	<50	<50	<50	<50	b
10/31/2006	<15,000	<1,000	3,400	<25	<25	<25	<25	<25	b

**Table 2. Summary of Fuel Additives Analytical Data  
Station #6113, 785 East Stanley Blvd., Livermore, CA**

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
<b>MW-6 Cont.</b>									
4/19/2007	<15,000	<1,000	2,200	<25	<25	<25	<25	<25	
10/16/2007	<15,000	<1,000	2,600	<25	<25	<25	<25	<25	c (MTBE)
<b>4/24/2008</b>	<b>&lt;6,000</b>	<b>1,500</b>	<b>4,200</b>	<b>&lt;10</b>	<b>&lt;10</b>	<b>&lt;10</b>	<b>&lt;10</b>	<b>&lt;10</b>	
<b>MW-7</b>									
10/7/2002	<40	<20	41	<0.50	<0.50	<0.50	<0.50	<0.50	
5/1/2003	<100	<20	43	<0.50	<0.50	<0.50	<0.50	<0.50	
10/03/2003	<200	<40	49	<2.0	<2.0	<2.0	<1.0	<1.0	a
04/06/2004	<100	<20	0.76	<0.50	<0.50	<0.50	<0.50	<0.50	
10/28/2004	<100	<20	14	<0.50	<0.50	<0.50	<0.50	<0.50	
04/13/2005	<100	<20	1.7	<0.50	<0.50	<0.50	<0.50	<0.50	
10/27/2005	<100	<20	2.3	<0.50	<0.50	<0.50	<0.50	<0.50	b
04/12/2006	<300	<20	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	b
10/31/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	b
4/19/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/16/2007	<300	<20	24	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>4/24/2008</b>	<b>&lt;300</b>	<b>&lt;10</b>	<b>22</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	
<b>MW-8</b>									
10/7/2002	<40	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>MW-9</b>									
10/7/2002	<40	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/03/2003	<100	<20	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	a
10/28/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/27/2005	<100	<20	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	b
10/31/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	b
10/16/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>MW-10</b>									
10/7/2002	<40	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/03/2003	<100	<20	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	a
10/28/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	

**Table 2. Summary of Fuel Additives Analytical Data  
Station #6113, 785 East Stanley Blvd., Livermore, 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>									
10/27/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/31/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	b
10/16/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>MW-11</b>									
10/7/2002	<40	<20	1.0	<0.50	<0.50	<0.50	<0.50	<0.50	
5/1/2003	<100	<20	--	<0.50	<0.50	<0.50	<0.50	<0.50	
10/03/2003	<100	<20	3.1	<1.0	<1.0	<1.0	<0.50	<0.50	a
04/06/2004	<100	<20	14	<0.50	<0.50	<0.50	<0.50	<0.50	
10/28/2004	<100	<20	29	<0.50	<0.50	<0.50	<0.50	<0.50	
04/13/2005	<100	<20	3.7	<0.50	<0.50	<0.50	<0.50	<0.50	
10/27/2005	<100	<20	21	<0.50	<0.50	<0.50	<0.50	<0.50	
04/12/2006	--	--	--	--	--	--	--	--	Well inaccessible
4/19/2007	<300	<20	12	<0.50	<0.50	<0.50	<0.50	<0.50	
10/16/2007	<300	<20	6.6	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>4/24/2008</b>	<b>&lt;300</b>	<b>&lt;10</b>	<b>17</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	
<b>MW-12</b>									
04/06/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/28/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
04/13/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/27/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
04/12/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	b
4/19/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>MW-13</b>									
10/7/2002	<4,000	<2,000	2,800	<50	<50	<50	<50	<50	
5/1/2003	<10,000	<2,000	--	<50	<50	<50	<50	<50	
10/03/2003	<10,000	<2,000	2,400	<100	<100	<100	<50	<50	a
04/06/2004	<5,000	<1,000	1,800	<25	<25	<25	<25	<25	
10/28/2004	<5,000	<1,000	1,800	<25	<25	<25	<25	<25	
04/13/2005	<5,000	<1,000	920	<25	<25	<25	<25	<25	
10/27/2005	<2,000	<400	580	<10	<10	<10	<10	<10	

**Table 2. Summary of Fuel Additives Analytical Data  
Station #6113, 785 East Stanley Blvd., Livermore, CA**

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
<b>MW-13 Cont.</b>									
04/12/2006	<6,000	<400	470	<10	<10	<10	<10	<10	b
10/31/2006	<15,000	<1,000	710	<25	<25	<25	<25	<25	b
4/19/2007	<15,000	<1,000	330	<25	<25	<25	<25	<25	
<b>4/24/2008</b>	<b>&lt;300</b>	<b>14</b>	<b>49</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	
<b>VW-1</b>									
10/7/2002	<80	<40	--	<1.0	<1.0	<1.0	<1.0	<1.0	
5/1/2003	<100	<20	--	<0.50	<0.50	<0.50	<0.50	<0.50	
10/03/2003	<100	<20	12	<1.0	<1.0	<1.0	<0.50	<0.50	a
04/06/2004	<100	<20	13	<0.50	<0.50	<0.50	<0.50	<0.50	
10/28/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
04/13/2005	<100	<20	9.6	<0.50	<0.50	<0.50	<0.50	<0.50	
10/27/2005	<100	<20	13	<0.50	<0.50	<0.50	<0.50	<0.50	
04/12/2006	<300	<20	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	b
10/31/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	b
4/19/2007	<300	<20	3.0	<0.50	<0.50	<0.50	<0.50	<0.50	
10/16/2007	<15,000	<1,000	150	<25	<25	<25	<25	<25	b
<b>4/24/2008</b>	<b>&lt;300</b>	<b>&lt;10</b>	<b>4.5</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	
<b>VW-2</b>									
10/03/2003	--	--	--	--	--	--	--	--	Well inaccessible
<b>VW-4</b>									
10/03/2003	<100,000	<20,000	1,600	<1,000	<1,000	<1,000	<500	<500	a

ABBREVIATIONS & SYMBOLS:

-- = Not analyzed/applicable/measured/available

< = Not detected at or above specified laboratory reporting limit

1,2-DCA = 1,2-Dichloroethane

DIPE = Di-isopropyl ether

EDB = 1,2-Dibromoethane

ETBE = Ethyl tert-butyl ether

MTBE = Methyl tert-butyl ether

TAME = tert-Amyl methyl ether

TBA = tert-Butyl alcohol

µg/L = Micrograms per Liter

FOOTNOTES:

a = This sample was analyzed 3 days after the EPA recommended holding time. The results may still be useful for their intended purpose.

b = Calibration verification for ethanol was within method limits but outside contract limits.

c = 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.

