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**Client:** Manwel Shuwayhat  
**Project Location:** 160 Holmes Street, Livermore, California  
**Subject:** Second Quarter 2013 Groundwater Monitoring Report  
**Report Date:** July 11, 2013

To Whom It May Concern:

I have reviewed the report referenced above and approve its distribution to the necessary regulatory agencies. Should any of the regulatory agencies require it, "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached proposal or report is true and correct to the best of my knowledge."

Sincerely,

  
\_\_\_\_\_  
Manwel Shuwayhat



**Second Quarter 2013 Groundwater Monitoring Report  
Fuel Leak Case No. RO0000324, Livermore Gas and Mini Mart  
160 Holmes Street, Livermore, California**

*Date:*  
July 11, 2013

*Project No.:*  
160

*Prepared For:*  
Livermore Gas and Mini mart  
Attention: Manwel and Samira Shuwayhat  
54 Wolfe Canyon Road  
Kentfield, California 94904

**Allterra Environmental, Inc.**  
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July 11, 2013  
*Project No.: 160*

Manwel and Samira Shuwayhat  
Livermore Gas and Mini Mart  
54 Wolfe Canyon Road  
Kentfield, California 94904

**SUBJECT: Second Quarter 2013 Groundwater Monitoring Report for Fuel Leak Case No. RO0000324, Livermore Gas and Mini Mart, 160 Holmes Street, Livermore, California**

Dear Mr. and Mrs. Shuwayhat:

On your behalf, Allterra Environmental, Inc. (Allterra) has prepared this Second Quarter 2013 Groundwater Monitoring Report for the property located at 160 Holmes Street in Livermore, California (Site). This report describes the field and analytical methods, provides a summary of groundwater monitoring results, and presents conclusions and recommendations regarding groundwater conditions at the Site. Monitoring activities were completed in accordance with Alameda County Environmental Health Services (ACEHS) and Regional Water Quality Control Board (RWQCB) guidelines, and Allterra's protocols presented in Appendix A.

### **Site Location and Description**

The Site is located on the southwest corner of Holmes Street and 2nd Street at 160 Holmes Street in Livermore, California (Figure 1). The Site currently operates as a service station and convenience store. The Site is paved with concrete and asphalt, and a canopy covers the fuel dispensers. Pertinent site features, such as monitoring well locations, are presented on Figure 2.

### **Groundwater Monitoring for Second Quarter 2013**

#### Field Activities

On June 21 and 25, 2013, Allterra conducted groundwater monitoring at 15 on- and off-site monitoring wells (MW-1A through MW-9B) and four on-site extraction wells (EW-1, EW-2, EW-3, and EW-3B). Samples were not collected from wells MW-2A, MW-3A, MW-4A, and EW-2 during this monitoring event since these wells are only sampled annually. Groundwater monitoring activities included the measurement of static groundwater levels, an evaluation of groundwater in the wells for the presence of petroleum hydrocarbons, field parameter testing, and groundwater quality sampling. Prior to sampling, all groundwater wells were purged using disposable bailers until temperature, color, specific conductance, and turbidity readings had stabilized or until at least three casing volumes had been removed. Groundwater sampling field logs are included in Appendix B.

#### Laboratory Analysis

Groundwater samples collected from the monitoring and extraction wells were submitted under chain-of-custody documentation to McCampbell Analytical, Inc., of Pittsburg, California, a State of California certified laboratory (ELAP #1644). All samples were analyzed for total petroleum

hydrocarbons as gasoline (TPHg) by EPA method 8015B, and for benzene, toluene, ethylbenzene, xylenes (BTEX), and methyl tert-butyl ether (MTBE) by EPA Method 8021B. Additionally, select wells were tested for total petroleum hydrocarbons as diesel (TPHd) by EPA method 8015B, fuel oxygenates tert-amyl methyl ether (TAME), tert-butyl alcohol (TBA), diisopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), and MTBE, lead scavengers 1,2-dibromoethane (EDB) and 1,2-dichloroethane (1,2-DCA) by EPA Method 8260B, and hexachrome by EPA method E218.6. Copies of the chain-of-custody documentation and the certified analytical report, including quality assurance and quality control (QA/QC) data, are included in Appendix C.

#### Groundwater Gradient and Flow Direction

On June 21, 2013, Allterra personnel measured and recorded depths to groundwater from the tops of well casings (TOC) for each well. Recorded depths to groundwater ranged from 23.35 to 26.21 feet below TOC. The surveyed elevations of each well casing (measured in feet relative to mean sea level), depths to groundwater, and calculated groundwater elevations are presented in Table 1 and depicted on Figure 3 as groundwater elevation contours. For the June 2013 monitoring event, the general groundwater flow direction was to the northwest at a gradient of approximately 0.0071 feet per foot (ft/ft).

#### Analytical Results

Petroleum constituents were detected in six of the fifteen wells sampled during this event. A summary of current and historical groundwater analytical results is presented in Tables 2 and 3. Additionally, current concentrations of dissolved TPHg, TPHd, benzene, MTBE, and TBA in groundwater are shown on Figures 4 through 7. Time trend plots for contaminant concentrations in wells MW-1A, EW-1, and EW-3 are shown on Figures 8 through 15. A discussion of current groundwater analytical results is presented below:

- TPHg was detected in three wells at concentrations ranging from 120 micrograms per liter ( $\mu\text{g/L}$ ) in EW-3B to 200  $\mu\text{g/L}$  in MW-7A.
- TPHd was detected in four wells at concentrations ranging from 72  $\mu\text{g/L}$  in MW-7A to 1,600  $\mu\text{g/L}$  in EW-3.
- Toluene was detected in four wells at concentrations ranging from 0.80  $\mu\text{g/L}$  in EW-3 to 7.2 in MW-7A.
- Ethylbenzene was detected in one well (EW-3) at a concentration of 2.6  $\mu\text{g/L}$ .
- Xylenes were detected in two wells at concentrations of 1.1  $\mu\text{g/L}$  in EW-3B and 4.4  $\mu\text{g/L}$  in EW-3.
- MTBE was detected in three wells at concentrations ranging from 0.66  $\mu\text{g/L}$  in MW-7A to 25  $\mu\text{g/L}$  in EW-1.

- TBA was detected in six wells at concentrations ranging from 25 µg/L in MW-7A to 27,000 µg/L in EW-3B.
- Hexachrome was detected in five wells at concentrations ranging from 1.2 µg/L in MW-1A to 44 µg/L in EW-3.
- Benzene and lead scavengers were not detected in any wells sampled this quarter.

### **Discussion**

Following in-situ chemical oxidation (ISCO) remedial activities during second quarter 2013, it appears that petroleum constituents in the vicinity of EW-3 (within former source area) have been significantly reduced. During the first quarter 2013 monitoring event, MTBE and TBA were detected in EW-3 at concentrations of 6,300 µg/L and 130,000 µg/L, respectively. Current analytical results following second quarter remedial activities indicate MTBE and TBA in EW-3 at concentrations of 9.0 µg/L and 130 µg/L, respectively. Wells immediately down-gradient of EW-3 (EW-1 and EW-3B) have exhibited slight increases in TBA and MTBE during this monitoring event, which may be indicative of further desorption of contaminants from fine-grained soils in this area as well as further chemical degradation of MTBE. Additionally, hexachrome results following ISCO activities do not indicate any significant increases or adverse affects.

### **Conclusions**

Based on the current groundwater monitoring data, Allterra concludes the following:

- The overall groundwater flow direction was to the northwest with an estimated gradient of 0.0071 ft/ft, which is consistent with previous monitoring events.
- For the June 2013 monitoring event, petroleum constituents were detected at or above laboratory detection limits in six of the fifteen wells sampled. The highest concentrations of petroleum constituents remaining in shallow groundwater are limited to area around wells EW-1, EW-3, and EW-3B.
- The highest concentration of MTBE was detected in EW-1 (25 µg/L). The highest concentration of TPHg was detected in monitoring well MW-7A (200 µg/L).
- The highest concentration of TBA was detected in well EW-3B (27,000 µg/L). Recent increases in TBA concentrations are likely due to degradation of MTBE caused by remedial activities and natural processes.
- Since April 2011, petroleum constituents in groundwater have generally exhibited decreasing trends throughout the in-situ treatment zone. Substantial contaminant reduction has occurred in key wells MW-1A, EW-1, EW-3, and EW-3B located within the former source area.

- Based on second quarter 2013 analytical results, MW-1A demonstrates a 99.97%, 99.91%, 99.99%, and 99.99% reduction in TPHg, TPHd, benzene, and MTBE concentrations, respectively. EW-1 demonstrates a 99.86%, 27.27%, 99.89%, and 99.92% reduction in TPHg, TPHd, benzene, and MTBE concentrations, respectively. EW-3 demonstrates a 99.90%, 69.23%, 99.79%, and 98.50% reduction in TPHg, TPHd, benzene, and MTBE concentrations, respectively.
- Decreasing trends in petroleum constituents in shallow groundwater indicate that in-situ remedial efforts have been very effective in treating soil and groundwater beneath the former source area at the Site.

### **Recommendations**

Based on the conclusions presented above, Allterra recommends the following:

- Following the cessation of remedial efforts at the Site, begin sampling select wells on a monthly basis for approximately three months to assess the effectiveness of remedial efforts.
- Continue with the current quarterly groundwater monitoring at the Site for the purpose of closely monitoring potential contaminant rebound under varying seasonal conditions.
- To reduce project costs, up-gradient wells MW-2A, MW-3A, and EW-2 and cross-gradient well MW-4A will continue to be sampled for TPHg, BTEX, and MTBE on an annual basis (first quarter of each year).
- All other wells will continue to be sampled and analyzed for TPHg, BTEX, and MTBE on a quarterly basis. Only select wells will be analyzed for TPHd, 5-fuel oxygenates, and lead scavengers on a quarterly basis.

### **Limitations**

Allterra prepared this report for the use of Livermore Gas and Mini Mart, ACEHS and RWQCB in evaluating groundwater quality at selected locations at the time of this study. Statements, conclusions, and recommendations in this report are based solely on the field observations and analytical results related to work performed by Allterra and there is no warranty, expressed or implied. Site conditions and data can change over time; therefore, data presented in this report is only applicable to the timeframe of this study. Allterra's services have been performed in accordance with environmental principles generally accepted at this time and location.

Should you have any questions, please contact Allterra at (831) 425-2608.

Sincerely,  
Allterra Environmental, Inc.



Aaron Powers  
Project Geologist



Joe Mangine, P.G. 8423  
Senior Geologist

List of Figures

- Figure 1, Vicinity Map
- Figure 2, Site Plan
- Figure 3, Shallow Groundwater Potentiometric Map of 6-21-13
- Figure 4, Concentrations of Petroleum Constituents in Groundwater
- Figure 5, TPHg Iso-Concentration Map for "A" Zone Wells
- Figure 6, MTBE Iso-Concentration Map for "A" Zone Wells
- Figure 7, TBA Iso-Concentration Map for "A" Zone Wells
- Figure 8, MW-1A TPHg Concentrations in Groundwater Over Time
- Figure 9, MW-1A MTBE Concentrations in Groundwater Over Time
- Figure 10, MW-1A TBA Concentrations in Groundwater Over Time
- Figure 11, EW-1 TPHg Concentrations in Groundwater Over Time
- Figure 12, EW-1 MTBE Concentrations in Groundwater Over Time
- Figure 13, EW-1 TBA Concentrations in Groundwater Over Time
- Figure 14, EW-3 TPHg Concentrations in Groundwater Over Time
- Figure 15, EW-3 MTBE and TBA Concentrations in Groundwater Over Time

List of Tables

- Table 1, Groundwater Elevation Data
- Table 2, Groundwater Analytical Results
- Table 3, Remedial Groundwater Analytical Results

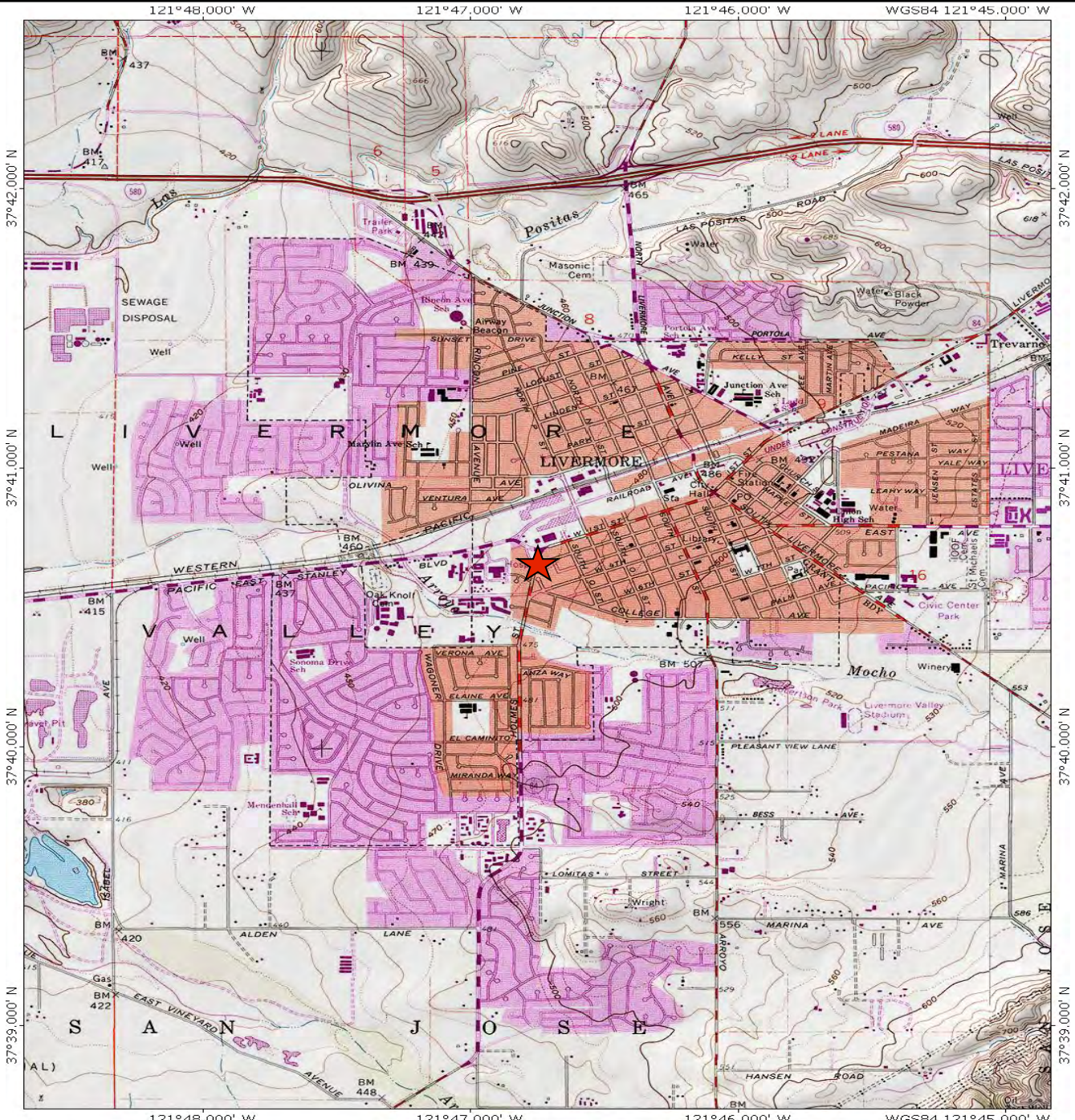
List of Appendices

- Appendix A, Groundwater Monitoring Field Protocol
- Appendix B, Groundwater Sampling Field Logs
- Appendix C, Certified Analytical Report and Chain-of-Custody

cc: Jerry Wickam, ACEHS

FIGURES 1 - 15





TN  $\frac{1}{15^\circ}$  MN

121°48.000' W      121°47.000' W      121°46.000' W      WGS84 121°45.000' W

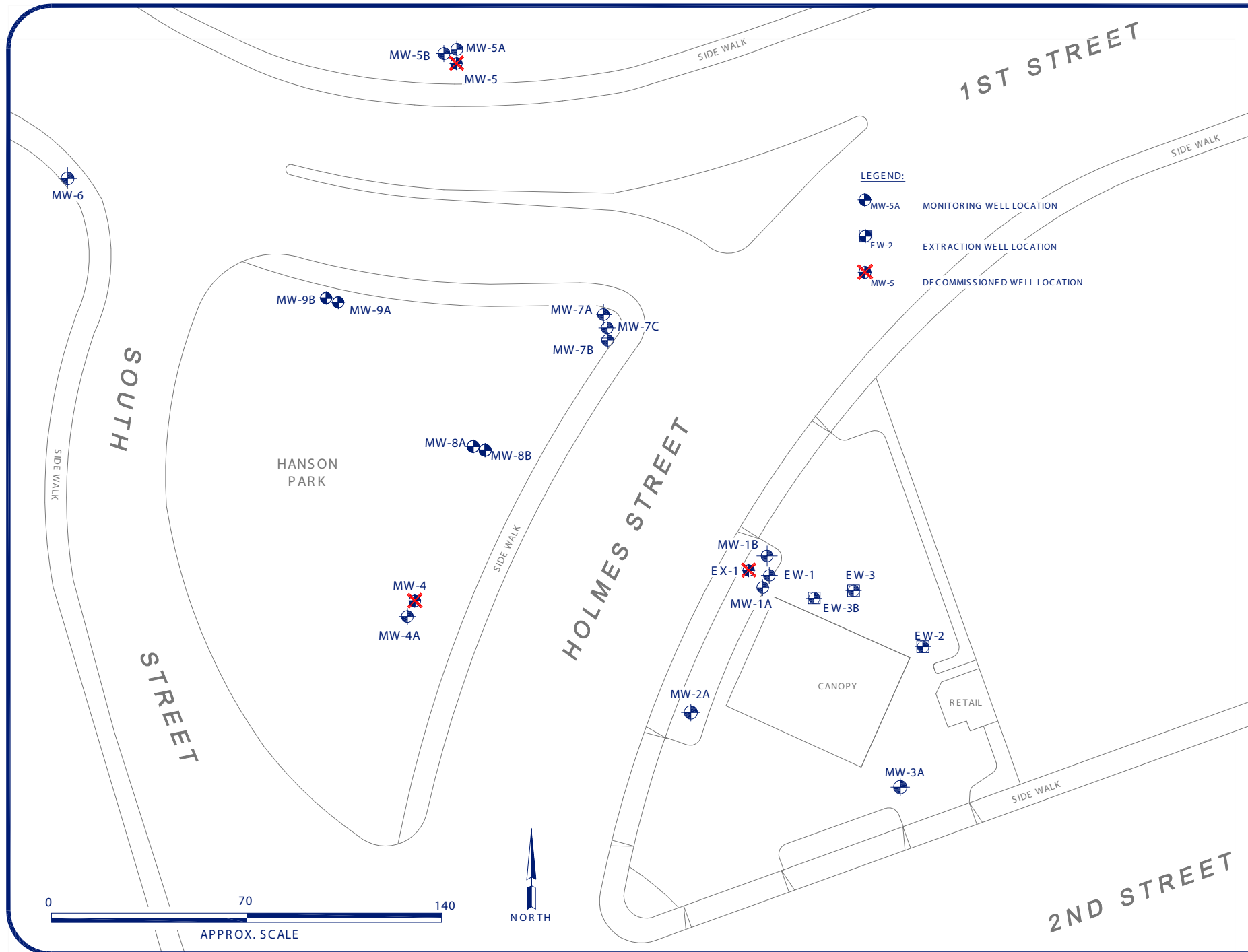
0 1000 FEET 0 500 1000 METERS

**Vicinity Map**  
 Livermore Gas and Minimart  
 160 Holmes Street  
 Livermore, California

Figure 1

7/9/13

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General Notes

stamp

160 HOLMES STREET, LIVERMORE, CALIFORNIA  
GROUNDWATER MONITORING REPORT

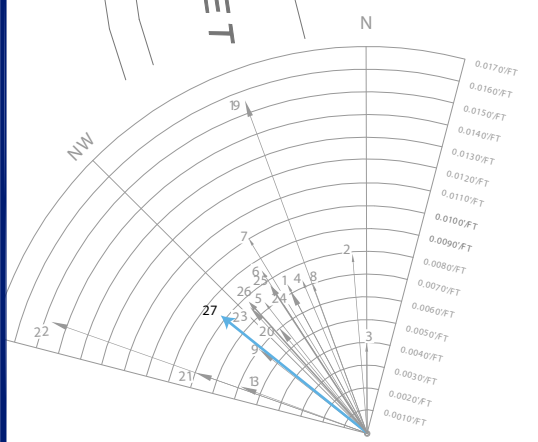
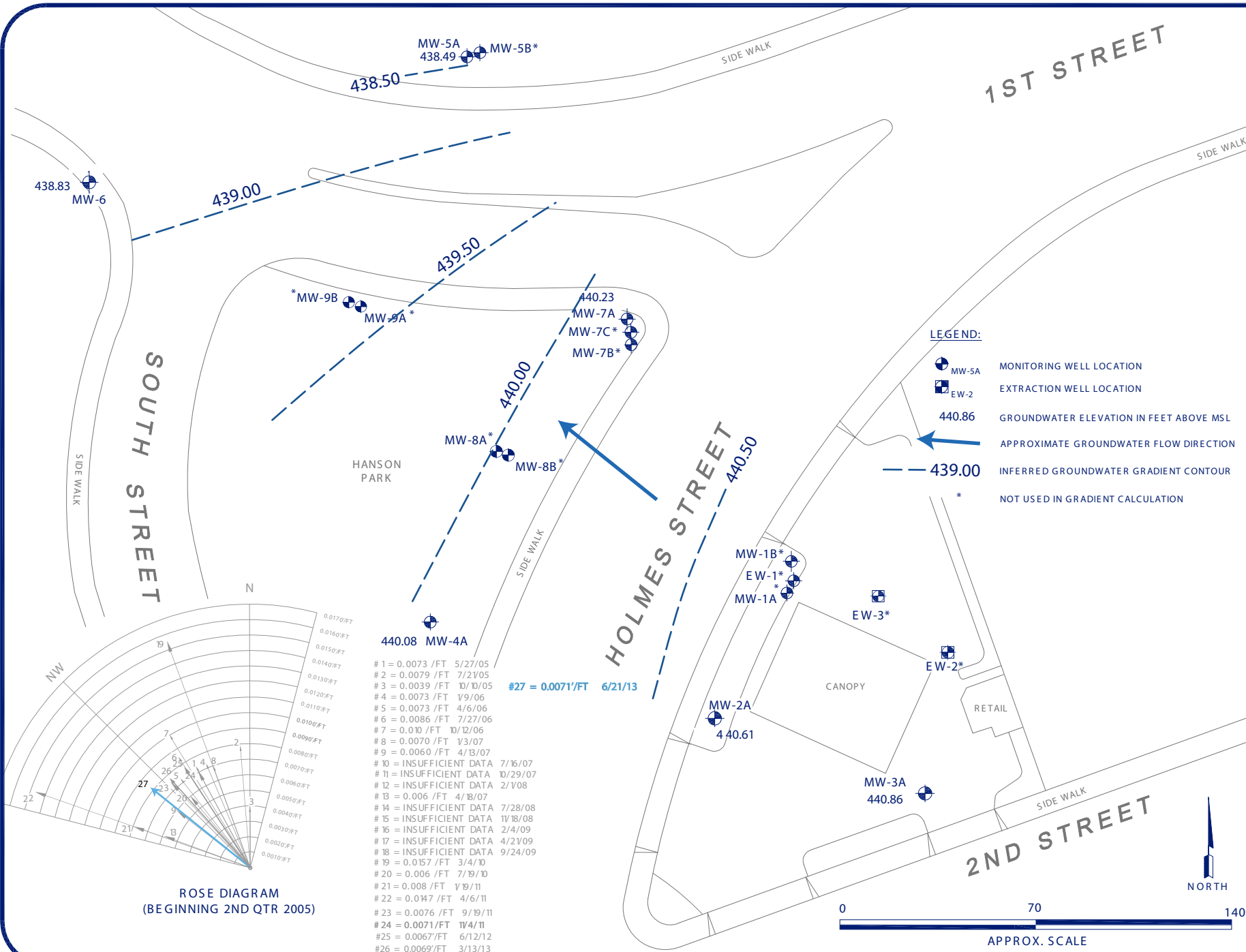
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**ALTERRA**

0	DRAFT/REVIEW	7/9
No.	Revision/Issue	Date

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Client Name and Address:  
**SITE PLAN**  
SECOND QUARTER 2013  
GROUNDWATER MONITORING  
REPORT

Project	160	Sheet	
Date	7-9-13	<b>FIGURE</b>	
Scale	see drawing	<b>2</b>	



ROSE DIAGRAM  
(BEGINNING 2ND QTR 2005)

# 1 = 0.0073 /FT	5/27/05
# 2 = 0.0079 /FT	7/2/05
# 3 = 0.0039 /FT	10/10/05
# 4 = 0.0073 /FT	1/9/06
# 5 = 0.0073 /FT	4/6/06
# 6 = 0.0086 /FT	7/27/06
# 7 = 0.010 /FT	10/12/06
# 8 = 0.0070 /FT	1/3/07
# 9 = 0.0060 /FT	4/13/07
# 10 = INSUFFICIENT DATA	7/16/07
# 11 = INSUFFICIENT DATA	10/29/07
# 12 = INSUFFICIENT DATA	2/1/08
# 13 = 0.006 /FT	4/18/07
# 14 = INSUFFICIENT DATA	7/28/08
# 15 = INSUFFICIENT DATA	11/18/08
# 16 = INSUFFICIENT DATA	2/4/09
# 17 = INSUFFICIENT DATA	4/21/09
# 18 = INSUFFICIENT DATA	9/24/09
# 19 = 0.0157 /FT	3/4/10
# 20 = 0.006 /FT	7/19/10
# 21 = 0.008 /FT	1/19/11
# 22 = 0.0147 /FT	4/6/11
# 23 = 0.0076 /FT	9/19/11
# 24 = 0.0071/FT	11/4/11
# 25 = 0.0067/FT	6/12/12
# 26 = 0.0069/FT	3/13/13

#27 = 0.0071/FT 6/21/13

**LEGEND:**

- MW-5A MONITORING WELL LOCATION
- EW-2 EXTRACTION WELL LOCATION
- 440.86 GROUNDWATER ELEVATION IN FEET ABOVE MSL
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- 439.00 INFERRED GROUNDWATER GRADIENT CONTOUR
- \* NOT USED IN GRADIENT CALCULATION

General Notes

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160 HOLMES STREET, LIVERMORE, CALIFORNIA  
SOIL AND GROUNDWATER INVESTIGATION  
AND REMEDIATION PROJECT

