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January 6, 2006

QUARTERLY GROUNDWATER MONITORING REPORT  
DECEMBER 2005 GROUNDWATER SAMPLING

at

Lim Family Property  
250 8th Street  
Oakland, California

Alameda County  
JAN 8 0 2006  
Environmental Health

Submitted by:  
AQUA SCIENCE ENGINEERS, INC.  
208 W. El Pintado, Suite C  
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## **1.0 INTRODUCTION**

This report presents the methods and findings of Aqua Science Engineers, Inc. (ASE)'s quarterly groundwater monitoring at the Lim family property located at 250 8th Street in Oakland, California (*Figures 1 and 2*).

## **2.0 GROUNDWATER FLOW DIRECTION AND GRADIENT**

On December 6, 2005, ASE measured the depth to water in monitoring wells MW-1 through MW-7 using an electric water level sounder. The surface of the groundwater was also checked for the presence of free-floating hydrocarbons or sheen. Groundwater taken from monitoring well MW-2 had a slight sheen on the water surface. Monitoring well MW-3 contained 1.17-feet of free-floating hydrocarbons, a 0.3-foot decrease from the previous quarter. The product was subsequently bailed by ASE and contained in a sealed and labeled 55-gallon steel drum for temporary storage until off-site disposal can be arranged. Injection wells IW-1 through IW-5 were obstructed by parked cars and could not be gauged. Groundwater elevation data is presented in Table One.

A groundwater elevation (potentiometric surface) contour map is shown as Figure 2. The groundwater flow direction at the site is generally to the south-southeast with an approximate gradient of 0.01 feet/foot during this quarterly sampling period. The gradient and flow direction are consistent with previous findings.

## **3.0 MONITORING WELL SAMPLING**

On December 6, 2005, ASE collected groundwater samples from six of the seven monitoring wells for analysis. Monitoring well MW-3 was not sampled due to the presence of free-floating hydrocarbons.

Prior to sampling, the wells were purged of three well casing volumes of groundwater using disposable polyethylene bailers. The pH, temperature, and conductivity of the purge water were monitored during evacuation, and samples were not collected until these parameters stabilized. Samples were collected from each well using disposable polyethylene bailers. The groundwater samples were decanted from the bottom of the bailers using low-flow emptying devices into 40-ml volatile organic analysis (VOA) vials, preserved with hydrochloric acid, sealed without headspace and labeled. All samples were stored on ice for transport to Kiff Analytical, LLC, (KIFF) of Davis, California under appropriate chain of custody documentation. Well sampling purge water was contained in a sealed and labeled 55-gallon steel drum for temporary storage until off-site disposal can be arranged. See Appendix A for copies of the well sampling field logs.

#### **4.0 ANALYTICAL RESULTS FOR GROUNDWATER**

All groundwater samples were analyzed by KIFF for total petroleum hydrocarbons as gasoline (TPH-G), benzene, toluene, ethyl benzene, total xylenes (collectively known as BTEX), lead scavengers, and methyl tertiary butyl ether (MTBE) by EPA Method 8260B, and total petroleum hydrocarbons as diesel (TPH-D) by modified EPA Method 8015. The analytical results are tabulated in Tables Two and Three, and copies of the certified analytical report and chain of custody form are included in Appendix B.

#### **5.0 CONCLUSIONS**

- Concentrations of TPH-G decreased to 140 parts per billion (ppb), and TPH-D was detected at 67 ppb in groundwater samples taken from monitoring well MW-1.
- Concentrations of TPH-G, benzene, ethyl-benzene and total xylenes decreased in groundwater samples taken from monitoring well MW-2; toluene increased to 940 ppb in the same sample.
- Monitoring well MW-3 contained 1.17 feet of free-floating hydrocarbons, which is 0.3 feet less than measured the previous quarter continuing a decreasing trend.
- Concentrations of TPH-G, toluene, ethyl-benzene and total xylenes increased in groundwater samples taken from monitoring well MW-4; benzene, however, decreased in the same sample.
- Dissolved hydrocarbons were not detected in groundwater samples taken from monitoring wells MW-5 and MW-6
- Significant increases in TPH-G and BTEX concentrations were observed in monitoring wells MW-7.

Concentrations in groundwater samples collected from the following wells exceeded Environmental Screening Levels (ESLs) as presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region dated February 2005:

- Concentrations in groundwater samples collected from monitoring wells MW-2, MW-4, and MW-7 exceeded the ESLs for TPH-G, benzene, toluene, ethyl benzene, and xylene.

#### **6.0 RECOMMENDATIONS**

ASE prepared a report dated January 10, 2005 detailing the Dual-Phase Extraction interim remediation activities performed at the site in 2004, and provided a corrective action plan for future remedial options. This report proposed a second dual-phase extraction event as an additional interim remedial measure, to be followed by the installation of a permanent remediation system. This work has been approved by the Alameda County Health Care Services Agency (ACHCSA), and will be conducted once funds are received from the California State UST Cleanup Fund for work previously performed at the site. In addition, quarterly groundwater monitoring will continue at the site. The next sampling event is scheduled for March 2006.

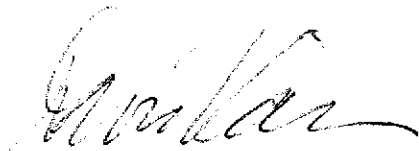
## 7.0 REPORT LIMITATIONS

The results presented in this report represent conditions at the time of the groundwater sampling, at the specific locations where the samples were collected, and for the specific parameters analyzed by the laboratory. It does not fully characterize the site for contamination resulting from unknown sources, or for parameters not analyzed by the laboratory. All of the laboratory work cited in this report was prepared under the direction of an independent CAL-DHS certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

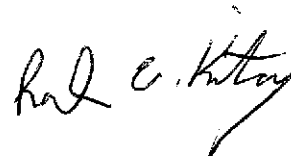
Aqua Science Engineers appreciates the opportunity to assist The Lim Family with their environmental needs. Should you have any questions or comments, please feel free to call us at (925) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