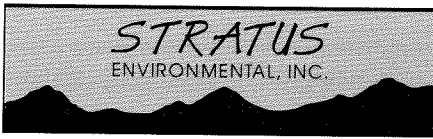
**Table 3. Historical Ground-Water Flow Direction and Gradient**  
**Station #6113, 785 East Stanley Blvd., Livermore, CA**

<b>Date Sampled</b>	<b>Approximate Flow Direction</b>	<b>Approximate Hydraulic Gradient</b>
3/23/1995	Northwest	0.035
5/31/1995	North-Northwest	0.028
8/31/1995	North-Northwest	0.03
11/28/1995	North-Northwest	0.025
2/22/1996	North-Northwest	0.031
5/23/1996	North-Northwest	0.025
8/8/1996	North	0.019
11/7/1996	North-Northeast	0.019
3/27/1997	North-Northwest	0.021
5/19/1997	North	0.019
5/18/1998	North	0.02
11/2/1998	North	0.02
6/4/1999	North	0.02
11/11/1999	North	0.03
6/20/2000	North-Northeast	0.014
8/29/2000	North-Northeast	0.013
11/29/2000	North-Northwest	0.026
5/2/2001	Northeast	0.026
8/15/2001	Northeast	0.047
10/5/2001	Northeast	0.031
1/21/2002	Northeast	0.033
4/26/2002	Northeast	0.031
10/7/2002	Northeast	0.017
5/1/2003	North-Northeast	0.011
10/3/2003	North-Northeast	0.016
4/6/2004	North-Northeast	0.013
10/28/2004	North-Northeast	0.014
4/13/2005	North-Northwest	0.02
10/27/2005	North-Northwest	0.01 to 0.03
4/12/2006	Northeast	0.01
10/31/2006	Northeast	0.014
4/19/2007	Northeast	0.013
10/16/2007	Northeast	0.031
<b>4/24/2008</b>	<b>North-Northwest</b>	<b>0.013</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**

**STRATUS ENVIRONMENTAL, INC. GROUNDWATER SAMPLING DATA PACKAGE  
(INCLUDES FIELD DATA SHEETS, NON-HAZARDOUS WASTE DATA FORM,  
CHAIN OF CUSTODY DOCUMENTATION, CERTIFIED ANALYTICAL  
RESULTS, AND FIELD PROCEDURES FOR GROUNDWATER SAMPLING)**



3330 Cameron Park Drive, Ste 550  
Cameron Park, California 95682  
(530) 676-6004 ~ Fax: (530) 676-6005

May 13, 2008

Mr. Rob Miller  
Broadbent & Associates, Inc.  
2000 Kirman Avenue  
Reno, NV 89502

Re: Groundwater Sampling Data Package, BP Service Station No. 6113, located at  
785 E. Stanley, Livermore, California.

### **General Information**

*Data Submittal Prepared / Reviewed by:* Becky Carroll / Jay Johnson

*Phone Number:* (530) 676-6000

*On-Site Supplier Representatives:* Josh Slater and Chris Grant

*Sample Date:* April 24, 2008

*Arrival:* 05:15      *Departure:* 11:30

*Weather Conditions:* Clear

*Unusual Field Conditions:* None noted.

*Scope of Work Performed:* Quarterly monitoring and sampling.

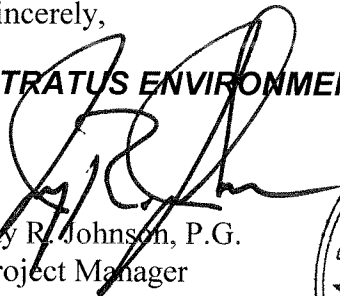
*Variations from Work Scope:* Technician could not locate well MW-12 during sampling event. However, at a later time MW-12 was located in the planter box adjacent to new building. Well MW-4 was dry.

This submittal presents the tabulation of data collected in association with routine groundwater monitoring. The attachments include field data sheets, non-hazardous waste data form, chain of custody documentation, certified analytical results, and field procedures for groundwater sampling documentation. The information is being provided to BP-ARCO's Scoping Supplier for use in preparing a report for regulatory submittal. This submittal is limited to presentation of collected data and does not include data interpretation or conclusions or recommendations. Any questions concerning this submittal should be addressed to the Preparer/Reviewer identified above.



Sincerely,

**STRATUS ENVIRONMENTAL, INC.**

  
Jay R. Johnson, P.G.  
Project Manager



**Attachments:**

- Field Data Sheets
- Non-Hazardous Waste Data Form
- Chain of Custody Documentation
- Certified Analytical Results
- Field Procedures for Groundwater Sampling

CC: Mr. Paul Supple, BP/ARCO



Site Address 785 E. Stanley Blvd  
 City Livermore  
 Sampled by: JS/CG  
 Signature J. Natta

Site Number ARGO 6113  
 Project Number \_\_\_\_\_  
 Project PM \_\_\_\_\_  
 DATE 4-24-08

Water Level Data					Purge Volume Calculations					Purge Method				Sample Record			Field Data
Well ID	Time	Depth to Product (feet)	Depth to Water (feet)	Total Depth (feet)	Water column (feet)	Diameter (inches)	Multiplier	3 casing volumes (gallons)	Actual water purged (gallons)	No Purge	Bailer	Pump	other	DTW at sample time (feet)	Sample I.D	Sample Time	DO (mg/L)
MW-1	0559		25.97	44.41	—	2	0.5	—	—	+				N/A	MW-1	N/A	
MW-2	0605		26.38	38.42	—	2	0.5	—	—	+				N/A	MW-2	N/A	
MW-3	0609		25.65	38.95	—	2	0.5	—	—	+				N/A	MW-3	N/A	
MW-4	0820		26.51	26.51	Dry	4	2	—	—	+	DRY			N/A	MW-4	N/A	
MW-5		ABANDONED WELL				4	2								MW-5		
MW-6	0638		24.55	66.71	47.16	4	2	84.32	84		+			24.82	MW-6	0045	2.15
MW-7	0653		24.47	67.37	42.90	4	2	85.80	86		+			24.70	MW-7	0930	1.96
MW-8	0554		25.43	66.41	—	4	2	—	—	+				N/A	MW-8	N/A	
MW-9	0546		24.89	67.71	—	4	2	—	—	+				N/A	MW-9	N/A	
MW-10	0615		26.62	49.83	—	4	2	—	—	+				N/A	MW-10	N/A	
MW-11	0530		26.10	44.24	18.14	2	0.5	9.07	9		+			25.72	MW-11	1055	1.83
MW-12	UNABLE TO LOCATE					2	0.5								MW-12		
MW-13	0623		24.68	31.12	N/P	2	0.5	—	—	+	SAMPLE ONLY			24.68	MW-13	0631	2.78
VW-1	0658		24.40	44.04	N/P	4	2	—	—	+	SAMPLE ONLY			24.40	VW-1	0754	4.95
VW-2	0813		24.91	49.05	—	4	2	—	—	+				N/A	VW-2	N/A	
VW-4	0648		23.40	24.75	—	4	2	—	—	+				N/A	VW-4	N/A	
TB																	

