



Atlantic Richfield Company
(a BP affiliated company)

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10:28 am, Sep 10, 2009

Alameda County
Environmental Health



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

September 4, 2009

Re: Replacement Well Work Plan
Atlantic Richfield Company Station #6113
785 East Stanley Boulevard
Livermore, California
ACEH Case 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:

A handwritten signature in black ink that reads "Paul Supple".

Paul Supple
Environmental Business Manager

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



September 4, 2009

Project No. 06-82-637

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

Attn.: Mr. Paul Supple

Re: Replacement Well Work Plan, Former BP Service Station #6113, 785 East Stanley Boulevard, Livermore, California. ACEH Case No. RO0000393.

Dear Mr. Supple:

Broadbent & Associates, Inc. (BAI) is pleased to submit this Work Plan for installation of a replacement well at Atlantic Richfield Company Station #6113 (herein referred to as Station #6113) located at 785 East Stanley Boulevard, Livermore, California (Property). This Work Plan has been prepared in accordance with the Alameda County Environmental Health (ACEH) email dated August 18, 2008.

Should you have any questions concerning this Work Plan, please do not hesitate to contact us at (530) 566-1400.

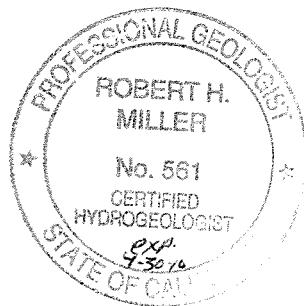
Sincerely,
BROADBENT & ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read "Matt Herr".

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

A handwritten signature in black ink, appearing to read "Robert H. Miller".

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



cc: Mr. Paresh Khatri, Alameda County Environmental Health, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502 (Submitted via ACEH ftp Site)
Mr. Paul M. Smith/Ms. Danielle Stefani, Livermore-Pleasanton Fire Department (submitted via GeoTracker)
GeoTracker

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1.0 Introduction

Provided herein is a Work Plan for installation of a replacement well at Atlantic Richfield Company Station #6113 (herein referred to as Station 6113) located at 785 East Stanley Boulevard, Livermore, California (Property). This Work Plan has been prepared in accordance with the Alameda County Environmental Health (ACEH) email dated August 18, 2008. The Property is currently an operational gas station located in an area of primarily commercial use. The Property consists of a relatively flat asphalt and concrete covered lot. A site location map is provided in Drawing 1.

As stated in prior reports, Atlantic Richfield Company has sold Station 6113. The new property owner has recently completed raze and rebuild activities. Various wells were properly abandoned prior to initiation of construction activities associated with raze and rebuild. With approval from the ACEH (email dated June 5, 2008) wells MW-1 and MW-8 were properly abandoned in June 2008. With approval from the ACEH (email dated August 18, 2008) wells MW-3, MW-6, MW-10, and MW-13 were properly abandoned in September 2008. Abandonment of wells MW-1 and MW-8 were required as these wells were within the footprint of the new station building. Abandonment of wells MW-6, MW-10, and MW-13 were necessary to allow for the widening of East Stanley Boulevard and abandonment of MW-3 was completed as the well was within the construction demolition area of the Property. Construction activities associated with raze and rebuild were completed earlier this year and field verification of the new site layout was conducted in July 2009.

2.0 Scope of Work

It is proposed that one replacement well (RMW-13) be installed approximately 15 feet south of former well MW-13, as depicted in Drawing 2. The proposed well is near the Station #6113 Property boundary and just south of a drain that was installed during raze and rebuild activities to capture surface water run off from the Property. The drain runs in an easterly direction to a drop inlet located near the northeastern portion of the Property. RMW-13 will be located a sufficient distance from the drain to assure that surface water flowing in the drain will not enter the well vault. It is important to note that the Station #6113 Property boundary was moved to the south to facilitate widening of East Stanley Boulevard. As a result, there is now less area to the north and west of the existing underground storage tanks (USTs) for well installation. Accordingly, it is proposed that RMW-13 act as a replacement well for former wells MW-6 and MW-13.