  
David Rains  
Project Geologist



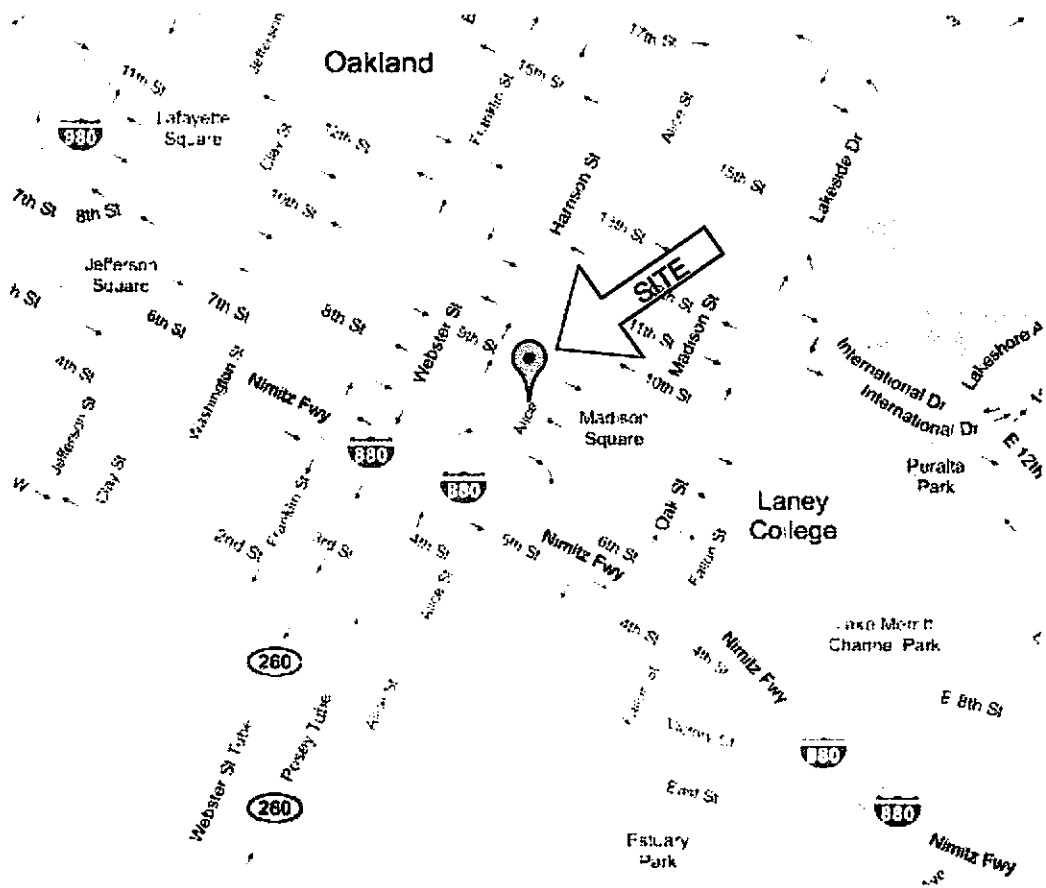
  
Robert E. Kitay, P.G., R.E.A.  
Senior Geologist

Attachments: Figures 1 and 2  
Tables One, Two, and Three  
Appendices A and B

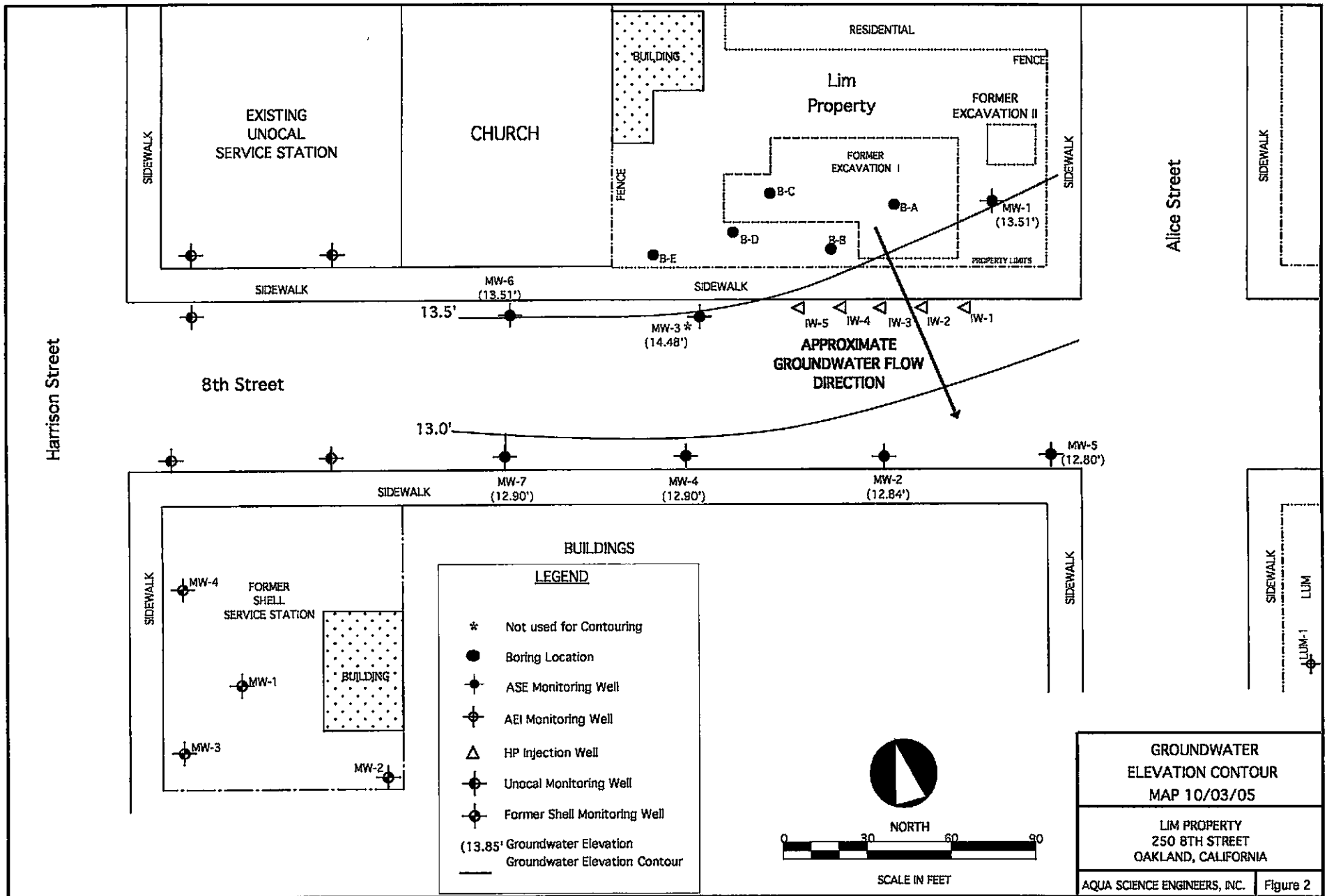
cc: Mr. Barney Chan, ACHCSA  
Mr. Chuck Headlee, RWQCB, San Francisco Bay Region



NORTH



<b>LOCATION MAP</b>	
LIM PROPERTY 250 8 <sup>TH</sup> STREET OAKLAND, CALIFORNIA	
AQUA SCIENCE ENGINEERS	FIGURE 1



**TABLE ONE**  
**Groundwater Elevation Data**  
**Lim Family Property**  
**250 8th Street**  
**Oakland, CA**

Well I.D.	Date of Measurement	Top of Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (msl)
MW-1	01/30/95	25.51	16.21		9.30
	04/12/95		15.71		9.80
	07/14/95		16.71		8.80
	10/17/95		17.72		7.79
	01/12/96		18.03		7.48
	07/25/96		16.82		8.69
	01/06/97		15.60		9.91
	07/08/97		17.31		8.20
	01/26/98		15.21		10.30
	07/23/98		15.38		10.13
	01/05/99		16.82		8.69
	07/13/99		15.89		9.62
	01/12/00		17.44		8.07
	04/24/00		16.37		9.14
	07/20/00		16.30		9.21
	10/24/00		17.25		8.26
	01/18/01		17.29		8.22
	04/05/01		15.88		9.63
	07/17/01	16.54		8.97	
	10/25/01	16.89		8.62	
	01/21/02	14.92		10.59	
	04/11/02	14.02		11.49	
	06/11/02	29.72	15.33		14.39
	09/17/02		15.96		13.76
	12/18/02		16.14		13.58
	03/25/03		16.16		13.56
	06/23/03		16.01		13.71
	09/26/03		16.57		13.15
	12/18/03		16.41		13.31
	03/12/04		14.64		15.08
	06/17/04		15.71		14.01
	09/17/04		16.35		13.37
12/17/04	16.10			13.62	
04/28/05	14.10			15.62	
07/19/05	15.94			13.78	
10/03/05	16.34			13.38	
12/06/05	16.21		13.51		

**TABLE ONE**  
**Groundwater Elevation Data**  
**Lim Family Property**  
**250 8th Street**  
**Oakland, CA**

Well I.D.	Date of Measurement	Top of Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (msl)
MW-2	01/30/95	23.99	15.02		8.97
	04/12/95		14.75		9.24
	07/14/95		16.02		7.97
	10/17/95		16.94		7.05
	01/12/96		17.05		6.94
	07/25/96		16.02		7.97
	01/06/97		14.34		9.65
	07/08/97		16.52		7.47
	01/26/98		14.10		9.89
	07/23/98		14.70		9.29
	01/05/99		16.01		7.98
	07/13/99		15.40		8.59
	01/12/00		16.76		7.23
	04/24/00		15.67		8.32
	07/20/00		15.70		8.29
	10/24/00		16.56		7.43
	01/18/01		16.47		7.52
	04/05/01	15.88		8.11	
	07/17/01	15.35		8.64	
	10/25/01	15.63		8.36	
	01/21/02	13.55		10.44	
	04/11/02	13.74		10.25	
	06/11/02	28.19	14.06		14.13
	09/17/02		14.67		13.52
	12/18/02		14.88		13.31
	03/25/03		15.11		13.08
	06/23/03		14.94		13.25
	09/26/03		15.49		12.70
	12/18/03		15.13		13.06
	03/12/04		13.50		14.69
	06/17/04		14.63		13.56
	09/17/04		15.19		13.00
	12/17/04		14.88		13.31
04/28/05	13.39			14.80	
07/19/05	15.27			12.92	
10/03/05	15.57			12.62	
12/06/05	15.35			12.84	



**TABLE ONE**  
**Groundwater Elevation Data**  
**Lim Family Property**  
**250 8th Street**  
**Oakland, CA**

Well I.D.	Date of Measurement	Top of Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (msl)
<b>MW-3</b>	01/12/00	24.25	16.68	0.01	7.58*
	04/24/00		15.58	0.15	8.79*
	07/20/00		16.01	0.41	8.57*
	10/24/00		16.95	0.21	7.47*
	01/18/01		16.63	0.21	7.79*
	04/05/01		15.16	0.23	9.27*
	07/17/01		15.92	0.39	8.64*
	10/25/01		16.26	0.38	8.29*
	01/21/02		14.08	0.16	10.30*
	04/11/02		14.59	0.54	10.09*
	06/11/02	28.58	15.16	0.90	14.14*
	09/17/02		16.04	1.24	13.53*
	10/01/02		16.14	1.23	13.42*
	10/25/02		15.80	0.60	13.26*
	11/12/02		15.87	0.47	13.09*
	12/18/02		15.42	0.47	13.54*
	03/25/03		16.11	1.14	13.38*
	06/23/03		16.58	1.86	13.49*
	09/26/03		16.11	0.66	13.00*
	12/18/03		15.83	0.59	13.22*
	03/12/04	14.51	1.21	15.04*	
	06/17/04	15.25	0.68	13.87*	
	09/17/04	16.14	0.96	13.21*	
	12/17/04	15.05	0.25	13.73*	
	01/13/05	13.40	0.45	15.54*	
	04/28/05	15.31	2.43	15.21*	
	07/19/05	16.29	1.67	13.63*	
	10/03/05	16.10	1.47	13.66*	
	12/06/05	15.04	1.17	14.48*	