\* STOP WORK 0800 → 0800 NAZMAT  
 Multiplier  
 2" = 0.5 3" = 1.0 4" = 2.0 6" = 4.4

Please refer to groundwater sampling field procedures  
 pH/Conductivity/temperature Meter - Oakton Model PC-10  
 DO Meter - Oakton 300 Series (DO is always measured before purge)

CALIBRATION DATE \_\_\_\_\_  
 pH 4-24  
 Conductivity 4-24  
 DO 4-24



Site Address \_\_\_\_\_  
 City \_\_\_\_\_  
 Site Sampled by JS/CB

Site Number ARW 6113  
 Project No. \_\_\_\_\_  
 Project PM \_\_\_\_\_  
 Date Sampled 4-24-08

Well ID <u>MW-13</u> <u>0631</u>					Well ID <u>VW-1</u> <u>0754</u>				
purge start time <u>BATLER</u> <u>NO ODOR</u>					purge start time <u>BATLER</u> <u>NO ODOR</u>				
	Temp C	pH	cond	gallons		Temp C	pH	cond	gallons
time	<u>17.4</u>	<u>7.25</u>	<u>901</u>	<u>Ø</u>	time	<u>17.0</u>	<u>7.47</u>	<u>685</u>	<u>Ø</u>
time					time				
time					time				
time					time				
purge stop time					pugre stop time				
Well ID <u>MW-7</u> <u>6930</u>					Well ID <u>MW-6</u> <u>1045</u>				
purge start time <u>BATLER</u> <u>NO ODOR</u>					purge start time <u>BATLER</u> <u>ODOR</u>				
	Temp C	pH	cond	gallons		Temp C	pH	cond	gallons
time	<u>18.3</u>	<u>7.64</u>	<u>618</u>	<u>Ø</u>	time	<u>19.6</u>	<u>8.85</u>	<u>640</u>	<u>Ø</u>
time	<u>18.9</u>	<u>7.19</u>	<u>642</u>		time	<u>18.9</u>	<u>6.93</u>	<u>996</u>	
time	<u>18.2</u>	<u>7.24</u>	<u>637</u>		time	<u>19.2</u>	<u>6.90</u>	<u>867</u>	
time					time				
purge stop time					purge stop time				
Well ID <u>MW-11</u> <u>1055</u>					Well ID				
purge start time <u>BATLER</u> <u>NO ODOR</u>					purge start time				
	Temp C	pH	cond	gallons		Temp C	pH	cond	gallons
time	<u>18.7</u>	<u>7.49</u>	<u>719</u>	<u>Ø</u>	time				
time	<u>19.0</u>	<u>7.22</u>	<u>745</u>	<u>4.5</u>	time				
time	<u>20.0</u>	<u>7.26</u>	<u>739</u>	<u>9</u>	time				
time					time				
purge stop time					purge stop time				
Well ID					Well ID				
purge start time					purge start time				
	Temp C	pH	cond	gallons		Temp C	pH	cond	gallons
time					time				
time					time				
time					time				
time					time				
purge stop time					purge stop time				

# WELLHEAD OBSERVATION FORM



Site Name/Number: ARCO 6613

Date: 4-25-08

Technician: J. SLATER

Well I.D.	Box in Good Condition? <small>X = Yes Blank = No</small>	Lock Missing? <small>X = Yes (replaced) Blank = No</small>	Water in Wellbox? <small>X = Yes Blank = No</small>	Water Level Relative to Cap? <small>A = Above cap B = Below cap L = Level w/cap</small>	Well Cap? <small>I = Intact M = Missing or Compromised (replaced)</small>	Bolts Missing? <small>X = Yes Blank = No</small>	Bolts Stripped? <small>X = Yes Blank = No</small>	Bolt Holes Stripped? <small>X = Yes Blank = No</small>	Cracked or Broken Lid? <small>X = Yes Blank = No</small>	Cracked or Broken Box? <small>X = Yes Blank = No</small>	Grout Level more than 1ft below TOC? <small>X = Yes Blank = No</small>	Additional Comments <small>(such as missing lid, concrete needs replacement, or other - explain)</small>
MW-1	X											
2												
3						X						
4	X					X						
6	X											
7												
8	X											
9	X					X						
10	X											
11	X											
12												
13			X	B								
VW-1	X											
2	X											
4	X											

**DRUM INVENTORY**

Drums on site? Yes No (circle)  
 Type and # Steel: \_\_\_\_\_ Plastic: \_\_\_\_\_  
 Note whether drums are full or empty, solids or liquids:

Drum label info (description, date, contact info):

**GENERAL SITE CONDITIONS**

Make notes on housekeeping conditions (such as trash around remediation system enclosure/compound, bent or missing bollards, signs missing from compound fences, graffiti on compound, etc.)

TRASH IN ENCLOSURE  
SIGNS MISSING

NO. 669938

# NON-HAZARDOUS WASTE DATA FORM

SITE: 785 E. STANLEY BLVD  
LIVERMORE, CA EPA I.D. NO.

NOT REQUIRED

NAME BP WEST COAST PRODUCTS LLC ARCO # 6113

ADDRESS P.O. BOX 90249  
RANCHO SANTA MARGARITA

PROFILE NO.

CITY, STATE, ZIP CA 92588

PHONE NO. ( )

CONTAINERS: No. \_\_\_\_\_ VOLUME 179 gal WEIGHT \_\_\_\_\_

TYPE:  TANK TRUCK  DUMP TRUCK  DRUMS  CARTONS  OTHER \_\_\_\_\_

WASTE DESCRIPTION NON-HAZARDOUS WATER GENERATING PROCESS WELL PURGING/DECON WATER

COMPONENTS OF WASTE			COMPONENTS OF WASTE		
	PPM	%		PPM	%
1. <u>WATER</u>	<u>59-100%</u>		5. _____		
2. <u>TPH</u>	<u>&lt;1%</u>		6. _____		
3. _____			7. <u>BESI#</u>		
4. _____			8. _____		

PROPERTIES: 7-10  SOLID  LIQUID  SLUDGE  SLURRY  OTHER \_\_\_\_\_

HANDLING INSTRUCTIONS: WEAR ALL APPROPRIATE PROTECTIVE CLOTHING

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Larry Moothart BESI for BP  
TYPED OR PRINTED FULL NAME & SIGNATURE

4-25-08  
DATE

TO BE COMPLETED BY GENERATOR

TRANSPORTER

NAME Transporter #1 STRATUS ENVIRONMENTAL Transporter #2

EPA I.D. NO.