Historically (since 1995) the ground-water flow direction has been relatively consistent varying from a northwesterly direction moving clockwise to a northeasterly direction. Therefore wells MW-1, MW-3, and MW-8 were located in the general up-gradient direction from the source area and well MW-10 was located cross-gradient from the source area. It appears that the location of existing well MW-2 should be sufficient at defining the plume extent in the up-gradient direction; therefore it is not recommended that replacement wells be installed for MW-1, MW-3, and MW-8 at this time. Furthermore, it is not recommended that a replacement well be installed for MW-10 based on its cross gradient location from the source area and the fact that the well has historically been free of petroleum hydrocarbon constituents.

The Proposed well location for RMW-13 is presented in Drawing 2. 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.

3.0 Project Setup

In accordance with the current contract with Atlantic Richfield Company, Stratus Environmental, Inc. (Stratus) will complete the field work associated with this soil and ground-water investigation (i.e., drilling, gauging, well installation, and sampling). Stratus will obtain any permits necessary prior to the initiation of field work. Once the field work is complete, Stratus will provide a data package which will include field notes, a lithologic and well construction log, laboratory analytical reports, and survey information from the investigation. BAI will then use this data package to generate a report for submittal to ACEH summarizing the soil and ground-water investigation including data interpretation and recommendations.

4.0 Soil Investigation

The soil boring will be advanced using a hollow steam auger drilling technique. Soils will be lithologically logged by a qualified geologist using the Unified Soil Classification System (USCS). Depth to static ground water at Station #6113 has ranged from 12 to 44 feet below land surface (bls) dating back to 1995. However, over the past five years ground water has generally been observed in the 15 to 30 foot bls range. Soil samples will be collected at five foot intervals beginning 6.5 feet bls and continue to just above the capillary fringe using a split-spoon sampler and brass sleeves. A minimum of three soil samples will be submitted for laboratory analysis from the boring. The three soil samples will include: (1) the deepest sample collected just above the capillary fringe, (2) the sample with the highest PID reading, and (3) a sample to be determined in the field. Each sample collected for submittal to a laboratory for analysis will be sealed on both ends with Teflon tape, capped with plastic end caps, labeled, and placed in an ice-filled cooler for preservation. The soil samples will be transported under chain-of-custody protocol to a California State-certified analytical laboratory and analyzed for the following:

- Gasoline range organics (GRO) and BTEX via EPA Method 8260B; and
- Fuel additives MTBE, tert-butyl alcohol (TBA), ethyl tert-butyl ether (ETBE), tert-amyl methyl ether (TAME), di-isopropyl ether (DIPE), 1,2-dichloroethane (1,2-DCA), 1,2-dibromoethane (EDB), and ethanol via EPA Method 8260B.

Investigation-derived residuals will be collected in 55-gallon steel drums, stored on the Property, and profiled prior to disposal at an approved Atlantic Richfield Company disposal facility.

5.0 Ground-Water Investigation

As stated above, depth to static ground water is expected to be 15 to 30 feet bls; however has varied by as much as 32 feet. The proposed well design for RMW-13 calls for a total well depth of 35 feet, with 20 feet of well screen from total depth to 15 feet bls. RMW-13 will be constructed using four-inch diameter, schedule 40 PVC well casing and factory slotted well screen (0.02 inch slots) with flush threaded water tight connections. The casing will be surrounded by silica sand compatible with 0.02 inch slots in the annular space from total depth to three feet above top of screen. A sanitary seal will be installed consisting of approximately three feet of bentonite well-seal overlain by neat cement grout to the

surface. Well heads will be completed with a lockable water-tight plug and traffic rated monitor well vault.

Appropriate changes, if necessary, will be made to the total well depth and screen interval based on conditions encountered in the boreholes during drilling activities.

Upon completion of well construction, the well will be developed by surging/bailing or pumping water until relatively silt free water is removed from the well. A minimum of three wetted casing volumes of ground water will be removed until water quality parameters have stabilized. After development, the well will be left to hydraulically equilibrate prior to water level measurement and sampling. When equilibrated, depth to water and presence of free-phase product will be measured in each well.