**TABLE ONE**  
**Groundwater Elevation Data**  
**Lim Family Property**  
**250 8th Street**  
**Oakland, CA**

Well I.D.	Date of Measurement	Top of Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (msl)
MW-4	01/12/00	23.71	17.24		6.47
	04/24/00		16.18		7.53
	07/20/00		16.18		7.53
	10/24/00		17.03		6.68
	01/18/01		16.87		6.84
	04/05/01		15.28		8.43
	07/17/01		15.92		7.79
	10/25/01		16.23		7.48
	01/21/01		14.14		9.57
	04/11/02		14.43		9.28
	06/11/02	28.61	14.72		13.89
	09/17/02		15.29		13.32
	12/18/02		15.20		13.41
	03/25/03		15.53		13.08
	06/23/03		15.35		13.26
	09/26/03		15.91		12.70
	12/18/03		15.63		12.98
	03/12/04		13.88		14.73
	06/17/04		15.03		13.58
	09/17/04		15.61		13.00
	12/17/04		15.32		13.29
	04/28/05		13.82		14.79
	07/19/05		15.44		13.17
10/03/05	15.91		12.70		
12/06/05	15.71		12.90		

**TABLE ONE**  
**Groundwater Elevation Data**  
**Lim Family Property**  
**250 8th Street**  
**Oakland, CA**

Well I.D.	Date of Measurement	Top of Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (msl)	
<b>MW-5</b>	06/11/02	28.40	14.23		14.17	
	09/17/02		14.80		13.60	
	12/18/02		15.08		13.32	
	03/25/03		15.31		13.09	
	06/23/03		15.16		13.24	
	09/26/03		15.72		12.68	
	12/18/03		15.47		12.93	
	03/12/04		13.44		14.96	
	06/17/04		14.90		13.50	
	09/17/04		15.45		12.95	
	12/17/04		15.12		13.28	
	04/28/05		13.63		14.77	
	07/19/05		15.67		12.73	
	10/03/05		15.81		12.59	
<b>12/06/05</b>	<b>15.60</b>		<b>12.80</b>			
<b>MW-6</b>	06/11/02	29.20	14.95		14.25	
	09/17/02		15.47		13.73	
	12/18/02		15.43		13.77	
	03/25/03		15.67		13.53	
	06/23/03		15.48		13.72	
	09/26/03		NOT MEASURED - SOUNDER MALFUNCTION			
	12/18/03		15.79		13.41	
	03/12/04		14.04		15.16	
	06/17/04		15.13		14.07	
	09/17/04		15.74		13.46	
	12/17/04		15.54		13.66	
	04/28/05		13.91		15.29	
	07/19/05		15.30		13.90	
	10/03/05		15.35		13.85	
<b>12/06/05</b>	<b>15.69</b>		<b>13.51</b>			

**TABLE ONE**  
**Groundwater Elevation Data**  
**Lim Family Property**  
**250 8th Street**  
**Oakland, CA**

Well I.D.	Date of Measurement	Top of Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (msl)
<b>MW-7</b>	06/11/02	28.95	15.19		13.76
	09/17/02		15.73		13.22
	12/18/02	NOT MEASURED - CAR PARKED OVER WELL			
	03/25/03		15.96		12.99
	06/23/03		15.75		13.20
	09/26/03		16.29		12.66
	12/18/03		16.03		12.92
	03/12/04		14.28		14.67
	06/17/04		15.42		13.53
	09/17/04		16.02		12.93
	12/17/04		15.45		13.50
	04/28/05		14.15		14.80
	07/19/05		15.30		13.65
	10/03/05		16.25		12.70
<b>12/06/05</b>			<b>16.05</b>		<b>12.90</b>

Notes:

\* = Adjusted for the presence of free-floating oil by the equation: Top of Casing Elevation - Depth to Water + (0.8 x Floating Hydrocarbon Thickness) = Groundwater Elevation (Adjusted).

Top of casing elevations resurveyed by Mid Coast Engineers on 6/27/02 and 7/11/02.

**TABLE TWO**  
**Summary of Chemical Analysis of Groundwater Samples**  
**Petroleum Hydrocarbon Concentrations**  
All results are in parts per billion

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
<b>MW-1</b>							
01/30/95	740	200	3	5	1	4	—
04/12/95	400	500	< 0.5	< 0.5	3	< 2	--
07/14/95	520	400	1	< 0.5	2	3	--
10/17/95	400	200	0.5	1	3	< 2	--
01/12/96	120	890	< 0.5	< 0.5	< 0.5	< 1.0	< 2.0
07/08/96	320	300	0.52	2.7	1.2	2.3	< 5.0
01/06/97	110	75	< 0.5	0.68	< 0.5	< 0.5	< 5.0
07/08/97	380	290	< 0.5	1.5	1.4	1.9	< 5.0
01/26/98	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
07/23/98	190	< 50	0.54	2.8	2	1.8	< 5.0
01/05/99	200	< 50	1.8	1.6	3.3	< 0.5	< 5.0
07/13/99	340	< 50	< 0.5	< 0.5	2.6	< 0.5	< 5.0
01/12/00	300	1,000	22	36	5.5	24	< 5.0
04/24/00	360	280*	< 0.5	< 0.5	< 0.5	2.1	< 5.0
07/20/00	290	150*	1.8	< 0.5	< 0.5	< 0.5	< 5.0
10/24/00	170**	280*	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
01/18/01	170**	150*	< 0.5	< 0.5	< 0.5	2.1	< 5.0
04/05/01	350**	190*	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
07/17/01	310	570	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
10/25/01	250	260	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
01/22/02	200	250	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
04/11/02	260	300	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
06/11/02	270	330	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
09/17/02	320	1,700	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
12/18/02	170	320	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
03/25/03	320	< 500	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
06/23/03	240	310	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
09/26/03	110	300	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
12/18/03	150	340	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
03/12/04	220	510	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
06/17/04	250	490	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
09/17/04	110	—	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
11/10/04***	180	400	0.68	< 0.5	1.7	< 0.5	< 5.0
12/17/04	77	130	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/28/05	250	190	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/19/05	340	na	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/03/05	170	< 100	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
12/06/05	140	67	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0

**TABLE TWO**  
**Summary of Chemical Analysis of Groundwater Samples**  
**Petroleum Hydrocarbon Concentrations**  
 All results are in parts per billion

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
<b>MW-2</b>							
01/30/95	88,000	800	19,000	18,000	2,400	10,000	--
04/12/95	110,000	990	21,000	28,000	2,800	14,000	--
07/14/95	120,000	5,000	20,000	25,000	3,200	15,000	--
10/17/95	190,000	4,000	15,000	26,000	4,900	23,000	--
01/12/96	32,000	2,600	10,000	8,000	1,100	4,800	< 2
07/08/96	110,000	2,500	20,000	18,000	2,500	12,000	< 500
01/06/97	230,000	37,000	11,000	19,000	4,300	20,000	< 1,200
07/08/97	91,000	35,000	16,000	20,000	2,700	13,000	< 1,000
01/26/98	50,000	11,000	12,000	12,000	1,600	6,700	< 250
07/23/98	50,000	8,100#	11,000	8,300	1,800	7,000	1,100
01/05/99	50,000	7,600#	12,000	12,000	2,300	9,600	1,300
07/13/99	73,000	8,500	11,000	13,000	2,200	9,800	< 500
01/12/00	63,000	11,000	10,000	12,000	1,800	7,800	< 500
04/24/00	76,000	23,000*	7,100	14,000	2,000	9,400	< 500
07/20/00	68,000	5,300#	11,000	14,000	2,300	11,000	< 1,000
10/24/00	48,000	6,400*	11,000	9,400	1,500	7,300	< 500
01/18/01	37,000	4,600*	6,900	5,600	1,200	5,300	< 500
04/05/01	59,000	4,600*	7,100	9,800	1,600	7,600	< 500
07/17/01	90,000	< 10,000	9,200	14,000	2,700	11,000	< 50
10/25/01	79,000	< 3,800	9,200	14,000	2,400	11,000	< 50
01/22/02	76,000	< 2,300	7,000	13,000	2,200	9,600	< 50
04/11/02	76,000	< 1,500	7,800	11,000	2,900	12,000	< 50
06/11/02	72,000	< 2,500	7,300	9,600	2,500	12,000	< 50
09/17/02	52,000	< 3,000	5,000	5,400	2,100	9,100	< 20
12/18/02	46,000	< 6,000	2,900	3,000	1,800	7,600	22
03/25/03	87,000	< 8,000	7,900	9,300	2,900	12,000	< 50
06/23/03	46,000	< 3,000	7,800	4,000	1,900	6,600	< 50
09/26/03	52,000	< 3,000	9,100	3,500	1,300	5,000	< 50
12/18/03	61,000	< 4,000	13,000	3,500	1,600	5,600	< 20
03/12/04	53,000	< 4,000	9,100	3,500	1,700	5,700	< 25
06/17/04	59,000	< 3,000	7,100	4,000	1,700	7,300	< 25
09/17/04	33,000	--	9,800	1,200	1,300	4,000	< 20
11/10/04***	44,000	3,600	13,000	4,400	1,600	6,000	< 1000
12/17/04	54,000	< 3,000	7,900	2,200	1,700	3,900	< 15
04/28/05	81,000	< 3,000	7,000	6,000	2,100	8,700	< 15
07/19/05	59,000	na	7,900	4,400	1,900	7,000	< 15
10/03/05	34,000	< 800	7,800	810	1,000	2,800	< 15
12/06/05	26,000	< 800	6,100	940	770	2,000	< 15