ADDRESS 3330 CAMERON PARK DR

SERVICE ORDER NO. \_\_\_\_\_

CITY, STATE, ZIP CAMERON PARK, CA 95682

PICK UP DATE \_\_\_\_\_

PHONE NO. 530-676-2031

TRUCK, UNIT, I.D. NO. \_\_\_\_\_

J. Slater  
TYPED OR PRINTED FULL NAME & SIGNATURE

4-25-08  
DATE

TSD FACILITY

NAME INSTRAT, INC

EPA I.D. NO.

ADDRESS 1105 AIRPORT RD #C

DISPOSAL METHOD

LANDFILL  OTHER \_\_\_\_\_

CITY, STATE, ZIP RIO VISTA, CA 94571

PHONE NO. 530-753-1829

\_\_\_\_\_  
TYPED OR PRINTED FULL NAME & SIGNATURE

DATE

GEN	OLD/NEW	L	A	TONS
TRANS		S	B	
C/Q		RT/CD	HWDF	NONE

DISCREPANCY

## Chain of Custody Record

Project Name: ARCO 6113  
 BP BU/AR Region/Enfos Segment: BP > Americas > West > Retail > Alameda > 6113  
 State or Lead Regulatory Agency: \_\_\_\_\_  
 Requested Due Date (mm/dd/yy): 5/10/08

On-site Time: <u>0515</u>	Temp: <u>40'S</u>
Off-site Time: <u>1130</u>	Temp: <u>60'S</u>
Sky Conditions: <u>CLEAR</u>	
Meteorological Events: _____	
Wind Speed: _____	Direction: _____

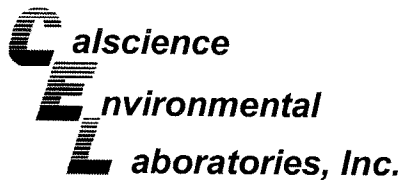
Lab Name: <u>Cal Science</u>	BP/AR Facility No.: <u>6113</u>	Consultant/Contractor: <u>Stratus Environmental, Inc.</u>
Address: <u>7440 Lincoln way</u>	BP/AR Facility Address: <u>785 Stanley Blvd., Livermore</u>	Address: <u>3330 Cameron Park Drive, Suite 550</u>
Garden Grove Ca. <u>92841-1427</u>	Site Lat/Long: _____	<u>Cameron Park, CA 95682</u>
Lab PM: <u>Linda Sharpenberg</u>	California Global ID No.: <u>T0600100111</u>	Consultant/Contractor Project No.: _____
Tele/Fax: <u>714-895-5494 714-895-7501 (fax)</u>	Enfos Project No.: <u>G0C54-0022</u>	Consultant/Contractor PM: <u>Jay Johnson</u>
BP/AR PM Contact: <u>Paul Supple</u>	Provision or OOC (circle one) <u>Provision</u>	Tele/Fax: <u>(530) 676-6000 / (530) 676-6005</u>
Address: <u>2010 Crow Canyon Place, Suite 150</u>	Phase/WBS: <u>04-Monitoring</u>	Report Type & QC Level: <u>Level 1 with EDF</u>
<u>San Ramon, CA</u>	Sub Phase/Task: <u>03-Analytical</u>	E-mail EDD To: <u>shayes@stratusinc.net</u>
Tele/Fax: <u>925-275-3506</u>	Cost Element: <u>01-Contractor labor</u>	Invoice to: <u>Atlantic Richfield Co.</u>

Item No.	Sample Description	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative					Requested Analysis						Sample Point Lat/Long and Comments					
				Soil/Solid	Water/Liquid	Air			Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	Methanol	GRO	BTEX	S.OXY	EDB	1,2 DCA	ETHANOL						
1	MN-6	1045	4/24	X				6																	
2	MW-7	0930																							
3	MW-11	1120																							
4	MW-13	0631																							
5	VW-1	0754																							
6																									
7																									
8																									
9																									
10																									

Sampler's Name: <u>JS/CG</u>	Relinquished By / Affiliation: <u>J. Miller / STRATUS</u>	Date: <u>4-25-08</u>	Time: <u>0940</u>	Accepted By / Affiliation: _____	Date: _____	Time: _____
Sampler's Company: <u>STRATUS</u>						
Shipment Date: <u>4-25-08</u>						
Shipment Method: <u>G150</u>						
Shipment Tracking No: <u>105723942(JS) 9255091638</u>						

Special Instructions: Please cc results to rmiller@broadbentinc.com

Custody Seals In Place: Yes / No	Temp Blank: Yes / No	Cooler Temp on Receipt: °F/C	Trip Blank: Yes / No	MS/MSD Sample Submitted: Yes / No
----------------------------------	----------------------	------------------------------	----------------------	-----------------------------------



May 09, 2008

Jay Johnson  
Stratus Environmental, inc.  
3330 Cameron Park Drive, Suite 550  
Cameron Park, CA 95682-8861

Subject: **Calscience Work Order No.: 08-04-2327**  
**Client Reference: ARCO 6113**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 4/26/2008 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink that reads "Linda Scharpenberg". The signature is written in a cursive style with a horizontal line underneath.

Calscience Environmental  
Laboratories, Inc.  
Linda Scharpenberg  
Project Manager



**CASE NARRATIVE – 08-04-2327**

**Data Qualifiers - EPA 8260:**

080507S01:

The % recoveries for MTBE in the MS/MSD were below acceptance criteria. The % recoveries were within criteria in the LCS/LCSD. The MS/MSD has been flagged “3” within the report.

**“3” = LN, AY**

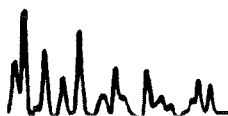
LN = MS and/or MSD below acceptance limits. See Blank Spike (LCS).  
AY = Matrix Interference Suspected

080507S02:

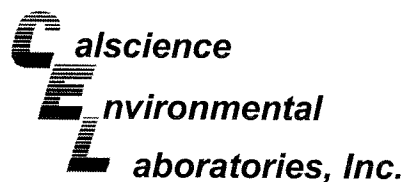
The % recoveries for DIPE and ETBE in the MS/MSD were above acceptance criteria. The % recoveries were within criteria in the LCS/LCSD. The MS/MSD has been flagged “3” within the report.