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No.	Revision/Issue	Date

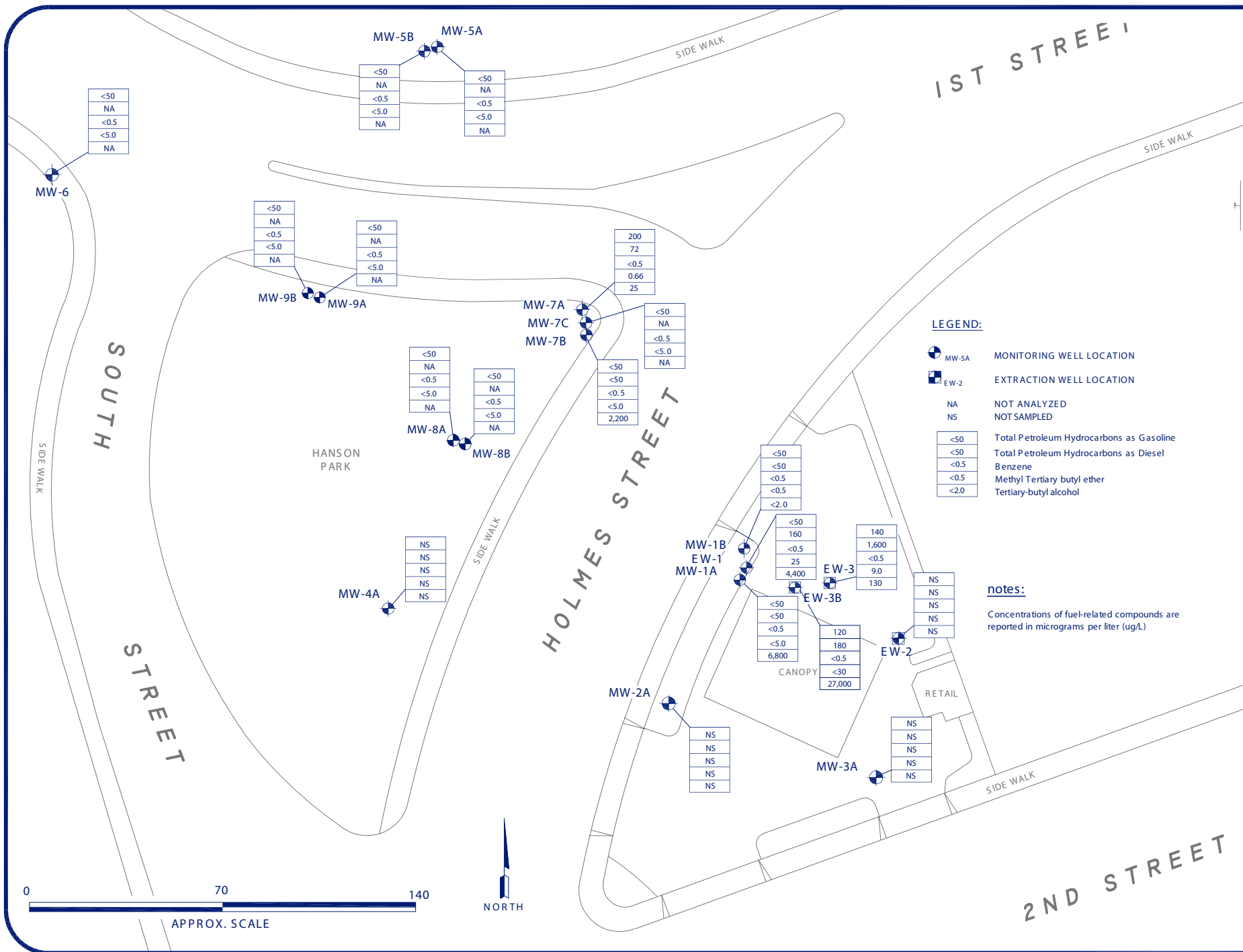
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Sheet Name and Address  
SHALLOW GROUNDWATER  
POTENTIOMETRIC  
MAP FOR 6-21-13

SECOND QUARTER 2013  
GROUNDWATER MONITORING  
REPORT

Project 160	Sheet
Date 7/9/13	<b>FIGURE 3</b>
Scale see drawing	





General Notes

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GROUNDWATER MONITORING REPORT

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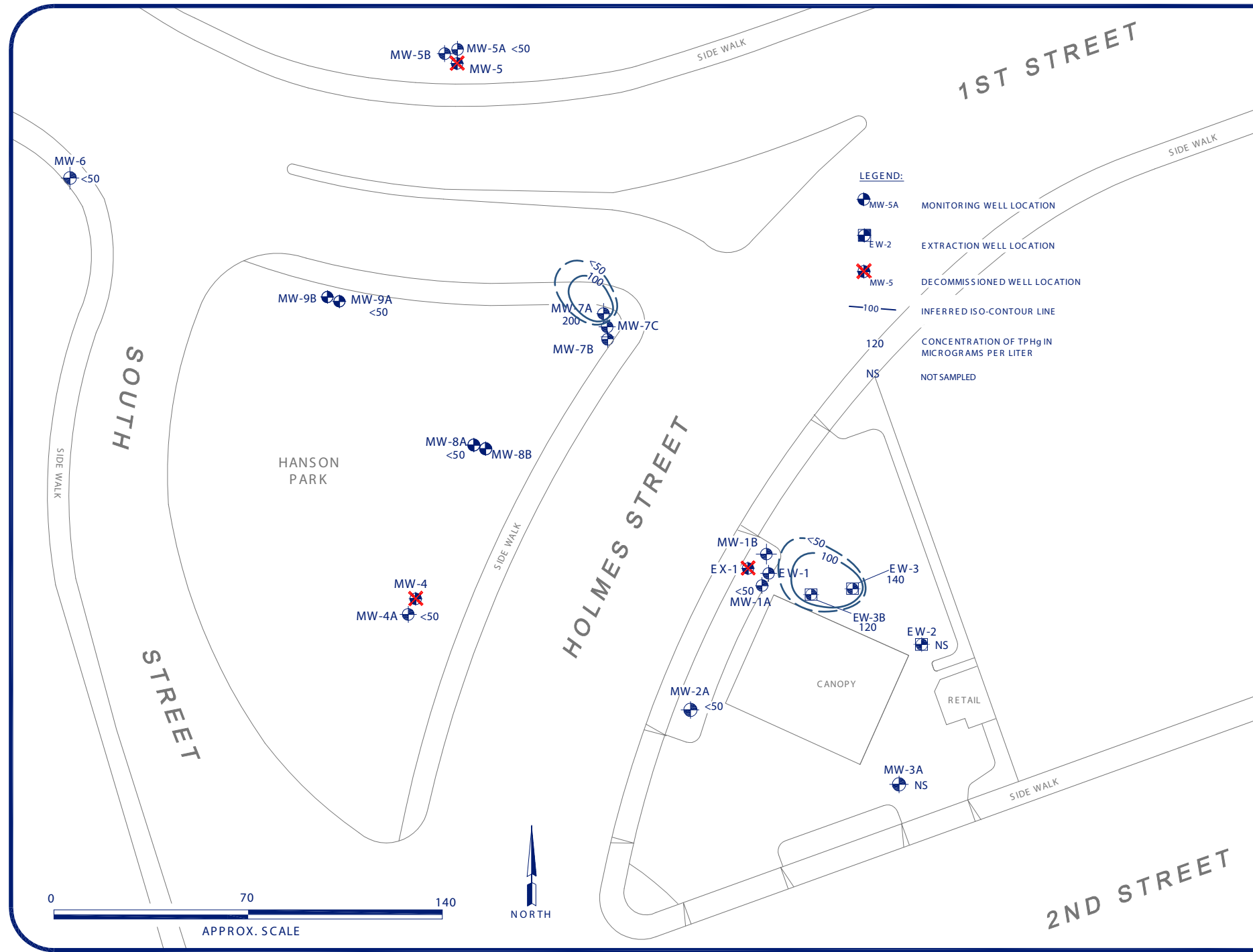
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Sheet Name and Address  
CONCENTRATIONS OF PETROLEUM  
CONSTITUENTS IN GROUNDWATER

SECOND QUARTER 2013  
GROUNDWATER MONITORING  
REPORT

Project	160	Sheet	FIGURE 4
Date	7-9-13		
Scale	see drawing		



- LEGEND:**
- MW-5A MONITORING WELL LOCATION
  - EW-2 EXTRACTION WELL LOCATION
  - MW-5 DECOMMISSIONED WELL LOCATION
  - 100 INFERRED ISO-CONTOUR LINE
  - 120 CONCENTRATION OF TPHg IN MICROGRAMS PER LITER
  - NS NOT SAMPLED

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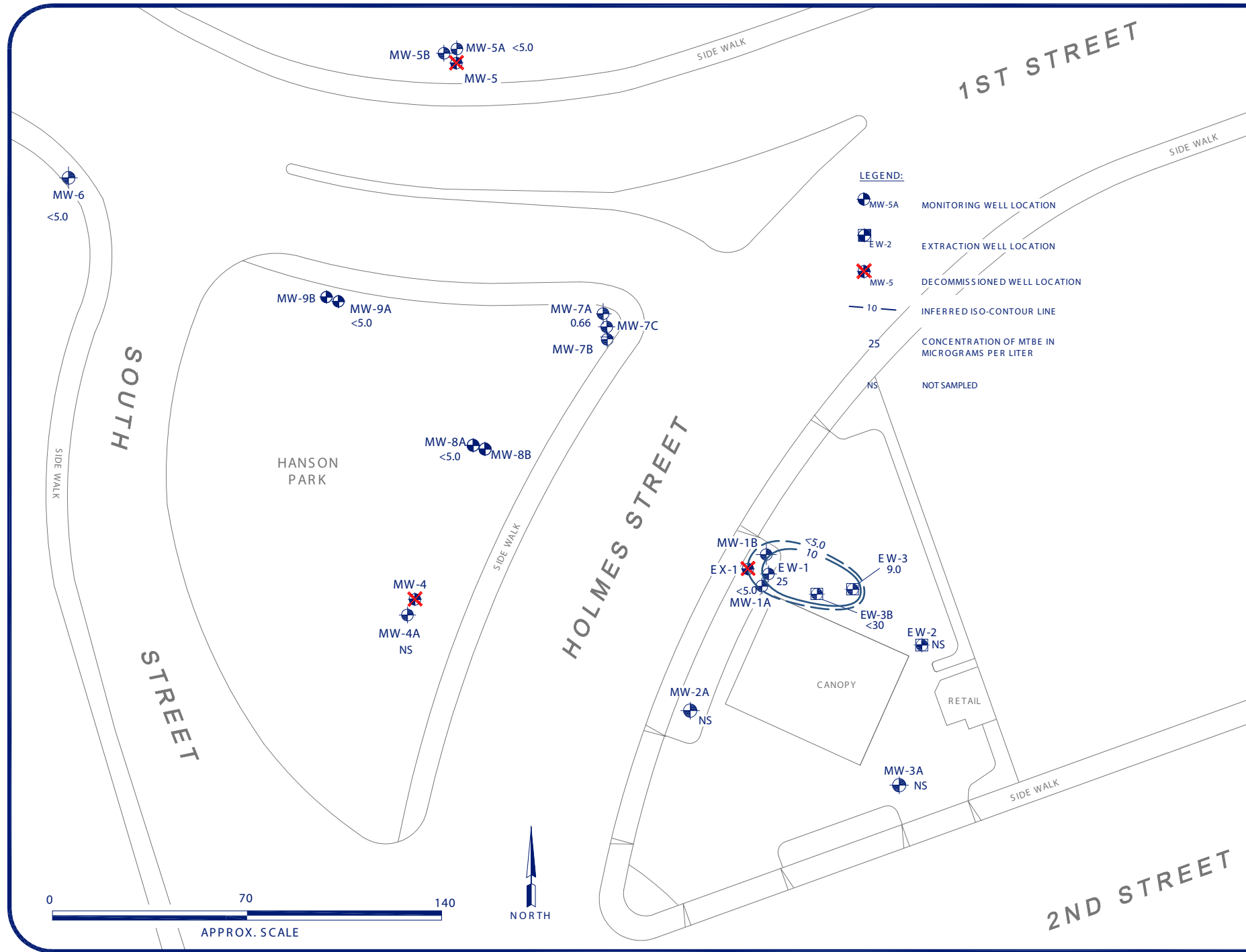
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Sheet Name and Address:  
 TPHg ISO-CONCENTRATION  
 MAP FOR "A" ZONE WELLS

SECOND QUARTER 2013  
 GROUNDWATER MONITORING  
 REPORT

Project	160	Sheet	<b>FIGURE 5</b>
Date	7/9/13		
Scale	see drawing		



- LEGEND:**
- MW-5A MONITORING WELL LOCATION
  - EW-2 EXTRACTION WELL LOCATION
  - MW-5 DECOMMISSIONED WELL LOCATION
  - 10 INFERRED ISO-CONTOUR LINE
  - 25 CONCENTRATION OF MTBE IN MICROGRAMS PER LITER
  - NS NOT SAMPLED

General Notes

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160 HOLMES STREET, LIVERMORE, CALIFORNIA  
GROUNDWATER MONITORING REPORT

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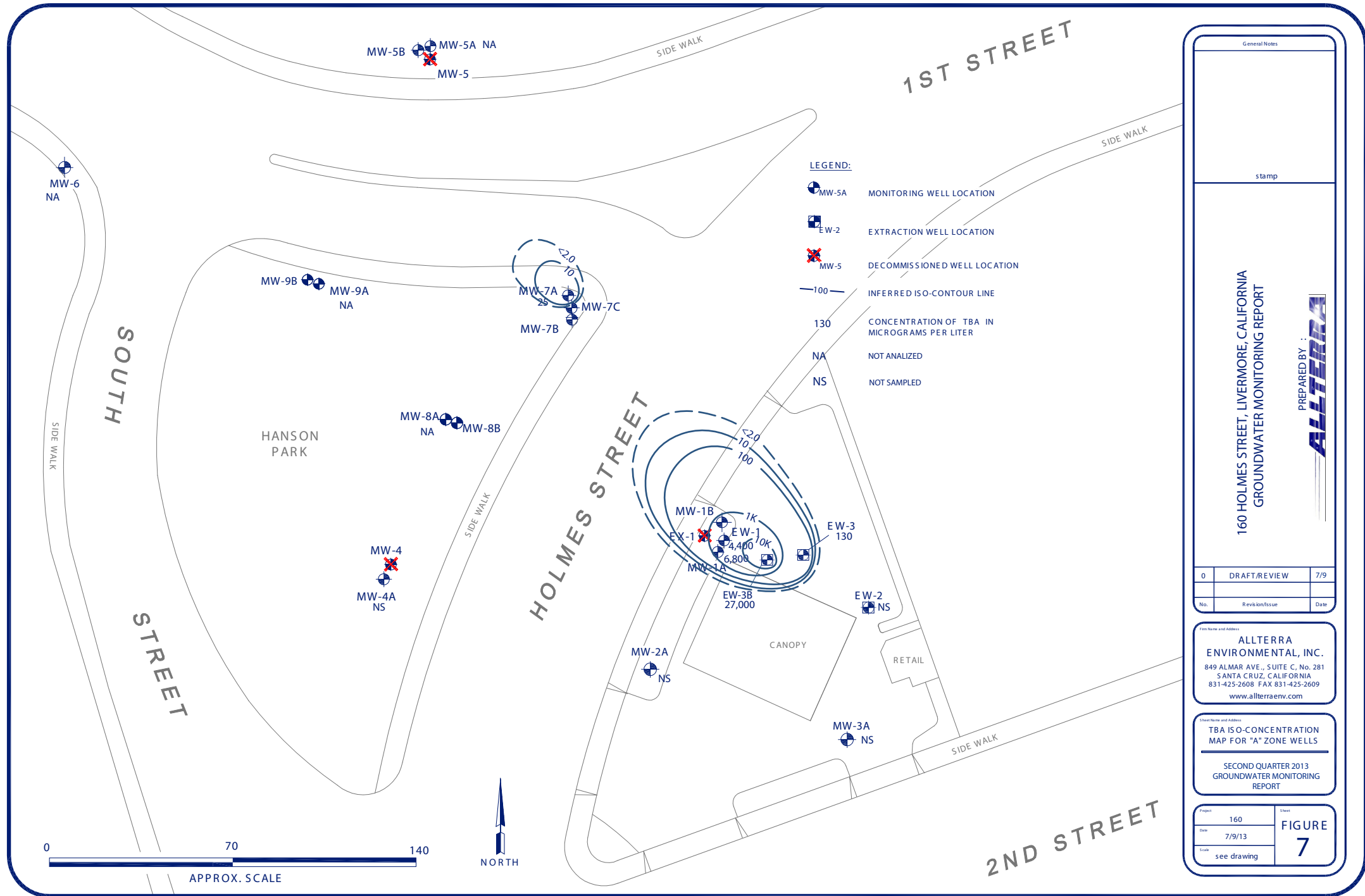
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Sheet Name and Address  
MTBE ISO-CONCENTRATION MAP FOR "A" ZONE WELLS

SECOND QUARTER 2013  
GROUNDWATER MONITORING REPORT

Project	160	Sheet	FIGURE <b>6</b>
Date	7/9/13		
Scale	see drawing		

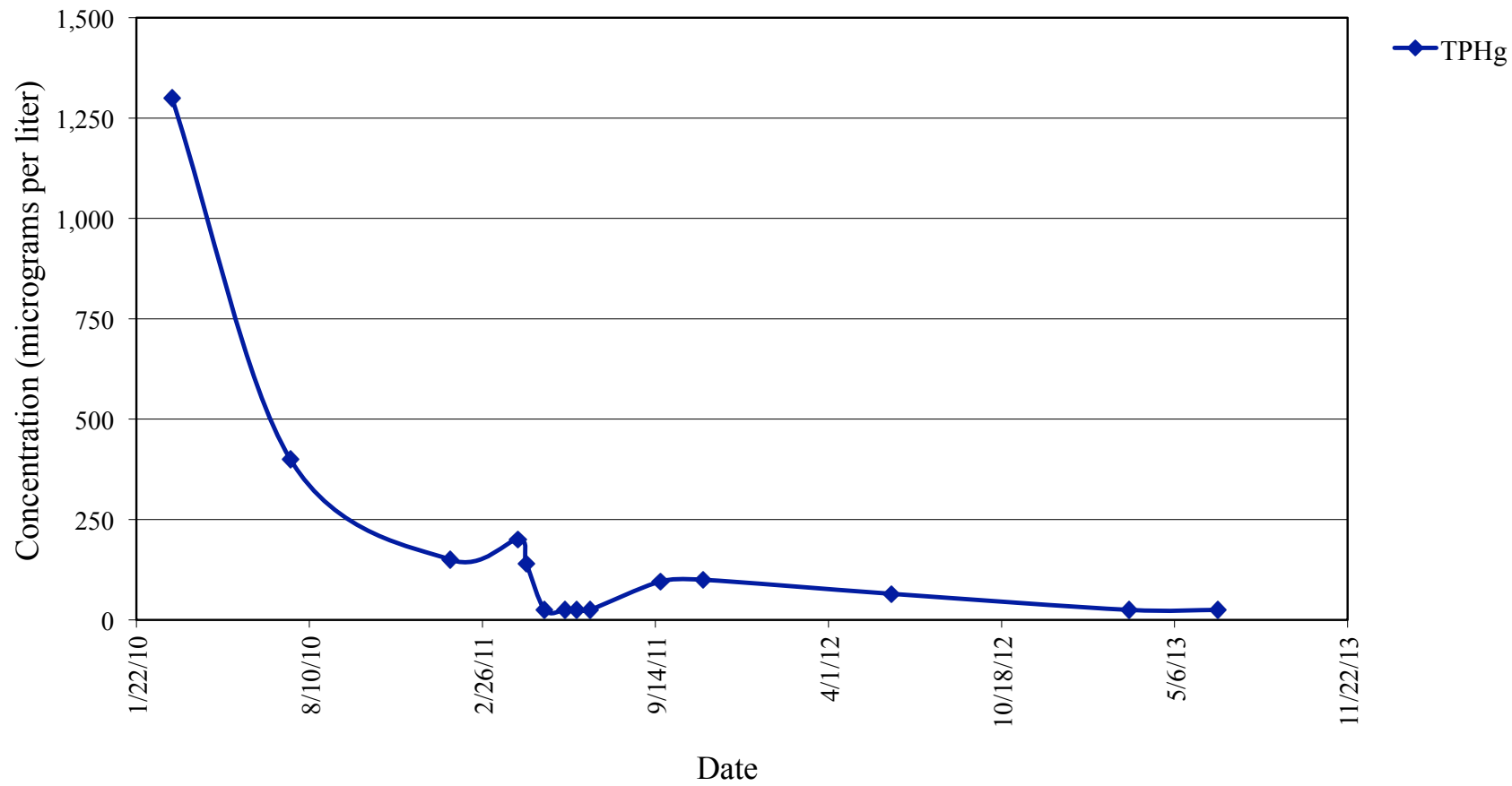


- LEGEND:**
- MW-5A MONITORING WELL LOCATION
  - EW-2 EXTRACTION WELL LOCATION
  - MW-5 DECOMMISSIONED WELL LOCATION
  - 100 INFERRED ISO-CONTOUR LINE
  - 130 CONCENTRATION OF TBA IN MICROGRAMS PER LITER
  - NA NOT ANALYZED
  - NS NOT SAMPLED



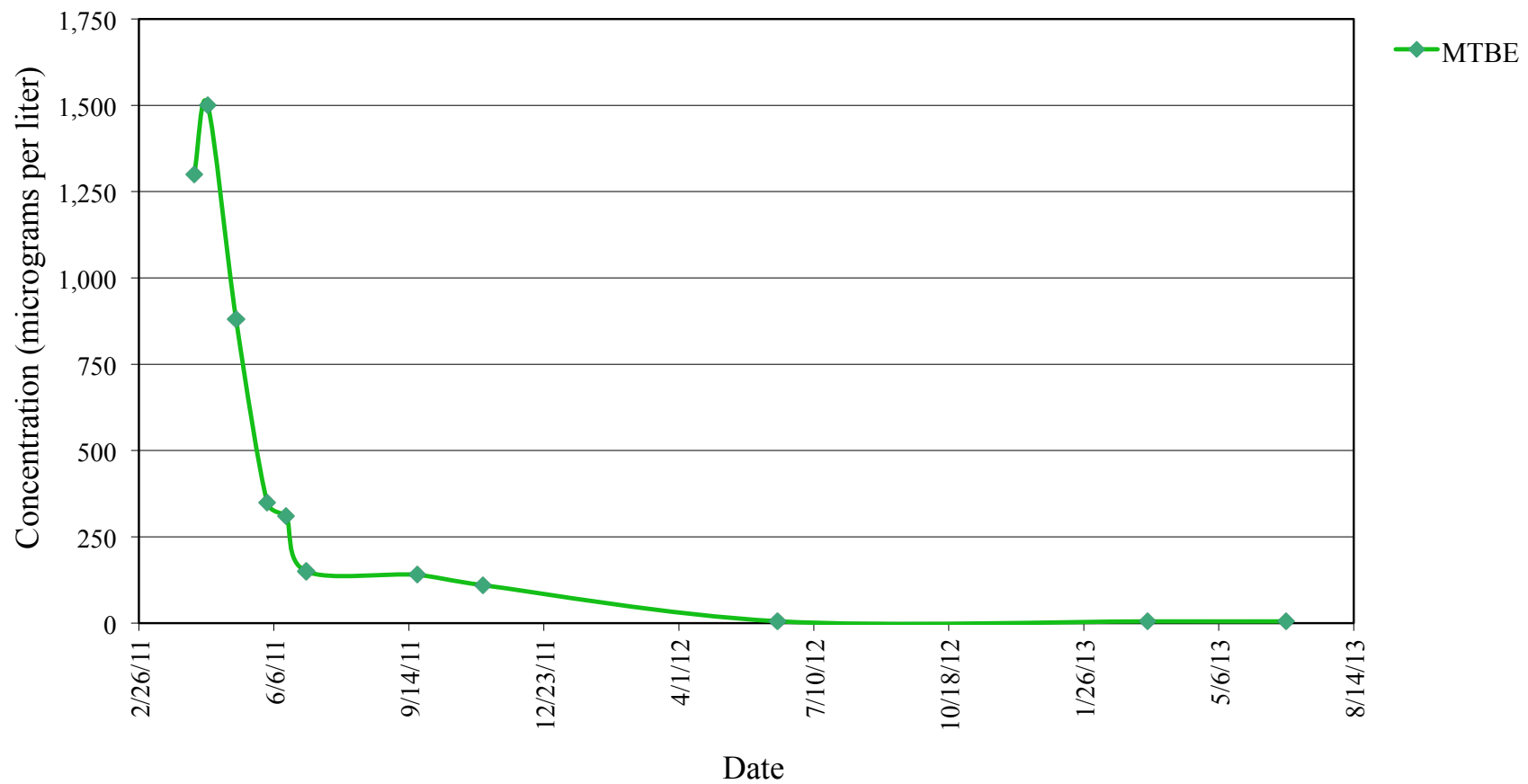
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<p>Sheet Name and Address</p> <p>TBA ISO-CONCENTRATION MAP FOR "A" ZONE WELLS</p>		
<p>SECOND QUARTER 2013 GROUNDWATER MONITORING REPORT</p>		
Project	160	Sheet
Date	7/9/13	FIGURE
Scale	see drawing	7