**TABLE TWO**  
**Summary of Chemical Analysis of Groundwater Samples**  
**Petroleum Hydrocarbon Concentrations**  
 All results are in parts per billion

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
<b>MW-3</b>							
01/12/00	140,000	13,000*	22,000	19,000	2,400	11,000	< 500
04/24/00	240,000	700,000*	33,000/ 35,000	52,000/ 87,000	5,700/ 18,000	28,000/ 84,000	< 5,000
07/20/00	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS						
10/24/00	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS						
01/18/01	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS						
04/05/01	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS						
07/17/01	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS						
10/25/01	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS						
01/22/02	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS						
04/11/02	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS						
06/11/02	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS						
09/17/02	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS						
12/18/02	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS						
03/25/03	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS						
06/23/03	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS						
09/26/03	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS						
12/18/03	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS						
03/12/04	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS						
06/17/04	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS						
09/17/04	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS						
11/10/04	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS						
12/17/04	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS						
04/28/05	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS						
07/19/05	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS						
10/03/05	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS						
12/06/05	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS (1.17-feet)						

**TABLE TWO**  
 Summary of Chemical Analysis of Groundwater Samples  
 Petroleum Hydrocarbon Concentrations  
 All results are in parts per billion

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
<b>MW-4</b>							
01/12/00	99,000	7,900*	16,000	20,000	2,100	12,000	< 2,500
04/24/00	54,000	44,000*	3,400/ 4,500	13,000/ 20,000	1,800/ 2,800	8,800/ 14,000	< 1,300
07/20/00	8,000	3,500	9,200/ 11,000	20,000 22,000	2,500 3,400	12,000/ 13,000	< 1,000
10/24/00	98,000	8,000*	21,000	29,000	2,700	15,000	< 1,000
01/18/01	91,000	12,000	17,000/ 15,000	21,000/ 21,000	2,500/ 2,800	13,000/ 11,000	<1,000 <5,000
04/05/01	88,000	7,500*	6,900/ 3,200	18,000/ 9,000	2,500/ 1,300	12,000/ 6,400	< 1,000 < 500
07/17/01	95,000	< 3,000	8,000	16,000	2,900	11,000	49
10/25/01	89,000	< 2,200	9,300	18,000	2,400	12,000	66
01/22/02	80,000	< 2,300	4,600	15,000	2,500	11,000	< 50
04/11/02	90,000	< 900	6,600	18,000	2,800	12,000	55
06/25/02	110,000	< 3,000	10,000	20,000	2,900	13,000	< 100
09/17/02	110,000	< 3,000	9,600	21,000	2,800	13,000	< 100
12/18/02	97,000	< 4,000	8,000	20,000	2,600	12,000	< 50
03/25/03	97,000	< 7,500	7,600	22,000	2,500	12,000	< 100
06/23/03	100,000	< 3,000	9,600	22,000	3,300	15,000	< 100
09/26/03	110,000	< 4,000	9,300	17,000	2,100	10,000	< 50
12/18/03	110,000	< 2,000	8,900	19,000	2,500	12,000	< 25
03/12/04	96,000	< 4,000	6,500	18,000	2,700	12,000	< 40
06/17/04	110,000	< 4,000	10,000	20,000	2,900	13,000	< 50
09/17/04	78,000	--	9,300	15,000	2,400	11,000	<50
11/10/04***	87,000	4,300	15,000	21,000	3,000	16,000	< 1300
12/17/04	88,000	< 3,000	8,500	16,000	2,800	12,000	< 25
04/28/05	110,000	< 3,000	7,800	14,000	2,200	10,000	< 25
07/19/05	90,000	na	10,000	13,000	2,300	10,000	< 40
10/03/05	68,000	< 800	9,400	4,000	1,800	8,700	23
12/06/05	<b>81,000</b>	<b>&lt; 1,500</b>	<b>8,900</b>	<b>7,200</b>	<b>2,200</b>	<b>9,500</b>	<b>&lt; 20</b>
<b>MW-5</b>							
06/11/02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	28
09/17/02	< 50	110	< 0.5	< 0.5	< 0.5	< 0.5	4.8
12/18/02	< 50	140	< 0.5	< 0.5	< 0.5	< 0.5	1.8
03/25/03	< 50	130	< 0.5	< 0.5	< 0.5	< 0.5	7.4
06/23/03	< 50	390	< 0.5	< 0.5	< 0.5	< 0.5	17
09/26/03	< 50	700	< 0.5	< 0.5	< 0.5	< 0.5	21
12/18/03	< 50	550	< 0.5	< 0.5	< 0.5	< 0.5	16
03/12/04	< 50	490	< 0.5	< 0.5	< 0.5	< 0.5	9.1
06/17/04	< 50	510	< 0.5	< 0.5	< 0.5	< 0.5	9.8
09/17/04	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	5.5
11/10/04***	< 50	370	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
12/17/04	< 50	120	< 0.5	< 0.5	< 0.5	< 0.5	9.2
04/28/05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	2.2
07/19/05	< 50	na	< 0.5	< 0.5	< 0.5	< 0.5	6.1
10/03/05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	2.4
12/06/05	<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>



**TABLE TWO**  
**Summary of Chemical Analysis of Groundwater Samples**  
**Petroleum Hydrocarbon Concentrations**  
All results are in parts per billion

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
<b>MW-6</b>							
06/11/02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	1.2
09/17/02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	1.0
12/18/02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	0.90
03/25/03	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
06/23/03	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
09/26/03	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
12/18/03	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
03/12/04	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
06/17/04	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
09/17/04	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
11/10/04***	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
12/17/04	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
04/28/05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/19/05	< 50	na	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
10/03/05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
12/06/05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
<b>MW-7</b>							
06/25/02	38,000	< 2,000	890	5,100	1,200	5,200	< 20
09/17/02	26,000	< 2,000	590	3,600	880	4,000	< 20
12/18/02	NOT SAMPLED - CAR PARKED OVER WELL						
03/25/03	39,000	< 2,900	410	7,700	1,000	6,400	< 5.0
06/23/03	17,000	< 1,000	440	2,600	630	2,600	< 10
09/26/03	17,000	< 1,000	230	1,800	470	2,200	< 5.0
12/18/03	20,000	< 1,000	290	2,500	590	2,900	< 5.0
03/12/04	20,000	< 1,500	300	3,000	760	3,200	< 10
06/17/04	12,000	< 800	250	1,800	450	1,900	< 5.0
09/17/04	9,900	--	200	1,500	450	1,800	< 5.0
11/10/04***	20,000	1,900	550	4,200	920	4,000	< 500
12/17/04	14,000	< 800	220	1,700	530	2,000	< 3.0
04/28/05	13,000	< 300	84	1,000	660	2,200	< 2.5
07/19/05	16,000	na	170	1,800	540	2,200	< 2.5
10/03/05	7,400	< 200	140	710	350	1,100	< 0.50
12/06/05	<b>22,000</b>	<b>&lt; 600</b>	<b>240</b>	<b>2,300</b>	<b>800</b>	<b>3,400</b>	<b>&lt; 5.0</b>
ESL	500	640	46	130	290	13	1,800

**Notes:**

\* = Hydrocarbons reported are in the early diesel range, and do not match the laboratory standard.

\*\* = Hydrocarbons reported do not match the laboratory gasoline standard.

\*\*\* = Grab sample - Not purged

# = Estimated concentration reported due to overlapping fuel patterns.

/ = Results separated by a slash represent results from two different laboratory methods (8020/8260).

na = not analyzed

Non-detectable concentrations noted by the less than sign (<) followed by the detection limit.

Most recent data in bold.

ESL = Environmental screening levels presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (July 2003)" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region.

**TABLE THREE**  
**Groundwater Analytical Results**  
**Oil & Grease and Volatile Organic Compounds**  
 All results are in parts per billion

