



aqua science
engineers inc.

STD 1585
25
ENVIRONMENTAL
PROTECTION
00 MAY 17 PM 3:32

May 15, 2000

QUARTERLY GROUNDWATER MONITORING REPORT
APRIL 2000 GROUNDWATER SAMPLING

at

Lim Family Property
250 8th Street
Oakland, California

Submitted by:
AQUA SCIENCE ENGINEERS, INC.
208 W. El Pintado
Danville, CA 94526
(925) 820-9391

1.0 INTRODUCTION

This report outlines 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 April 24 2000, ASE associate geologist Ian Reed measured the depth to water in each site well using an electric water level sounder. The surface of the groundwater was also checked for the presence of free-floating hydrocarbons or sheen. No free-floating hydrocarbons or sheen was present on the surface of water in monitoring wells MW-1 and MW-4. ~~Monitoring well MW-2 contained a product sheen. Monitoring well MW-3 contained 0.15 feet of free-floating hydrocarbons.~~ 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 west~~ at a gradient of 0.015 feet/foot.

3.0 MONITORING WELL SAMPLING

On April 24, 2000, ASE associate geologist Ian Reed collected groundwater samples from all four site monitoring wells for analysis. Prior to sampling, the wells were purged of four well casing volumes of groundwater using dedicated 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 dedicated polyethylene bailers. The groundwater samples analyzed for volatile compounds were decanted from the bailers into 40-ml volatile organic analysis (VOA) vials, preserved with hydrochloric acid, sealed without headspace, labeled, and placed in protective foam sleeves. The samples to be analyzed for extractable range hydrocarbons were contained in 1-liter amber glass bottles. All samples were stored on ice for transport to Chromalab, Inc. of Pleasanton, California under chain of custody. Well sampling purge water was contained in sealed and labeled 55-gallon steel drums and left on-site for temporary storage until off-site disposal can be arranged. See Appendix A for a copy of the well sampling field logs.

4.0 ANALYTICAL RESULTS FOR GROUNDWATER

All groundwater samples were analyzed by Chromalab for total petroleum hydrocarbons as gasoline (TPH-G) by modified EPA Method 5030/8015M, total petroleum hydrocarbons as diesel (TPH-D) by modified EPA Method 3510/8015M, benzene, toluene, ethyl benzene, and total xylenes (collectively known as BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8020. The groundwater samples collected from monitoring wells MW-2, MW-3, and MW-4 were analyzed for oil and grease (O&G) by Standard Method 5520. The groundwater samples collected from monitoring wells MW-1 and MW-2 were analyzed for halogenated volatile organic compounds (HVOCs) by EPA Method 8010. The groundwater samples collected from monitoring wells MW-3 and MW-4 were analyzed for volatile organic compounds (VOCs) by EPA Method 8260. 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

Overall, the hydrocarbon concentrations were similar to previous quarters sampling results. The hydrocarbon concentrations in monitoring well MW-1 decreased slightly from last quarter. The hydrocarbon concentrations detected in monitoring wells MW-2 and MW-3 increased from the last quarter's results, except for the benzene concentration in monitoring well MW-2. The BTEX concentrations detected in monitoring wells MW-2, MW-3, and MW-4 exceeded the California Department of Health Services (DHS) maximum contaminant levels (MCLs) for drinking water.

6.0 RECOMMENDATIONS

The hydrocarbon concentrations in monitoring wells MW-2, MW-3, and MW-4 remained elevated. Due to the existence of free-floating product in the newly installed monitoring well MW-3, and the persistent presence of free-floating product in injection well IW-5, ASE believes that the product plume has not been completely defined in the western direction.

- ASE recommends that further investigation is needed in defining the extent of free-floating product and elevated hydrocarbons off-site along 8th Street. ASE suggests that three additional groundwater monitoring wells be installed at the site, one west of monitoring well

~~MW-4, one west of monitoring well MW-3, and one east of monitoring well MW-2.~~

- In an effort to expedite the enhancement of the biodegradation process of the hydrocarbons in groundwater beneath the site, ASE will increase the concentration of the hydrogen peroxide solution being injected into wells IW-1 through IW-4 from 1,000 ppm to 2,000 ppm. ASE will continue to monitor the dissolved oxygen content within the site wells on a weekly basis.