**Figure 8**  
**MW-1A TPHg Concentrations in Groundwater Over Time**

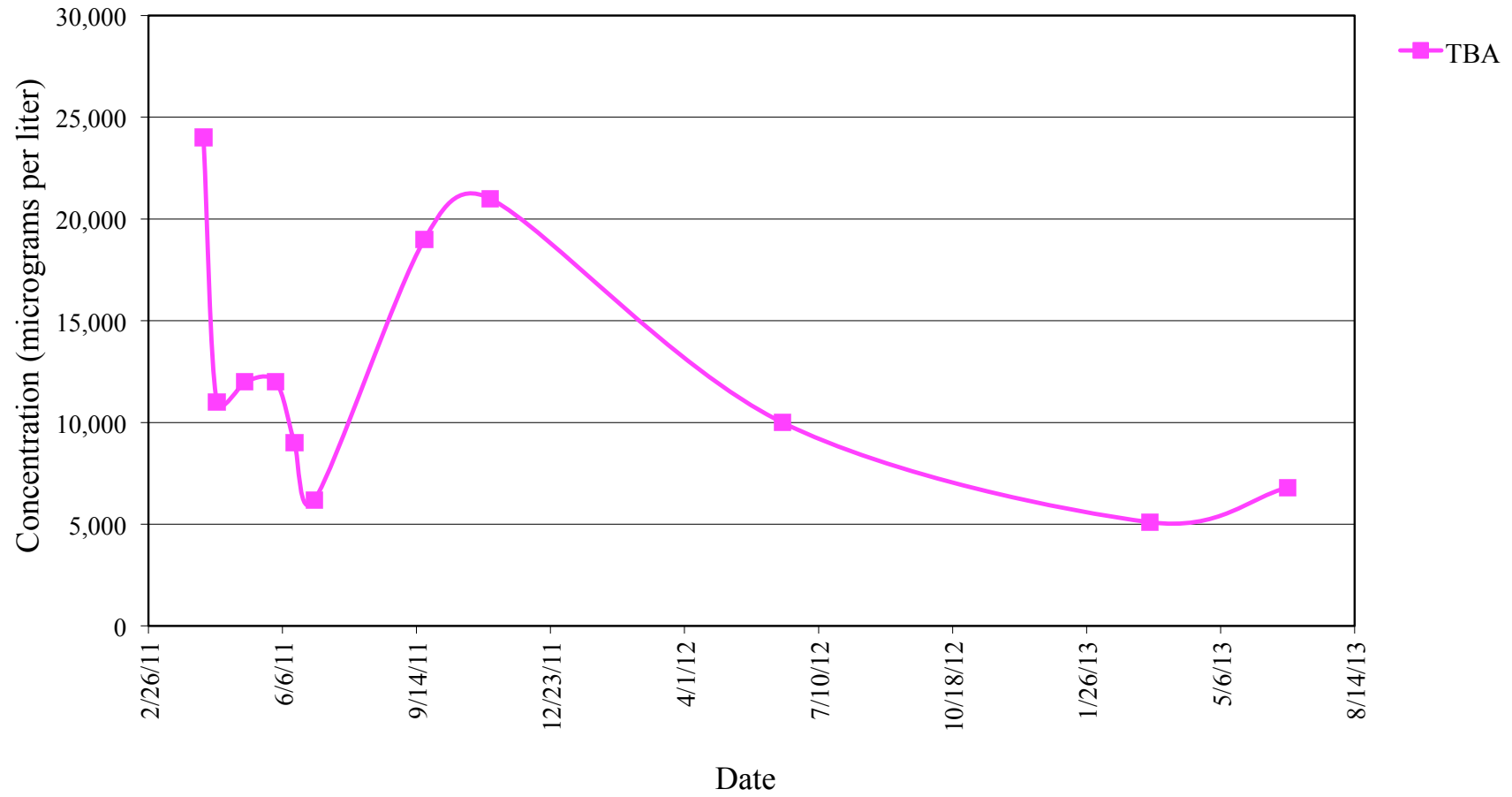




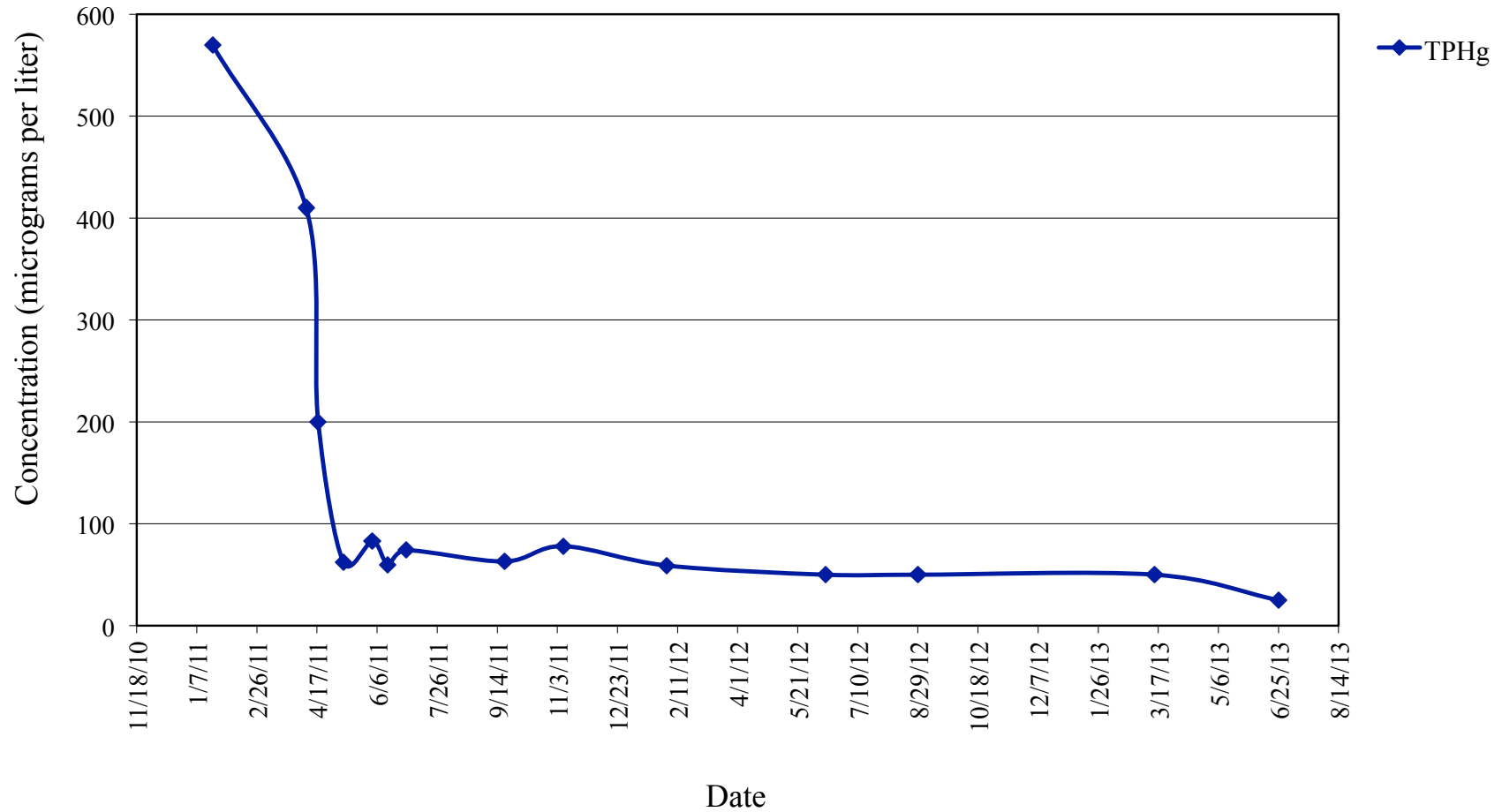
**Figure 9**  
**MW-1A MTBE Concentrations in Groundwater Over Time**



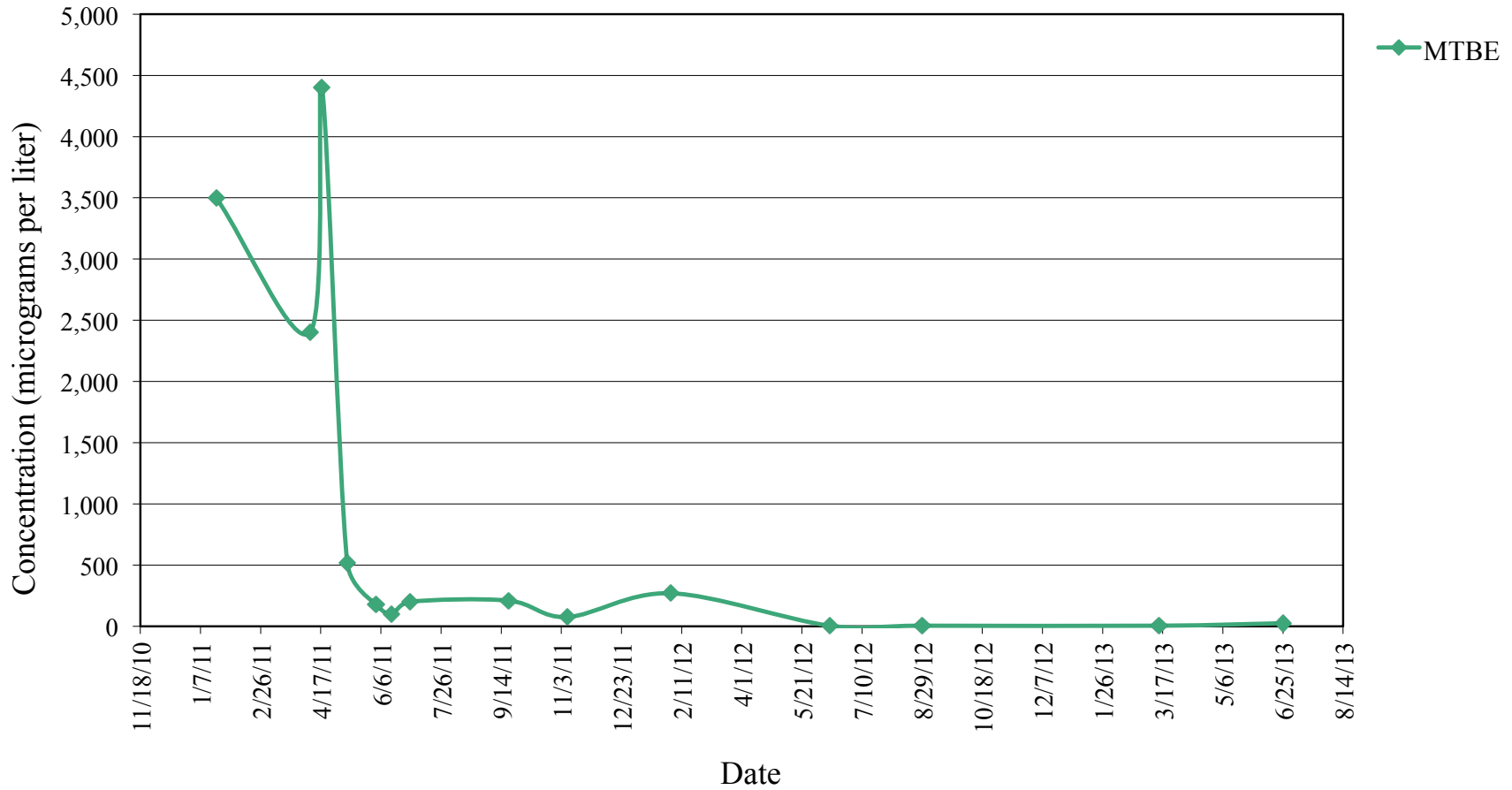
**Figure 10**  
**MW-1A TBA Concentrations in Groundwater Over Time**



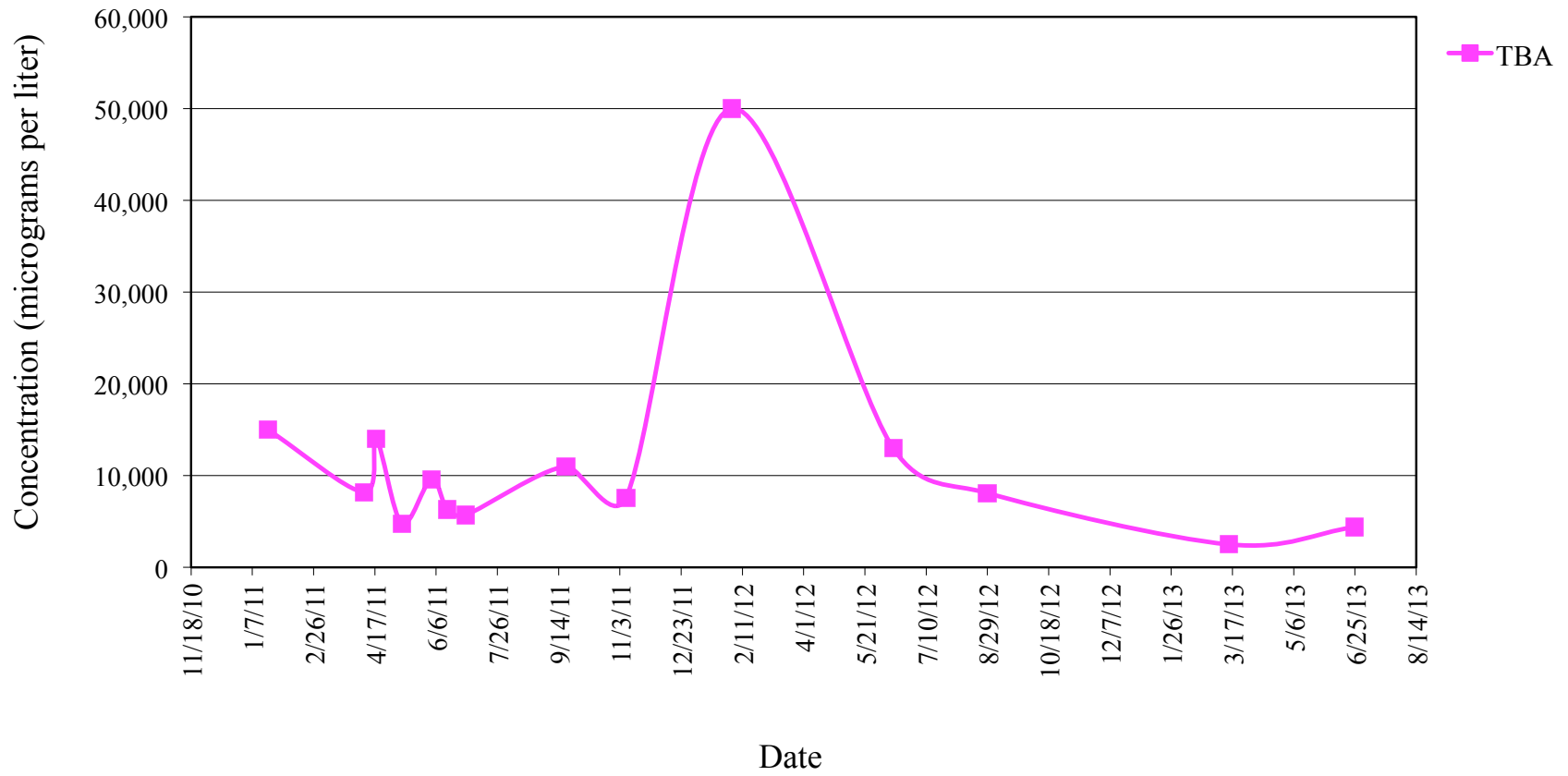
**Figure 11**  
**EW-1 TPHg Concentrations in Groundwater Over Time**



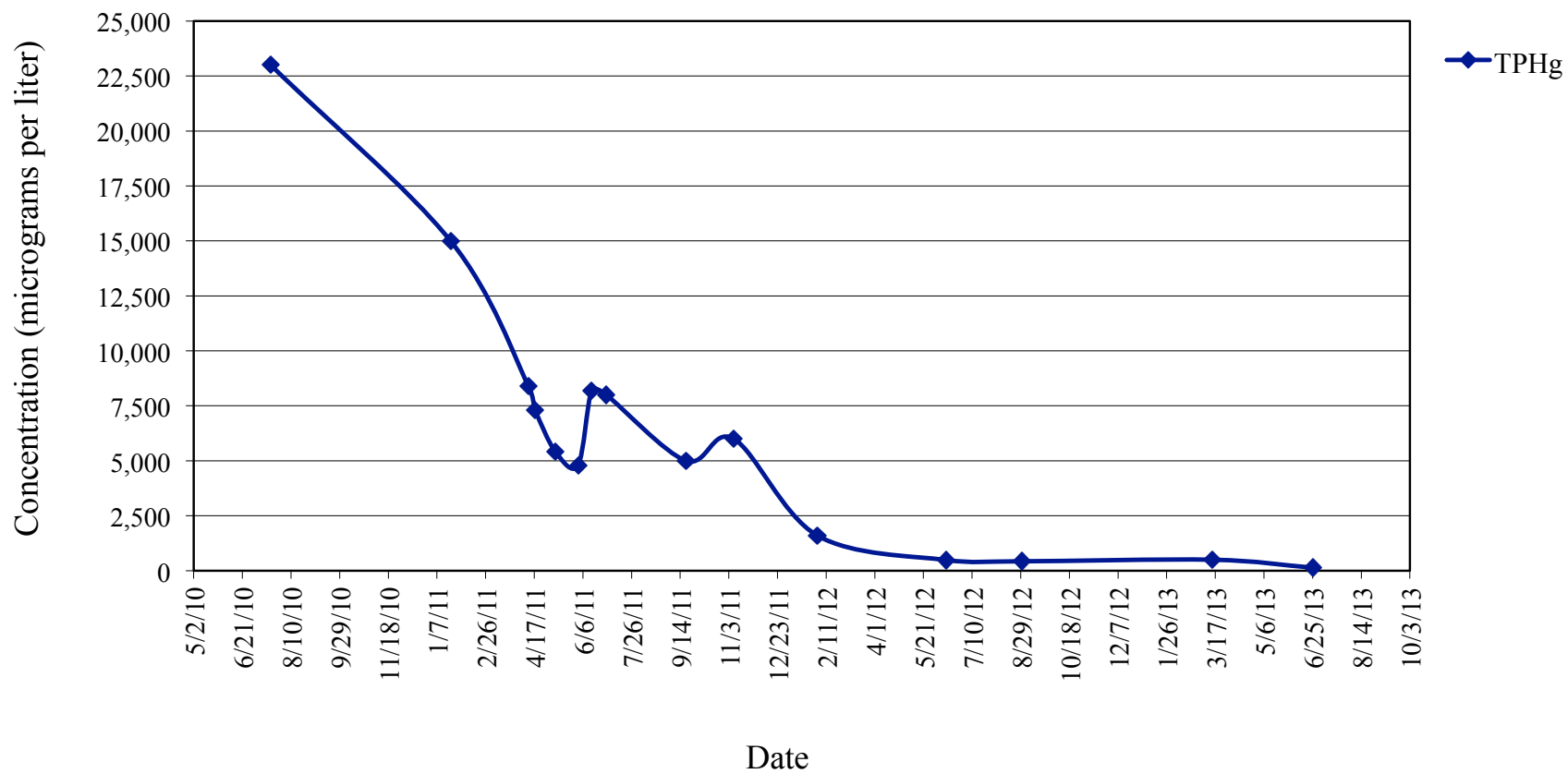
**Figure 12**  
**EW-1 MTBE Concentrations in Groundwater Over Time**



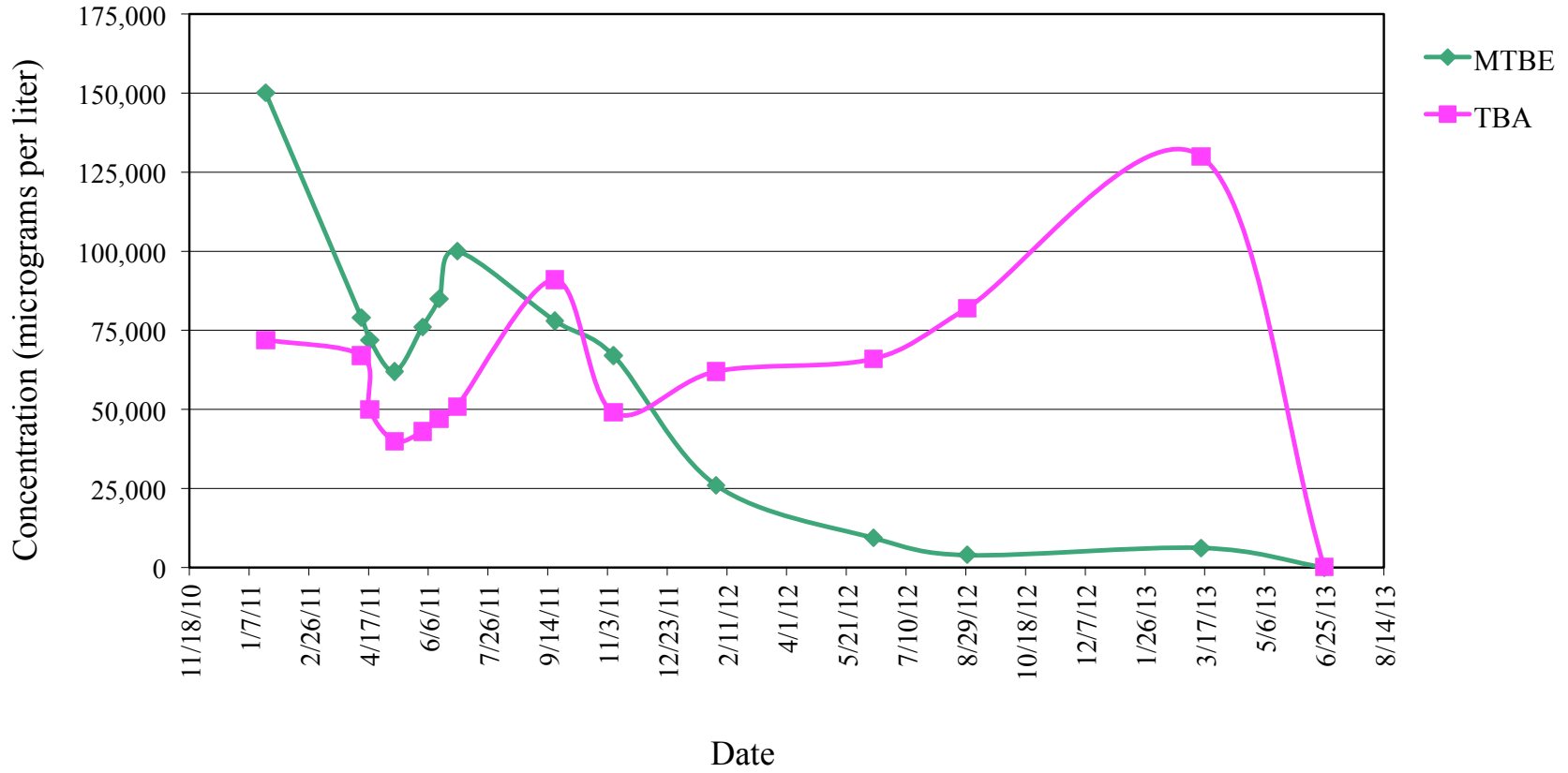
**Figure 13**  
**EW-1 TBA Concentrations in Groundwater Over Time**



**Figure 14**  
**EW-3 TPHg Concentrations in Groundwater Over Time**



**Figure 15**  
**EW-3 MTBE and TBA Concentrations in Groundwater Over Time**



TABLES 1 - 3



**Table 1**  
**Groundwater Elevation Data**  
160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
MW-1*	8/11/00	465.03	15-30	NM	NC
	10/19/00	465.03	15-30	21.94	443.09
	2/22/01	465.03	15-30	22.91	442.12
	5/30/01	465.03	15-30	Dry	NC
	11/14/01	465.03	15-30	Dry	NC
	5/7/02	465.03	15-30	Dry	NC
	9/11/02	465.03	15-30	26.16	438.87
	12/1/02	465.03	15-30	27.55	437.48
	3/14/03	465.03	15-30	22.63	442.40
	6/25/03	465.03	15-30	22.10	442.93
	9/16/03	465.03	15-30	24.91	440.12
	12/22/03	465.03	15-30	21.75	443.28
	3/10/04	465.03	15-30	17.45	447.58
	6/15/04	465.03	15-30	22.38	442.65
	9/17/04	465.03	15-30	25.61	439.42
	12/10/04	465.03	15-30	22.18	442.85
	3/2/05	465.03	15-30	16.95	448.08
	5/27/05	465.03	15-30	18.42	446.61
	7/21/05	465.03	15-30	21.38	443.65
	10/10/05	465.03	15-30	22.49	442.54
1/9/06	465.03	15-30	18.05	446.98	
MW-1A*	4/6/06	465.03	15-30	15.60	449.43
	7/27/06	465.03	15-30	22.42	442.61
	10/12/06	465.03	15-30	23.46	441.57
	1/3/07	465.03	15-30	21.00	444.03
	4/13/07	465.03	15-30	23.24	441.79
	7/16/07	465.03	15-30	Dry	NC
	10/29/07	465.03	15-30	Dry	NC
	2/1/08	465.03	15-30	Dry	NC
	4/18/08	465.03	15-30	27.34	437.69
	7/28/08	465.03	15-30	Dry	NC
	11/18/08	465.03	15-30	Dry	NC
	2/4/09	465.03	15-30	Dry	NC
	4/21/09	465.03	15-30	Dry	NC
	9/24/09	465.03	15-30	35.00	430.03
	3/4/10	465.03	15-30	28.05	436.98
	7/19/10	465.03	15-30	23.85	441.18
	1/19/11	465.03	15-30	23.12	441.91
	4/6/11	465.03	15-30	18.40	446.63
	4/18/11	465.03	15-30	18.70	446.33
	5/9/11	465.03	15-30	19.26	445.77
	6/1/11	465.03	15-30	20.10	444.93
	6/15/11	465.03	15-30	20.44	444.59
	6/30/11	465.03	15-30	20.73	444.30
	9/19/11	465.03	15-30	22.91	442.12
	11/4/11	465.03	15-30	23.00	442.03
	2/1/12	465.03	15-30	Dry	NC
	6/13/12	465.03	15-30	26.90	438.13
8/28/12	465.03	15-30	Dry	NC	
3/13/13	465.03	15-30	21.94	443.09	
<b>6/21/13</b>	<b>465.03</b>	<b>15-30</b>	<b>25.52</b>	<b>439.51</b>	