Date Sampled & Compound Analyzed	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
<u>7/8/97</u>							
Hydrocarbon Oil and Grease	-	< 1,000	-	-	-	-	-
Tetrachloroethane (PCE)	0.9	< 0.5	-	-	-	-	-
Other VOCs	< 0.5 - < 3	< 0.5 - < 3	-	-	-	-	-
<u>1/26/98</u>							
Hydrocarbon Oil and Grease	-	< 1,000	-	-	-	-	-
Trichloroethene	0.7	< 5.0	-	-	-	-	-
Tetrachloroethane	10	< 5.0	-	-	-	-	-
1,2-Dichloroethane	< 0.5	11	-	-	-	-	-
Other VOCs	< 0.5 - < 50	< 0.5 - < 50	-	-	-	-	-
<u>7/23/98</u>							
Hydrocarbon Oil and Grease	-	< 1,000	-	-	-	-	-
Tetrachloroethane	4	4.6	-	-	-	-	-
1,2-Dichloroethane	< 2	9.9	-	-	-	-	-
Other VOCs	< 2 - < 10	< 0.5 - < 5.0	-	-	-	-	-
<u>1/5/99</u>							
Hydrocarbon Oil and Grease	-	< 1,000	-	-	-	-	-
Tetrachloroethane	5.1	< 50	-	-	-	-	-
Trichloroethene	0.52	< 50	-	-	-	-	-
1,1,2,2-Tetrachloroethane	0.58	< 50	-	-	-	-	-
Chloroform	8.2	< 50	-	-	-	-	-
Other VOCs	< 0.5 - < 5	< 50 - < 500	-	-	-	-	-
<u>7/13/99</u>							
Hydrocarbon Oil and Grease	-	< 1,000	-	-	-	-	-
Tetrachloroethane	1.5	0.68	-	-	-	-	-
Chloroform	4.6	< 50	-	-	-	-	-
1,2-Dichloroethane	< 0.50	7.7	-	-	-	-	-
Other VOCs	< 0.5 - < 5	< 0.5 - < 500	-	-	-	-	-
<u>1/12/00</u>							
Hydrocarbon Oil and Grease	-	< 1,000	< 1,000	< 1,000	-	-	-
Tetrachloroethane	0.8	< 1.0	< 100	< 50	-	-	-
Chloroform	3.2	< 1.0	< 100	< 50	-	-	-
1,2-Dichloroethane	< 0.50	8.8	120	140	-	-	-
Acetone	-	-	25,000	6,400	-	-	-
Naphthalene	-	-	550	540	-	-	-
Isopropylbenzene	-	-	120	89	-	-	-
Other VOCs	< 0.5 - < 5.0	< 1.0 - < 4.0	< 100 - < 10,000	< 50 - < 5,000	-	-	-
<u>4/24/00</u>							
Hydrocarbon Oil and Grease	-	< 1,000	4,100	< 1,000	-	-	-
1,2-Dichloroethane	< 0.5	5.9	< 1,000	< 250	-	-	-
Naphthalene	-	-	3,800	590	-	-	-
Isopropylbenzene	-	-	1,200	< 250	-	-	-
Other VOCs	< 0.5 - < 5.0	< 5.0 - < 20	1,000 - < 100,000	< 250 - < 25,000	-	-	-
<u>7/20/00</u>							
Hydrocarbon Oil and Grease	-	< 1,000	-	< 1,000	-	-	-
Tetrachloroethane	0.59	< 5.0	FREE	< 200	-	-	-
Chloroform	2.1	< 5.0	PRODUCT	< 200	-	-	-
1,2-Dichloroethane	< 0.5	6.7	---	< 200	-	-	-
Acetone	-	-	NOT	< 20,000	-	-	-
Naphthalene	-	-	SAMPLED	730	-	-	-
Other VOCs	< 0.5 - < 20	< 5.0 - < 20	-	< 250 - < 20,000	-	-	-
<u>10/24/00</u>							
Hydrocarbon Oil and Grease	-	< 1,000	FREE	< 1,000	-	-	-
Tetrachloroethane	< 0.5	< 5.0	---	< 250	-	-	-
Chloroform	1.0	< 5.0	NOT	< 250	-	-	-
Other VOCs	< 0.5 - < 20	< 5.0 - < 20	SAMPLED	< 250 - < 25,000	-	-	-
<u>1/18/01</u>							
Hydrocarbon Oil and Grease	-	2,100	FREE	1,300	-	-	-
Tetrachloroethane	1.3	< 5.0	---	< 250	-	-	-
Chloroform	6.4	< 5.0	NOT	< 250	-	-	-
Other VOCs	< 0.5 - < 20	< 5.0 - < 20	SAMPLED	< 250 - < 25,000	-	-	-

**TABLE THREE**  
**Groundwater Analytical Results**  
**Oil & Grease and Volatile Organic Compounds**  
 All results are in parts per billion

Date Sampled & Compound Analyzed	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
<u>4/5/01</u>							
Hydrocarbon Oil and Grease	-	< 1.0	FREE	1,100.0	-	-	-
Tetrachloroethene	< 0.5	1.1	PRODUCT	< 50	-	-	-
1,2 dichloroethane	< 0.5	4.6	---	< 50	-	-	-
Trichloroethene	< 0.5	0.58	NOT	< 50	-	-	-
Naphthalene	-	-	---	320	-	-	-
Other VOCs	< 0.5 - < 2.0	< 5.0 - < 20	SAMPLED	< 50 - < 5,000	-	-	-
<u>7/17/01</u>							
Hydrocarbon Oil and Grease	-	< 500	FREE	< 500	-	-	-
Tetrachloroethene	-	-	PRODUCT	-	-	-	-
1,2 dichloroethane	< 0.5	< 50	---	69.0	-	-	-
Trichloroethene	-	-	NOT	-	-	-	-
Naphthalene	-	-	---	-	-	-	-
Other VOCs	-	-	SAMPLED	-	-	-	-
<u>10/25/01</u>							
Hydrocarbon Oil and Grease	-	< 5,000	FREE	< 5,000	-	-	-
1,2 dichloroethane	-	< 50	PRODUCT	72	-	-	-
1,2 dibromoethane	-	< 50	NOT	< 50	-	-	-
Other VOCs	-	-	SAMPLED	---	-	-	-
<u>1/22/02</u>							
Hydrocarbon Oil and Grease	-	< 5,000	FREE	< 5,000	-	-	-
1,2 dichloroethane	-	< 50	PRODUCT	< 50	-	-	-
1,2 dibromoethane	-	< 50	NOT	< 50	-	-	-
Other VOCs	-	-	SAMPLED	---	-	-	-
<u>6/11/02</u>							
Oil and Grease	-	1,100	FREE	-	< 1,000	< 1,000	-
1,2 dichloroethane	-	< 50	PRODUCT	-	< 0.5	< 0.5	-
1,2 dibromoethane	-	< 50	NOT	-	< 0.5	< 0.5	-
Other VOCs	-	-	SAMPLED	-	-	-	-
<u>6/25/02</u>							
Oil and Grease	-	-	FREE	1,400	-	-	< 1,000
1,2 dichloroethane	-	-	PRODUCT	< 100	-	-	< 20
1,2 dibromoethane	-	-	NOT	< 100	-	-	< 20
Other VOCs	-	-	SAMPLED	-	-	-	-
<u>9/17/02</u>							
Oil and Grease	-	< 1,000	FREE	< 1,000	< 1,000	< 1,000	< 1,000
1,2 dichloroethane	-	< 20	PRODUCT	< 100	< 0.50	< 0.50	< 20
1,2 dibromoethane	-	< 20	NOT	< 100	< 0.50	< 0.50	< 20
Other VOCs	-	-	SAMPLED	-	-	-	-
<u>12/18/02</u>							
Oil and Grease	-	1,200	FREE	< 1,000	< 1,000	< 1,000	CAR PARKED
1,2 dichloroethane	-	< 10	PRODUCT	< 50	< 0.50	< 0.50	OVER WELL
1,2 dibromoethane	-	< 10	NOT	< 50	< 0.50	< 0.50	NOT
Other VOCs	-	-	SAMPLED	-	-	-	SAMPLED
<u>3/25/03</u>							
Oil and Grease	-	< 1,000	FREE	< 1,000	< 1,000	< 1,000	< 1,000
1,2 dichloroethane	-	< 50	PRODUCT	< 100	< 0.50	< 0.50	< 2.5
1,2 dibromoethane	-	< 50	NOT	< 100	< 0.50	< 0.50	< 2.5
Other VOCs	-	-	SAMPLED	-	-	-	-
<u>6/23/03</u>							
Oil and Grease	-	< 1,000	FREE	< 1,000	< 1,000	< 1,000	< 1,000
1,2 dichloroethane	< 0.5	< 50	PRODUCT	< 100	< 0.50	< 0.50	< 10
1,2 dibromoethane	< 0.5	< 50	NOT	< 100	< 0.50	< 0.50	< 10
Other VOCs	-	-	SAMPLED	-	-	-	-

**TABLE THREE**  
**Groundwater Analytical Results**  
**Oil & Grease and Volatile Organic Compounds**  
 All results are in parts per billion