7.0 REPORT LIMITATIONS

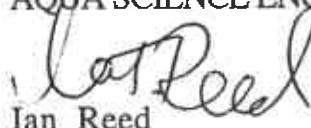
The results of this investigation represent conditions at the time of the groundwater sampling, at the specific locations where the samples were collected, and for the specific parameters analyzed by the laboratory.

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-EPA 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.


Ian Reed

Associate Geologist



Robert E. Kitay, R.G., R.E.A.

Senior Geologist



Attachments: Figures, Tables and Appendices

TABLE ONE
Groundwater Elevation Data

Well I.D.	Date of Measurement	Top of Casing 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
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
MW-3	01/12/00	24.25	16.68	0.01	7.57
	04/24/00		15.58	0.15	*
MW-4	01/12/00	23.71	17.24		6.47
	04/24/00		16.18		7.53
IW-1	07/13/99	24.05	14.75		9.30
IW-2	07/13/99	24.21	15.10		9.11

TABLE ONE
Groundwater Elevation Data

Well I.D.	Date of Measurement	Top of Casing Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (msl)
IW-3	07/13/99	23.93	15.00		8.93
IW-4	07/13/99	23.83	Unknown		Unknown
IW-5	07/13/99	24.00	15.50	1.00	8.50*
	07/23/99		15.52	1.05	9.32*
	08/03/99		15.58	0.64	8.93*
	08/17/99		15.62	0.86	9.07*
	08/27/99		15.92	0.77	8.70*
	09/10/99		15.82	0.56	8.63*
	09/24/99		15.57	0.26	8.64*
	10/08/99		15.56	0.23	8.62*
	11/02/99		15.59	0.22	8.59*
	11/19/99		15.64	0.07	8.42*
	12/16/99		16.12	0.64	8.39*
01/12/00	16.54	0.28	7.68*		
LUM-1	07/14/95	23.42	Unknown		Unknown
	10/17/95		18.21	1.53	6.43*
	01/12/96		18.15	1.35	6.35*
	07/25/96		18.08	2.36	7.23*
	01/06/97		Unknown		Unknown
	07/08/97		Unknown		Unknown
	02/20/98		10.03	2.19	15.13*
	01/05/99		16.71	1.09	7.58*
LUM-2	07/14/95	23.98	17.21		6.77
	10/17/95		17.67		6.31
	01/12/96		17.89	0.01	6.10*
	07/25/96		16.94		7.04
	01/06/97		14.35		9.63
	07/08/97		17.32		6.66
	02/20/98		10.84		13.14
	01/05/99		16.51		7.47

* = 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).

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
<u>MW-1</u>							
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
<u>MW-2</u>							
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

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
<u>MW-3</u>							
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
<u>MW-4</u>							
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
DHS MCL	NE	NE	1	150	700	1,750	13
EPA METHOD	5030/ 8015M	3550/ 8015M	8020/ 8260	8020/ 8260	8020/ 8260	8020/ 8260	8020

Notes:

* = Hydrocarbon reported is in the early diesel range, and does not match the laboratory standard.

= Estimated concentration reported due to overlapping fuel patterns.

Non-detectable concentrations noted by the less than sign (<) followed by the detection limit.
Most recent data in bold.

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
<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	-	-
Tetrachloroethene	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	-	-
Tetrachloroethene	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	-	-
Tetrachloroethene	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	-	-