**Table 1**  
**Groundwater Elevation Data**  
 160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
MW-1B**	4/6/06	465.02	50-55	15.59	449.43
	7/27/06	465.02	50-55	22.47	442.55
	10/12/06	465.02	50-55	23.51	441.51
	1/3/07	465.02	50-55	21.04	443.98
	4/13/07	465.02	50-55	23.30	441.72
	7/16/07	465.02	50-55	35.57	429.45
	10/29/07	465.02	50-55	47.32	417.70
	2/1/08	465.02	50-55	33.90	431.12
	4/18/08	465.02	50-55	27.35	437.67
	7/28/08	465.02	50-55	44.03	420.99
	11/18/08	465.02	50-55	48.50	416.52
	2/4/09	465.02	50-55	46.83	418.19
	4/21/09	465.02	50-55	37.10	427.92
	9/24/09	465.02	50-55	37.76	427.26
	3/4/10	465.02	50-55	27.41	437.61
	7/19/10	465.02	50-55	NM	NC
	1/19/11	465.02	50-55	23.10	441.92
	4/6/11	465.02	50-55	18.40	446.62
	4/18/11	465.02	50-55	18.60	446.42
	5/9/11	465.02	50-55	19.11	445.91
	6/1/11	465.02	50-55	20.10	444.92
	6/15/11	465.02	50-55	20.44	444.58
	6/30/11	465.02	50-55	20.74	444.28
	9/19/11	465.02	50-55	22.92	442.10
	11/4/11	465.02	50-55	22.95	442.07
	2/2/12	465.02	50-55	33.00	432.02
	6/13/12	465.02	50-55	26.99	438.03
	8/28/12	465.02	50-55	29.51	435.51
	3/13/13	465.02	50-55	21.96	443.06
	<b>6/21/13</b>	<b>466.02</b>	<b>50-56</b>	<b>24.55</b>	<b>441.47</b>
MW-2*	8/11/00	464.94	15-30	NM	NC
	10/19/00	464.94	15-30	21.80	443.14
	2/22/01	464.94	15-30	22.87	442.07
	5/30/01	464.94	15-30	Dry	NC
	11/14/01	464.94	15-30	Dry	NC
	5/7/02	464.94	15-30	26.70	438.24
	9/11/02	464.94	15-30	25.96	438.98
	12/11/02	464.94	15-30	27.56	437.38
	3/14/03	464.94	15-30	22.41	442.53
	6/25/03	464.94	15-30	21.97	442.97
	9/16/03	464.94	15-30	24.70	440.24
	12/22/03	464.94	15-30	21.58	443.36
	3/10/04	464.94	15-30	17.31	447.63
	6/15/04	464.94	15-30	22.18	442.76
	9/17/04	464.94	15-30	25.44	439.50
	12/10/04	464.94	15-30	22.00	442.94
	3/2/05	464.94	15-30	16.75	448.19
	5/27/05	464.94	15-30	18.29	446.65
	7/21/05	464.94	15-30	20.46	444.48
	10/10/05	464.94	15-30	22.30	442.64
1/9/06	464.94	15-30	17.67	447.27	

**Table 1**  
**Groundwater Elevation Data**  
160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
MW-2A*	4/6/06	464.94	15-30	15.47	449.47
	7/27/06	464.94	15-30	22.27	442.67
	10/12/06	464.94	15-30	23.35	441.59
	1/3/07	464.94	15-30	20.90	444.04
	4/13/07	464.94	15-30	23.16	441.78
	7/16/07	464.94	15-30	Dry	NC
	10/29/07	464.94	15-30	Dry	NC
	2/1/08	464.94	15-30	Dry	NC
	4/18/08	464.94	15-30	27.26	437.68
	7/28/08	464.94	15-30	Dry	NC
	11/18/08	464.94	15-30	Dry	NC
	2/4/09	464.94	15-30	Dry	NC
	4/21/09	464.94	15-30	Dry	NC
	9/24/09	464.94	15-30	Dry	NC
	3/4/10	464.94	15-30	25.12	439.82
	7/20/10	464.94	15-30	25.90	439.04
	1/19/11	464.94	15-30	25.30	439.64
	4/6/11	464.94	15-30	18.30	446.64
	9/19/11	464.94	15-30	22.45	442.49
	11/4/11	464.94	15-30	22.77	442.17
	2/1/12	464.94	15-30	Dry	NC
6/12/12	464.94	15-30	26.79	438.15	
8/28/12	464.94	15-30	NS	NC	
3/13/13	464.94	15-30	21.81	443.13	
	<b>6/21/13</b>	<b>464.94</b>	<b>15-30</b>	<b>24.33</b>	<b>440.61</b>
MW-3*	8/11/00	465.84	15-30	NM	NC
	10/19/00	465.84	15-30	22.45	443.39
	2/22/01	465.84	15-30	23.51	442.33
	5/30/01	465.84	15-30	Dry	NC
	11/14/01	465.84	15-30	Dry	NC
	5/7/02	465.84	15-30	Dry	NC
	9/11/02	465.84	15-30	26.61	439.23
	12/11/02	465.84	15-30	28.18	437.66
	3/14/03	465.84	15-30	23.04	442.80
	6/25/03	465.84	15-30	22.59	443.25
	9/16/03	465.84	15-30	25.33	440.51
	12/22/03	465.84	15-30	22.37	443.47
	3/10/04	465.84	15-30	17.88	447.96
	6/15/04	465.84	15-30	22.82	443.02
	9/17/04	465.84	15-30	26.09	439.75
	12/10/04	465.84	15-30	22.65	443.19
	3/5/05	465.84	15-30	17.33	448.51
	5/27/05	465.84	15-30	18.89	446.95
	7/21/05	465.84	15-30	21.10	444.74
10/10/05	465.84	15-30	22.94	442.90	
1/9/06	465.84	15-30	18.24	447.60	

**Table 1**  
**Groundwater Elevation Data**  
 160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
MW-3A*	4/6/06	465.84	15-30	16.02	449.82
	7/27/06	465.84	15-30	22.90	442.94
	10/12/06	465.84	15-30	23.99	441.85
	1/3/07	465.84	15-30	21.52	444.32
	4/13/07	465.84	15-30	23.78	442.06
	7/16/07	465.84	15-30	Dry	NC
	10/29/07	465.84	15-30	Dry	NC
	2/1/08	465.84	15-30	Dry	NC
	4/18/08	465.84	15-30	27.86	437.98
	7/28/08	465.84	15-30	Dry	NC
	11/18/08	465.84	15-30	Dry	NC
	2/4/09	465.84	15-30	Dry	NC
	4/21/09	465.84	15-30	Dry	NC
	9/24/09	465.84	15-30	Dry	NC
	3/4/10	465.84	15-30	27.95	437.89
	7/19/10	465.84	15-30	26.55	439.29
	1/19/11	465.84	15-30	23.63	442.21
	4/6/11	465.84	15-30	18.90	446.94
	9/19/11	465.85	15-30	23.40	442.45
	11/4/11	465.85	15-30	23.60	442.25
	2/1/12	465.85	15-30	Dry	NC
	6/12/12	465.85	15-30	27.47	438.38
	8/28/12	465.85	15-30	NM	NC
3/13/13	465.85	15-30	22.47	443.38	
<b>6/21/13</b>	<b>465.85</b>	<b>15-30</b>	<b>24.99</b>	<b>440.86</b>	
MW-4***	11/14/01	465.15	15-30	33.84	431.31
	5/7/02	465.15	15-30	26.75	438.40
	9/11/02	465.15	15-30	26.66	438.49
	12/11/02	465.15	15-30	28.39	436.76
	3/14/03	465.15	15-30	23.14	442.01
	6/25/03	465.15	15-30	22.72	442.43
	9/16/03	465.15	15-30	25.39	439.76
	12/22/03	465.15	15-30	22.42	442.73
	3/4/04	465.15	15-30	18.20	446.95
	6/15/04	465.15	15-30	22.95	442.20
	9/17/04	465.15	15-30	26.12	439.03
	12/10/04	465.15	15-30	22.73	442.42
	3/2/05	465.15	15-30	17.60	447.55
	5/27/05	465.15	15-30	19.14	446.01
	7/21/05	465.15	15-30	21.25	443.90
	10/10/05	465.15	15-30	22.85	442.30
	1/9/06	465.15	15-30	18.54	446.61

**Table 1**  
**Groundwater Elevation Data**  
 160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
MW-4A**	4/6/06	464.96	15-30	16.19	448.77
	7/27/06	464.96	15-30	22.87	442.09
	10/12/06	464.96	15-30	23.90	441.06
	1/3/07	464.96	15-30	21.52	443.44
	4/13/07	464.96	15-30	23.78	441.18
	7/16/07	464.96	15-30	Dry	NC
	10/29/07	464.96	15-30	Dry	NC
	2/1/08	464.96	15-30	Dry	NC
	4/18/08	464.96	15-30	27.91	437.05
	7/28/08	464.96	15-30	Dry	NC
	11/18/08	464.96	15-30	Dry	NC
	2/4/09	464.96	15-30	Dry	NC
	9/24/09	464.96	15-30	Dry	NC
	4/21/09	464.96	15-30	Dry	NC
	3/4/10	464.96	15-30	25.66	439.30
	7/20/10	464.96	15-30	24.25	440.71
	1/19/11	464.96	15-30	23.64	441.32
	4/6/11	464.96	15-30	18.90	446.06
	9/19/11	464.96	15-30	23.43	441.53
	11/4/11	464.96	15-30	23.40	441.56
	2/1/12	464.96	15-30	Dry	NC
6/12/12	464.96	15-30	27.27	437.69	
8/28/12	464.96	15-30	NM	NC	
3/13/13	464.96	15-30	22.38	442.58	
<b>6/21/13</b>	<b>464.96</b>	<b>15-30</b>	<b>24.88</b>	<b>440.08</b>	
MW-5***	11/14/01	464.65	20-50	34.94	429.71
	5/7/02	464.65	20-50	27.90	436.75
	9/11/02	464.65	20-50	27.99	436.66
	12/11/02	464.65	20-50	29.50	435.15
	3/14/03	464.65	20-50	24.26	440.39
	6/25/03	464.65	20-50	24.01	440.64
	9/16/03	464.65	20-50	26.83	437.82
	12/22/03	464.65	20-50	23.68	440.97
	3/10/04	464.65	20-50	19.22	445.43
	6/15/04	464.65	20-50	24.20	440.45
	9/17/04	464.65	20-50	27.68	436.97
	12/10/04	464.65	20-50	23.93	440.72
	3/2/05	464.65	20-50	18.56	446.09
	5/27/05	464.65	20-50	20.15	444.50
	7/21/05	464.65	20-50	22.55	442.10
	10/10/05	464.65	20-50	23.35	441.30
	1/9/06	464.65	20-50	19.53	445.12

**Table 1**  
**Groundwater Elevation Data**  
160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
MW-5A**	4/6/06	464.64	20-35	17.35	447.29
	7/27/06	464.64	20-35	24.40	440.24
	10/12/06	464.64	20-35	25.58	439.06
	1/3/07	464.64	20-35	22.53	442.11
	4/13/07	464.64	20-35	24.77	439.87
	7/16/07	464.64	20-35	Dry	NC
	10/29/07	464.64	20-35	Dry	NC
	2/1/08	464.64	20-35	34.03	430.61
	4/18/08	464.64	20-35	28.13	436.51
	7/28/08	464.64	20-35	Dry	NC
	11/18/08	464.64	20-35	33.82	430.82
	2/4/09	464.64	20-35	Dry	NC
	4/21/09	464.64	20-35	Dry	NC
	9/24/09	464.64	20-35	Dry	NC
	3/4/10	464.64	20-35	28.77	435.87
	7/20/10	464.64	20-35	24.57	440.07
	1/19/11	464.64	20-35	24.52	440.12
	4/6/11	464.64	20-35	19.98	444.66
	9/19/11	464.64	20-35	24.62	440.02
	11/4/11	464.64	20-35	24.50	440.14
	2/1/12	464.64	20-35	Dry	NC
6/12/12	464.64	20-35	28.39	436.25	
8/28/12	464.64	20-35	31.10	433.54	
3/13/13	464.64	20-35	23.38	441.26	
	<b>6/21/13</b>	<b>464.64</b>	<b>20-35</b>	<b>26.15</b>	<b>438.49</b>
MW-5B**	4/6/06	464.59	50-55	17.44	447.15
	7/27/06	464.59	50-55	24.09	440.50
	10/12/06	464.59	50-55	25.17	439.42
	1/3/07	464.59	50-55	22.44	442.15
	4/13/07	464.59	50-55	25.33	439.26
	7/16/07	464.59	50-55	36.50	428.09
	10/29/07	464.59	50-55	47.90	416.69
	2/1/08	464.59	50-55	33.25	431.34
	4/18/08	464.59	50-55	28.77	435.82
	7/28/08	464.59	50-55	44.76	419.83
	11/18/08	464.59	50-55	51.65	412.94
	2/4/09	464.59	50-55	47.63	416.96
	4/21/09	464.59	50-55	37.00	427.59
	9/24/09	464.59	50-55	39.73	424.86
	3/4/10	464.59	50-55	28.97	435.62
	7/19/10	464.59	50-55	25.40	439.19
	1/19/11	464.59	50-55	24.52	440.07
	4/6/11	464.59	50-55	20.05	444.54
	9/19/11	464.59	50-55	24.50	440.09
	11/4/11	464.59	50-55	24.40	440.19
	2/1/12	464.59	50-55	33.96	430.63
6/12/12	464.59	50-55	28.65	435.94	
8/28/12	464.59	50-55	31.22	433.37	
3/13/13	464.59	50-55	23.42	441.17	
	<b>6/21/13</b>	<b>464.59</b>	<b>50-55</b>	<b>26.21</b>	<b>438.38</b>

**Table 1**  
**Groundwater Elevation Data**  
160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
MW-6	11/14/01	464.13	20-50	33.88	430.25
	5/7/02	464.13	20-50	27.01	437.12
	9/11/02	464.13	20-50	27.03	437.10
	12/11/02	464.13	20-50	28.77	435.36
	3/14/03	464.13	20-50	23.46	440.67
	6/25/03	464.13	20-50	23.08	441.05
	9/16/03	464.13	20-50	25.77	438.36
	12/22/03	464.13	20-50	22.59	441.54
	3/10/04	464.13	20-50	18.65	445.48
	6/15/04	464.13	20-50	23.31	440.82
	9/17/04	464.13	20-50	26.56	437.57
	12/10/04	464.13	20-50	23.09	441.04
	3/2/05	464.13	20-50	18.04	446.09
	5/27/05	464.13	20-50	19.57	444.56
	7/21/05	464.13	20-50	21.60	442.53
	10/10/05	464.13	20-50	22.21	441.92
	1/9/06	464.13	20-50	18.99	445.14
	4/6/06	464.13	20-50	17.00	447.13
	7/27/06	464.13	20-50	23.45	440.68
	10/12/06	464.13	20-50	24.36	439.77
	1/3/07	464.13	20-50	22.03	442.10
	4/13/07	464.13	20-50	24.40	439.73
	7/16/07	464.13	20-50	NM	NC
	10/29/07	464.13	20-50	Dry	NC
	2/1/08	464.13	20-50	33.05	431.08
	4/18/08	464.13	20-50	28.20	435.93
	7/28/08	464.13	20-50	Dry	NC
	11/18/08	464.13	20-50	Dry	NC
	2/4/09	464.13	20-50	Dry	NC
	4/21/09	464.13	20-50	38.71	425.42
	9/24/09	464.13	20-50	38.26	425.87
	3/4/10	464.13	20-50	26.02	438.11
	7/19/10	464.13	20-50	24.65	439.48
1/19/11	464.13	20-50	24.00	440.13	
4/6/11	464.13	20-50	21.76	442.37	
9/19/11	464.13	20-50	23.76	440.37	
11/4/11	464.13	20-50	23.00	441.13	
2/1/12	464.13	20-50	33.43	430.70	
6/12/12	464.13	20-50	27.62	436.51	
8/28/12	464.13	20-50	30.17	433.96	
3/13/13	464.13	20-50	22.72	441.41	
<b>6/21/13</b>	<b>464.13</b>	<b>20-50</b>	<b>25.30</b>	<b>438.83</b>	

**Table 1**  
**Groundwater Elevation Data**  
 160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
MW-7A**	4/6/06	465.32	15-30	16.61	448.71
	7/27/06	465.32	15-30	23.40	441.92
	10/12/06	465.32	15-30	24.50	440.82
	1/3/07	465.32	15-30	21.80	443.52
	4/13/07	465.32	15-30	24.05	441.27
	7/16/07	465.32	15-30	Dry	NC
	10/29/07	465.32	15-30	Dry	NC
	2/1/08	465.32	15-30	Dry	NC
	4/18/08	465.32	15-30	28.16	437.16
	7/28/08	465.32	15-30	Dry	NC
	11/18/08	465.32	15-30	Dry	NC
	2/4/09	465.32	15-30	Dry	NC
	4/21/09	465.32	15-30	Dry	NC
	9/24/09	465.32	15-30	Dry	NC
	3/4/10	465.32	15-30	26.30	439.02
	7/19/10	465.32	15-30	24.78	440.54
	1/19/11	465.32	15-30	23.60	441.72
	4/6/11	465.32	15-30	19.35	445.97
	4/18/11	465.32	15-30	19.59	445.73
	5/9/11	465.32	15-30	21.15	444.17
	6/1/11	465.32	15-30	21.01	444.31
	6/15/11	465.32	15-30	21.45	443.87
	6/30/11	465.32	15-30	21.87	443.45
	9/19/11	465.32	15-30	23.96	441.36
	11/4/11	465.32	15-30	23.45	441.87
	2/1/12	465.32	15-30	Dry	NC
	6/13/12	465.32	15-30	27.93	437.39
8/28/12	465.32	15-30	Dry	NC	
3/13/13	465.32	15-30	22.86	442.46	
<b>6/21/13</b>	<b>465.32</b>	<b>15-30</b>	<b>25.09</b>	<b>440.23</b>	
MW-7B**	4/6/06	465.39	45-50	16.85	448.54
	7/27/06	465.39	45-50	23.72	441.67
	10/12/06	465.39	45-50	24.74	440.65
	1/3/07	465.39	45-50	22.18	443.21
	4/13/07	465.39	45-50	24.41	440.98
	7/16/07	465.39	45-50	36.40	428.99
	10/29/07	465.39	45-50	Dry	NC
	2/1/08	465.39	45-50	33.84	431.55
	4/18/08	465.39	45-50	28.52	436.87
	7/28/08	465.39	45-50	44.92	420.47
	11/18/08	465.39	45-50	Dry	NC
	2/4/09	465.39	45-50	46.65	418.74
	4/21/09	465.39	45-50	36.83	428.56
	9/24/09	465.39	45-50	39.26	426.13
	3/4/10	465.39	45-50	28.63	436.76
	7/19/10	465.39	45-50	25.05	440.34
	1/19/11	465.39	45-50	24.15	441.24



**Table 1**  
**Groundwater Elevation Data**  
160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)	
MW-7B cont.	4/6/11	465.39	45-50	21.78	443.61	
	4/18/11	465.39	45-50	19.75	445.64	
	5/9/11	465.39	45-50	20.40	444.99	
	6/1/11	465.39	45-50	21.25	444.14	
	6/15/11	465.39	45-50	21.45	443.94	
	6/30/11	465.39	45-50	21.65	443.74	
	9/19/11	465.39	45-50	24.10	441.29	
	11/4/11	465.39	45-50	24.10	441.29	
	2/2/12	465.39	45-50	33.91	431.48	
	6/13/12	465.39	45-50	28.14	437.25	
	8/28/12	465.39	45-50	30.67	434.72	
	3/13/13	465.39	45-50	23.05	442.34	
	<b>6/21/13</b>	<b>465.39</b>	<b>45-50</b>	<b>25.70</b>	<b>439.69</b>	
	MW-7C**	4/6/06	465.39	65-70	17.18	448.21
		7/27/06	465.39	65-70	24.15	441.24
10/12/06		465.39	65-70	24.74	440.65	
1/3/07		465.39	65-70	22.53	442.86	
4/13/07		465.39	65-70	24.73	440.66	
7/16/07		465.39	65-70	36.70	428.69	
10/29/07		465.39	65-70	48.25	417.14	
2/1/08		465.39	65-70	34.00	431.39	
4/18/08		465.39	65-70	28.75	436.64	
7/28/08		465.39	65-70	45.00	420.39	
11/18/08		465.39	65-70	49.62	415.77	
2/4/09		465.39	65-70	47.89	417.50	
4/21/09		465.39	65-70	36.98	428.41	
9/24/09		465.39	65-70	39.49	425.90	
3/4/10		465.39	65-70	26.66	438.73	
7/19/10		465.39	65-70	25.38	440.01	
1/19/11		465.39	65-70	24.50	440.89	
4/6/11		465.39	65-70	19.88	445.51	
9/19/11		465.39	65-70	23.50	441.89	
11/4/11		465.39	65-70	24.40	440.99	
2/2/12	465.39	65-70	34.14	431.25		
6/13/12	465.39	65-70	28.54	436.85		
8/28/12	465.39	65-70	31.07	434.32		
3/13/13	465.39	65-70	23.34	442.05		
<b>6/21/13</b>	<b>465.39</b>	<b>65-70</b>	<b>26.00</b>	<b>439.39</b>		
EW-1**	4/6/06	465.45	15-40	15.99	449.46	
	7/27/06	465.45	15-40	23.85	441.60	
	10/12/06	465.45	15-40	23.51	441.94	
	1/3/07	465.45	15-40	21.45	444.00	
	4/13/07	465.45	15-40	23.69	441.76	
	10/29/07	465.45	15-40	NM	NC	
	2/1/08	465.45	15-40	NM	NC	
	4/18/08	465.45	15-40	27.83	437.62	
	7/28/08	465.45	15-40	NM	NC	
	11/18/08	465.45	15-40	Dry	NC	
	2/4/09	465.45	15-40	Dry	NC	
	4/21/09	465.45	15-40	Dry	NC	
	9/24/09	465.45	15-40	Dry	NC	
	3/4/10	465.45	15-40	27.87	NC	
	7/20/10	465.45	15-40	24.35	441.10	
	1/19/11	465.45	15-40	23.58	441.87	

**Table 1**  
**Groundwater Elevation Data**  
160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)	
EW-1 cont.	4/6/11	465.45	15-40	18.85	446.60	
	4/18/11	465.45	15-40	19.70	445.75	
	5/9/11	465.45	15-40	19.69	445.76	
	6/1/11	465.45	15-40	20.52	444.93	
	6/15/11	465.45	15-40	21.11	444.34	
	6/30/11	465.45	15-40	21.41	444.04	
	9/19/11	465.45	15-40	22.35	443.10	
	11/4/11	465.45	15-40	23.35	442.10	
	2/2/12	465.45	15-40	33.38	432.07	
	6/13/12	465.45	15-40	27.38	438.07	
	8/28/12	465.45	15-40	29.90	435.55	
	3/13/13	465.45	15-40	22.38	443.07	
	<b>6/21/13</b>	<b>465.45</b>	<b>15-40</b>	<b>24.95</b>	<b>440.50</b>	
	EW-2**	4/6/06	465.99	15-40	16.20	449.79
		7/27/06	465.99	15-40	23.10	442.89
10/12/06		465.99	15-40	21.48	444.51	
1/3/07		465.99	15-40	21.66	444.33	
4/13/07		465.99	15-40	23.93	442.06	
10/29/07		465.99	15-40	Dry	NC	
2/1/08		465.99	15-40	NM	NC	
4/18/08		465.99	15-40	28.04	437.95	
7/28/08		465.99	15-40	NM	NC	
11/18/08		465.99	15-40	Dry	NC	
2/4/09		465.99	15-40	Dry	NC	
4/21/09		465.99	15-40	Dry	NC	
9/24/09		465.99	15-40	Dry	NC	
3/4/10		465.99	15-40	25.89	NC	
7/20/10		465.99	15-40	24.45	441.54	
1/19/11		465.99	15-40	23.72	442.27	
4/6/11		465.99	15-40	19.00	446.99	
4/18/11		465.99	15-40	19.19	446.80	
5/9/11		465.99	15-40	19.67	446.32	
6/1/11		465.99	15-40	20.71	445.28	
6/15/11		465.99	15-40	21.00	444.99	
6/30/11		465.99	15-40	21.31	444.68	
9/19/11		465.99	15-40	23.55	442.44	
11/4/11		465.99	15-40	23.60	442.39	
2/2/12		465.99	15-40	33.66	432.33	
6/13/12		465.99	15-40	27.64	438.35	
8/28/12		465.99	15-40	NM	NC	
3/13/13/	465.99	15-40	22.58	443.41		
<b>6/21/13</b>	<b>465.99</b>	<b>15-40</b>	<b>26.14</b>	<b>439.85</b>		

**Table 1**  
**Groundwater Elevation Data**  
160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
EW-3 <sup>(a)</sup>	11/18/08	NC	25-30	Dry	NC
	2/4/09	NC	25-30	33.80	NC
	4/21/09	NC	25-30	Dry	NC
	9/24/09	NC	25-30	Dry	NC
	3/4/10	NC	25-30	28.02	NC
	7/20/10	NC	25-30	NM	NC
	1/19/11	NC	25-30	23.50	NC
	4/6/11	NC	25-30	18.30	NC
	4/18/11	NC	25-30	19.40	NC
	5/9/11	NC	25-30	19.67	NC
	6/1/11	NC	25-30	20.72	NC
	6/15/11	NC	25-30	20.92	NC
	6/30/11	NC	25-30	21.11	NC
	9/19/11	NC	25-30	23.25	NC
	11/4/11	NC	25-30	23.30	NC
	2/2/12	NC	25-30	28.76	NC
	6/13/12	NC	25-30	27.31	NC
	8/28/12	NC	25-30	28.87	NC
	3/13/13	NC	25-30	22.32	NC
	<b>6/21/13</b>	<b>NC</b>	<b>25-30</b>	<b>23.35</b>	<b>NC</b>
EW-3B	3/13/13	NC	24-39	21.73	NC
	<b>6/21/13</b>	<b>NC</b>	<b>24-39</b>	<b>24.12</b>	<b>NC</b>
MW-8A	7/28/08	NC	16-36	Dry	NC
	11/18/08	NC	16-36	35.40	NC
	2/4/09	NC	16-36	Dry	NC
	4/21/09	NC	16-36	Dry	NC
	9/24/09	NC	16-36	Dry	NC
	3/4/10	NC	16-36	26.33	NC
	7/20/10	NC	16-36	25.00	NC
	1/19/11	NC	16-36	24.30	NC
	4/6/11	NC	16-36	19.22	NC
	9/19/11	NC	16-36	24.05	NC
	11/4/11	NC	16-36	24.10	NC
	2/2/12	NC	16-36	33.99	NC
	6/12/12	NC	16-36	28.01	NC
	8/28/12	NC	16-36	30.53	NC
	3/13/13	NC	16-36	23.09	NC
	<b>6/21/13</b>	<b>NC</b>	<b>16-36</b>	<b>25.60</b>	<b>NC</b>
	MW-8B	7/28/08	NC	46-51	44.90
11/18/08		NC	46-51	49.85	NC
2/4/09		NC	46-51	47.95	NC
4/21/09		NC	46-51	38.75	NC
9/24/09		NC	46-51	38.47	NC
3/4/10		NC	46-51	28.24	NC
7/20/10		NC	46-51	24.70	NC
1/19/11		NC	46-51	24.05	NC
4/6/11		NC	46-51	19.42	NC
9/19/11		NC	46-51	23.80	NC
11/4/11		NC	46-51	23.50	NC
2/2/12		NC	46-51	33.73	NC
6/13/12		NC	46-51	27.75	NC
8/28/12		NC	46-51	30.28	NC
3/13/13		NC	46-51	22.82	NC
<b>6/21/13</b>		<b>NC</b>	<b>46-51</b>	<b>25.36</b>	<b>NC</b>

**Table 1**  
**Groundwater Elevation Data**  
160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
MW-9A	7/28/08	NC	14-36	Dry	NC
	11/18/08	NC	14-36	48.97	NC
	2/4/09	NC	14-36	Dry	NC
	4/21/09	NC	14-36	Dry	NC
	9/24/09	NC	14-36	Dry	NC
	3/4/10	NC	14-36	27.86	NC
	7/20/10	NC	14-36	24.15	NC
	1/19/11	NC	14-36	23.40	NC
	4/6/11	NC	14-36	21.50	NC
	9/19/11	NC	14-36	23.25	NC
	11/4/11	NC	14-36	23.50	NC
	2/1/12	NC	14-36	33.10	NC
	6/12/12	NC	14-36	27.30	NC
	8/28/12	NC	14-36	29.72	NC
	3/13/13	NC	14-36	22.20	NC
	<b>6/21/13</b>	<b>NC</b>	<b>14-36</b>	<b>24.79</b>	<b>NC</b>
MW-9B	7/28/08	NC	47-52	44.05	NC
	11/18/08	NC	47-52	38.28	NC
	2/4/09	NC	47-52	47.03	NC
	4/21/09	NC	47-52	35.94	NC
	9/24/09	NC	47-52	37.93	NC
	3/4/10	NC	47-52	27.68	NC
	7/20/10	NC	47-52	24.30	NC
	1/19/11	NC	47-52	23.55	NC
	4/6/11	NC	47-52	21.21	NC
	9/19/11	NC	47-52	23.12	NC
	11/4/11	NC	47-52	23.35	NC
	2/1/12	NC	47-52	33.13	NC
	6/12/12	NC	47-52	27.19	NC
	8/28/12	NC	47-52	29.82	NC
	3/13/13	NC	47-52	22.29	NC
	<b>6/21/13</b>	<b>NC</b>	<b>47-52</b>	<b>24.86</b>	<b>NC</b>

**Table 1**  
**Groundwater Elevation Data**  
 160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
EX-1***	11/14/01	465.30	30-55	33.41	431.89
	5/7/02	465.30	30-55	27.58	437.72
	9/11/02	465.30	30-55	NM	NC
	12/11/02	465.30	30-55	27.98	437.32
	3/14/03	465.30	30-55	23.02	442.28
	6/25/03	465.30	30-55	22.41	442.89
	9/16/03	465.30	30-55	24.65	440.65
	3/10/04	465.30	30-55	17.99	447.31
	6/15/04	465.30	30-55	22.48	442.82
	9/17/04	465.30	30-55	25.91	439.39
	12/10/04	465.30	30-55	NM	NC
	3/2/05	465.30	30-55	NM	NC
	5/27/05	465.30	30-55	18.68	446.62
	7/21/05	465.30	30-55	21.55	443.75
	10/10/05	465.30	30-55	22.73	442.57
	1/9/06	465.30	30-55	18.05	447.25

Notes:

msl: mean sea level

bgs: below ground surface

NA: well not accessible

NC: elevation not calculated

NM: well not measured

\* = Well MW-1, 2, and 3 renamed MW-1A, 2A, and 3A respectively

\*\* = Well installed on 2/22/06-2/28/06

\*\*\* = Well destroyed on 2/22/06-2/28/06

(a) = Well EW-3 is 35 feet deep with a screen interval from 25 to 30 feet bgs.