Date Sampled & Compound Analyzed	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
<u>9/26/03</u>							
Oil and Grease	-	< 1,000	FREE	< 1,000	< 1,000	< 1,000	< 1,000
1,2 dichloroethane	< 0.5	< 50	PRODUCT	87	< 0.50	< 0.50	< 5.0
1,2 dibromoethane	< 0.5	< 50	NOT	< 50	< 0.50	< 0.50	< 5.0
Other VOCs	-	-	SAMPLED	-	-	-	-
<u>12/18/03</u>							
Oil and Grease	-	-	FREE	-	-	-	-
1,2 dichloroethane	< 0.5	< 20	PRODUCT	46	< 0.50	< 0.50	< 5.0
1,2 dibromoethane	< 0.5	< 20	NOT	< 25	< 0.50	< 0.50	< 5.0
Other VOCs	-	-	SAMPLED	-	-	-	-
<u>3/12/04</u>							
Oil and Grease	-	-	FREE	-	-	-	-
1,2 dichloroethane	< 0.5	< 25	PRODUCT	< 40	< 0.50	< 0.50	< 10
1,2 dibromoethane	< 0.5	< 25	NOT	< 40	< 0.50	< 0.50	< 10
Other VOCs	-	-	SAMPLED	-	-	-	-
<u>6/17/04</u>							
Oil and Grease	-	-	FREE	-	-	-	-
1,2 dichloroethane	< 0.5	< 25	PRODUCT	93	< 0.50	< 0.50	< 5.0
1,2 dibromoethane	< 0.5	< 25	NOT	< 50	< 0.50	< 0.50	< 5.0
Other VOCs	-	-	SAMPLED	-	-	-	-
<u>9/17/04</u>							
Oil and Grease	-	-	FREE	-	-	-	-
1,2 dichloroethane	-	-	PRODUCT	-	-	-	-
1,2 dibromoethane	-	-	NOT	-	-	-	-
Other VOCs	-	-	SAMPLED	-	-	-	-
<u>12/17/04</u>							
Oil and Grease	-	-	FREE	-	-	-	-
1,2 dichloroethane	< 0.5	< 15	PRODUCT	53	< 0.50	< 0.50	< 3.0
1,2 dibromoethane	< 0.5	< 15	NOT	< 25	< 0.50	< 0.50	< 3.0
Other VOCs	-	-	SAMPLED	-	-	-	-
<u>4/28/05</u>							
Oil and Grease	-	-	FREE	-	-	-	-
1,2 dichloroethane	< 0.5	< 15	PRODUCT	46	< 0.50	< 0.50	< 2.5
1,2 dibromoethane	< 0.5	< 15	NOT	< 25	< 0.50	< 0.50	< 2.5
Other VOCs	DIPE @ 0.67	TBA @ 90	SAMPLED	-	-	-	-
<u>7/19/05</u>							
Oil and Grease	-	-	FREE	-	-	-	-
1,2 dichloroethane	< 0.5	< 15	PRODUCT	73	< 0.50	< 0.50	< 2.5
1,2 dibromoethane	< 0.5	< 15	NOT	< 40	< 0.50	< 0.50	< 2.5
Other VOCs	DIPE @ 0.76	TBA @ 77	SAMPLED	-	DIPE @ 2.1	-	-
<u>10/3/05</u>							
Oil and Grease	-	-	-	-	-	-	-
1,2 dichloroethane	< 0.5	< 15	FREE	62	< 0.50	< 0.50	< 0.50
1,2 dibromoethane	< 0.5	< 15	PRODUCT	< 20	< 0.50	< 0.50	< 0.50
Other VOCs	< 0.5	< 15	NOT	DIPE @ 23	DIPE @ 1.7	< 0.50	< 0.50
TBA	< 5.0	< 70	SAMPLED	< 5.0	< 5.0	< 5.0	< 5.0

# **APPENDIX A**

## Well Sampling Field Log

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME <u>LIM</u>	
JOB NUMBER <u>2808</u>	DATE OF SAMPLING <u>12-6</u>
WELL ID. <u>mw-1</u>	SAMPLER <u>1</u>
TOTAL DEPTH OF WELL <u>26.8</u>	WELL DIAMETER <u>2</u>
DEPTH TO WATER PRIOR TO PURGING <u>16.21</u>	
PRODUCT THICKNESS <u>∅</u>	
DEPTH OF WELL CASING IN WATER <u>10.59</u>	
NUMBER OF GALLONS PER WELL CASING VOLUME <u>1.8</u>	
NUMBER OF WELL CASING VOLUMES TO BE REMOVE <u>3</u>	
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING <u>5.4</u>	
EQUIPMENT USED TO PURGE WELL <u>disposable bailer</u>	
TIME EVACUATION STARTED <u>1035</u>	TIME EVACUATION COMPLETED <u>1148</u>
TIME SAMPLES WERE COLLECTED <u>1150</u>	
DID WELL GO DRY <u>no</u>	AFTER HOW MANY GALLONS <u>n/a</u>
VOLUME OF GROUNDWATER PURGED <u>6</u>	
SAMPLING DEVICE <u>disposable bailer</u>	
SAMPLE COLOR <u>clear</u>	ODOR/SEDIMENT <u>no / silt</u>

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	<u>58.0</u>	<u>6.88</u>	<u>400</u>
2	<u>63.9</u>	<u>6.89</u>	<u>782</u>
3	<u>64.1</u>	<u>7.02</u>	<u>775</u>

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
<u>mw-1</u>	<u>5</u>	<u>40ml VOA</u>		<u>Y</u>

1 Gall drawn on site

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME LIM

JOB NUMBER 2808 DATE OF SAMPLING 12-6-05

WELL ID. ~~00001~~ MW-2 SAMPLER dr

TOTAL DEPTH OF WELL ~~20.8~~ 26.8 WELL DIAMETER 2

DEPTH TO WATER PRIOR TO PURGING 15.35

PRODUCT THICKNESS 0

DEPTH OF WELL CASING IN WATER 11.45

NUMBER OF GALLONS PER WELL CASING VOLUME 1.9

NUMBER OF WELL CASING VOLUMES TO BE REMOVE 3

REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING 5.7

EQUIPMENT USED TO PURGE WELL disposable bailer

TIME EVACUATION STARTED 7:40 TIME EVACUATION COMPLETED 7:52

TIME SAMPLES WERE COLLECTED 7:54

DID WELL GO DRY no AFTER HOW MANY GALLONS n/a

VOLUME OF GROUNDWATER PURGED 6

SAMPLING DEVICE disposable bailer

SAMPLE COLOR clear / slight green ODOR/SEDIMENT strong h.c. / 2.5

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	61.3	6.85	744
2	63.4	6.63	753
3	64.1	6.60	755

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-2	5	40ml VOA		Y

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME <u>LIM</u>	
JOB NUMBER <u>2808</u>	DATE OF SAMPLING <u>12-6-05</u>
WELL ID. <u>MW-3</u>	SAMPLER <u>dr</u>
TOTAL DEPTH OF WELL <u>00.</u>	WELL DIAMETER <u>2</u>
DEPTH TO WATER PRIOR TO PURGING <u>15.04</u>	<u>(16.21)</u>
PRODUCT THICKNESS <u>1.17</u>	
DEPTH OF WELL CASING IN WATER	
NUMBER OF GALLONS PER WELL CASING VOLUME	
NUMBER OF WELL CASING VOLUMES TO BE REMOVED <u>3</u>	
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	
EQUIPMENT USED TO PURGE WELL	<u>disposable bailer</u>
TIME EVACUATION STARTED	TIME EVACUATION COMPLETED
TIME SAMPLES WERE COLLECTED	
DID WELL GO DRY	AFTER HOW MANY GALLONS
VOLUME OF GROUNDWATER PURGED	
SAMPLING DEVICE	<u>disposable bailer</u>
SAMPLE COLOR	ODOR/SEDIMENT

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1			
2			
3			

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
	5	40ml VOA		Y



# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME <u>U1M</u>	
JOB NUMBER <u>2808</u>	DATE OF SAMPLING <u>12-6-05</u>
WELL ID. <u>MW-4</u>	SAMPLER
TOTAL DEPTH OF WELL <u>21.8</u>	WELL DIAMETER
DEPTH TO WATER PRIOR TO PURGING <u>15.71</u>	
PRODUCT THICKNESS <u>Ø</u>	
DEPTH OF WELL CASING IN WATER <u>6.1</u>	
NUMBER OF GALLONS PER WELL CASING VOLUME <u>1.0</u>	
NUMBER OF WELL CASING VOLUMES TO BE REMOVE <u>3</u>	
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING <u>3</u>	
EQUIPMENT USED TO PURGE WELL <u>disposable bailer</u>	
TIME EVACUATION STARTED <u>8:55</u>	TIME EVACUATION COMPLETED <u>9:12</u>
TIME SAMPLES WERE COLLECTED <u>9:14</u>	
DID WELL GO DRY <u>no</u>	AFTER HOW MANY GALLONS <u>n/a</u>
VOLUME OF GROUNDWATER PURGED <u>3.5</u>	
SAMPLING DEVICE <u>disposable bailer</u>	
SAMPLE COLOR <u>clear</u>	ODOR/SEDIMENT <u>W/C</u>

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	<u>59.0</u>	<u>7.09</u>	<u>621</u>
2	<u>62.1</u>	<u>6.77</u>	<u>680</u>
3	<u>62.3</u>	<u>6.70</u>	<u>689</u>

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
<u>MW-4</u>	<u>5</u>	<u>40ml VOA</u>		<u>Y</u>

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME	LIM		
JOB NUMBER	2808	DATE OF SAMPLING	11-6-05
WELL ID.	MW-5	SAMPLER	AV
TOTAL DEPTH OF WELL	29.6	WELL DIAMETER	2
DEPTH TO WATER PRIOR TO PURGING	15.60		
PRODUCT THICKNESS			
DEPTH OF WELL CASING IN WATER	14		
NUMBER OF GALLONS PER WELL CASING VOLUME	2.4		
NUMBER OF WELL CASING VOLUMES TO BE REMOVE	3		
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING	7.2		
EQUIPMENT USED TO PURGE WELL	disposable bailer		
TIME EVACUATION STARTED	7:59	TIME EVACUATION COMPLETED	8:20
TIME SAMPLES WERE COLLECTED	8:22		
DID WELL GO DRY	no	AFTER HOW MANY GALLONS	no
VOLUME OF GROUNDWATER PURGED			
SAMPLING DEVICE	disposable bailer		
SAMPLE COLOR	clear	ODOR/SEDIMENT	no/silt

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	58.2	6.84	582
2	61.3	6.77	611
3	61.7	6.20	615