**“3” = LM, AY**

LM = MS and/or MSD above acceptance limits. See Blank Spike (LCS).  
AY = Matrix Interference Suspected







## Analytical Report



Stratus Environmental, inc.  
3330 Cameron Park Drive, Suite 550  
Cameron Park, CA 95682-8861

Date Received: 04/26/08  
Work Order No: 08-04-2327  
Preparation: EPA 5030B  
Method: EPA 8015B (M)

Project: ARCO 6113

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-6	08-04-2327-1-D	04/24/08 10:45	Aqueous	GC 29	04/28/08	04/29/08 07:00	080428B02

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	15000	250	5		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	125	38-134			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-7	08-04-2327-2-D	04/24/08 09:30	Aqueous	GC 29	04/28/08	04/29/08 07:34	080428B02

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	92	38-134			

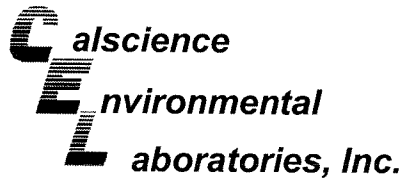
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-11	08-04-2327-3-D	04/24/08 11:20	Aqueous	GC 29	04/28/08	04/29/08 08:08	080428B02

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	89	38-134			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13	08-04-2327-4-D	04/24/08 06:31	Aqueous	GC 29	04/28/08	04/29/08 08:42	080428B02

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	1400	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	95	38-134			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



Stratus Environmental, inc.  
 3330 Cameron Park Drive, Suite 550  
 Cameron Park, CA 95682-8861

Date Received: 04/26/08  
 Work Order No: 08-04-2327  
 Preparation: EPA 5030B  
 Method: EPA 8015B (M)

Project: ARCO 6113

Page 2 of 2

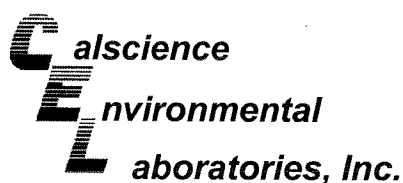
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW-1	08-04-2327-5-D	04/24/08 07:54	Aqueous	GC 29	04/28/08	04/29/08 09:16	080428B02

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	91	38-134			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-695-122	N/A	Aqueous	GC 29	04/28/08	04/29/08 01:53	080428B02

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	95	38-134			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report

Stratus Environmental, inc.  
3330 Cameron Park Drive, Suite 550  
Cameron Park, CA 95682-8861

Date Received: 04/26/08  
Work Order No: 08-04-2327  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

Project: ARCO 6113

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-6	08-04-2327-1-A	04/24/08 10:45	Aqueous	GC/MS BB	05/05/08	05/06/08 05:59	080505L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	5300	200	400		Methyl-t-Butyl Ether (MTBE)	4200	200	400	
1,2-Dibromoethane	ND	10	20		Tert-Butyl Alcohol (TBA)	1500	200	20	
1,2-Dichloroethane	ND	10	20		Diisopropyl Ether (DIPE)	ND	10	20	
Ethylbenzene	620	10	20		Ethyl-t-Butyl Ether (ETBE)	ND	10	20	
Toluene	200	10	20		Tert-Amyl-Methyl Ether (TAME)	ND	10	20	
Xylenes (total)	470	10	20		Ethanol	ND	600	20	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	97	73-157			Dibromofluoromethane	106	82-142		
Toluene-d8	103	82-112			1,4-Bromofluorobenzene	92	75-105		

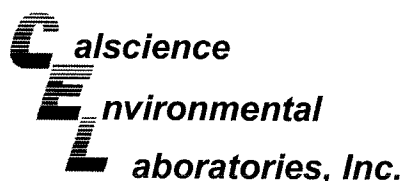
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-7	08-04-2327-2-A	04/24/08 09:30	Aqueous	GC/MS BB	05/05/08	05/06/08 06:32	080505L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	22	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	0.99	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	97	73-157			Dibromofluoromethane	105	82-142		
Toluene-d8	101	82-112			1,4-Bromofluorobenzene	91	75-105		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-11	08-04-2327-3-A	04/24/08 11:20	Aqueous	GC/MS BB	05/05/08	05/06/08 07:05	080505L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	17	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	93	73-157			Dibromofluoromethane	104	82-142		
Toluene-d8	102	82-112			1,4-Bromofluorobenzene	98	75-105		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



Stratus Environmental, inc.  
3330 Cameron Park Drive, Suite 550  
Cameron Park, CA 95682-8861

Date Received: 04/26/08  
Work Order No: 08-04-2327  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

Project: ARCO 6113

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13	08-04-2327-4-A	04/24/08 06:31	Aqueous	GC/MS BB	05/05/08	05/06/08 07:37	080505L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	4.5	0.50	1		Methyl-t-Butyl Ether (MTBE)	49	2.5	5	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	14	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	9.4	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	1.1	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	15	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	95	73-157			Dibromofluoromethane	104	82-142		
Toluene-d8	106	82-112			1,4-Bromofluorobenzene	96	75-105		

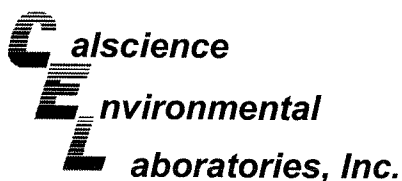
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW-1	08-04-2327-5-A	04/24/08 07:54	Aqueous	GC/MS BB	05/05/08	05/06/08 08:10	080505L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	4.5	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	95	73-157			Dibromofluoromethane	103	82-142		
Toluene-d8	104	82-112			1,4-Bromofluorobenzene	101	75-105		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-703-208	N/A	Aqueous	GC/MS BB	05/05/08	05/06/08 05:26	080505L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	105	73-157			Dibromofluoromethane	105	82-142		
Toluene-d8	102	82-112			1,4-Bromofluorobenzene	86	75-105		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



Stratus Environmental, inc.  
3330 Cameron Park Drive, Suite 550  
Cameron Park, CA 95682-8861

Date Received: 04/26/08  
Work Order No: 08-04-2327  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

Project: ARCO 6113

Page 3 of 3

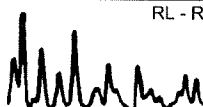
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-703-209	N/A	Aqueous	GC/MS Z	05/07/08	05/07/08 14:03	080507L01

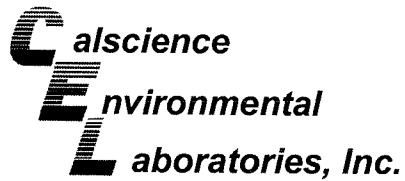
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
1,2-Dichloroethane-d4	115	73-157			Dibromofluoromethane	116	82-142		
Toluene-d8	99	82-112			1,4-Bromofluorobenzene	90	75-105		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-703-210	N/A	Aqueous	GC/MS Z	05/07/08	05/08/08 00:05	080507L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
1,2-Dichloroethane-d4	126	73-157			Dibromofluoromethane	119	82-142		
Toluene-d8	98	82-112			1,4-Bromofluorobenzene	88	75-105		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





Quality Control - Spike/Spike Duplicate



Stratus Environmental, inc.  
 3330 Cameron Park Drive, Suite 550  
 Cameron Park, CA 95682-8861

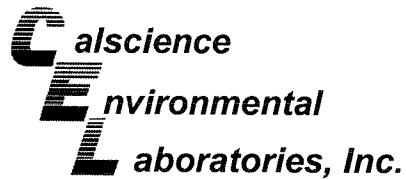
Date Received: 04/26/08  
 Work Order No: 08-04-2327  
 Preparation: EPA 5030B  
 Method: EPA 8015B (M)