**Table 2**  
**Groundwater Analytical Results**  
160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)			
			Gasoline	Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA	
MW-1A*	8/11/00	NC	170,000	57,000	6,400	7,600	4,200	9,700	320,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	10/19/00	443.09	170,000	17,000	8,400	3,200	2,700	10,000	200,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	2/22/01	442.12	82,000	11,000	5,100	1,000	13,000	8,700	190,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	5/30/01	NC	NS	NS	not sampled - well dry				NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11/14/01	NC	NS	NS	not sampled - well dry				NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	5/7/02	NC	NS	NS	not sampled - well dry				NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/11/02	438.87	130,000	NA	7,700	1,100	NS	1,500	<5000	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	12/1/02	437.48	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	3/14/03	442.40	180,000	3,800	7,100	3,200	4,300	6,000	220,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	6/25/03	442.93	71,000	3,100	7,500	4,700	4,800	8,900	210,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	9/16/03	440.12	37,000	3,600	4,600	220	3,600	930	150,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	12/22/03	443.28	44,000	4,000	6,800	1,500	4,000	3,800	180,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	3/10/04	447.58	72,000	3,100	6,000	11,000	3,900	10,000	260,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	6/15/04	442.65	42,000	4,300	5,000	1,800	3,700	6,000	210,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	9/17/04	439.42	24,000	2,900	2,800	<33	2,900	500	83,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	12/10/04	442.85	31,000	2,700	4,600	190	4,400	2,800	200,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	3/2/05	448.08	58,000	2,800	4,000	2,500	4,500	7,800	230,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	5/27/05	446.61	79,000	4,600	4,300	6,200	5,100	13,000	240,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	7/21/05	443.65	80,000	NS	4,300	5,300	5,400	14,000	300,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	10/10/05	442.54	58,000	NS	4,300	240	5,600	8,300	170,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	1/9/06	446.98	47,000	3,700	3,100	1,100	4,400	5,900	180,000	<2,500	<25,000	<2,500	<2,500	240,000	<250,000	<2,500,000	<2,500	<2,500	
	4/6/06	449.43	18,000	1,900	1,200	280	2,400	2,200	110,000	<2,500	<25,000	<2,500	<2,500	87,000	<250,000	<2,500,000	<2,500	<2,500	
	7/27/06	442.61	24,000	2,400	2,100	350	3,400	5,300	130,000	<5000	<50,000	<5000	<5000	160,000	NA	NA	NA	NA	
	10/12/06	441.57	19,000	1,700	1,000	26	2,000	1,000	68,000	<1,200	<12,000	<1,200	<1,200	84,000	<120,000	<1,200,000	NA	NA	
	1/3/07	444.03	27,000	2,300	1,300	53	2,500	1,900	120,000	<1,700	<1,7000	<1,700	<1,700	110,000	<170,000	<1,700,000	<1,700	<1,700	
	4/13/07	441.79	28,000	3,000	1,600	74	3,700	1,800	190,000	<5,000	<50,000	<5,000	<5,000	200,000	<500,000	<5,000,000	<5,000	<5,000	
	7/16/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	10/29/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	2/1/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	4/18/08	437.69	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
7/28/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
11/18/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
2/4/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
4/21/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
9/24/09	430.03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
3/4/10	436.98	1,300	NA	140	<5.0	26	6.0	16,000	NA	NA	NA	NA	NA	NA	NA	NA	NA		
7/19/10	441.18	400	NA	1.2	1.3	<0.5	0.76	880	NA	NA	NA	NA	NA	NA	NA	NA	NA		
1/20/11	441.91	150	130	1.4	0.6	<0.5	1.4	300	<250	40,000	<250	<250	330	NA	NA	<250	<250		
4/8/11	442.37	200	180	2.0	1.9	<0.5	4.4	1,300	<120	24,000	<120	<120	2,300	NA	NA	<120	<120		
4/18/11	446.33	140	130	0.56	<0.5	<0.5	4.2	1,500	<50	11,000	<50	<50	1,200	NA	NA	<0.5	<50		

**Table 2**  
**Groundwater Analytical Results**  
160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)			
			Gasoline	Diesel	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA	
MW-1A cont.	5/9/11	445.77	<50	<50	<0.5	<0.5	<0.5	<0.5	880	<50	12,000	<50	<50	1,000	NA	NA	<50	<50	
	6/1/11	444.93	<50	52	<0.5	<0.5	<0.5	<0.5	350	<50	12,000	<50	<50	480	NA	NA	<50	<50	
	6/15/11	444.59	<50	70	<0.5	<0.5	<0.5	<0.5	310	<100	9,000	<100	<100	330	NA	NA	<100	<100	
	6/30/11	444.30	<50	54	<0.5	<0.5	<0.5	<0.5	150	<50	6,200	<50	<50	170	NA	NA	<50	<50	
	9/20/11	442.12	96	200	<0.5	0.6	<0.5	0.55	140	<120	19,000	<120	<120	150	NA	NA	<120	<120	
	11/8/11	442.03	100	150	1.3	0.99	<0.5	1.1	110	<100	21,000	<100	<100	150	NA	NA	<100	<100	
	2/1/12	NC	NS	NS	not sampled - well dry				NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA
	6/13/12	438.13	65	300	0.96	0.70	<0.5	<0.5	5.5	<50	10,000	<50	<50	<50	NA	NA	<0.5	<0.5	
	8/28/12	NC	NS	NS	not sampled - well dry				NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/14/13	443.09	<50	<50	1.1	<0.5	<0.5	<0.5	<5.0	<50	5,100	<50	<50	<50	<50	<50	<50	<50	<50
	<b>6/25/13</b>	<b>439.51</b>	<b>&lt;50</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>&lt;100</b>	<b>6,800</b>	<b>&lt;100</b>	<b>&lt;100</b>	<b>&lt;100</b>	<b>NA</b>	<b>NA</b>	<b>&lt;100</b>	<b>&lt;100</b>	
	MW-1B	3/13/06	446.44	<50	<50	<0.5	<0.5	<0.5	<0.5	8.2	<0.5	<5.0	<0.5	<0.5	7.9	<50	<500	<0.5	<0.5
		4/6/06	449.43	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	1.0	<50	<500	<0.5	<0.5
7/27/06		442.55	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	NA	NA	NA	NA	NA	
10/12/06		441.51	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	NA	NA	
1/3/07		443.98	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
4/13/07		441.72	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
7/16/07		429.45	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	NA	NA	NA	NA	
10/29/07		417.70	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
2/1/08		431.12	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
4/18/08		437.67	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
7/29/08		420.99	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
11/18/08		NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2/4/09		418.19	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/21/09		427.92	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/24/09		427.26	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	1.1	NA	NA	NA	NA	NA
3/4/10		437.61	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/19/10		NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/20/11		441.92	<50	130	<0.5	<0.5	<0.5	<0.5	<5.0	<250	40,000	<250	<250	330	NA	NA	<250	<250	
4/8/11		446.62	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5	
4/18/11		446.42	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5	
5/9/11		445.91	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5	
6/1/11		444.92	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5	
6/15/11		444.58	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5	
6/30/11	444.28	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5		
9/20/11	442.10	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5		
11/8/11	442.07	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5		
2/2/12	432.02	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5		
6/13/12	438.03	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5		
8/28/12	435.51	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5		
3/14/13	443.06	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5		
<b>6/21/13</b>	<b>441.47</b>	<b>&lt;50</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>&lt;0.5</b>	<b>&lt;2.0</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>NA</b>	<b>NA</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>		

**Table 2**  
**Groundwater Analytical Results**  
160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)		
			Gasoline	Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA
MW- 2A*	8/11/00	NC	4,500	1,900	220	52	160	170	3,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/19/00	443.14	3,400	1,300	150	21	100	70	1,900	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/22/01	442.07	7,600	880	25	<10	69	25	2,200	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/30/01	NC	NS	NS	not sampled - well dry				NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11/14/01	NC	NS	NS	not sampled - well dry				NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	5/7/02	438.24	400	86	5.4	<0.5	1.9	2.3	230	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/11/02	438.98	260	NA	1.3	<0.5	0.57	0.77	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/1/02	437.38	250	120	7.9	1.6	13	9.9	180	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/14/03	442.53	830	110	56	<0.5	<0.5	<1.0	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/25/03	442.97	260	180	0.92	2.9	3.1	8.1	2,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/16/03	440.24	420	260	3.6	3.4	5.2	2.4	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/22/03	443.36	240	120	0.82	3.1	7.8	3.9	1,400	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/10/04	447.63	280	210	9.4	4.2	14	11	1,400	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/15/04	442.76	150	150	2.1	2.4	2.2	1.3	1,500	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/17/04	439.50	61	70	<0.5	1.0	<0.5	<0.5	730	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/10/04	442.94	84	110	<0.5	1.2	<0.5	1.5	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/2/05	448.19	63	91	0.55	<0.5	0.63	0.51	1,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/27/05	446.65	270	59	14	3.9	19	6.8	1,100	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/21/05	444.48	280	NS	8.6	2.5	17	2.5	1,500	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/10/05	442.64	<50	NS	<5	<5	<5	<5	680	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/9/06	447.27	1,700	890	4.4	1.3	120	18	530	<10	330	<10	<10	590	<1,000	<10,000	<10	<10
	4/7/06	449.47	110	160	0.61	0.8	4.1	<0.5	270	<5.0	660	<5.0	<5.0	240	<500	<5,000	<5.0	<5.0
	7/27/06	442.67	<50	120	<0.5	0.84	<0.5	<0.5	87	<5.0	870	<5.0	<5.0	110	NA	NA	NA	NA
	10/12/06	441.59	<50	70	<0.5	<0.5	<0.5	<0.5	29	<5.0	480	<5.0	<5.0	30	<500	<5,000	NA	NA
	1/3/07	444.04	55	60	0.57	<0.5	<0.5	<0.5	8.5	<2.5	590	<2.5	<2.5	7.8	<250	<2,500	<2.5	<2.5
	4/13/07	441.78	86	130	<0.5	0.6	<0.5	<0.5	16	<5.0	740	<5.0	<5.0	16	<500	<5,000	<5.0	<5.0
	7/16/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/29/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/1/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/18/08	437.68	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/28/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11/18/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/4/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
4/21/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
9/24/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
3/4/10	439.82	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
7/20/10	439.09	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1/21/11	439.64	<50	<50	<0.5	<0.5	<0.5	<0.5	2.8	<5.0	<5.0	<5.0	<5.0	2.8	NA	NA	<5.0	<5.0	
4/8/11	446.64	<50	<50	<0.5	0.77	<0.5	6.2	<5.0	<0.5	15	<0.5	<0.5	3.3	NA	NA	<0.5	<0.5	
9/20/11	442.49	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	7.9	<0.5	<0.5	2.8	NA	NA	<0.5	<0.5	
11/8/11	442.17	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	2.3	NA	NA	<0.5	<0.5	
2/1/12	NC	NS	NS	not sampled - well dry				NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
6/12/12	438.15	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	5.4	<0.5	<0.5	1.1	NA	NA	<0.5	<0.5	
8/30/12	NC	NS	NS	not sampled				NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
3/13/13	443.13	<50	NA	<0.5	<0.5	<0.5	0.70	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	NA	NA	
6/25/13	440.61	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	



**Table 2**  
**Groundwater Analytical Results**  
160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)		
			Gasoline	Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA
MW- 3A*	8/11/00	NC	59	260	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/19/00	443.39	<50	<65	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/22/01	442.33	<50	100	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/30/01	NC	NS	NS	not sampled - well dry				NS	NS	NS	NS	NS	NS	NS	NS	NA	NA
	11/14/01	NC	NS	NS	not sampled - well dry				NS	NS	NS	NS	NS	NS	NS	NS	NA	NA
	5/7/02	NC	NS	NS	not sampled - well dry				NS	NS	NS	NS	NS	NS	NS	NS	NA	NA
	9/11/02	439.23	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/1/02	437.66	NS	NS	not sampled - well dry				NS	NS	NS	NS	NS	NS	NS	NA	NA	
	3/14/03	442.80	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/25/03	443.25	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/16/03	440.51	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/22/03	443.47	<50	69	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/10/04	447.96	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/15/04	443.02	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/17/04	439.75	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/10/04	443.19	<50	<50	<0.5	<0.5	<0.5	<0.5	7.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/2/05	448.51	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/27/05	446.95	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/21/05	444.74	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/10/05	442.90	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/9/06	447.60	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<5.0	<0.5	<50	<500	<0.5	<0.5	
4/7/06	449.82	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
7/27/06	442.94	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	NA	NA	NA	NA	
10/12/06	441.85	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	NA	NA	
1/3/07	444.32	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
4/13/07	442.06	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
7/16/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
10/29/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

**Table 2**  
**Groundwater Analytical Results**  
160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)				
			Gasoline	Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA		
MW-3A cont.	2/1/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	4/18/08	437.98	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	7/28/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	11/18/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	2/4/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	4/21/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/24/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/4/10	437.89	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/19/20	439.29	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/20/11	442.21	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/8/11	446.94	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/20/11	442.45	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/8/11	442.25	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/1/12	NC	NS	NS	not sampled - well dry					NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA
	6/12/12	438.38	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/28/12	NC	NS	NS	not sampled					NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/13/13	443.38	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		<b>6/25/13</b>	<b>440.86</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>
MW-4**	11/14/01	431.31	510	90	4.0	<0.5	<0.5	<0.5	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	5/7/02	438.40	150	<50	3.5	0.5	<0.5	<0.5	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	9/11/02	438.49	<50	NA	<0.5	<0.5	<0.5	<0.5	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	12/1/02	436.76	<50	<50	<0.5	<0.5	<0.5	<0.5	24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	3/14/03	442.01	<50	<50	<0.5	<0.5	<0.5	<0.5	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	6/25/03	442.43	<50	<50	<0.5	<0.5	<0.5	<0.5	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	9/16/03	439.76	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	12/22/03	442.73	<50	69	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	3/10/04	446.95	<50	<50	<0.5	<0.5	<0.5	<0.5	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	6/15/04	442.20	<50	<50	<0.5	<0.5	<0.5	<0.5	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	9/17/04	439.03	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	12/10/04	442.42	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	3/2/05	447.55	<50	<50	<0.5	<0.5	<0.5	<0.5	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	5/27/05	446.01	<50	<50	<0.5	<0.5	<0.5	<0.5	9.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	7/21/05	443.90	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	10/10/05	442.30	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1/9/06	446.61	<50	<50	<0.5	<0.5	<0.5	<0.5	0.86	<0.5	<5.0	<0.5	<5.0	0.86	<50	<500	<5.0	<5.0			

**Table 2**  
**Groundwater Analytical Results**  
160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)			
			Gasoline	Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA	
MW-4A	3/13/06	445.87	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	0.70	<50	<500	<0.5	<0.5	
	4/7/06	448.77	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<5.0	1.1	<50	<500	<0.5	<0.5	
	7/28/06	442.09	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	3.0	NA	NA	NA	NA	
	10/13/06	441.06	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	2.0	<50	<500	NA	NA	
	1/4/07	443.44	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	0.79	<50	<500	<0.5	<0.5	
	4/16/07	441.18	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	0.51	<50	<500	<0.5	<0.5	
	7/16/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/29/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/1/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/18/08	437.05	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/28/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11/18/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/4/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/21/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/24/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/4/10	439.30	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/20/10	440.71	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/20/11	441.32	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/7/11	436.16	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/11	441.53	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/7/11	441.56	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/1/12	NC	NS	NS	not sampled - well dry				NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA
	6/12/12	437.69	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/28/12	NC	NS	NS	not sampled				NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
3/13/13	442.58	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
6/25/13	440.08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
MW-5**	11/14/01	429.71	<50	<66	<0.5	<0.5	<0.5	<0.5	8.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	5/7/02	436.75	140	<50	<0.5	<0.5	<0.5	<0.5	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	9/11/02	436.66	<50	NA	<0.5	<0.5	<0.5	<0.5	6.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	12/1/02	435.15	73	<50	<0.5	<0.5	<0.5	<0.5	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	3/14/03	440.39	110	<50	<0.5	<0.5	<0.5	<0.5	170	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	6/25/03	440.64	<50	<50	<0.5	<0.5	<0.5	<0.5	89	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	9/16/03	437.82	630	<50	<0.5	3.50	<0.5	2.6	1,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	12/22/03	440.97	<0.5	<50	<0.5	<0.5	<0.5	<0.5	630	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	3/10/04	445.43	57	<50	<0.5	<0.5	<0.5	<0.5	1,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	6/15/04	440.45	<50	<50	<0.5	<0.5	<0.5	<0.5	750	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	9/17/04	436.97	<50	<50	<0.5	<0.5	<0.5	<0.5	780	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	12/10/04	440.72	<50	<50	<0.5	<0.5	<0.5	<0.5	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	3/2/05	446.09	<50	<50	<0.5	<0.5	<0.5	<0.5	320	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	5/27/05	444.50	<50	<50	<0.5	<0.5	<0.5	<0.5	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	7/21/05	442.10	<50	NS	<0.5	<0.5	<0.5	<0.5	97	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	10/10/05	441.30	<50	NS	<0.5	<0.5	<0.5	<0.5	41	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1/9/06	445.12	<50	<50	<0.5	<0.5	<0.5	<0.5	37	<0.5	<5.0	<0.5	<5.0	<5.0	<50	<500	<0.5	<0.5		

**Table 2**  
**Groundwater Analytical Results**  
160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)				
			Gasoline	Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA		
MW-5A	3/13/06	444.48	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5		
	4/7/06	447.29	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5		
	7/28/06	440.24	<50	62	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	NA	NA	NA	NA		
	10/13/06	439.06	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	6.3	<0.5	<0.5	0.61	<50	<500	NA	NA		
	1/4/07	442.11	<50	320	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5		
	4/16/07	439.87	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5		
	7/16/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	10/29/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	2/1/08	430.61	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	1.3	<50	<500	<0.5	<0.5		
	4/18/08	436.51	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	7/28/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	11/18/08	464.64	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	2/4/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	4/21/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	9/24/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	3/4/10	435.87	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	7/20/10	440.07	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	1/19/11	440.12	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	4/7/11	436.16	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	9/19/11	440.02	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	11/7/11	440.14	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	2/1/12	NC	NS	NS	not sampled - well dry					NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA
	6/12/12	436.25	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	
8/29/12	433.54	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA		
3/13/13	441.26	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
6/25/13	438.49	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		

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**Groundwater Analytical Results**  
160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)		
			Gasoline	Diesel	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA
MW-5B	3/13/06	444.46	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	0.69	<50	<500	<0.5	<0.5
	4/7/06	447.15	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	0.98	<50	<500	<0.5	<0.5
	7/28/06	440.50	<50	<50	<0.5	<0.5	<0.5	<0.5	6.8	<0.5	6.3	<0.5	<0.5	0.61	NA	NA	NA	NA
	10/13/06	439.42	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	3.6	<50	<500	NA	NA
	1/4/07	442.15	<50	89	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	1.3	<50	<500	<0.5	<0.5
	4/16/07	439.26	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	1.5	<50	<500	<0.5	<0.5
	7/17/07	428.09	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	1.4	NA	NA	NA	NA
	10/29/07	416.69	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	2/1/08	431.34	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	1.9	<50	<500	<0.5	<0.5
	4/18/08	435.82	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	1.5	<50	<500	<0.5	<0.5
	7/29/08	419.83	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	11/18/08	412.94	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	1.2	<50	<500	<0.5	<0.5
	2/4/09	416.96	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/22/09	427.59	<50	NA	<0.5	<0.5	<0.5	<0.5	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/24/09	424.86	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	1.3	<50	<500	<0.5	<0.5
	3/4/10	435.62	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/19/10	439.19	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/19/11	440.07	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/6/11	444.66	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/11	440.09	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/7/11	440.19	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/1/12	430.63	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/12/12	435.94	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	NA	NA
	8/29/12	433.37	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	NA	NA
	3/13/13	441.17	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	<b>6/25/13</b>	<b>438.38</b>	<b>&lt;50</b>	<b>NA</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

**Table 2**  
**Groundwater Analytical Results**  
160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)			
			Gasoline	Diesel	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA	
MW-6	11/14/01	430.25	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	5/7/02	437.12	<50	<67	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	9/11/02	437.10	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	12/1/02	435.36	<50	<50	<0.5	<0.5	<0.5	<0.5	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	3/14/03	440.67	<50	<50	<0.5	<0.5	<0.5	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	6/25/03	441.05	<50	<50	<0.5	<0.5	<0.5	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	9/16/03	438.36	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	12/22/03	441.54	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	3/10/04	445.48	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	6/15/04	440.82	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	9/17/04	437.57	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	12/10/04	441.04	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	3/2/05	446.09	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	5/27/05	444.56	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	7/21/05	442.53	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	10/10/05	441.92	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	1/9/06	445.14	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<5.0	<0.5	<5.0	0.86	<50	<500	<0.5	<0.5
	4/6/06	447.13	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<5.0	<0.5	<50	<500	<0.5	<0.5	
	7/28/06	440.68	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	NA	NA	NA	NA	
	10/13/06	439.77	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	NA	NA	
	1/4/07	442.10	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
	4/16/07	439.73	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
	7/16/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	10/29/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	2/1/08	431.08	<50	<50	<0.5	<0.5	<0.5	0.91	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
	4/18/08	435.93	<50	<50	<0.5	<0.5	<0.5	0.91	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
	7/28/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	11/18/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	2/4/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	4/22/09	425.42	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	9/24/09	425.87	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
	3/4/10	438.11	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	7/19/20	439.48	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1/19/11	440.13	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA		
4/6/11	442.37	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA		
9/19/11	440.37	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA		
11/7/11	441.13	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA		
2/1/12	430.70	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA		
6/12/12	436.51	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	NA	NA		
8/29/12	433.96	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	NA	NA		
3/13/13	441.41	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA		
6/25/13	438.83	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA		

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**Groundwater Analytical Results**  
160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)			
			Gasoline	Diesel	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA	
MW-7A	3/13/06	445.85	6,200	1,800	140	21	200	560	6,900	<100	4,400	<100	<100	6,300	<10,000	<100,000	<100	<100	
	4/7/06	448.71	5,300	1,700	130	26	330	420	5,900	<100	7,500	<100	<100	6,600	<10,000	<100,000	<100	<100	
***	7/28/06	441.92	2,200	470	28	18	60	0.85	240	<25	4,700	<25	<25	240	NA	NA	NA	NA	
	10/12/06	440.82	6,500	2,400	83	38	300	160	980	<17	4,700	<10	<17	1200	<1,700	<17,000	NA	NA	
	11/21/06	NM	1,400	NA	25	17	65	<0.5	45	<10	1,400	<10	<10	42	<1,000	<10,000	<10	<10	
	1/4/07	443.52	1,000	440	12	18	48	8.3	75	<5.0	1,100	<5.0	<5.0	73	<500	<5,000	<5.0	<5.0	
	4/16/07	441.27	520	470	17	5.6	2.6	0.88	140	<12	2,500	<12	<12	170	<1,200	<12,000	<12	<12	
	7/16/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/29/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/1/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/18/08	437.16	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/28/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11/18/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/4/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/21/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/24/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/4/10	439.02	83	NA	<0.5	0.81	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/19/10	440.54	680	NA	<0.5	10	4.9	4.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/20/11	441.72	580	310	<0.5	7.3	7.2	1.5	<5.0	<2.5	490	<2.5	<2.5	5.8	NA	NA	<2.5	<2.5	
	4/11/11	445.97	140	<50	<0.5	1.7	<0.5	<0.5	<5.0	<2.5	540	<2.5	<2.5	5.8	NA	NA	<2.5	<2.5	
	4/18/11	445.73	91	90	<0.5	0.94	<0.5	<0.5	8.5	400	400	<2.5	<2.5	5.8	NA	NA	<2.5	<2.5	
	5/9/11	444.17	<50	69	<0.5	<0.5	<0.5	<0.5	<5.0	<1.7	350	<1.7	<1.7	5.9	NA	NA	<1.7	<1.7	
6/1/11	444.31	58	77	<0.5	0.76	0.79	0.97	5.2	<1.7	250	<1.7	<1.7	5.5	NA	NA	<1.7	<1.7		
6/15/11	443.87	<50	80	<0.5	<0.5	<0.5	<0.5	<5.0	<1.0	190	<1.0	<1.0	3.8	NA	NA	<1.0	<1.0		
6/30/11	443.45	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	81	<0.5	<0.5	2.5	NA	NA	<0.5	<0.5		
9/19/11	441.36	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	4.4	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5		
11/7/11	441.87	<50	<50	<0.5	0.64	<0.5	<0.5	<5.0	<0.5	3.3	<0.5	<0.5	0.67	NA	NA	<0.5	<0.5		
2/1/12	NC	NS	NS	not sampled - well dry					NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	
6/13/12	437.39	390	1,200	<0.5	9.9	<0.5	<0.5	<5.0	<0.5	4.6	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5		
8/29/12	NC	NS	NS	not sampled - well dry					NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
3/14/13	442.46	79	130	<0.5	1.3	<0.5	<0.5	<5.0	<0.5	130	<0.5	<0.5	0.97	NA	NA	<0.5	<0.5		
6/25/13	440.23	200	72	<0.5	7.2	<0.5	<0.5	0.66	<0.5	25	<0.5	<0.5	0.97	NA	NA	<0.5	<0.5		