Prior to water sample collection, a minimum of three casing volumes of water will be purged from the well. Purge water will be collected in drums and stored on the Property pending receipt of laboratory analytical results. Upon receipt of laboratory analytical results, the purge water will be transported and disposed at an approved Atlantic Richfield Company disposal facility. Ground-water samples will be collected with factory decontaminated disposable bailers and placed in laboratory prepared containers. Samples will be labeled and chilled prior to transport under chain-of-custody protocol to a California State-certified analytical laboratory and analyzed for the following:

- GRO and BTEX via EPA Method 8260B; and
- Fuel additives MTBE, TBA, ETBE, TAME, DIPE, 1,2-DCA, EDB, and ethanol via EPA Method 8260B.

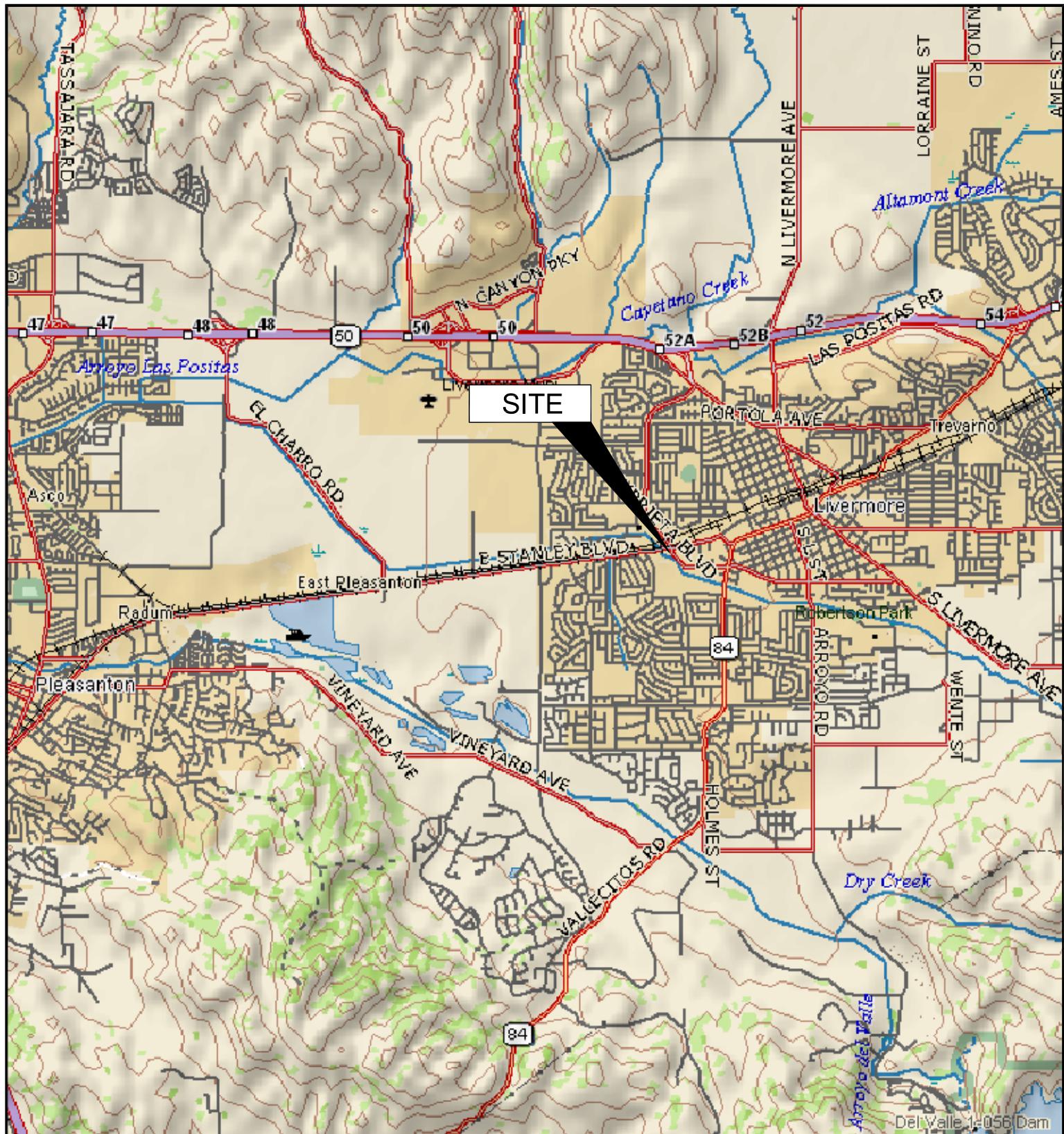
A California-licensed Professional Land Surveyor will be scheduled to survey the new well head and other relevant structures and land features. All elevations will be surveyed with respect to mean sea level. The survey information will be used to generate an accurate site map and ground water gradient map. Well survey information will be uploaded to GeoTracker.