Project ARCO 6113

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
08-04-2336-1	Aqueous	GC 29	04/28/08	04/29/08	080428S02

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	82	67	38-134	12	0-25	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - Spike/Spike Duplicate



Stratus Environmental, inc.  
3330 Cameron Park Drive, Suite 550  
Cameron Park, CA 95682-8861

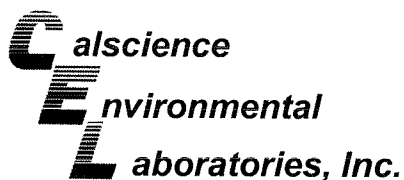
Date Received: 04/26/08  
Work Order No: 08-04-2327  
Preparation: EPA 5030B  
Method: EPA 8260B

Project ARCO 6113

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
08-05-0167-5	Aqueous	GC/MS BB	05/05/08	05/05/08	080505S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	101	102	86-122	1	0-8	
Carbon Tetrachloride	101	103	78-138	3	0-9	
Chlorobenzene	100	103	90-120	4	0-9	
1,2-Dibromoethane	96	104	70-130	7	0-30	
1,2-Dichlorobenzene	98	107	89-119	9	0-10	
1,1-Dichloroethene	99	104	52-142	5	0-23	
Ethylbenzene	103	104	70-130	1	0-30	
Toluene	100	104	85-127	4	0-12	
Trichloroethene	96	98	78-126	2	0-10	
Vinyl Chloride	98	102	56-140	4	0-21	
Methyl-t-Butyl Ether (MTBE)	95	103	64-136	7	0-28	
Tert-Butyl Alcohol (TBA)	117	102	27-183	10	0-60	
Diisopropyl Ether (DIPE)	102	107	78-126	5	0-16	
Ethyl-t-Butyl Ether (ETBE)	100	107	67-133	6	0-21	
Tert-Amyl-Methyl Ether (TAME)	103	106	63-141	2	0-21	
Ethanol	95	111	11-167	16	0-64	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - Spike/Spike Duplicate

Stratus Environmental, inc.  
3330 Cameron Park Drive, Suite 550  
Cameron Park, CA 95682-8861

Date Received: 04/26/08  
Work Order No: 08-04-2327  
Preparation: EPA 5030B  
Method: EPA 8260B

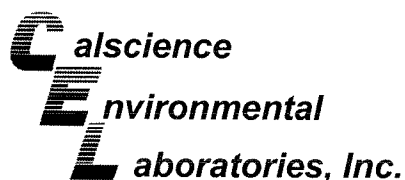
Project ARCO 6113

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
08-04-2346-1	Aqueous	GC/MS Z	05/07/08	05/07/08	080507S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	116	111	86-122	5	0-8	
Carbon Tetrachloride	112	107	78-138	4	0-9	
Chlorobenzene	114	109	90-120	5	0-9	
1,2-Dibromoethane	114	111	70-130	2	0-30	
1,2-Dichlorobenzene	115	112	89-119	2	0-10	
1,1-Dichloroethene	112	106	52-142	5	0-23	
Ethylbenzene	123	118	70-130	4	0-30	
Toluene	117	111	85-127	6	0-12	
Trichloroethene	113	107	78-126	5	0-10	
Vinyl Chloride	114	101	56-140	12	0-21	
Methyl-t-Butyl Ether (MTBE)	19	0	64-136	9	0-28	3
Tert-Butyl Alcohol (TBA)	121	133	27-183	9	0-60	
Diisopropyl Ether (DIPE)	120	116	78-126	4	0-16	
Ethyl-t-Butyl Ether (ETBE)	116	110	67-133	6	0-21	
Tert-Amyl-Methyl Ether (TAME)	122	113	63-141	8	0-21	
Ethanol	106	120	11-167	13	0-64	

RPD - Relative Percent Difference, CL - Control Limit





## Quality Control - Spike/Spike Duplicate

Stratus Environmental, inc.  
3330 Cameron Park Drive, Suite 550  
Cameron Park, CA 95682-8861

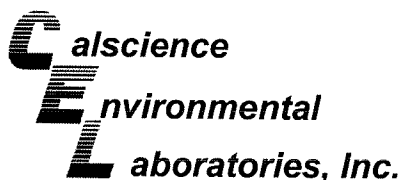
Date Received: 04/26/08  
Work Order No: 08-04-2327  
Preparation: EPA 5030B  
Method: EPA 8260B

Project ARCO 6113

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
08-05-0573-2	Aqueous	GC/MS Z	05/07/08	05/08/08	080507S02

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	115	117	86-122	2	0-8	
Carbon Tetrachloride	106	109	78-138	3	0-9	
Chlorobenzene	105	109	90-120	3	0-9	
1,2-Dibromoethane	108	114	70-130	5	0-30	
1,2-Dichlorobenzene	112	113	89-119	1	0-10	
1,1-Dichloroethene	105	107	52-142	2	0-23	
Ethylbenzene	114	118	70-130	3	0-30	
Toluene	113	115	85-127	1	0-12	
Trichloroethene	107	110	78-126	2	0-10	
Vinyl Chloride	106	112	56-140	5	0-21	
Methyl-t-Butyl Ether (MTBE)	128	132	64-136	3	0-28	
Tert-Butyl Alcohol (TBA)	117	118	27-183	1	0-60	
Diisopropyl Ether (DIPE)	128	128	78-126	0	0-16	3
Ethyl-t-Butyl Ether (ETBE)	134	137	67-133	2	0-21	3
Tert-Amyl-Methyl Ether (TAME)	130	134	63-141	3	0-21	
Ethanol	91	86	11-167	6	0-64	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



Stratus Environmental, inc.  
 3330 Cameron Park Drive, Suite 550  
 Cameron Park, CA 95682-8861

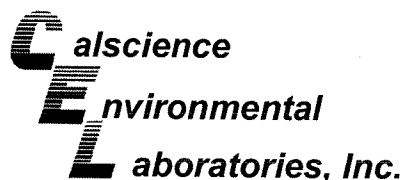
Date Received: N/A  
 Work Order No: 08-04-2327  
 Preparation: EPA 5030B  
 Method: EPA 8015B (M)

Project: ARCO 6113

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-695-122	Aqueous	GC 29	04/28/08	04/29/08	080428B02

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	83	101	78-120	20	0-20	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



Stratus Environmental, inc.  
3330 Cameron Park Drive, Suite 550  
Cameron Park, CA 95682-8861

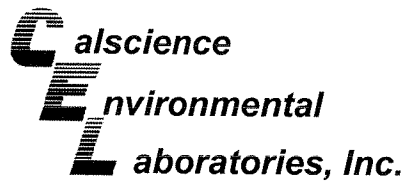
Date Received: N/A  
Work Order No: 08-04-2327  
Preparation: EPA 5030B  
Method: EPA 8260B