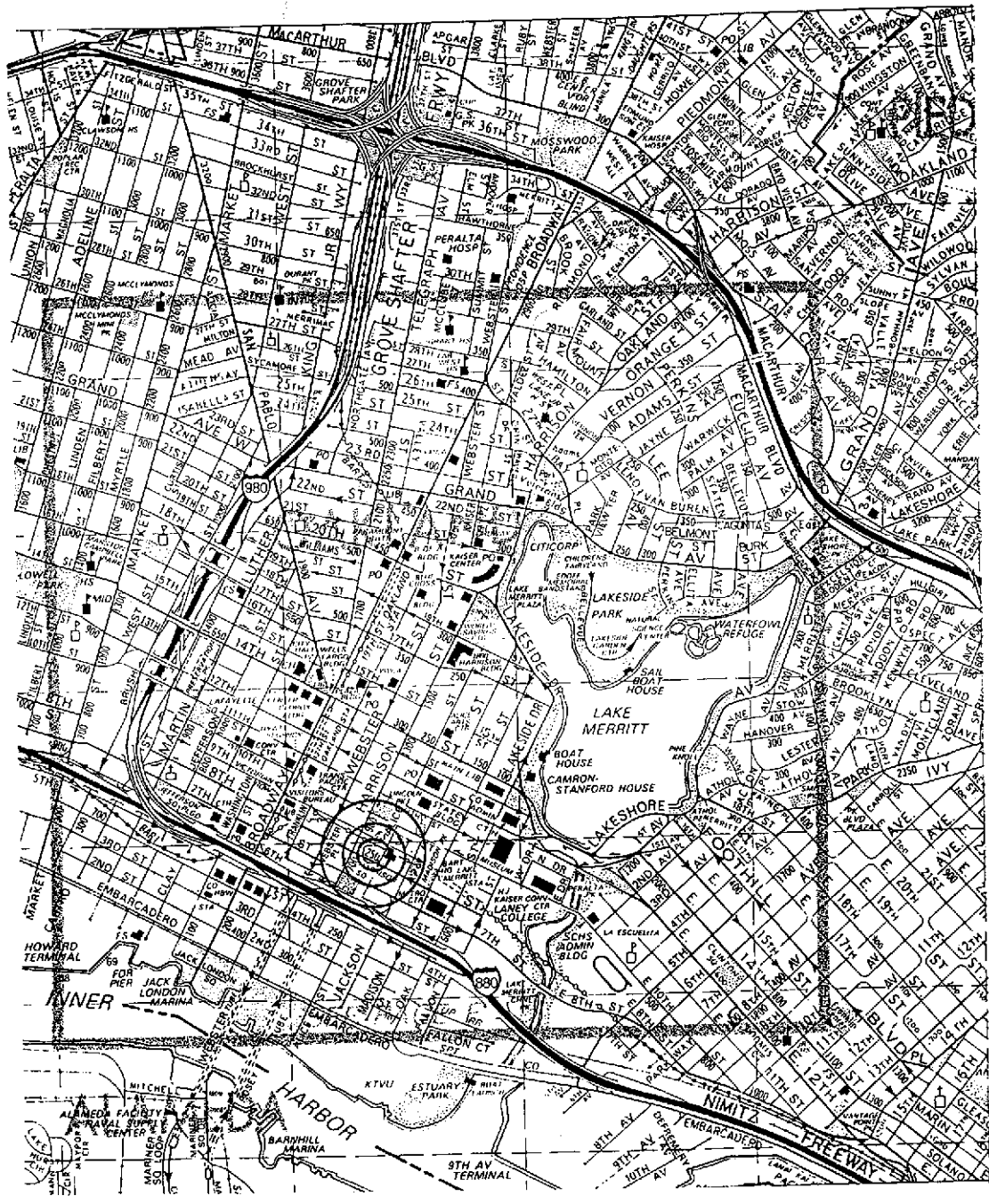
TABLE THREE
 Groundwater Analytical Results
 Oil & Grease and Volatile Organic Compounds
 All results are in parts per billion

Date Sampled & Compound Analyzed	MW-1	MW-2	MW-3	MW-4
<u>7/13/99</u>				
Hydrocarbon Oil and Grease	---	< 1,000	-	-
Tetrachloroethene	1.5	0.68	-	-
Trichloroethene	< 0.5	< 50	-	-
1,1,2,2-Tetrachloroethane	< 0.5	< 50	-	-
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
Tetrachloroethene	0.8	< 1.0	< 100	< 50
Trichloroethene	<0.50	< 1.0	< 100	< 50
1,1,2,2 - Tetrachloroethane	<0.50	< 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