6.0 Schedule and Reporting

Once the ACEH has approved this *Replacement Well Work Plan*, Stratus will be directed to execute the work. Upon completion of field work and receipt of a data packet from Stratus summarizing field activities including laboratory analytical reports, a soil and ground-water investigation report will be completed and submitted to the ACEH. It is recommended that the deadline for submittal of the report be set to 90 days following approval of this work plan by ACEH.

7.0 Closure

Our services will be performed in accordance with the generally accepted standard of practice at the time work commences. Results and recommendations will be based on review of available documentation and written or verbal correspondence with appropriate regulatory agencies, laboratory results, observations of Stratus field personnel, and the points investigated. No other warranty, expressed or implied is made.



0 1 2
APPROXIMATE SCALE (mi)

IMAGE SOURCE: DELORME



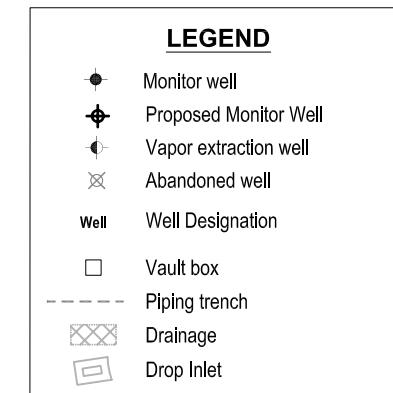
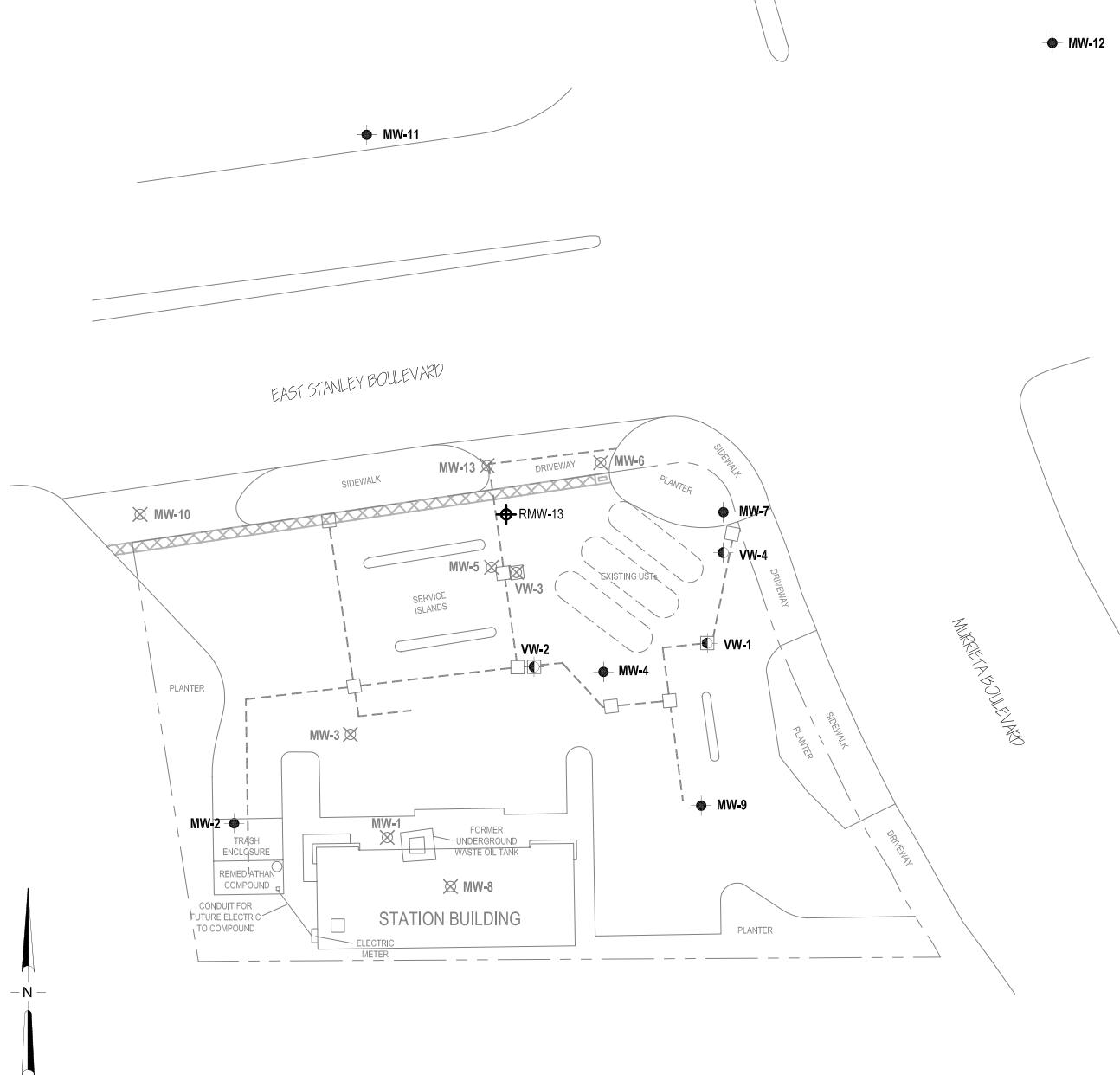
BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, California 95926
Project No.: 06-82-637 Date: 7/27/2009

Station #6113
785 East Stanley Boulevard
Livermore, California

Site Location Map

Drawing

1



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

0 50 100
SCALE (ft)

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave, Suite 212, Chico, California 95926
Project No.: 06-82-637 Date: 9/3/2009

Station #6113
785 East Stanley Boulevard
Livermore, California

Site Map with Proposed
Well Location

Drawing 2

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		