Project: ARCO 6113

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-703-208	Aqueous	GC/MS BB	05/05/08	05/06/08	080505L02

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	102	106	87-117	4	0-7	
Carbon Tetrachloride	95	91	78-132	5	0-8	
Chlorobenzene	98	96	88-118	1	0-8	
1,2-Dibromoethane	94	96	80-120	2	0-20	
1,2-Dichlorobenzene	100	100	88-118	1	0-8	
1,1-Dichloroethene	97	92	71-131	5	0-14	
Ethylbenzene	100	98	80-120	2	0-20	
Toluene	101	104	85-127	3	0-7	
Trichloroethene	116	116	85-121	0	0-11	
Vinyl Chloride	102	97	64-136	6	0-10	
Methyl-t-Butyl Ether (MTBE)	96	111	67-133	15	0-16	
Tert-Butyl Alcohol (TBA)	98	98	34-154	0	0-19	
Diisopropyl Ether (DIPE)	103	107	80-122	4	0-8	
Ethyl-t-Butyl Ether (ETBE)	102	111	73-127	9	0-11	
Tert-Amyl-Methyl Ether (TAME)	105	110	69-135	4	0-12	
Ethanol	97	76	34-124	24	0-44	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate

Stratus Environmental, inc.  
3330 Cameron Park Drive, Suite 550  
Cameron Park, CA 95682-8861

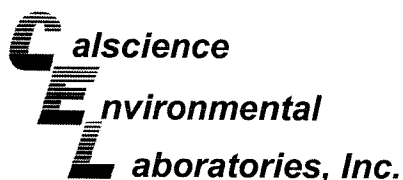
Date Received: N/A  
Work Order No: 08-04-2327  
Preparation: EPA 5030B  
Method: EPA 8260B

Project: ARCO 6113

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-703-209	Aqueous	GC/MS Z	05/07/08	05/07/08	080507L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	109	110	87-117	1	0-7	
Carbon Tetrachloride	105	104	78-132	1	0-8	
Chlorobenzene	108	106	88-118	2	0-8	
1,2-Dibromoethane	109	106	80-120	2	0-20	
1,2-Dichlorobenzene	109	112	88-118	2	0-8	
1,1-Dichloroethene	104	106	71-131	2	0-14	
Ethylbenzene	117	114	80-120	2	0-20	
Toluene	108	109	85-127	1	0-7	
Trichloroethene	107	112	85-121	4	0-11	
Vinyl Chloride	100	104	64-136	5	0-10	
Methyl-t-Butyl Ether (MTBE)	114	112	67-133	1	0-16	
Tert-Butyl Alcohol (TBA)	108	112	34-154	4	0-19	
Diisopropyl Ether (DIPE)	117	114	80-122	2	0-8	
Ethyl-t-Butyl Ether (ETBE)	119	114	73-127	4	0-11	
Tert-Amyl-Methyl Ether (TAME)	117	118	69-135	1	0-12	
Ethanol	105	91	34-124	15	0-44	

RPD - Relative Percent Difference, CL - Control Limit



## Quality Control - LCS/LCS Duplicate



Stratus Environmental, inc.  
3330 Cameron Park Drive, Suite 550  
Cameron Park, CA 95682-8861

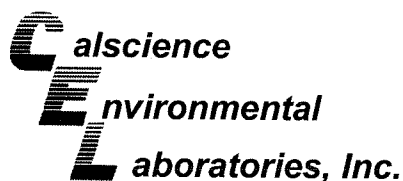
Date Received: N/A  
Work Order No: 08-04-2327  
Preparation: EPA 5030B  
Method: EPA 8260B

Project: ARCO 6113

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-703-210	Aqueous	GC/MS Z	05/07/08	05/07/08	080507L02

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	110	112	87-117	2	0-7	
Carbon Tetrachloride	104	105	78-132	1	0-8	
Chlorobenzene	106	107	88-118	1	0-8	
1,2-Dibromoethane	112	115	80-120	3	0-20	
1,2-Dichlorobenzene	109	110	88-118	1	0-8	
1,1-Dichloroethene	102	103	71-131	1	0-14	
Ethylbenzene	114	114	80-120	0	0-20	
Toluene	108	110	85-127	2	0-7	
Trichloroethene	108	116	85-121	7	0-11	
Vinyl Chloride	101	103	64-136	2	0-10	
Methyl-t-Butyl Ether (MTBE)	113	111	67-133	2	0-16	
Tert-Butyl Alcohol (TBA)	96	99	34-154	4	0-19	
Diisopropyl Ether (DIPE)	118	116	80-122	2	0-8	
Ethyl-t-Butyl Ether (ETBE)	116	114	73-127	2	0-11	
Tert-Amyl-Methyl Ether (TAME)	120	116	69-135	3	0-12	
Ethanol	87	101	34-124	15	0-44	

RPD - Relative Percent Difference , CL - Control Limit

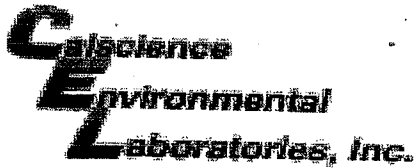


## Glossary of Terms and Qualifiers

Work Order Number: 08-04-2327

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.





WORK ORDER #: 08 - 04 - 2327

Cooler 1 of 1

**SAMPLE RECEIPT FORM**

CLIENT: ATLANTIC RICHFIELD

DATE: 4-26-08

**TEMPERATURE - SAMPLES RECEIVED BY:**

**CALSCIENCE COURIER:**

- Chilled, cooler with temperature blank provided.
- Chilled, cooler without temperature blank.
- Chilled and placed in cooler with wet ice.
- Ambient and placed in cooler with wet ice.
- Ambient temperature.
- °C Temperature blank.

**LABORATORY (Other than Calscience Courier):**

- °C Temperature blank.
- 3.0 °C IR thermometer.
- Ambient temperature.

Initial: TD

**CUSTODY SEAL INTACT:**

Sample(s): \_\_\_\_\_ Cooler:  No (Not Intact): \_\_\_\_\_ Not Present: \_\_\_\_\_

Initial: TD

**SAMPLE CONDITION:**

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with custody papers.....	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> TD	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct containers and volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on sample label(s).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VOA vial(s) free of headspace.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Initial: TD

**COMMENTS:**

RECEIVED TWO VIALS OF TRIP BLANK NOT ON COC.

04-26-08

*[Signature]*

(-3) time on samples incorrect 10:55 should be 11:20

MH 4-26-08



## ATTACHMENT

### FIELD PROCEDURES FOR GROUNDWATER SAMPLING

---

The sampling procedures for groundwater monitoring events are contained in this appendix.