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
MW-5	5	40ml VOA		Y

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME <u>L100</u>	
JOB NUMBER <u>2808</u>	DATE OF SAMPLING <u>12-6-05</u>
WELL ID. <u>MW-6</u>	SAMPLER <u>dc</u>
TOTAL DEPTH OF WELL <u>29.5</u>	WELL DIAMETER <u>2</u>
DEPTH TO WATER PRIOR TO PURGING <u>15.49</u>	
PRODUCT THICKNESS <u>0</u>	
DEPTH OF WELL CASING IN WATER <u>13.81</u>	
NUMBER OF GALLONS PER WELL CASING VOLUME <u>2.3</u>	
NUMBER OF WELL CASING VOLUMES TO BE REMOVED <u>3</u>	
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING <u>4.9</u>	
EQUIPMENT USED TO PURGE WELL <u>disposable bailer</u>	
TIME EVACUATION STARTED <u>1000</u>	TIME EVACUATION COMPLETED <u>1020</u>
TIME SAMPLES WERE COLLECTED <u>1021</u>	
DID WELL GO DRY <u>no</u>	AFTER HOW MANY GALLONS <u>no</u>
VOLUME OF GROUNDWATER PURGED <u>5</u>	
SAMPLING DEVICE <u>disposable bailer</u>	
SAMPLE COLOR <u>clear</u>	ODOR/SEDIMENT <u>no / no</u>

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	<u>64.7</u>	<u>6.87</u>	<u>228</u>
2	<u>65.0</u>	<u>6.78</u>	<u>226</u>
3	<u>66.2</u>	<u>6.92</u>	<u>225</u>

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
<u>MW-6</u>	<u>5</u>	<u>40ml VOA</u>		<u>Y</u>

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME <u>L101</u>	
JOB NUMBER <u>2808</u>	DATE OF SAMPLING <u>12-6</u>
WELL ID. <u>MW-7</u>	SAMPLER <u>dr</u>
TOTAL DEPTH OF WELL <u>29.7</u>	WELL DIAMETER <u>2</u>
DEPTH TO WATER PRIOR TO PURGING <u>16.05</u>	
PRODUCT THICKNESS <u>0</u>	
DEPTH OF WELL CASING IN WATER <u>13.65</u>	
NUMBER OF GALLONS PER WELL CASING VOLUME <u>2.3</u>	
NUMBER OF WELL CASING VOLUMES TO BE REMOVED <u>3</u>	
REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING <u>6.9</u>	
EQUIPMENT USED TO PURGE WELL <u>disposable bailer</u>	
TIME EVACUATION STARTED <u>9:30</u>	TIME EVACUATION COMPLETED <u>9:45</u>
TIME SAMPLES WERE COLLECTED <u>9:49</u>	
DID WELL GO DRY <u>no</u>	AFTER HOW MANY GALLONS <u>/</u>
VOLUME OF GROUNDWATER PURGED <u>7.0</u>	
SAMPLING DEVICE <u>disposable bailer</u>	
SAMPLE COLOR <u>clear</u>	ODOR/SEDIMENT <u>h2/ silt</u>

### CHEMICAL DATA

VOLUME PURGED	TEMPERATURE	PH	CONDUCTIVITY
1	<u>51.5</u>	<u>7.08</u>	<u>409</u>
2	<u>64.0</u>	<u>6.87</u>	<u>387</u>
3	<u>61.4</u>	<u>6.85</u>	<u>384</u>

### SAMPLES COLLECTED

SAMPLE	# OF CONTAINERS	SIZE AND TYPE OF CONTAINER	ANALYSIS	PRESERVED
<u>MW-7</u>	<u>5</u>	<u>40ml VOA</u>		<u>Y</u>

## **APPENDIX B**

Certified Analytical Report  
and  
Chain of Custody Documentation



Report Number : 47398

Date : 12/19/2005

David Allen  
Aqua Science Engineers, Inc.  
208 West El Pintado Rd.  
Danville, CA 94526

Subject : 6 Water Samples  
Project Name : LIM  
Project Number : 2808

Dear Mr. Allen,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Kiff".

Joel Kiff

Subject : 6 Water Samples  
Project Name : LIM  
Project Number : 2808

## Case Narrative

The Method Reporting Limit for TPH as Diesel is increased due to interference from Gasoline-Range Hydrocarbons for samples MW-2, MW-4 and MW-7.

Matrix Spike/Matrix Spike Duplicate Results associated with samples MW-2, MW-4 for the analyte Benzene were affected by the analyte concentrations already present in the un-spiked sample.

Approved By: 

Jde Kiff

Project Name : **LIM**

Project Number : **2808**

Sample : **MW-1**

Matrix : Water

Lab Number : 47398-01

Sample Date :12/6/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	12/17/2005
<b>Toluene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	12/17/2005
<b>Ethylbenzene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	12/17/2005
<b>Total Xylenes</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	12/17/2005
<b>Methyl-t-butyl ether (MTBE)</b>	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	12/17/2005
<b>TPH as Gasoline</b>	<b>140</b>	50	ug/L	EPA 8260B	12/17/2005
Toluene - d8 (Surr)	99.5		% Recovery	EPA 8260B	12/17/2005
4-Bromofluorobenzene (Surr)	96.7		% Recovery	EPA 8260B	12/17/2005
<b>TPH as Diesel (Silica Gel)</b>	<b>67</b>	50	ug/L	M EPA 8015	12/14/2005
Octacosane (Diesel Surrogate)	93.6		% Recovery	M EPA 8015	12/14/2005

Sample : **MW-2**

Matrix : Water

Lab Number : 47398-02

Sample Date :12/6/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>6100</b>	15	ug/L	EPA 8260B	12/16/2005
<b>Toluene</b>	<b>940</b>	15	ug/L	EPA 8260B	12/16/2005
<b>Ethylbenzene</b>	<b>770</b>	15	ug/L	EPA 8260B	12/16/2005
<b>Total Xylenes</b>	<b>2000</b>	15	ug/L	EPA 8260B	12/16/2005
<b>Methyl-t-butyl ether (MTBE)</b>	<b>&lt; 15</b>	15	ug/L	EPA 8260B	12/16/2005
<b>TPH as Gasoline</b>	<b>26000</b>	1500	ug/L	EPA 8260B	12/16/2005
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	12/16/2005
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	12/16/2005
<b>TPH as Diesel (Silica Gel)</b>	<b>&lt; 800</b>	800	ug/L	M EPA 8015	12/14/2005
Octacosane (Diesel Surrogate)	93.0		% Recovery	M EPA 8015	12/14/2005

Approved By:

Joel Kiff



Project Name : **LIM**

Project Number : **2808**

Sample : **MW-4**

Matrix : Water

Lab Number : 47398-03

Sample Date :12/6/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>8900</b>	20	ug/L	EPA 8260B	12/16/2005
<b>Toluene</b>	<b>7200</b>	20	ug/L	EPA 8260B	12/16/2005
<b>Ethylbenzene</b>	<b>2200</b>	20	ug/L	EPA 8260B	12/16/2005
<b>Total Xylenes</b>	<b>9500</b>	20	ug/L	EPA 8260B	12/16/2005
<b>Methyl-t-butyl ether (MTBE)</b>	<b>&lt; 20</b>	20	ug/L	EPA 8260B	12/16/2005
<b>TPH as Gasoline</b>	<b>81000</b>	2000	ug/L	EPA 8260B	12/16/2005
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	12/16/2005
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	12/16/2005
<b>TPH as Diesel (Silica Gel)</b>	<b>&lt; 1500</b>	1500	ug/L	M EPA 8015	12/14/2005
Octacosane (Diesel Surrogate)	96.0		% Recovery	M EPA 8015	12/14/2005

Sample : **MW-5**

Matrix : Water

Lab Number : 47398-04

Sample Date :12/6/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	12/16/2005
<b>Toluene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	12/16/2005
<b>Ethylbenzene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	12/16/2005
<b>Total Xylenes</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	12/16/2005
<b>Methyl-t-butyl ether (MTBE)</b>	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	12/16/2005
<b>TPH as Gasoline</b>	<b>&lt; 50</b>	50	ug/L	EPA 8260B	12/16/2005
Toluene - d8 (Surr)	98.3		% Recovery	EPA 8260B	12/16/2005
4-Bromofluorobenzene (Surr)	98.4		% Recovery	EPA 8260B	12/16/2005
<b>TPH as Diesel (Silica Gel)</b>	<b>&lt; 50</b>	50	ug/L	M EPA 8015	12/14/2005
Octacosane (Diesel Surrogate)	92.4		% Recovery	M EPA 8015	12/14/2005

Approved By:

  
Joel Kiff

Project Name : LIM

Project Number : 2808

Sample : MW-6

Matrix : Water

Lab Number : 47398-05

Sample Date :12/6/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
<b>Toluene</b>	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
<b>Ethylbenzene</b>	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
<b>Total Xylenes</b>	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
<b>Methyl-t-butyl ether (MTBE)</b>	< 5.0	5.0	ug/L	EPA 8260B	12/17/2005
<b>TPH as Gasoline</b>	< 50	50	ug/L	EPA 8260B	12/17/2005
Toluene - d8 (Surr)	99.9		% Recovery	EPA 8260B	12/17/2005
4-Bromofluorobenzene (Surr)	97.5		% Recovery	EPA 8260B	12/17/2005
<b>TPH as Diesel (Silica Gel)</b>	< 50	50	ug/L	M EPA 8015	12/14/2005
Octacosane (Diesel Surrogate)	95.2		% Recovery	M EPA 8015	12/14/2005