MW-1								--	--	--	--	--	--	--	--
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	--	--	--	--	--	--	--	--
4/24/2008	--		459.41	29.0	44.0	25.97	433.44	--	--	--	--	--	--	--	--
6/18/2008	--	k	--	29.0	44.0	--	--	--	--	--	--	--	--	--	--

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		
MW-1															
MW-2															
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	<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		
MW-2 Cont.															
4/24/2008	--		460.07	28.0	38.0	26.38	433.69	--	--	--	--	--	--	--	--
10/15/2008	--		460.07	28.0	38.0	37.21	422.86	--	--	--	--	--	--	--	--
4/28/2009	--		460.07	28.0	38.0	33.30	426.77	--	--	--	--	--	--	--	--
MW-3															
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	--	--	--	--	--	--	--	--

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			
MW-3 Cont.																
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	--	--	--	--	--	--	--	--	
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	--	--	--	--	--	--	--	--	--	--	
4/24/2008	--		459.32	28.5	38.5	25.65	433.67	--	--	--	--	--	--	--	--	
9/10/2008	--	k	459.32	28.5	38.5	--	--	--	--	--	--	--	--	--	--	
MW-4																
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	<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	--	q	456.55	21.0	27.0	--	--	<50.0	<0.500	<0.500	<0.500	<0.500	62.3	--	--	
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	--	
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	--	s	456.55	21.0	27.0	--	--	<50.0	<0.500	<0.500	<0.500	<0.500	59.4/68.4	--	--	
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	--	