#### Equipment Calibration

Standard groundwater sampling equipment – pH/Conductivity/Temperature meter, and dissolved oxygen (DO) meters are calibrated prior to all field work. All calibration is conducted in accordance with equipment manufacturer's recommended procedure and buffer solutions. MSDS for all buffer solutions are maintained in Stratus vehicles. Calibration is completed everyday prior to field work and also once a week. The pH probe is calibrated for a pH of 7.0 daily and for 4.0, 7.0 and 10.0 weekly. The conductivity probe is calibrated for 1413  $\mu\text{s}$  daily and 1413  $\mu\text{s}$  and 447  $\mu\text{s}$  weekly. The temperature probe is calibrated weekly with a NIST-traceable thermometer. The DO probe is calibrated for 100% oxygen daily and 0% and 100% oxygen weekly. All calibration logs are maintained in the Stratus office.

#### Groundwater and Liquid-Phase Petroleum Hydrocarbon Depth Assessment

Prior to measuring the depth to liquid in the well, the well caps are removed and the liquid level allowed to stabilize. A water/hydrocarbon interface probe is used to assess the liquid-phase petroleum hydrocarbon (LPH) thickness, if present, and a water level indicator is used to measure the groundwater depth in monitoring wells that do not contain LPH. Depth to groundwater or LPH is measured from a datum point at the top of each monitoring well casing. The datum point is typically a notch cut in the north side of the casing edge. If a water level indicator is used, the tip is subjectively analyzed for hydrocarbon sheen.

#### Subjective Analysis of Groundwater

Prior to purging, a water sample is collected from the monitoring well for subjective assessment. The sample is retrieved by gently lowering a clean, disposable bailer to approximately one-half the bailer length past the air/liquid interface. The bailer is then retrieved, and the sample contained within the bailer is examined for floating LPH and the appearance of a LPH sheen.

#### Monitoring Well Sampling

In many cases, determining whether to purge or not to purge wells prior to sample collection is made in the field and is often based on depth to water relative to the screen interval of the well. Site-specific field data sheets present details associated with the purge method and equipment used.

Monitoring wells, when purged, use a pump or bailer until pH, temperature, and conductivity of the purge water has stabilized and a minimum of three well volumes of water has been removed. Field measuring equipment is calibrated and maintained according to the manufacturer's instructions. If three well volumes cannot be removed in one half hour's time the well is allowed to recharge to 80% of original level. After recharging, a groundwater sample is then collected from each of the wells using disposable bailers.

A Teflon bailer, electric submersible or bladder pump will be the only equipment used for well sampling. When samples for volatile organic analysis are being collected, the pump flow will be regulated at approximately 100 milliliters per minute to minimize pump effluent turbulence and aeration. Glass bottles of at least 40-milliliters volume and fitted with Teflon-lined septa will be used in sampling for volatile organics. These bottles will be filled completely to prevent air accumulation in the bottle. A positive meniscus forms when the bottle is completely full. A convex Teflon septum will be placed over the positive meniscus to eliminate air. After the bottle is capped, it is inverted and tapped to verify that it contains no air bubbles. The sample containers for other parameters will be filled, filtered as required, and capped. Glass and plastic bottles used by Stratus to collect groundwater samples are supplied by the laboratory.

### **Groundwater Sample Labeling and Preservation**

Samples are collected in appropriate containers supplied by the laboratory. All required chemical preservation is added to the bottles prior to delivery to Stratus. Sample label information includes a unique sample identification number, job identification number, date, and time. After labeling, all groundwater samples are placed in a Ziploc<sup>®</sup> type bag and placed in an ice chest cooled to approximately 4° Celsius. Upon arriving at Stratus' office the samples are transferred to a locked refrigerator cooled to approximately 4° Celsius. Chemical preservation is controlled by the required analysis and is noted on the chain-of-custody form. Trip and temperature blanks supplied by the laboratory accompany the groundwater sample containers and groundwater samples.

### **Sample Identification and Chain-of-Custody Procedures**

Sample identification and chain-of-custody procedures document sample possession from the time of collection to ultimate disposal. Each sample container submitted for analysis has a label affixed to identify the job number, sampler, date and time of sample collection, and a sample number unique to that sample. This information, in addition to a description of the sample, field measurements made, sampling methodology, names of on-site personnel, and any other pertinent field observations, is recorded in the field records. The samples are analyzed by a California-certified laboratory.

A chain-of-custody form is used to record possession of the sample from time of collection to its arrival at the laboratory. When the samples are shipped, the person in custody of them relinquishes the samples by signing the chain-of-custody form and noting the time. The sample-control officer at the laboratory verifies sample integrity and confirms that the samples are collected in the proper containers, preserved correctly, and

contain adequate volumes for analysis. These conditions are noted on a Laboratory Sample Receipt Checklist that becomes part of the laboratory report upon request.

If these conditions are met, each sample is assigned a unique log number for identification throughout analysis and reporting. The log number is recorded on the chain-of-custody form and in the legally-required log book maintained by the laboratory. The sample description, date received, client's name, and other relevant information is also recorded.

### **Equipment Cleaning**

All reusable sampling equipments are cleaned using phosphate-free detergents and rinsed with de-ionized water.

**APPENDIX B**

**GEOTRACKER UPLOAD CONFIRMATION**

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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!

<b><u>Submittal Type:</u></b>	<b>GEO_WELL</b>
<b><u>Submittal Title:</u></b>	<b>2Q08 GEO_WELL 6113</b>
<b><u>Facility Global ID:</u></b>	<b>T0600100111</b>
<b><u>Facility Name:</u></b>	<b>ARCO #06113</b>
<b><u>File Name:</u></b>	<b>GEO_WELL.zip</b>
<b><u>Organization Name:</u></b>	<b>Broadbent &amp; Associates, Inc.</b>
<b><u>Username:</u></b>	<b>BROADBENT-C</b>
<b><u>IP Address:</u></b>	<b>67.118.40.90</b>
<b><u>Submittal Date/Time:</u></b>	<b>7/9/2008 11:09:23 AM</b>
<b><u>Confirmation Number:</u></b>	<b>3021667301</b>

STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A EDF FILE

**SUCCESS**

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<b><u>Submittal Type:</u></b>	<b>GWM_R</b>
<b><u>Submittal Title:</u></b>	<b>2Q08 GW Monitoring</b>
<b><u>Facility Global ID:</u></b>	<b>T0600100111</b>
<b><u>Facility Name:</u></b>	<b>ARCO #06113</b>
<b><u>File Name:</u></b>	<b>08042327.zip</b>
<b><u>Organization Name:</u></b>	<b>Broadbent &amp; Associates, Inc.</b>
<b><u>Username:</u></b>	<b>BROADBENT-C</b>
<b><u>IP Address:</u></b>	<b>67.118.40.90</b>
<b><u>Submittal Date/Time:</u></b>	<b>7/8/2008 4:14:04 PM</b>
<b><u>Confirmation Number:</u></b>	<b>7282897055</b>