**Table 2**  
**Groundwater Analytical Results**  
160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)		
			Gasoline	Diesel	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA
MW-7B	3/13/06	445.64	230	<50	1.8	4.7	<0.5	2.2	1,500	<50	7,300	<50	<50	1,300	<5,000	<50,000	<50	<50
	4/7/06	448.54	81	<50	1.9	1.6	1.1	0.58	1,000	<50	9,200	<50	<50	930	<5,000	<50,000	<50	<50
	7/28/06	441.67	150	<50	<0.5	1.9	<0.5	<0.5	1,500	<50	16,000	<50	<50	1,900	NA	NA	NA	NA
	10/12/06	440.65	110	<50	<0.5	1.3	<0.5	<0.5	900	<17	15,000	<17	<17	860	<1700	<17,000	NA	NA
***	11/21/06	NM	61	NA	<0.5	0.76	<0.5	<0.5	740	<50	10,000	<50	<50	680	<5,000	<50,000	<50	<50
	1/4/07	443.21	91	<50	<0.5	2.1	<0.5	<0.5	200	<50	11,000	<50	<50	180	<5,000	<50,000	<50	<50
	4/16/07	440.98	94	<50	<0.5	2.6	<0.5	<0.5	35	<50	10,000	<50	<50	<50	<5,000	<50,000	<50	<50
	7/17/07	428.99	<50	<50	0.61	0.63	<0.5	<0.5	13	<17	4,000	<17	<17	<17	NA	NA	NA	NA
	10/29/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/1/08	431.55	420	<50	0.77	17	<0.5	0.97	45	<25	4,000	<25	<25	49	<2,500	<25,000	<25	<25
	4/18/08	436.87	650	100	3.4	15	8.3	<0.5	150	<25	3,800	<25	<25	140	<2,500	<25,000	<25	<25
	7/28/08	420.47	<50	<50	<0.5	0.56	<0.5	<0.5	17	<5.0	760	<5.0	<5.0	22	<500	<5,000	<5.0	<5.0
	11/18/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/4/09	418.74	620	NA	<0.5	23	<0.5	2.7	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/21/09	428.56	170	NA	2.1	5.8	<0.5	0.78	190	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/24/09	426.13	<50	NA	<0.5	1.8	<0.5	<0.5	210	<5.0	470	<5.0	<5.0	220	<500	<5,000	<5.0	<5.0
	3/4/10	436.76	140	NA	<0.5	2.1	<0.5	<0.5	25	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/19/10	440.34	74	NA	<0.5	1.3	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/20/11	441.24	190	69	<0.5	4.1	<0.5	<0.5	<5.0	<25.0	4,400	<25.0	<25.0	<25.0	NA	NA	<25.0	<25.0
	4/11/11	443.61	110	<50	<0.5	2.7	<0.5	<0.5	<5.0	<17	2,900	<17	<17	<17	NA	NA	<17	<17
	4/18/11	445.64	160	<50	<0.5	4.3	<0.5	0.6	<5.0	<17	3,300	<17	<17	<17	NA	NA	<17	<17
	5/9/11	444.99	79	<50	<0.5	2.0	<0.5	<0.5	<5.0	<17	3,000	<17	<17	<17	NA	NA	<17	<17
	6/1/11	444.14	72	<50	<0.5	1.9	<0.5	<0.5	<5.0	<50	3,100	<50	<50	<50	NA	NA	<50	<50
	6/15/11	443.94	100	<50	<0.5	2.2	<0.5	<0.5	<5.0	<50	2,700	<50	<50	<50	NA	NA	<50	<50
	6/30/11	443.74	100	<50	<0.5	2.4	<0.5	<0.5	<5.0	<25	2,900	<25	<25	<25	NA	NA	<25	<25
	9/19/11	441.29	<50	56	<0.5	1.1	<0.5	<0.5	<5.0	<17	3,300	<17	<17	<17	NA	NA	<17	<17
	11/8/11	465.39	98	<50	<0.5	2.6	<0.5	<0.5	<5.0	<12	1,600	<12	<12	<12	NA	NA	<12	<12
	2/2/12	431.48	74	<50	<0.5	1.8	<0.5	<0.5	<5.0	<12	1,800	<12	<12	<12	NA	NA	<12	<12
	6/13/12	437.25	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<12	2,400	<12	<12	<12	NA	NA	<12	<12
	8/29/12	434.72	<50	<50	<0.5	0.73	<0.5	<0.5	<5.0	<12	2,000	<12	<12	<12	NA	NA	<12	<12
	3/14/13	442.34	<50	<50	<0.5	1.60	<0.5	<0.5	<5.0	<17	1,700	<17	<17	<17	NA	NA	<17	<17
	6/25/13	439.69	<50	<50	<0.5	1.3	<0.5	<0.5	<5.0	<17	2,200	<17	<17	<17	NA	NA	<17	<17



**Table 2**  
**Groundwater Analytical Results**  
 160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)			
			Gasoline	Diesel	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA	
MW-7C	3/13/06	445.34	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	0.60	<50	<500	<0.5	<0.5	
	4/7/06	448.21	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
	7/28/06	441.24	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	NA	NA	NA	NA	
	10/13/06	440.65	89	<50	<0.5	1.4	<0.5	<0.5	900	<17	12,000	<17	<17	820	<1700	<17,000	NA	NA	
	***	11/21/06	NM	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	24	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	1/4/07	442.86	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	24	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
	4/16/07	440.66	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
	7/17/07	428.69	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	NA	NA	NA	NA	
	10/29/07	417.14	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
	2/1/08	431.39	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
	4/18/08	436.64	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
	7/28/08	420.39	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
	11/18/08	415.77	97	<50	<0.5	<0.5	<0.5	<0.5	<90	<1.0	<4.0	<1.0	<1.0	<1.0	<100	<1,000	<1.0	<1.0	
	2/4/09	417.50	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	4/22/09	428.41	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	9/24/09	425.90	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
	3/4/10	438.73	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	7/19/10	440.01	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	1/20/11	440.89	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	4/7/11	445.51	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9/20/11	441.89	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5		
11/8/11	440.99	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5		
2/2/12	431.25	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5		
6/13/12	436.85	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5		
8/30/12	434.32	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	NA	NA		
3/14/13	442.05	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA		
<b>6/25/13</b>	<b>439.39</b>	<b>&lt;50</b>	<b>NA</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	
MW-8A	7/28/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	11/18/08	NC	67	<50	<0.5	2.6	<0.5	1.6	<5.0	<0.5	<2.0	<0.5	<0.5	4.9	<50	<500	<0.5	<0.5	
	2/4/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	4/21/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	9/24/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	3/4/10	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	7/20/10	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	1/20/11	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	4/7/11	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	9/19/11	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	5.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	11/7/11	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	2/2/12	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	9.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	6/12/12	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	NA	NA	
	8/29/12	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	3.0	NA	NA	NA	NA	
	3/14/13	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
<b>6/25/13</b>	<b>NC</b>	<b>&lt;50</b>	<b>NA</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	

**Table 2**  
**Groundwater Analytical Results**  
160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)		
			Gasoline	Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA
MW-8B	7/28/08	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	2.5	<50	<500	<0.5	<0.5
	11/18/08	NC	<50	120	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	5.1	<50	<500	<0.5	<0.5
	2/4/09	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/22/09	NC	50	NA	<0.5	<0.5	<0.5	<0.5	1300	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/24/09	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	3/4/10	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/20/10	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/20/11	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/7/11	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/11	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/7/11	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/2/12	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/13/12	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	NA	NA
	8/30/12	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	NA	NA
	3/14/13	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>6/25/13</b>	<b>NC</b>	<b>&lt;50</b>	<b>NA</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>
MW-9A	7/28/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11/18/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/4/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/21/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/24/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/4/10	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/20/10	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/20/11	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	74	<0.5	<0.5	1.1	<50	<500	<0.5	<0.5
	4/7/11	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	65	<0.5	<0.5	0.74	NA	NA	<0.5	<0.5
	9/19/11	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	120	<0.5	<0.5	1.6	NA	NA	<0.5	<0.5
	11/7/11	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	2.9	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5
	2/1/12	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<1.0	200	<1.0	<1.0	1.2	NA	NA	<1.0	<1.0
	6/12/12	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5
	8/30/12	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5
	3/13/13	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>6/25/13</b>	<b>NC</b>	<b>&lt;50</b>	<b>NA</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

**Table 2**  
**Groundwater Analytical Results**  
160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)		
			Gasoline	Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA
MW-9B	7/29/08	NC	<50	63	<0.5	<0.5	<0.5	<0.5	100	<10	2,800	<10	<10	160	<1,000	<10,000	<10	<10
	11/18/08	NC	<50	1000	<0.5	<0.5	<0.5	<0.5	7.0	<0.5	4.6	<0.5	<0.5	7.5	<50	<500	<0.5	<0.5
	2/4/09	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/22/09	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	470	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/24/09	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	5.4	<0.5	<2.0	<0.5	<0.5	7.2	<50	<500	<0.5	<0.5
	3/4/10	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/20/10	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/20/11	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	8.9	<0.5	<0.5	0.65	<50	<500	<0.5	<0.5
	4/7/11	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	22	<0.5	<0.5	1.2	NA	NA	<0.5	<0.5
	9/19/11	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	1.2	NA	NA	<0.5	<0.5
	11/7/11	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	1.7	NA	NA	<0.5	<0.5
	2/1/12	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	89	<0.5	<0.5	3.3	NA	NA	<0.5	<0.5
	6/12/12	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	1.6	NA	NA	<0.5	<0.5
	8/30/12	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	0.55	NA	NA	<0.5	<0.5
	3/13/13	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>6/25/13</b>	<b>NC</b>	<b>&lt;50</b>	<b>NA</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>
EX-1**	11/14/01	431.89	13,000	2,000	180	1,000	330	3,200	2,200	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/7/02	437.72	7,700	560	320	<25	66	150	6,200	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/11/02	NC	2,800	NA	32	<13	14	<13	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/1/02	437.32	3,000	100	81	<0.5	44	<1.0	4,800	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/14/03	442.28	750	50	<0.5	<0.5	7.7	13	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/25/03	442.89	120	<50	3.2	3.7	4.2	7.6	260	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/16/03	440.65	170	<50	0.5	1.5	<0.5	0.9	1,600	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/10/04	447.31	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/15/04	442.82	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/17/04	439.39	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/10/04	NC	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/2/05	NC	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/27/05	446.62	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/21/05	443.75	<50	NS	<0.5	<0.5	<0.5	<0.5	610	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/10/05	442.57	<50	NS	<0.5	<0.5	<0.5	<0.5	31	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/9/06	447.25	580	55	40	25	45	43	4,200	<170	<1,700	<170	<170	5,200	<170,000	<17,000	<170	<170	

**Table 2**  
**Groundwater Analytical Results**  
160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)			
			Gasoline	Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA	
EW-1	3/13/06	446.47	210	120	5.0	4.10	7.5	12	3,400	<50	<100	<50	<50	2,300	<5,000	<50,000	<50	<50	
	4/7/06	449.46	1,900	190	66	170	110	380	7,900	<100	<1000	<100	<100	6,400	<10,000	<100,000	<100	<100	
	7/27/06	441.60	280	100	7.4	5.5	12	28	8,400	<500	<5,000	<500	<500	12,000	NA	NA	NA	NA	
	10/12/06	441.94	2,100	130	86	19	100	310	2,400	<50	1,400	<50	<50	2,800	<5,000	180,000	NA	NA	
	1/4/07	444.00	1,600	150	56	27	110	240	5,000	<50	2,900	<50	<50	4,900	<5,000	<50,000	<50	<50	
	4/13/07	441.76	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/16/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/29/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/1/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/18/08	437.62	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/28/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11/18/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/4/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/21/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/24/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/4/10	NC	4,400	NA	460	<25	380	<25	31,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/20/10	441.10	400	NA	4.4	6.6	1.8	4.4	590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/20/11	441.87	570	190	21	6.4	14	57	3,500	<50	15,000	<50	<50	3,300	NA	NA	<50	<50	
	4/8/11	446.60	410	220	11	4.2	3.1	43	2,400	<50	8,200	<50	<50	3,300	NA	NA	<50	<50	
	4/18/11	445.75	200	130	<0.5	1.7	1.1	3.0	4,400	<50	14,000	<50	<50	3,600	NA	NA	<50	<50	
	5/9/11	445.76	62	<50	1.2	1.4	<0.5	<0.5	520	<25	4,800	<25	<25	390	NA	NA	<25	<25	
	6/2/11	444.93	83	<50	1.3	2.1	<0.5	0.6	180	<100	9,600	<100	<100	240	NA	NA	<100	<100	
	6/15/11	444.34	60	<50	<0.5	1.8	<0.5	<0.5	97	<100	6,300	<100	<100	100	NA	NA	<100	<100	
	6/30/11	444.04	74	<50	<0.5	2.0	<0.5	<0.5	200	<50	5,700	<50	<50	200	NA	NA	<50	<50	
	9/20/11	443.10	63	52	<0.5	2.1	<0.5	<0.5	210	<50	11,000	<50	<50	190	NA	NA	<50	<50	
	11/8/11	442.10	78	<50	<0.5	1.8	<0.5	<0.5	76	<50	7,600	<50	<50	97	NA	NA	<50	<50	
2/2/12	432.07	59	57	<0.5	1.1	<0.5	<0.5	270	<500	50,000	<500	<500	<500	NA	NA	<500	<500		
6/13/12	438.07	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<50	13,000	<50	<50	<50	NA	NA	<50	<50		
8/29/12	435.55	<50	<50	<0.5	0.62	<0.5	<0.5	<5.0	<50	8,100	<50	<50	<50	NA	NA	<50	<50		
3/14/13	443.07	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<25	2,500	<25	<25	<25	NA	NA	<25	<25		
6/25/13	440.50	<50	160	<0.5	<0.5	<0.5	<0.5	25	<50	4,400	<50	<50	<50	NA	NA	<50	<50		

**Table 2**  
**Groundwater Analytical Results**  
160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)			
			Gasoline	Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA	
EW-2	3/13/06	446.81	<250	69	<2.5	<2.5	<2.5	<2.5	5,400	<100	<1,000	<100	<100	5,100	<10,000	<100,000	<100	<100	
	4/7/06	449.79	470	160	15	2.5	24	13	2,000	<50	<500	<50	<50	1,800	<5,000	<50,000	<50	<50	
	7/27/06	442.89	260	350	2.2	1.7	6.1	3.0	8,700	<500	<5,000	<500	<500	12,000	NA	NA	NA	NA	
	10/12/06	444.51	110	<50	2.0	1.0	3.1	3.9	620	<12	<120	<12	<12	680	<1,200	<12,000	NA	NA	
	1/4/07	444.33	<500	<50	5.3	<5.0	16	7.1	4,500	<50	<500	<50	<50	4,200	<5,000	<50,000	<50	<50	
	4/13/07	442.06	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/16/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/29/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/1/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/18/08	437.95	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/28/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11/18/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/4/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/21/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/24/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/4/10	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/20/10	441.54	<50	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/21/11	442.27	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	2.8	<0.5	<0.5	2.1	NA	NA	<0.5	<0.5
	4/11/11	446.99	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	2.1	<0.5	<0.5	0.65	NA	NA	<0.5	<0.5
	4/18/11	446.80	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	0.7	NA	NA	<0.5	<0.5
	5/9/11	446.32	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	15	<0.5	2.8	<0.5	<0.5	12	NA	NA	<0.5	<0.5
	6/2/11	445.28	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	12	<0.5	<0.5	6.2	NA	NA	<0.5	<0.5
	6/15/11	444.99	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	2.3	NA	NA	<0.5	<0.5
	6/30/11	444.68	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	2.4	NA	NA	<0.5	<0.5
	9/20/11	441.44	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	1.3	NA	NA	<0.5	<0.5
	11/8/11	442.39	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	1.0	NA	NA	<0.5	<0.5
2/2/12	432.33	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<5.0	490	<5.0	<5.0	<5.0	NA	NA	<5.0	<5.0	
6/13/12	438.35	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<5.0	<2.0	<5.0	<5.0	0.89	NA	NA	<5.0	<5.0	
8/28/12	NC	NS	NS	Not Sampled					NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
3/14/13	443.41	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
6/25/13	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	

**Table 2**  
**Groundwater Analytical Results**  
 160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)		
			Gasoline	Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA
EW-3 <sup>(a)</sup>	11/18/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/4/09	NC	<10,000	NA	<100	<100	<100	<100	420,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/21/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/24/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/4/10	NC	140,000	NA	240	900	320	28,000	340,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/20/10	NC	23,000	NA	240	940	760	3,100	150,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/21/11	NC	15,000	5,200	230	93	1,100	1,900	150,000	<2,500	72,000	<2,500	<2,500	150,000	NA	NA	<2,500	<2,500
	4/11/11	NC	8,400	590	110	37	690	820	68,000	<2,500	67,000	<2,500	<2,500	79,000	NA	NA	<2,500	<2,500
	4/18/11	NC	7,300	1,300	81	100	350	870	85,000	<1,700	50,000	<1,700	<1,700	72,000	NA	NA	<1,700	<1,700
	5/9/11	NC	5,400	2,200	56	<50	160	350	79,000	<1,000	40,000	<1,000	<1,000	62,000	NA	NA	<1,000	<1,000
	6/1/11	NC	4,800	3,700	53	<25	170	300	50,000	<1,000	43,000	<1,000	<1,000	76,000	NA	NA	<1,000	<1,000
	6/15/11	NC	8,200	2,200	66	<50	270	360	93,000	<2,500	47,000	<2,500	<2,500	85,000	NA	NA	<2,500	<2,500
	6/30/11	NC	8,000	1,900	64	<50	260	260	100,000	<2,500	51,000	<2,500	<2,500	100,000	NA	NA	<2,500	<2,500
	9/20/11	NC	<5,000"	1,700	<50"	64	74	100	80,000	<2,500	91,000	<2,500	<2,500	78,000	NA	NA	<2,500	<2,500
	11/8/11	NC	<6,000"	860	<50"	<50	60	130	82,000	<2,500	49,000	<2,500	<2,500	67,000	NA	NA	<2,500	<2,500
	2/2/12	NC	1,600	510	<5.0"	13	10	35	24,000	<500	62,000	<500	<500	26,000	NA	NA	<500	<500
	6/13/12	NC	490	870	<0.5	2.3	3.0	7.9	8,600	<250	66,000	<250	<250	9,300	NA	NA	<250	<250
8/30/12	NC	430	580	<1.7	<1.7	5.7	20	3,900	<500	82,000	<500	<500	3,900	NA	NA	<500	<500	
3/14/13	NC	<1000	500	<10	<10	<10	<10	6,300	<500	130,000	<500	<500	6,200	NA	NA	<500	<500	
6/25/13	NC	<b>140</b>	<b>1,600</b>	<b>&lt;0.5</b>	<b>0.8</b>	<b>2.6</b>	<b>4.4</b>	<b>&lt;10</b>	<b>&lt;1.0</b>	<b>130</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>9.0</b>	<b>NA</b>	<b>NA</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	
EW-3B <sup>(b)</sup>	3/14/13	NC	58	110	<0.5	0.64	<0.5	<0.5	13	<50	14,000	<50	<50	<50	NA	NA	<50	<50
	6/25/13	NC	<b>120</b>	<b>180</b>	<b>&lt;0.5</b>	<b>1.1</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;30</b>	<b>&lt;250</b>	<b>27,000</b>	<b>&lt;250</b>	<b>&lt;250</b>	<b>&lt;250</b>	<b>NA</b>	<b>NA</b>	<b>&lt;250</b>	<b>&lt;250</b>

Notes:

Samples analyzed for TPHg and TPHd by EPA Method 8015Bm, BTEX by EPA Method 8021B, MTBE by EPA Method 8021B and/or 8260B, and the fuel oxygenates TBA, DIPE, ETBE, TAME, EDB, 1,2-DCA, ethanol, and methanol by EPA Method 8260.

µg/L = micrograms per liter

"= High concentrations of MTBE caused very high detection limits, both TPHg and Benzene were estimated just below the listed detection limits by McCambell Analytical

NS = Not Sampled

NA = Not Analyzed

EDB = 1,2-Dibromoether

1,2-DCA = 1,2-Dichloroethane

MTBE = methyl tertiary butyl ether

DIPE =Di-isopropyl Ether

ETBE = Ethyl tert-Butyl Ether

TAME - tert-Amyl Methyl Ether

TBA = tert-Butanol

" = High concentrations of MTBE resulted in high reporting limits, both TPHg and benzene were estimated just below the listed reporting limits by laboratory

\* = Well MW-1 renamed MW-1A, well MW-2 renamed MW-2A, Well MW-3 renamed MW-3A in February 2006

\*\* = Well destroyed in February 2006

\*\*\* = Anomalous data observed in MW-7C from October 12, 2006 sample. Therefore, wells MW-7A, MW-7B, and MW-7C were resampled on November 21, 2006.

(a) = Well EW-3 is 35 feet deep with a screen interval from 25 to 30 feet bgs.

**Table 3**  
**Remedial Groundwater Analytical Results**  
160 Holmes St, Livermore, California

Sample ID	Date Collected	Monitoring Event	Metals		Hexachrome	Inorganic Anions	Total and Speciated Alkalinity as Calcium Carbonate				Alkali Metals			Dissolved Oxygen	Ferrous Iron	Carbon Dioxide	Methane	Total Dissolved Solids	
			Arsenic	Chromium			Sulfate	Total	Carbonate	Biocarbonate	Hydroxide	Iron	Maganese						Sodium
Analytical Method:			E200.8	E200.8	E218.6	E300.1	2320B	2320B	2320B	2320B	E200.7	E200.7	E200.7	4500OG	3500-Fe B4c	RSK174/175	RSK174/175	SM2540C	
Units:			µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	mg/L	
MW-1A	4/8/11	BL	6.1	11	<0.2	73	541	<1.0	541	<1.0	5,000	4,000	45,000	1.19 @ 19.7C	1,300	370,000	13	634	
	4/18/11	E1	150	160	<10	680	8,810	6,540	2,270	<1.0	71,000	3,100	4,200,000	26.44 @ 20.7C	<50	1,700	1.1	11,100	
	5/9/11	E2	88	36	5.6	220	1,844	234	1,610	<1.0	15,000	590	1,200,000	24.70 @ 6.78C	68	880,000	3.2	2,490	
	6/1/11	E3	70	6.4	1.3	190	1,370	<1.0	1,370	<1.0	2,500	480	1,000,000	9.37 @ 10.6C	190	790,000	2.5	2,470	
	6/15/11	BW1	40	5.1	0.66	140	1,180	<1.0	11,180	<1.0	3,500	970	880,000	8.12 @22.4C	<50	490,000	1.3	1,550	
	6/30/11	BW2	22	4.2	0.54	150	1,090	<1.0	1,090	<1.0	3,900	700	650,000	5.66 @26.0C	840	550,000	1.6	1,970	
	8/28/12	3.12								Not Sampled Well Dry									
	3/14/13	1.13	NA	NA	<0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	<b>6/25/13</b>	<b>2.13</b>	<b>NA</b>	<b>NA</b>	<b>1.2</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>
	MW-1B	4/8/11	BL	0.56	58	2.5	53	225	<1.0	225	<1.0	1,400	42	43,000	7.42 @ 19.8C	<50	110,000	<0.4	361
4/18/11		E1	0.59	6.6	2.4	46	217	<1.0	217	<1.0	1,700	44	47,000	7.26 @ 20.0C	<50	210,000	<0.4	330	
5/9/11		E2	0.99	6.7	2.4	43	218	<1.0	218	<1.0	2,300	560	46,000	7.49 @ 12.7C	<50	370,000	<0.4	374	
6/1/11		E3	<0.5	2.5	1.4	48	216	<1.0	216	<1.0	250	<20	44,000	8.21 @ 9.31C	<50	200,000	<0.4	386	
6/15/11		BW1	<0.5	5.1	1.8	49	220	<1.0	220	<1.0	200	<20	45,000	6.87 @17.8C	<50	130,000	<0.4	354	
6/30/11		BW2	<0.5	4.4	2.1	46	220	<1.0	220	<1.0	1,000	31	50,000	6.51 @25.0C	<50	130,000	<0.4	386	
8/28/12		3.12	<0.5	3.7	1.6	36	208	<1.0	208	<1.0	1,000	35	43,000	6.87@15.1C	<50	NA	<0.4	315	
9/5/12		3.12	NA	NA	2.0	NA	NA	NA	NA	NA	NA	NA	NA	7.40@15.5C	<50	NA	NA	NA	
3/14/13		1.13	NA	NA	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
<b>6/25/13</b>		<b>2.13</b>	<b>NA</b>	<b>NA</b>	<b>1.9</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>
MW-2A	4/8/11	BL	1.8	5.3	<0.2	640	333	<1.0	333	<1.0	2,300	14,000	49,000	1.62 @ 17.8C	430	330,000	<0.4	1,250	
	4/18/11	E1	2.7	18	<0.2	330	349	<1.0	349	<1.0	8,200	10,000	47,000	1.48 @19.8C	99	51,000	0.54	836	
	5/9/11	E2	4.9	7.9	<0.2	140	376	<1.0	376	<1.0	4,300	2,800	59,000	3.57 @ 6.93C	<50	450,000	1.6	594	
	6/1/11	E3	3.4	28	<0.2	99	382	<1.0	382	<1.0	12,000	4,700	41,000	3.65 @ 12.6C	83	370,000	0.91	574	
	6/15/11	BW1	1.4	1.8	<0.2	99	366	<1.0	366	<1.0	1,100	3,900	39,000	2.53 @22.2C	<50	250,000	1.2	681	
	6/30/11	BW2	2.7	15	<0.2	500	356	<1.0	356	<1.0	7,200	5,200	44,000	2.02 @24.7C	90	240,000	2.5	561	
	8/28/12	3.12								Not Sampled									
	<b>6/25/13</b>	<b>2.13</b>								<b>Not Sampled</b>									
	EW-1	4/8/11	BI	2.6	5.8	<0.2	61	437	<1.0	437	<1.0	2,700	3,300	46,000	1.58 @ 19.0C	62	290,000	32	559
		4/18/11	E1	32	30	6.1	120	1,250	243	1,010	<1.0	12,000	2,600	550,000	16.08 @20.2C	<50	630,000	9.2	1,660
5/9/11		E2	1.2	8.1	<50	50	367	<1.0	367	<1.0	3,200	7,000	44,000	3.39 @ 12.1 C	120	570,000	30	549	
6/1/11		E3	5.7	4.2	<0.2	50	352	<1.0	352	<1.0	2,400	2,800	63,000	6.50 @ 12.5 C	180	320,000	16	512	
6/15/11		BW1	6.6	32	<0.2	50	315	<1.0	315	<1.0	15,000	4,700	56,000	3.43 @19.8C	360	200,000	34	550	
6/30/11		BW2	7.4	42	<0.2	42	299	<1.0	299	<1.0	20,000	4,500	52,000	1.96 @16.5C	300	260,000	30	462	
8/29/12		3.12	8.6	31	<0.2	36	276	<1.0	276	<1.0	14,000	2,300	44,000	4.18@15.1C	570	NA	5.3	394	
9/5/12		3.12	NA	NA	<0.2	NA	NA	NA	NA	NA	Na	NA	NA	3.28@10.9C	490	NA	NA	NA	
3/14/13		1.13	NA	NA	<0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
<b>6/25/13</b>		<b>2.13</b>	<b>NA</b>	<b>NA</b>	<b>19</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>
EW-2	4/11/11	BL	2.0	18	0.65	51	250	<1.0	250	<1.0	5,900	1,700	47,000	4.35 @ 7.72C	<50	140,000	<0.4	575	
	4/18/11	E1	3.0	24	0.51	42	256	<1.0	256	<1.0	9,500	1,400	47,000	4.36 @ 19.6C	<50	230,000	<0.4	433	
	5/9/11	E2	<0.5	2.7	0.70	46	251	<1.0	251	<1.0	330	<20	50,000	5.08 @ 10.3 C	<50	290,000	<0.4	469	
	6/2/11	E3	16	18	14	75	470	357	<1.0	113	2,100	1,300	250,000	28.86 @ 15.2C	<50	240,000	<0.4	694	
	6/15/11	BW1	9.3	6.5	5.4	57	553	189	364	<1.0	910	2,200	120,000	19.20 @20.8C	<50	240,000	<0.4	589	
	6/30/11	BW2	8.5	19	2.3	53	477	62.4	415	<1.0	6,500	3,200	100,000	9.93 @24.8C	55	360,000	<0.4	637	
	8/28/12	3.12								Not Sampled									
	<b>6/25/13</b>	<b>2.13</b>								<b>Not Sampled</b>									