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		
MW-4 Cont.															
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	--	--	--	--	--	--	--	--	--	--
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	--	--	--	--	--	--	--	--	--	--
4/24/2008	--	f	458.88	21.0	27.0	--	--	--	--	--	--	--	--	--	--
10/15/2008	--	f	458.88	21.0	27.0	--	--	--	--	--	--	--	--	--	--
4/28/2009	--	f	458.88	21.0	27.0	--	--	--	--	--	--	--	--	--	--
MW-5															
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	--	--

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		
MW-5 Cont.															
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	--
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	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6															
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	--	q	454.93	48.0	68.0	--	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	--	--
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	--
11/29/2000	P		454.93	48.0	68.0	20.30	434.63	<50.0	<0.500	<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	--

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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		
MW-6 Cont.															
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
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
4/24/2008	P		457.24	48.0	68.0	24.55	432.69	15,000	5,300	200	620	470	4,200	2.15	6.90
9/10/2008	--	k	457.24	48.0	68.0	--	--	--	--	--	--	--	--	--	--
MW-7															
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	--

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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		
MW-7 Cont.															
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	--
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
4/24/2008	P		457.17	48.0	68.0	24.47	432.70	<50	<0.50	0.99	<0.50	<0.50	22	1.96	7.24
10/15/2008	P		457.17	48.0	68.0	43.40	413.77	<50	<0.50	<0.50	<0.50	<0.50	8.2	2.31	7.14
4/28/2009	P		457.17	48.0	68.0	32.13	425.04	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.78	6.93
MW-8															
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	--	--

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		
MW-8 Cont.															
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	--
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	--	--	--	--	--	--	--	--	--	--
MW-9															
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	--	--	--	--	--	--	--	--

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		
MW-9 Cont.															
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	--
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	0.50	1.27
4/24/2008	--		458.55	48.0	68.0	24.89	433.66	--	--	--	--	--	--	--	--
10/15/2008	P		458.55	48.0	68.0	44.16	414.39	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.14
4/28/2009	--		458.55	48.0	68.0	32.61	425.94	--	--	--	--	--	--	--	--

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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		
MW-9															
MW-10															
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	--	--
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

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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		
MW-10 Cont.															
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
4/24/2008	--		459.20	32.0	52.0	26.62	432.58	--	--	--	--	--	--	--	--
9/10/2008	--	k	459.20	32.0	52.0	--	--	--	--	--	--	--	--	--	--
MW-11															
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	--	--	--	--	--	--	--	--
11/28/1995	--		455.07	38.0	45.0	17.80	437.27	<50	<0.5	<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	<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	<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	<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	<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	<0.5	<3	--
11/11/1999	P		455.07	38.0	45.0	18.62	436.45	<50	<0.5	<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	<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	<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	<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	<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	<0.50	1.0	1.4

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		
MW-11 Cont.															
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
4/24/2008	P		457.40	38.0	45.0	26.10	431.30	<50	<0.50	<0.50	<0.50	<0.50	17	1.83	7.26
10/15/2008	--		457.40	38.0	45.0	43.34	414.06	--	--	--	--	--	--	--	--
4/28/2009	P		457.40	38.0	45.0	32.85	424.55	<50	<0.50	<0.50	<0.50	<0.50	5.3	5.89	7.23
MW-12															
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	--	--	--	--	--	--	--	--	--	--

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		
MW-12 Cont.															
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
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	--	--	--	--	--	--	--	--	--	--
4/24/2008	--	m	457.37	18.0	34.5	--	--	--	--	--	--	--	--	--	--
10/15/2008	--	f	457.37	18.0	34.5	--	--	--	--	--	--	--	--	--	--
4/28/2009	NP		457.37	18.0	34.5	32.21	425.16	<50	<0.50	<0.50	<0.50	<0.50	1.4	7.68	6.63
MW-13															
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