Sample : MW-7

Matrix : Water

Lab Number : 47398-06

Sample Date :12/6/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	240	5.0	ug/L	EPA 8260B	12/18/2005
<b>Toluene</b>	2300	5.0	ug/L	EPA 8260B	12/18/2005
<b>Ethylbenzene</b>	800	5.0	ug/L	EPA 8260B	12/18/2005
<b>Total Xylenes</b>	3400	5.0	ug/L	EPA 8260B	12/18/2005
<b>Methyl-t-butyl ether (MTBE)</b>	< 5.0	5.0	ug/L	EPA 8260B	12/18/2005
<b>TPH as Gasoline</b>	22000	500	ug/L	EPA 8260B	12/18/2005
Toluene - d8 (Surr)	99.0		% Recovery	EPA 8260B	12/18/2005
4-Bromofluorobenzene (Surr)	89.1		% Recovery	EPA 8260B	12/18/2005
<b>TPH as Diesel (Silica Gel)</b>	< 600	600	ug/L	M EPA 8015	12/14/2005
Octacosane (Diesel Surrogate)	90.2		% Recovery	M EPA 8015	12/14/2005

Approved By:



Joel Kiff

## QC Report : Method Blank Data

Project Name : LIM

Project Number : 2808

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/14/2005
Octacosane (Diesel Surrogate)	90.6		%	M EPA 8015	12/14/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/16/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/16/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/16/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/16/2005
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	12/16/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/16/2005
Toluene - d8 (Surr)	98.0		%	EPA 8260B	12/16/2005
4-Bromofluorobenzene (Surr)	98.8		%	EPA 8260B	12/16/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/17/2005
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	12/17/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/17/2005
Toluene - d8 (Surr)	98.8		%	EPA 8260B	12/17/2005
4-Bromofluorobenzene (Surr)	87.7		%	EPA 8260B	12/17/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/15/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/15/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/15/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/15/2005
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	12/15/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/15/2005
Toluene - d8 (Surr)	101		%	EPA 8260B	12/15/2005
4-Bromofluorobenzene (Surr)	106		%	EPA 8260B	12/15/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/16/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/16/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/16/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/16/2005
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	12/16/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/16/2005
Toluene - d8 (Surr)	99.2		%	EPA 8260B	12/16/2005
4-Bromofluorobenzene (Surr)	97.1		%	EPA 8260B	12/16/2005

Approved By:  Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

## QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : LIM

Project Number : 2808

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH as Diesel	Blank	<50	1000	1000	771	791	ug/L	M EPA 8015	12/14/05	77.1	79.1	2.56	70-130	25
Benzene	47398-04	<0.50	40.0	40.0	39.4	39.0	ug/L	EPA 8260B	12/16/05	98.4	97.6	0.794	70-130	25
Toluene	47398-04	<0.50	40.0	40.0	38.7	38.4	ug/L	EPA 8260B	12/16/05	96.8	96.1	0.693	70-130	25
Tert-Butanol	47398-04	<5.0	200	200	197	194	ug/L	EPA 8260B	12/16/05	98.7	96.8	1.94	70-130	25
Methyl-t-Butyl Ether	47398-04	3.0	40.0	40.0	40.5	40.1	ug/L	EPA 8260B	12/16/05	93.9	92.8	1.18	70-130	25
Benzene	47489-02	<0.50	40.0	40.0	39.5	40.0	ug/L	EPA 8260B	12/17/05	98.7	99.9	1.27	70-130	25
Toluene	47489-02	<0.50	40.0	40.0	38.1	37.4	ug/L	EPA 8260B	12/17/05	95.4	93.5	1.98	70-130	25
Tert-Butanol	47489-02	<5.0	200	200	190	193	ug/L	EPA 8260B	12/17/05	95.2	96.7	1.52	70-130	25
Methyl-t-Butyl Ether	47489-02	<0.50	40.0	40.0	38.1	41.0	ug/L	EPA 8260B	12/17/05	95.3	102	7.20	70-130	25
Benzene	47379-01	370	40.0	40.0	405	379	ug/L	EPA 8260B	12/15/05	82.2	18.6	126	70-130	25
Toluene	47379-01	91	40.0	40.0	131	123	ug/L	EPA 8260B	12/15/05	99.1	79.3	22.2	70-130	25
Tert-Butanol	47379-01	88	200	200	297	280	ug/L	EPA 8260B	12/15/05	104	95.9	8.49	70-130	25
Methyl-t-Butyl Ether	47379-01	22	40.0	40.0	61.1	56.7	ug/L	EPA 8260B	12/15/05	97.6	86.6	12.0	70-130	25
Benzene	47447-01	<0.50	40.0	40.0	43.2	42.9	ug/L	EPA 8260B	12/16/05	108	107	0.632	70-130	25
Toluene	47447-01	<0.50	40.0	40.0	40.9	40.5	ug/L	EPA 8260B	12/16/05	102	101	0.962	70-130	25
Tert-Butanol	47447-01	<5.0	200	200	205	212	ug/L	EPA 8260B	12/16/05	102	106	3.63	70-130	25
Methyl-t-Butyl Ether	47447-01	<0.50	40.0	40.0	42.1	42.2	ug/L	EPA 8260B	12/16/05	105	106	0.298	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

## QC Report : Laboratory Control Sample (LCS)

Project Name : LIM

Project Number : 2808

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	12/16/05	90.6	70-130
Toluene	40.0	ug/L	EPA 8260B	12/16/05	92.3	70-130
Tert-Butanol	200	ug/L	EPA 8260B	12/16/05	92.2	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	12/16/05	86.7	70-130
Benzene	40.0	ug/L	EPA 8260B	12/17/05	96.1	70-130
Toluene	40.0	ug/L	EPA 8260B	12/17/05	96.3	70-130
Tert-Butanol	200	ug/L	EPA 8260B	12/17/05	94.3	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	12/17/05	95.4	70-130
Benzene	40.0	ug/L	EPA 8260B	12/15/05	94.5	70-130
Toluene	40.0	ug/L	EPA 8260B	12/15/05	99.8	70-130
Tert-Butanol	200	ug/L	EPA 8260B	12/15/05	98.8	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	12/15/05	94.5	70-130
Benzene	40.0	ug/L	EPA 8260B	12/16/05	108	70-130
Toluene	40.0	ug/L	EPA 8260B	12/16/05	101	70-130
Tert-Butanol	200	ug/L	EPA 8260B	12/16/05	105	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	12/16/05	105	70-130

KIFF ANALYTICAL, LLC

Approved By:


  
 Joe Kiff

KIFF

473 98

Aqua Science Engineers, Inc.  
208 W. El Pintado Road  
Danville, CA 94526  
(925) 820-9391  
FAX (925) 837-4853

# Chain of Custody

PAGE 1 OF 1

SAMPLER (SIGNATURE)

PROJECT NAME

LIM

JOB NO.

2808

ADDRESS

250 8th St. Oakland, CA

## ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

SAMPLE ID.	DATE	TIME	MATRIX	QUANTITY	TPH-GAS / MTBE & BTEX (EPA 5030/8015-8020)	TPH-DIESEL & MOTOR OIL (EPA 3510/8015)	VOLATILE ORGANICS (EPA 624/8240/8260)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	OIL & GREASE (EPA 5520)	LUFT METALS (5) (EPA 6010+7000)	CAM 17 METALS (EPA 6010+7000)	PCP's & PESTICIDES (EPA 608/8080)	ORGANOPHOSPHORUS PESTICIDES (EPA 8140 EPA 608/8080)	FUEL OXYGENATES (EPA 8260)	Pb (TOTAL or DISSOLVED) (EPA 6010)	PURGEABLE HALOCARBONS (EPA 601/8010)	MULTI-RANGE HYDROCARBONS	SILICA-GEL CLEANUP	HOLD	
					X	X														
MW-1	12-6-05	1150	W	5	X	X														X
MW-2	12-6-05	759																		
MW-4	12-6-05	917																		
MW-5	12-6-05	822																		
MW-6	12-6-05	1021																		
MW-7	12-6-05	949	↓	↓	↓	↓														↓

Sample Receipt  
 Temp °C 2.16°C Therm. ID: IB-1  
 Initial: JN  
 Date: 12/13/05 Time: 16:15  
 Coolant present: Yes/No

RELINQUISHED BY:

(signature) (time)

D. ALLEN RADOS (printed name) (date)

Company-ASE, INC.

RECEIVED BY:

(signature) (time)

(printed name) (date)

Company-

RELINQUISHED BY:

(signature) (time)

(printed name) (date)

Company-

RECEIVED BY LABORATORY:

Jason N. Kennedy 12/13/05 (signature) (time) 1356

Jason N. Kennedy 12/13/05 (printed name) (date)

Company-

COMMENTS:

EDS to david rains @ aquascienceengineers.com

TURN AROUND TIME

STANDARD 24Hr 48Hr 72Hr

OTHER:

Kiff Analytical