**Table 3**  
**Remedial Groundwater Analytical Results**  
 160 Holmes St, Livermore, California

Sample ID	Date Collected	Monitoring Event	Metals		Hexachrome	Inorganic Anions	Total and Speciated Alkalinity as Calcium Carbonate				Alkali Metals			Dissolved Oxygen	Ferrous Iron	Carbon Dioxide	Methane	Total Dissolved Solids	
			Arsenic	Chromium		Sulfate	Total	Carbonate	Biocarbonate	Hydroxide	Iron	Maganese	Sodium						
Analytical Method:			E200.8	E200.8	E218.6	E300.1	2320B	2320B	2320B	2320B	E200.7	E200.7	E200.7	4500OG	3500-Fe B4c	RSK174/175	RSK174/175	SM2540C	
Units:			µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	mg/L	
EW-3	4/11/11	BL	23	1.9	<0.2	52	747	<1.0	747	<1.0	12,000	4,400	82,000	1.96 @ 8.21C	10,000	520,000	290	934	
	4/18/11	E1	23	30	0.35	100	1,140	<1.0	1,140	<1.0	15,000	2,500	320,000	13.26 @ 19.9C	1,100	300,000	86	1,350	
	5/9/11	E2	43	6.3	7.0	220	2,672	422	2,250	<1.0	1,700	540	990,000	20.22 @ 13.6C	240	760,000	22	3,290	
	6/2/11	E3	310	190	160	640	9,620	6,700	<1.0	2,910	2,800	100	840,000	27.78 @ 15.1C	<50	160	8.6	10,900	
	6/15/11	BW1	230	150	180	440	4,980	2,230	<1.0	2,750	7,200	370	2,400,000	22.11 @21.5C	<50	50	8.3	5,770	
	6/30/11	BW2	49	77	110	280	2,800	721	<1.0	2,080	4,700	1,500	1,600,000	27.54 @24.9C	<50	330	16	3,440	
	8/30/12	3.12	^	^	^	^	^	^	^	^	^	^	^	^	580	NA	1.7	^	
*	3/14/13	1.13	NA	NA	<0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	6/25/13	2.13	NA	NA	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
EW-3B	3/14/13	1.13	NA	NA	<0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	6/25/13	2.13	NA	NA	21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW-7A	4/11/11	BL	4.9	69	<0.2	83	367	<1.0	367	<1.0	27,000	5,100	57,000	1.96 @ 9.58C	66	340,000	6.7	781	
	4/18/11	E1	4.2	48	<0.2	81	385	<1.0	385	<1.0	21,000	4,800	61,000	1.38 @20.2C	<50	330,000	5.8	555	
	5/9/11	E2	1.4	<0.5	<0.2	76	372	<1.0	372	<1.0	680	3,000	47,000	2.68 @ 12.0 C	<50	540,000	6.6	574	
	6/1/11	E3	3.0	35	<0.2	89	369	<1.0	369	<1.0	14,000	3,900	57,000	4.24 @ 9.16C	54	340,000	5.8	567	
	6/15/11	BW1	0.97	2.3	<0.2	86	353	<1.0	353	<1.0	830	3,800	54,000	1.78 @23.2C	67	210,000	6.1	645	
	6/30/11	BW2	1.3	0.79	<0.2	87	320	<1.0	320	<1.0	730	2,900	49,000	1.89 @24.9C	55	230,000	5.0	575	
	8/28/12	3.12	Not Sampled Well Dry										NA	NA	NA	NA	NA	NA	NA
	6/25/13	2.13	NA	NA	<0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW-7B	4/11/11	BL	1.5	1.9	<0.2	34	386	<1.0	386	<1.0	1,300	3,100	45,000	2.55 @ 7.72C	400	350,000	0.68	636	
	4/18/11	E1	1.7	0.7	<0.2	29	415	<1.0	415	<1.0	1,000	3,600	47,000	1.96 @19.8C	560	330,000	12	543	
	5/9/11	E2	2.2	17	<0.2	33	382	<1.0	382	<1.0	6,700	4,200	52,000	2.36 @ 16.3 C	470	350,000	13	478	
	6/1/11	E3	1.4	0.90	<0.2	39	369	<1.0	369	<1.0	720	2,700	43,000	5.13 @ 11.1C	440	320,000	14	428	
	6/15/11	BW1	1.4	<0.5	<0.2	40	374	<1.0	374	<1.0	600	2,800	44,000	2.23 @22.8C	460	260,000	20	564	
	6/30/11	BW2	3.7	47	<0.2	36	372	<1.0	372	<1.0	21,000	4,500	52,000	2.32 @25.2C	370	270,000	23	493	
	8/29/12	3.12	1.7	3.3	<0.2	34	285	<1.0	285	<1.0	2,100	1,800	43,000	5.12 @14.9C	<50	NA	6.1	367	
	9/5/12	3.12	NA	NA	<0.2	NA	NA	NA	NA	NA	NA	NA	NA	3.89@10.4C	52	NA	NA	NA	
6/25/13	2.13	NA	NA	<0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		

Notes:  
 mg/L = millograms per Liter  
 µg/L = micrograms per liter  
 NA = Not analyzed  
 BL = Baseline monitoring event  
 E1 = First remedial monitoring event  
 E2 = Second remedial monitoring event  
 E3 = Third remedial monitoring event  
 BW1 = First bi-weekly monitoring event  
 BW2 = Second bi-weekly monitoring event  
 3.12 = Third quarter 2012

The symbol "<" (less than) indicates that the analyte was not detected at a concentration above the laboratory detection limit specified.  
 \* = Grab Sample; not enough water to purge  
 ^ = Well became dry before sample could be taken



**APPENDIX A**  
**Groundwater Monitoring Field Protocol**

## **Appendix A**

### Groundwater Monitoring Protocol

#### Well Monitoring and Sample Collection

A Teflon bailer or submersible pump was used to purge a minimum of three well volumes of groundwater from each well. After each well volume is purged, field parameters such as pH, temperature, and conductivity are recorded. Wells are purged until field parameters have stabilized or a maximum of ten (10) well volumes of groundwater have been removed. When possible, purge rates will not exceed the recharge rate for the well. However, if the well yield is low and the well was dewatered, the well is allowed to recharge to 80% of its original volume prior to sample collection. Field parameter measurements and pertinent qualitative observations, such as groundwater color and odor, are recorded in Groundwater Sampling Field Logs. Groundwater samples are collected in appropriate bottles and stored on ice for delivery, under chain-of-custody documentation, to a state-certified laboratory for analysis.

#### Equipment Decontamination

All drilling, sampling, and well development equipment was cleaned in a solution of laboratory grade detergent and distilled water or steam cleaned before use at each sampling point.

#### Field Personnel

During groundwater sampling activities, sampling personnel will wear pertinent attire to minimize risks to health and safety. Field personnel will also use a pair of clean, powderless, surgical gloves for each successive sampling point. Used surgical gloves will be placed into waste barrels for future disposal.

#### Waste Disposal

Water generated during well purging and sampling activities will be placed into DOT-approved 55-gallon waste drums. Waste drums will be temporarily stored on-site pending proper disposal of wastewater to an approved transport, storage, and disposal (TSD) facility.

**APPENDIX B**  
**Groundwater Sampling Field Logs**

**Groundwater Sampling Field Log**

Site Address: **160 Holmes** Date: **6/21/13**  
 Project Number: **160** Field Personnel: **Hittfield**

**Monitoring Well Information**

Monitoring Well ID: **MW-1A** Monitoring Well Diameter (in): **2"** **CC**  
 Depth to Water (ft): **25.52** Water Column (feet): **2.98** **(.17) = 0.507**  
 Total Depth (ft): **28.50** 80% Recharge Depth (ft):  
 Depth to Product (ft): 1 Well Volume (gallons): **0.507(3) = 1.52**  
 Comments: **No Smell**

**Field Measurements and Observations**

Time	Depth to Water	Purge Volume	Conductivity	Temperature	DO	pH	Turbidity	Color	ORP	Odor
15:00		1	4.78	21.33	10.08	8.05	Moderate	green/brown	201	No
15:04		1	0.010	20.34	9.69	7.99	"	"	194	"
15:08		1	0.415	20.31	9.86	7.88	"	"	190	"

Total Purge Volume: **3** Comments:

**Groundwater Sampling Information**

Sample ID: **MW-1A** Sample Time: **15:30**  
 Sample Containers (#/Type): **(4) VOA HCL (1) Amber UR (1) 250 ml Unpreserved Poly**  
 Comments:

**Groundwater Sampling Field Log**

Site Address: **160 Holmes** Date:  
 Project Number: **160** Field Personnel:

**Monitoring Well Information**

Monitoring Well ID: **MW-1B** Monitoring Well Diameter (in): **2"** **CC**  
 Depth to Water (ft): **24.55** Water Column (feet): **29.95** **(.17) = 5.09**  
 Total Depth (ft): **54.50** 80% Recharge Depth (ft):  
 Depth to Product (ft): 1 Well Volume (gallons): **5.09(3) = 15.27**  
 Comments: **No smell**

**Field Measurements and Observations**

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
14:20		5	0.717	20.44	8.88	None	Clear	No
14:30		5	0.680	20.18	8.41	"	"	"
14:35		5	0.660	19.90	8.16	"	"	"

Total Purge Volume: **15** Comments:

**Groundwater Sampling Information**

Sample ID: **MW-1B** Sample Time:  
 Sample Containers (#/Type): **(4) VOA HCL (1) Amber UR (1) 250 ml Unpreserved Poly**  
 Comments:

**Groundwater Sampling Field Log**

Site Address: **160 Holmes**

Date:

Project Number: **160**

Field Personnel:

**Monitoring Well Information**

Monitoring Well ID: **MW-2A**

Monitoring Well Diameter (in): **2"**

CC

Depth to Water (ft): **24.33**

Water Column (feet): **4.07**  $(.17) = .69$

Total Depth (ft): **28.40**

80% Recharge Depth (ft):

Depth to Product (ft):

1 Well Volume (gallons): **.69(3) = 2.08**

Comments: **No smell**

**Field Measurements and Observations**

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
<b>NOT SAMPLED</b>								

Total Purge Volume:

Comments:

**Groundwater Sampling Information**

Sample ID:

**MW-2A**

Sample Time:

Sample Containers (#/Type):

**(3) VOA HCL**

Comments:

**Groundwater Sampling Field Log**

Site Address: **160 Holmes**

Date:

Project Number: **160**

Field Personnel:

**Monitoring Well Information**

Monitoring Well ID: **MW-3A**

Monitoring Well Diameter (in): **2"**

CC

Depth to Water (ft): **24.99**

Water Column (feet): **3.21**  $(.17) = .55$

Total Depth (ft): **28.20**

80% Recharge Depth (ft):

Depth to Product (ft):

1 Well Volume (gallons): **.55(3) = 1.65**

Comments: **No Smell**

**Field Measurements and Observations**

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
<b>NOT SAMPLED</b>								

Total Purge Volume:

Comments:

**Groundwater Sampling Information**

Sample ID:

**MW-3A**

Sample Time:

Sample Containers (#/Type):

**(3) VOA HCL**

Comments:

**Groundwater Sampling Field Log**

Site Address: **160 Holmes**

Date:

Project Number: **160**

Field Personnel:

**Monitoring Well Information**

Monitoring Well ID: **MW-4A**

Monitoring Well Diameter (in): **2"**

CC

Depth to Water (ft): **24.88**

Water Column (feet): **3.92**

**(.17) = .67**

Total Depth (ft): **28.80**

80% Recharge Depth (ft):

Depth to Product (ft):

1 Well Volume (gallons): **.67(3) = 1.20**

Comments:

**Field Measurements and Observations**

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
		<b>NOT</b>		<b>SAMPLED</b>				

Total Purge Volume:

Comments: **NOT SAMPLED**

**Groundwater Sampling Information**

Sample ID:

**MW-4A**

Sample Time:

Sample Containers (#/Type):

**(3) VOA HCL**

Comments:

**Groundwater Sampling Field Log**

Site Address: **160 Holmes**

Date:

Project Number: **160**

Field Personnel:

**Monitoring Well Information**

Monitoring Well ID: **MW-5A**

Monitoring Well Diameter (in): **2"**

CC

Depth to Water (ft): **26.15**

Water Column (feet): **7.85**

**(.17) = 1.3345**

Total Depth (ft): **34.00**

80% Recharge Depth (ft):

Depth to Product (ft):

1 Well Volume (gallons): **(1.3345)3 = 4.0**

Comments:

**Field Measurements and Observations**

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
		<b>1.5</b>	<b>1241</b>	<b>21.4</b>	<b>7.16</b>	<b>light</b>	<b>6 or</b>	<b>none</b>
		<b>3.0</b>	<b>1223</b>	<b>21.2</b>	<b>7.10</b>	<b>med</b>	<b>↓</b>	<b>↓</b>
		<b>4.0</b>	<b>1220</b>	<b>21.0</b>	<b>7.05</b>	<b>med.</b>	<b>↓</b>	<b>↓</b>

Total Purge Volume:

Comments:

**Groundwater Sampling Information**

Sample ID:

**MW-5A**

Sample Time:

**11:45 6/25/13**

Sample Containers (#/Type):

**(3) VOA HCL**

Comments:

**Groundwater Sampling Field Log**

Site Address: **160 Holmes** Date: *6/25/13*  
 Project Number: **160** Field Personnel: *JM*

**Monitoring Well Information**

Monitoring Well ID: **MW-5B** Monitoring Well Diameter (in): **2"** CC  
 Depth to Water (ft): *26.21* Water Column (feet): *26.43*  $(.17) = 4.49$   
 Total Depth (ft): **52.64** 80% Recharge Depth (ft):  
 Depth to Product (ft): 1 Well Volume (gallons): *4.49 (3) = 13.5*  
 Comments:

**Field Measurements and Observations**

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
<i>11:05</i>		<i>4.5</i>	<i>739</i>	<i>21.2</i>	<i>7.31</i>	<i>low</i>	<i>clear</i>	<i>none</i>
		<i>1.0</i>	<i>756</i>	<i>21.0</i>	<i>7.23</i>	↓	↓	↓
		<i>13.5</i>	<i>768</i>	<i>20.7</i>	<i>7.18</i>	↓	↓	↓

Total Purge Volume: *135 gal* Comments:

**Groundwater Sampling Information**

Sample ID: **MW-5B** Sample Time: *1225 6/25/13*  
 Sample Containers (#/Type): **(3) VOA HCL**  
 Comments:

**Groundwater Sampling Field Log**

Site Address: **160 Holmes** Date:  
 Project Number: **160** Field Personnel:

**Monitoring Well Information**

Monitoring Well ID: **MW-6** Monitoring Well Diameter (in): **2"** CC  
 Depth to Water (ft): *25.30* Water Column (feet): *21.7*  $(.17) = 3.689$   
 Total Depth (ft): **47.00** 80% Recharge Depth (ft):  
 Depth to Product (ft): 1 Well Volume (gallons): *3.689 (3) = 11.067*  
 Comments:

**Field Measurements and Observations**

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
<i>11:05</i>		<i>4</i>	<i>1234</i>	<i>19.8</i>	<i>6.77</i>	<i>N6</i>	<i>lt Brown</i>	<i>no</i>
<i>11:10</i>		<i>4</i>	<i>1218</i>	<i>19.6</i>	<i>6.71</i>	"	"	"
<i>11:15</i>		<i>4</i>	<i>1215</i>	<i>19.5</i>	<i>6.70</i>			

Total Purge Volume: *12* Comments:

**Groundwater Sampling Information**

Sample ID: **MW-6** Sample Time: *11:20*  
 Sample Containers (#/Type): **(3) VOA HCL**  
 Comments:

## Groundwater Sampling Field Log

Site Address: 160 Holmes

Date: 6/25

Project Number: 160

Field Personnel: LMF

### Monitoring Well Information

Monitoring Well ID: MW-7A

Monitoring Well Diameter (in): 2"

CC

Depth to Water (ft): 25.09

 Water Column (feet): 3.91  $(.17) = 0.6647$ 

Total Depth (ft): 29.00

80% Recharge Depth (ft):

Depth to Product (ft):

 1 Well Volume (gallons):  $0.6647 (3) = 1.9941$ 

Comments: No Smell

### Field Measurements and Observations

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
DO	ORP	1.0	1.99	22.03	8.39	med.	brown	none
4.83	10.7	2.0	1.96	21.82	7.68	heavy	gray	none

Total Purge Volume:

Comments:

### Groundwater Sampling Information

Sample ID:

MW-7A

Sample Time:

2:15

Sample Containers (#/Type):

3 VOA HCL / 1 poly

Comments:

## Groundwater Sampling Field Log

Site Address: 160 Holmes

Date: 6/25

Project Number: 160

Field Personnel: LF

### Monitoring Well Information

Monitoring Well ID: MW-7B

Monitoring Well Diameter (in): 2"

CC

Depth to Water (ft): 15.70

 Water Column (feet): 22.8  $(.17) = 3.876$ 

Total Depth (ft): 48.50

80% Recharge Depth (ft):

Depth to Product (ft):

 1 Well Volume (gallons):  $3.876 (3) = 11.63$ 

Comments: No Smell

### Field Measurements and Observations

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
DO	ORP	3.5	1.02	20.22	8.25	none	lt. brown	none
2:08	51	7	0.874	20.33	7.87	none	lt. brown	↓
5.86	82	4	0.909	20.24	7.79	none	lt. yellow	↓

Total Purge Volume:

Comments:

### Groundwater Sampling Information

Sample ID:

MW-7B

Sample Time:

3:00

Sample Containers (#/Type):

3 VOA HCL / 1 poly

Comments:



## Groundwater Sampling Field Log

Site Address: 160 Holmes

Date: 6/25

Project Number: 160

Field Personnel: LF

### Monitoring Well Information

Monitoring Well ID: MW-7C

Monitoring Well Diameter (in): 2" CC

Depth to Water (ft): 26.0

Water Column (feet): 42.5 (1.17) = 7.225

Total Depth (ft): 68.50

80% Recharge Depth (ft):

Depth to Product (ft):

1 Well Volume (gallons): 7.225 (3) = 21.675

Comments:

### Field Measurements and Observations

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
		5.0	579	20.5	8.96	med	orange	NONE
		10	704	20.2	8.01	med	brown	NONE
		15	426	19.8	7.49	med	lt. brown	NONE

Total Purge Volume:

Comments:

### Groundwater Sampling Information

Sample ID: MW-7C

Sample Time: 12:30

Sample Containers (#/Type): (3) VOA HCL

Comments:

## Groundwater Sampling Field Log

Site Address: 160 Holmes

Date: 6/25/13

Project Number: 160

Field Personnel: LF

### Monitoring Well Information

Monitoring Well ID: MW-8A

Monitoring Well Diameter (in): 2" CC

Depth to Water (ft): 25.60

Water Column (feet): 9.9 (1.17) = 1.683

Total Depth (ft): 35.50

80% Recharge Depth (ft):

Depth to Product (ft):

1 Well Volume (gallons): 1.683 (3) = 5.049

Comments: No smell

### Field Measurements and Observations

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
		1.5	990	19.8	6.69	light	lt. brn	NONE
		3.0	927	19.7	6.72	light	↓	↓
		4.5	958	19.6	6.73	med.	↓	↓

Total Purge Volume: 4.5

Comments:

### Groundwater Sampling Information

Sample ID: MW-8A

Sample Time: 6/25/13 11:00

Sample Containers (#/Type): (3) VOA HCL

Comments:

## Groundwater Sampling Field Log

 Site Address: **160 Holmes**

 Date: **6/25**

 Project Number: **160**

 Field Personnel: **LE**

### Monitoring Well Information

 Monitoring Well ID: **MW-8B**

 Monitoring Well Diameter (in): **2"** CC

 Depth to Water (ft): **25.36**

 Water Column (feet): **25.14**  $(.17) = 4.27$ 

 Total Depth (ft): **50.50**

80% Recharge Depth (ft):

Depth to Product (ft):

 1 Well Volume (gallons): **4.27(3) = 12.82**

 Comments: **No Smell**

### Field Measurements and Observations

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
		3.0	723	20.5	7.35	light	gray	NONE
		6.0	717	20.2	7.19	med.	yellow-brn	NONE
		10.0	723	20	7.14	med	yellow-brn	NONE

Total Purge Volume:

Comments:

### Groundwater Sampling Information

 Sample ID: **MW-8B**

 Sample Time: **11:30**

 Sample Containers (#/Type): **(3) VOA HCL**

Comments:

## Groundwater Sampling Field Log

 Site Address: **160 Holmes**

Date:

 Project Number: **160**

Field Personnel:

### Monitoring Well Information

 Monitoring Well ID: **MW-9A**

 Monitoring Well Diameter (in): **2"** CC

 Depth to Water (ft): **24.79**

 Water Column (feet): **14.71**  $(.17) = 2.5007$ 

 Total Depth (ft): **39.50**

80% Recharge Depth (ft):

Depth to Product (ft):

 1 Well Volume (gallons): **2.5007(3) = 7.5**

 Comments: **No Smell**

### Field Measurements and Observations

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
11:55		3	724	19.8	7.31	N2	(clear)	N2
11:59		2	725	19.9	7.15	"	"	"
12:05		3	769	19.7	7.01	"	"	"

 Total Purge Volume: **8**

Comments:

### Groundwater Sampling Information

 Sample ID: **MW-9A**

 Sample Time: **12:15**

 Sample Containers (#/Type): **(3) VOA HCL**

Comments:

**Groundwater Sampling Field Log**

Site Address: **160 Holmes**

Date:

Project Number: **160**

Field Personnel:

**Monitoring Well Information**

Monitoring Well ID: **MW-9B**

Monitoring Well Diameter (in): **2"**

**CC**

Depth to Water (ft): **24.86**

Water Column (feet): **26.14** **(.17) = 4.4438**

Total Depth (ft): **51.00**

80% Recharge Depth (ft):

Depth to Product (ft):

1 Well Volume (gallons): **4.4438(3) = 13.33**

Comments: **No smell**

**Field Measurements and Observations**

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
11:30		4	940	19.6	7.11	No	clear	No
11:35		4	957	19.5	6.88	"	"	"
11:40		4	968	19.3	6.68	"	"	"

Total Purge Volume: **12**

Comments:

**Groundwater Sampling Information**

Sample ID:

**MW-9B**

Sample Time:

**11:50**

Sample Containers (#/Type):

**(3) VOA HCL**

Comments:

**Groundwater Sampling Field Log**

Site Address: **160 Holmes**

Date:

**6/25/13**

Project Number: **160**

Field Personnel:

**JUN**

**Monitoring Well Information**

Monitoring Well ID: **EW-1**

Monitoring Well Diameter (in): **4"**

**CC**

Depth to Water (ft): **24.95**

Water Column (feet): **14.05** **(.66) = 9.273**

Total Depth (ft): **39.00**

80% Recharge Depth (ft):

Depth to Product (ft):