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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		
MW-13 Cont.															
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	--	--	--	--	--	--	--	--	--	--	--	--
4/24/2008	NP		457.91	--	--	24.68	433.23	1,400	4.5	1.1	9.4	15	49	2.78	7.25
9/10/2008	--	k	457.91	--	--	--	--	--	--	--	--	--	--	--	--
VW-1															
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	--
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
4/24/2008	NP		457.08	24.0	45	24.40	432.68	<50	<0.50	<0.50	<0.50	<0.50	4.5	4.95	7.47
10/15/2008	--		457.08	24.0	45	43.07	414.01	--	--	--	--	--	--	--	--

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		
VW-1 Cont.															
4/28/2009	NP		457.08	24.0	45	31.06	426.02	3,500	140	2.8	25	4.0	19	6.38	7.02
VW-2															
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	--	--	--	--	--	--	--	--
4/19/2007	--		458.64	28	49.5	22.52	436.12	--	--	--	--	--	--	--	--
10/16/2007	--		458.64	28	49.5	38.58	420.06	--	--	--	--	--	--	--	--
4/24/2008	--		458.64	28	49.5	24.91	433.73	--	--	--	--	--	--	--	--
10/15/2008	--		458.64	28	49.5	43.31	415.33	--	--	--	--	--	--	--	--
4/28/2009	--		458.64	28	49.5	32.56	426.08	--	--	--	--	--	--	--	--
VW-3															
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	--	--	--	--	--	--	--	--	--	--
VW-4															
8/29/2000	--	g	--	17	30	--	--	--	--	--	--	--	--	--	--
11/29/2000	P	s	--	17	30	19.45	--	37,500	4,510	206	2,100	9,030	6,770/7,880	0.42	--

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								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
VW-4 Cont.															
11/29/2000	--	q, s	--	17	30	--	--	36,100	3,700	206	1,850	7,890	6,430/8,460	--	--
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	--	--	--	--	--	--	--	--	--	--
4/24/2008	--		456.99	17	30	23.40	433.59	--	--	--	--	--	--	--	--
10/15/2008	--	f	456.99	17	30	--	--	--	--	--	--	--	--	--	--
4/28/2009	--	f	456.99	17	30	--	--	--	--	--	--	--	--	--	--

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.

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

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

Table 2. Summary of Fuel Additives Analytical Data
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	
MW-1									
10/7/2002	<40	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-2									
10/7/2002	<40	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-3									
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	
MW-4									
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	
MW-6									
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	
MW-6 Cont.									
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)
4/24/2008	<6,000	1,500	4,200	<10	<10	<10	<10	<10	
MW-7									
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	
4/24/2008	<300	<10	22	<0.50	<0.50	<0.50	<0.50	<0.50	
10/15/2008	<300	<10	8.2	<0.50	<0.50	<0.50	<0.50	<0.50	
4/28/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	d
MW-8									
10/7/2002	<40	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-9									
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	
10/15/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-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	
MW-10 Cont.									
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	<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	
MW-11									
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	
4/24/2008	<300	<10	17	<0.50	<0.50	<0.50	<0.50	<0.50	
4/28/2009	<300	<10	5.3	<0.50	<0.50	<0.50	<0.50	<0.50	d
MW-12									
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	
4/28/2009	<300	<10	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	d
MW-13									
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	

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	
MW-13 Cont.									
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	
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	
4/24/2008	<300	14	49	<0.50	<0.50	<0.50	<0.50	<0.50	
VW-1									
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
4/24/2008	<300	<10	4.5	<0.50	<0.50	<0.50	<0.50	<0.50	
4/28/2009	<300	<10	19	<0.50	<0.50	<0.50	<0.50	<0.50	d
VW-2									
10/03/2003	--	--	--	--	--	--	--	--	Well inaccessible
VW-4									
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.

d = Calibrtn. verif. recov. Below method CL for TAME.

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

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
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
4/24/2008	North-Northwest	0.013
10/15/2008	Northeast	0.070
4/28/2009	Northeast	0.008

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.