1 Well Volume (gallons): **9.273(3) = 27.819**

Comments: **No smell**

**Field Measurements and Observations**

Time	Depth to Water	Purge Volume	Conductivity $\mu S/cm$	Temperature	pH	Turbidity	Color	Odor
18:61	33	10	4.24	21.3	9.88	med	yellow brn	none
22:18	39	20	4.65	20.7	9.74	↓	↓	↓
22:50	42	25	5.33	20.8	9.18	heavy	↓	↓

Total Purge Volume:

Comments:

**Groundwater Sampling Information**

Sample ID:

**EW-1**

Sample Time:

**1420 6/25/13**

Sample Containers (#/Type):

**(1) VOA HCL (1) Ambic (1) 250 ml Unpreserved Poly**

Comments:

**Groundwater Sampling Field Log**

Site Address: <b>160 Holmes</b>	Date:
Project Number: <b>160</b>	Field Personnel:

**Monitoring Well Information**

Monitoring Well ID: <b>EW-2</b>	Monitoring Well Diameter (in): <b>4"</b> <span style="float:right">CC</span>
Depth to Water (ft): <b>26.14</b>	Water Column (feet): <b>10.86</b> <span style="float:right">(.66) = 7.16</span>
Total Depth (ft): <b>37.00</b>	80% Recharge Depth (ft):
Depth to Product (ft):	1 Well Volume (gallons): <b>7.16(3) = 21.48</b>
Comments:	

**Field Measurements and Observations**

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
<b>NOT SAMPLED</b>								

Total Purge Volume:	Comments: <b>NOT SAMPLED</b>
---------------------	------------------------------

**Groundwater Sampling Information**

Sample ID: <b>EW-2</b>	Sample Time:
Sample Containers (#/Type): <b>(3) VOA HCL</b>	
Comments:	

**Groundwater Sampling Field Log**

Site Address: <b>160 Holmes</b>	Date:
Project Number: <b>160</b>	Field Personnel:

**Monitoring Well Information**

Monitoring Well ID: <b>EW-3</b>	Monitoring Well Diameter (in): <b>4"</b> <span style="float:right">CC</span>
Depth to Water (ft): <b>23.35</b>	Water Column (feet): <b>10.65</b> <span style="float:right">(.66) = 7.029</span>
Total Depth (ft): <b>34.00</b>	80% Recharge Depth (ft):
Depth to Product (ft):	1 Well Volume (gallons): <b>7.029(3) = 21.08</b>
Comments: <b>No smell</b>	

**Field Measurements and Observations**

Time	Depth to Water	Purge Volume	Conductivity <small>ms/cm</small>	Temperature	pH	Turbidity	Color	Odor
<b>DD</b>	<b>0.2P</b>							
<b>12:56</b>	<b>96</b>	<b>10</b>	<b>3.47</b>	<b>20.1</b>	<b>10.53</b>	<b>high</b>	<b>redish/bry</b>	<b>none</b>
<b>1:3:32</b>	<b>14</b>	<b>15</b>	<b>4.53</b>	<b>19.7</b>	<b>10.71</b>	<b>↓</b>	<b>↓</b>	<b>↓</b>

Total Purge Volume:	Comments: <b>well dry after 15 gallons</b>
---------------------	--

**Groundwater Sampling Information**

Sample ID: <b>EW-3</b>	Sample Time: <b>1500 4/25/13</b>
Sample Containers (#/Type): <b>6 VOA HCL (1) Amber UR (1) 250 ml Unpreserved Poly</b>	
Comments:	

Groundwater Sampling Field Log								
Site Address: 160 Holmes					Date:			
Project Number: 160					Field Personnel:			
Monitoring Well Information								
Monitoring Well ID: EW-3B				Monitoring Well Diameter (in): 4"		CC		
Depth to Water (ft): 24.12				Water Column (feet): 14.88		(1.66) = 9.8208		
Total Depth (ft): 39.00				80% Recharge Depth (ft):				
Depth to Product (ft):				1 Well Volume (gallons): 9.8208 (3) x 29.46				
Comments: No smell								
Field Measurements and Observations								
Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
12:37		10	4.14	19.7	10.93	High	Brown	None
12:38	28.40	5	22.4	19.79	10.38	High	"	"
Total Purge Volume:				Comments: NOT SAMPLED				
Groundwater Sampling Information								
Sample ID: EW-3B				Sample Time:				
Sample Containers (#/Type):								
Comments: depth of well: 33.15 (4) VOA HCL (1) Amber UP (1) 250 ml Unpreserved Poly								

ORP  
65  
67

D-0  
26.47  
14.69

Groundwater Sampling Field Log								
Site Address:					Date:			
Project Number:					Field Personnel:			
Monitoring Well Information								
Monitoring Well ID:				Monitoring Well Diameter (in):		CC		
Depth to Water (ft):				Water Column (feet):				
Total Depth (ft):				80% Recharge Depth (ft):				
Depth to Product (ft):				1 Well Volume (gallons):				
Comments:								
Field Measurements and Observations								
Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
Total Purge Volume:				Comments:				
Groundwater Sampling Information								
Sample ID:				Sample Time:				
Sample Containers (#/Type):								
Comments:								

**APPENDIX C**  
**Certified Analytical Report and Chain-of-Custody**



## Analytical Report

Allterra Environmental  849 Almar Ave, Ste. C #281  Santa Cruz, CA 95060	Client Project ID: #160; 160 Holmes	Date Sampled: 06/25/13
		Date Received: 06/26/13
	Client Contact: James Allen	Date Reported: 07/02/13
	Client P.O.:	Date Completed: 07/01/13

**WorkOrder: 1306679**

July 02, 2013

Dear James:

Enclosed within are:

- 1) The results of the **15** analyzed samples from your project: **#160; 160 Holmes**,
- 2) QC data for the above samples, and
- 3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
 Laboratory Manager  
 McC Campbell Analytical, Inc.

*The analytical results relate only to the items tested.*

1306679



849 Almar Avenue, Suite C, #281  
 Santa Cruz, California 95060  
 Website: www.allterraenv.com  
 Phone: (831) 425-2608 Facsimile: (831) 425-2609

**Chain of Custody Record**

Turn Around Time (circle one) RUSH 24HR 48HR 72HR 5 Day

Report and Bill to: Allterra Environmental, Inc.

Project Number: 160

Project Location: 160 Holmes

Project Name: Double AA Gas

Sampler Signature: Joseph Hatfield

Field Point Name / Sample ID	Sample Collection		Sample Containers		Matrix					Preservation				TPHg/ BTEX/ MTBE (EPA 8015/8021)	TPHd (EPA 8015)	5-fuel oxy (EPA 8260)	Lead Scavengers (8260)	Dissolved Oxygen	Carbon Dioxide	Methane	Total Dissolved Solids	Arsenic, Total Chromium, Total iron, Manganese, Sodium	Hexachrome	Ferrous Iron	Alkalinity	Sulfate	EDF required
	Date	Time	Number of Containers	Container Type	Air	Water	Soil	Sludge	Other	Ice	HCl	HNO <sub>3</sub>	Other														
MW-1A	6/25/13	15:30	6	(6) VARIOUS		x				x	x			x	x	x	x					x					x
MW-1B	6/25/13	14:40	6	(6) VARIOUS		x				x	x			x	x	x	x					x					x
MW-7A		14:15	6	(6) VARIOUS		x				x	x			x	x	x	x					x					x
MW-7B		15:00	6	(6) VARIOUS		x				x	x			x	x	x	x					x					x
EW-1		14:20	6	(6) VARIOUS		x				x	x			x	x	x	x					x					x
EW-3		15:00	6	(6) VARIOUS		x				x	x			x	x	x	x					x					x
EW-3B	6/25/13	15:30	6	VOA		x				x	x			x	x	x	x					x					x
<del>EW-2</del>			3	VOA		x				x	x			x	x	x	x					x					x
MW-9A	6/25/13	12:15	3	VOA		x				x	x			x													x
MW-9B	6/25/13	11:50	3	VOA		x				x	x			x													x
MW-7C		12:30	3	VOA		x				x	x			x													x
MW-8A *		11:00	3	VOA		x				x	x			x													x
MW-8B			3	VOA		x				x	x			x													x
MW-5A		11:45	3	VOA		x				x	x			x													x
MW-5B		12:25	3	VOA		x				x	x			x													x
<del>MW-4A</del>			3	VOA		x				x	x			x													x
<del>MW-2A</del>			3	VOA		x				x	x			x													x
<del>MW-3A</del>			3	VOA		x				x	x			x													x
MW-6	6/25/13	11:20	3	VOA		x				x	x			x													x

Sampled By: Joseph Hatfield / Date: 6/25/13 Time: 17:30 Received By: Laura Ferry

Received By: Laura Ferry Date: 6/24/13 Time: 11:05a Received By: Me Vall

Received By: ICE# 0.7 Date: Time: Received By:

Comments: Not all Wells were Sampled  
 EW-2, MW-4A, MW-2A, MW-3A  
 ICE# GOOD CONDITION not APPROPRIATE  
 HEAD SPACE ABSENT CONTAINERS  
 DECHLORINATED IN LAB PRESERVED IN LAB

GOOD CONDITION  
 HEAD SPACE ABSENT CONTAINERS  
 DECHLORINATED IN LAB PRESERVED IN LAB  
 PRESERVATION VOAS O&G METALS OTHER

\* VOAS Labeled = MW-8 / PRESERVATION VOAS O&G METALS OTHER  
 RECD SEALED & INTACT VIA [Signature]





1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1306679

ClientCode: ATRS

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQUIS   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**  
 James Allen  
 Allterra Environmental  
 849 Almar Ave, Ste. C #281  
 Santa Cruz, CA 95060  
 831-425-2608    FAX: 831-425-2609

**Email:** allterraenvironmental@yahoo.com; micah  
**cc:**  
**PO:**  
**ProjectNo:** #160; 160 Holmes

**Bill to:**  
 Accounts Payable  
 Allterra Environmental  
 849 Almar Ave, Ste. C #281  
 Santa Cruz, CA 95060  
 micah@allterraenv.com

**Requested TAT: 5 days**

**Date Received: 06/26/2013**

**Date Printed: 06/26/2013**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1306679-001	MW-1A	Water	6/25/2013 15:30	<input type="checkbox"/>	D	C	A	A	B								
1306679-002	MW-1B	Water	6/25/2013 14:40	<input type="checkbox"/>	D	C	A		B								
1306679-003	MW-7A	Water	6/25/2013 14:15	<input type="checkbox"/>	D	C	A		B								
1306679-004	MW-7B	Water	6/25/2013 15:00	<input type="checkbox"/>	D	C	A		B								
1306679-005	EW-1	Water	6/25/2013 14:20	<input type="checkbox"/>	D	C	A		B								
1306679-006	EW-3	Water	6/25/2013 15:00	<input type="checkbox"/>	D	C	A		B								
1306679-007	EW-3B	Water	6/25/2013 15:30	<input type="checkbox"/>	D	C	A		B								
1306679-008	MW-9A	Water	6/25/2013 12:15	<input type="checkbox"/>			A										
1306679-009	MW-9B	Water	6/25/2013 11:50	<input type="checkbox"/>			A										
1306679-010	MW-7C	Water	6/25/2013 12:30	<input type="checkbox"/>			A										
1306679-011	MW-8A	Water	6/25/2013 11:00	<input type="checkbox"/>			A										
1306679-012	MW-8B	Water	6/25/2013	<input type="checkbox"/>			A										
1306679-013	MW-5A	Water	6/25/2013 11:45	<input type="checkbox"/>			A										
1306679-014	MW-5B	Water	6/25/2013 12:25	<input type="checkbox"/>			A										

**Test Legend:**

1	218_6_W	2	5-OXYS+PBSCV_W	3	G-MBTEX_W	4	PREFD REPORT	5	TPH(D)_W
6		7		8		9		10	
11		12							

**Prepared by: Maria Venegas**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



1534 Willow Pass Rd  
 Pittsburg, CA 94565-1701  
 (925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1306679

ClientCode: ATRS

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQuIS   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**  
 James Allen  
 Allterra Environmental  
 849 Almar Ave, Ste. C #281  
 Santa Cruz, CA 95060  
 831-425-2608    FAX: 831-425-2609

**Email:** allterraenvironmental@yahoo.com; micah  
**cc:**  
**PO:**  
**ProjectNo:** #160; 160 Holmes

**Bill to:**  
 Accounts Payable  
 Allterra Environmental  
 849 Almar Ave, Ste. C #281  
 Santa Cruz, CA 95060  
 micah@allterraenv.com

**Requested TAT:** 5 days

**Date Received:** 06/26/2013

**Date Printed:** 06/26/2013

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1306679-015	MW-6	Water	6/25/2013 11:20	<input type="checkbox"/>			A										

**Test Legend:**

1	218_6_W	2	5-OXYS+PBSCV_W	3	G-MBTX_W	4	PREFD REPORT	5	TPH(D)_W
6		7		8		9		10	
11		12							

**Prepared by: Maria Venegas**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



### Sample Receipt Checklist

Client Name: **Allterra Environmental** Date and Time Received: **6/26/2013 11:07:57 AM**  
 Project Name: **#160; 160 Holmes** LogIn Reviewed by: **Maria Venegas**  
 WorkOrder N°: **1306679** Matrix: Water Carrier: Client Drop-In

#### Chain of Custody (COC) Information

Chain of custody present? Yes  No   
 Chain of custody signed when relinquished and received? Yes  No   
 Chain of custody agrees with sample labels? Yes  No   
 Sample IDs noted by Client on COC? Yes  No   
 Date and Time of collection noted by Client on COC? Yes  No   
 Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes  No  NA   
 Shipping container/cooler in good condition? Yes  No   
 Samples in proper containers/bottles? Yes  No   
 Sample containers intact? Yes  No   
 Sufficient sample volume for indicated test? Yes  No

#### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  No   
 Container/Temp Blank temperature Cooler Temp: 0.7°C NA   
 Water - VOA vials have zero headspace / no bubbles? Yes  No  No VOA vials submitted   
 Sample labels checked for correct preservation? Yes  No   
 Metal - pH acceptable upon receipt (pH<2)? Yes  No  NA   
 Samples Received on Ice? Yes  No

(Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----  
 Comments:





Allterra Environmental  849 Almar Ave, Ste. C #281  Santa Cruz, CA 95060	Client Project ID: #160; 160 Holmes	Date Sampled: 06/25/13
		Date Received: 06/26/13
	Client Contact: James Allen	Date Extracted: 06/29/13
	Client P.O.:	Date Analyzed: 06/29/13

**Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS\***

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1306679

Lab ID	1306679-001C	1306679-002C	1306679-003C	1306679-004C	Reporting Limit for DF = 1	
Client ID	MW-1A	MW-1B	MW-7A	MW-7B		
Matrix	W	W	W	W		
DF	200	1	1	33		

Compound	Concentration				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND<100	ND	ND	ND<17	NA	0.5
t-Butyl alcohol (TBA)	6800	ND	25	2200	NA	2.0
1,2-Dibromoethane (EDB)	ND<100	ND	ND	ND<17	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND<100	ND	ND	ND<17	NA	0.5
Diisopropyl ether (DIPE)	ND<100	ND	ND	ND<17	NA	0.5
Ethyl tert-butyl ether (ETBE)	ND<100	ND	ND	ND<17	NA	0.5
Methyl-t-butyl ether (MTBE)	ND<100	ND	0.66	ND<17	NA	0.5

**Surrogate Recoveries (%)**

%SS1:	107	106	107	105	
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<b>Comments</b>			b1		
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\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

b1) aqueous sample that contains greater than ~1 vol. % sediment



Allterra Environmental  849 Almar Ave, Ste. C #281  Santa Cruz, CA 95060	Client Project ID: #160; 160 Holmes	Date Sampled: 06/25/13
		Date Received: 06/26/13
	Client Contact: James Allen	Date Extracted: 06/29/13
	Client P.O.:	Date Analyzed: 06/29/13

**Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS\***

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1306679

Lab ID	1306679-005C	1306679-006C	1306679-007C		Reporting Limit for DF = 1
Client ID	EW-1	EW-3	EW-3B		
Matrix	W	W	W		
DF	100	2	500		

Compound	Concentration			ug/kg	µg/L
	tert-Amyl methyl ether (TAME)	ND<50	ND<1.0	ND<250	NA
t-Butyl alcohol (TBA)	4400	130	27,000	NA	2.0
1,2-Dibromoethane (EDB)	ND<50	ND<1.0	ND<250	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND<50	ND<1.0	ND<250	NA	0.5
Diisopropyl ether (DIPE)	ND<50	ND<1.0	ND<250	NA	0.5
Ethyl tert-butyl ether (ETBE)	ND<50	ND<1.0	ND<250	NA	0.5
Methyl-t-butyl ether (MTBE)	ND<50	9.0	ND<250	NA	0.5

**Surrogate Recoveries (%)**

%SS1:	108	110	109	
Comments	b1	b1	b1	

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

b1) aqueous sample that contains greater than ~1 vol. % sediment



Allterra Environmental  849 Almar Ave, Ste. C #281  Santa Cruz, CA 95060	Client Project ID: #160; 160 Holmes	Date Sampled: 06/25/13
		Date Received: 06/26/13
	Client Contact: James Allen	Date Extracted: 06/27/13-06/28/13
	Client P.O.:	Date Analyzed: 06/27/13-06/28/13

**Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE\***

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1306679

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-1A	W	ND	ND	ND	ND	ND	ND	1	101	
002A	MW-1B	W	ND	ND	ND	ND	ND	ND	1	105	
003A	MW-7A	W	200	ND	ND	7.2	ND	ND	1	---#	d1,b1
004A	MW-7B	W	ND	ND	ND	1.3	ND	ND	1	108	
005A	EW-1	W	ND	25	ND	ND	ND	ND	1	99	b1
006A	EW-3	W	140	ND<10	ND	0.80	2.6	4.4	1	96	d1,b1
007A	EW-3B	W	120	ND<30	ND	1.1	ND	1.1	1	101	d1,b1
008A	MW-9A	W	ND	ND	ND	ND	ND	ND	1	105	
009A	MW-9B	W	ND	ND	ND	ND	ND	ND	1	102	
010A	MW-7C	W	ND	ND	ND	ND	ND	ND	1	105	
011A	MW-8A	W	ND	ND	ND	ND	ND	ND	1	105	
012A	MW-8B	W	ND	ND	ND	ND	ND	ND	1	110	
013A	MW-5A	W	ND	ND	ND	ND	ND	ND	1	108	
014A	MW-5B	W	ND	ND	ND	ND	ND	ND	1	112	
015A	MW-6	W	ND	ND	ND	ND	ND	ND	1	108	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	0.5	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

\* water and vapor samples are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

# cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference. %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

- b1) aqueous sample that contains greater than ~1 vol. % sediment
- d1) weakly modified or unmodified gasoline is significant







**QC SUMMARY REPORT FOR SW8015B**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 78714

WorkOrder: 1306679

EPA Method: SW8015B		Extraction: SW3510C					Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	94.2	N/A	N/A	70 - 130	
%SS:	N/A	625	N/A	N/A	N/A	102	N/A	N/A	70 - 130	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
 NONE

BATCH 78714 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1306679-001B	06/25/13 3:30 PM	06/26/13	06/27/13 1:31 AM	1306679-002B	06/25/13 2:40 PM	06/26/13	06/26/13 7:46 PM
1306679-003B	06/25/13 2:15 PM	06/26/13	06/29/13 6:27 AM	1306679-004B	06/25/13 3:00 PM	06/26/13	06/26/13 10:15 PM
1306679-005B	06/25/13 2:20 PM	06/26/13	06/26/13 9:01 PM	1306679-006B	06/25/13 3:00 PM	06/26/13	06/27/13 2:40 AM
1306679-007B	06/25/13 3:30 PM	06/26/13	06/27/13 8:26 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.  
 $\% \text{ Recovery} = 100 * (\text{MS} - \text{Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$   
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.  
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.  
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

 QA/QC Officer



### QC SUMMARY REPORT FOR E218.6

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 78745

WorkOrder: 1306679

EPA Method: E218.6		Extraction: E218.6					Spiked Sample ID: 1306679-001d			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
Hexachrome	1.2	25	107	106	0.968	107	90 - 110	10	90 - 110	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
 NONE

#### BATCH 78745 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1306679-001D	06/25/13 3:30 PM	06/26/13	06/26/13 5:34 PM	1306679-002D	06/25/13 2:40 PM	06/26/13	06/26/13 6:29 PM
1306679-003D	06/25/13 2:15 PM	06/26/13	06/26/13 6:47 PM	1306679-004D	06/25/13 3:00 PM	06/26/13	06/26/13 7:05 PM
1306679-005D	06/25/13 2:20 PM	06/27/13	06/27/13 9:30 AM	1306679-006D	06/25/13 3:00 PM	06/27/13	06/27/13 11:20 AM
1306679-007D	06/25/13 3:30 PM	06/27/13	06/27/13 9:12 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.  
 % Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).  
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.  
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.  
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



### QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 78783

WorkOrder: 1306679

EPA Method: SW8021B/8015Bm		Extraction: SW5030B					Spiked Sample ID: 1306690-002A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
TPH(btex) <sup>£</sup>	ND	60	102	95.7	6.44	94.8	70 - 130	20	70 - 130	
MTBE	ND	10	106	102	4.02	96	70 - 130	20	70 - 130	
Benzene	ND	10	92.3	96.2	4.11	93.5	70 - 130	20	70 - 130	
Toluene	ND	10	94.6	97.6	3.05	98.8	70 - 130	20	70 - 130	
Ethylbenzene	ND	10	92.8	96.7	4.11	97.7	70 - 130	20	70 - 130	
Xylenes	ND	30	93.9	97.6	3.80	100	70 - 130	20	70 - 130	
%SS:	108	10	100	102	1.59	101	70 - 130	20	70 - 130	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
 NONE

#### BATCH 78783 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1306679-001A	06/25/13 3:30 PM	06/27/13	06/27/13 12:08 AM	1306679-002A	06/25/13 2:40 PM	06/27/13	06/27/13 12:38 AM
1306679-003A	06/25/13 2:15 PM	06/27/13	06/27/13 1:08 AM	1306679-004A	06/25/13 3:00 PM	06/27/13	06/27/13 9:04 AM
1306679-008A	06/25/13 12:15 PM	06/27/13	06/27/13 2:07 AM	1306679-009A	06/25/13 11:50 AM	06/28/13	06/28/13 3:34 AM
1306679-010A	06/25/13 12:30 PM	06/27/13	06/27/13 3:07 AM	1306679-011A	06/25/13 11:00 AM	06/27/13	06/27/13 3:36 AM
1306679-012A	06/25/13	06/27/13	06/27/13 4:06 AM	1306679-013A	06/25/13 11:45 AM	06/27/13	06/27/13 4:36 AM
1306679-014A	06/25/13 12:25 PM	06/27/13	06/27/13 5:05 AM	1306679-015A	06/25/13 11:20 AM	06/27/13	06/27/13 8:34 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.  
 $\% \text{ Recovery} = 100 * (\text{MS-Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$   
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.  
 £ TPH(btex) = sum of BTEX areas from the FID.  
 # cluttered chromatogram; sample peak coelutes with surrogate peak.  
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.  
 NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



**QC SUMMARY REPORT FOR SW8021B/8015Bm**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 78830

WorkOrder: 1306679

EPA Method: SW8021B/8015Bm		Extraction: SW5030B					Spiked Sample ID: 1306491-012A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
TPH(btex) <sup>£</sup>	ND	60	93.8	90.4	3.75	93.5	70 - 130	20	70 - 130	
MTBE	ND	10	98.2	106	8.04	101	70 - 130	20	70 - 130	
Benzene	ND	10	93	88.5	4.93	94	70 - 130	20	70 - 130	
Toluene	ND	10	94.4	89.2	5.67	95.3	70 - 130	20	70 - 130	
Ethylbenzene	ND	10	93.4	88.7	5.13	94.3	70 - 130	20	70 - 130	
Xylenes	ND	30	95.5	91	4.85	96	70 - 130	20	70 - 130	
%SS:	101	10	98	98	0	98	70 - 130	20	70 - 130	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
 NONE

BATCH 78830 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1306679-005A	06/25/13 2:20 PM	06/28/13	06/28/13 3:03 AM	1306679-006A	06/25/13 3:00 PM	06/27/13	06/27/13 6:45 PM
1306679-007A	06/25/13 3:30 PM	06/27/13	06/27/13 7:20 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.  
 % Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).  
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.  
 £ TPH(btex) = sum of BTEX areas from the FID.  
 # cluttered chromatogram; sample peak coelutes with surrogate peak.  
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.  
 NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



**QC SUMMARY REPORT FOR SW8260B**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 78897

WorkOrder: 1306679

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
tert-Amyl methyl ether (TAME)	ND	10	126	125	0.798	106	70 - 130	20	70 - 130
Benzene	ND	10	101	100	1.05	91.6	70 - 130	20	70 - 130
t-Butyl alcohol (TBA)	ND	40	149, F1	142, F1	4.79	109	70 - 130	20	70 - 130
Chlorobenzene	ND	10	101	98.9	2.39	89.7	70 - 130	20	70 - 130
1,2-Dibromoethane (EDB)	ND	10	126	123	2.49	103	70 - 130	20	70 - 130
1,2-Dichloroethane (1,2-DCA)	ND	10	113	111	2.30	94	70 - 130	20	70 - 130
Diisopropyl ether (DIPE)	ND	10	117	117	0	105	70 - 130	20	70 - 130
Ethyl tert-butyl ether (ETBE)	ND	10	123	120	2.58	104	70 - 130	20	70 - 130
Methyl-t-butyl ether (MTBE)	ND	10	134, F1	131, F1	2.31	110	70 - 130	20	70 - 130
Toluene	ND	10	97	94.9	2.17	86.4	70 - 130	20	70 - 130
Trichloroethene	ND	10	108	109	1.12	91.7	70 - 130	20	70 - 130
%SS1:	106	25	108	111	2.57	107	70 - 130	20	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
 NONE

F1 = MS/MSD recovery and/or %RPD was out of acceptance criteria; LCS validated the prep batch.

**BATCH 78897 SUMMARY**

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1306679-001C	06/25/13 3:30 PM	06/29/13	06/29/13 11:30 AM	1306679-002C	06/25/13 2:40 PM	06/29/13	06/29/13 12:07 PM
1306679-003C	06/25/13 2:15 PM	06/29/13	06/29/13 1:37 AM	1306679-004C	06/25/13 3:00 PM	06/29/13	06/29/13 1:22 PM
1306679-005C	06/25/13 2:20 PM	06/29/13	06/29/13 2:00 PM	1306679-006C	06/25/13 3:00 PM	06/29/13	06/29/13 2:38 PM
1306679-007C	06/25/13 3:30 PM	06/29/13	06/29/13 3:15 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.  
 $\% \text{ Recovery} = 100 * (\text{MS-Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$   
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.  
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.  
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.  
 Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.