TABLE THREE

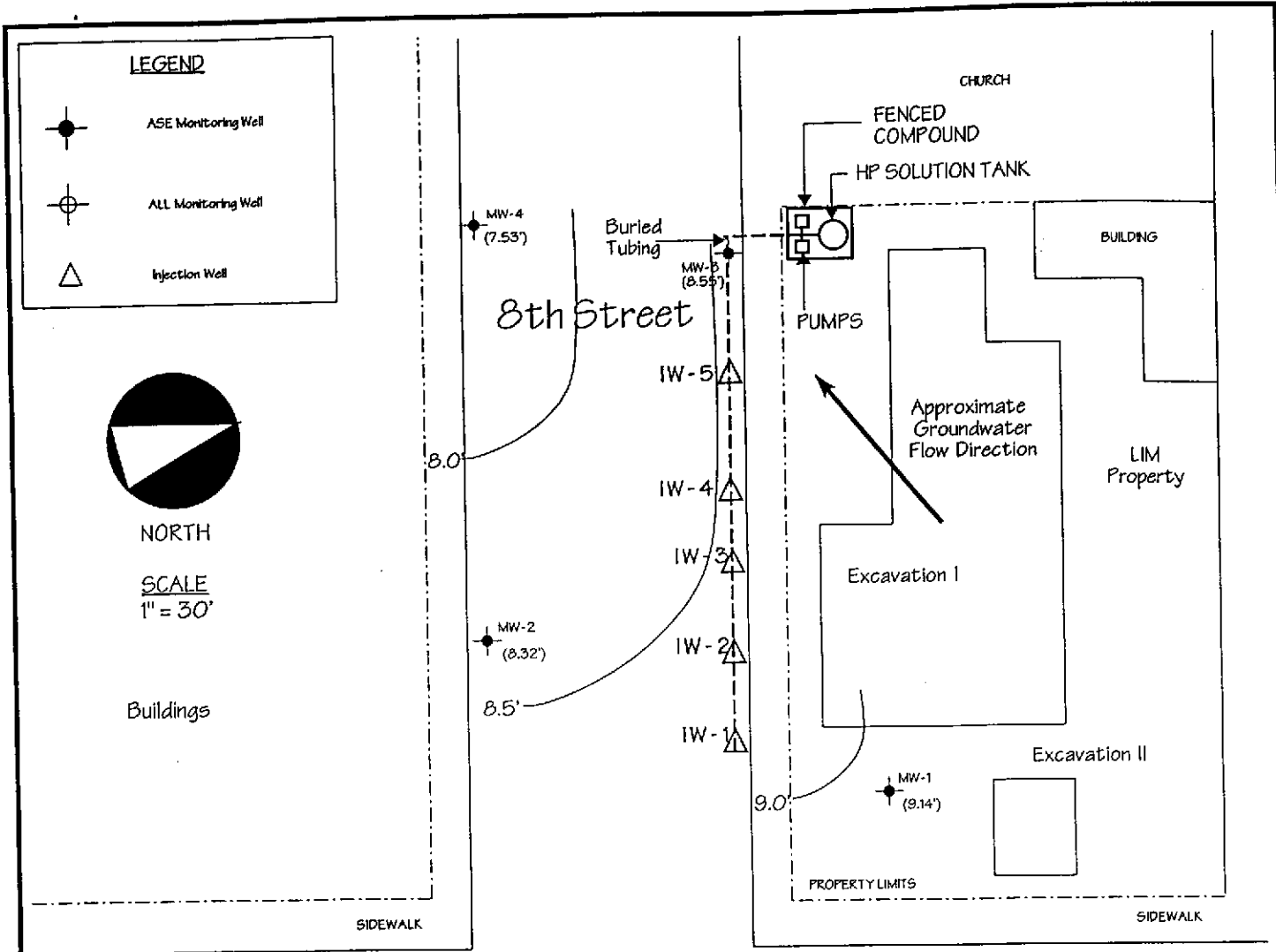
Groundwater Analytical Results
 Oil & Grease and Volatile Organic Compounds
 All results are in parts per billion

Date Sampled & Compound Analyzed	MW-1	MW-2	MW-3	MW-4
<u>4/24/00</u>				
Hydrocarbon Oil and Grease	---	< 1.0	4.1	< 1.0
Tetrachloroethene	< 0.5	< 5.0	< 1,000	< 250
Trichloroethene	< 0.5	< 5.0	< 1,000	< 250
1,1,2,2 - Tetrachloroethane	< 0.5	< 5.0	< 1,000	< 250
Chloroform	< 0.5	< 5.0	< 1,000	< 250
1,2-Dichloroethane	< 0.5	5.9	< 1,000	< 250
Acetone	---	---	< 100,000	< 25,000
Naphthalene	---	---	3,800	590
Isopropylbenzene	---	---	1,200	< 250
Other VOCs	< 0.5 - < 5.0	< 5.0 - < 20	1,000 - < 100,000	< 250 - < 25,000

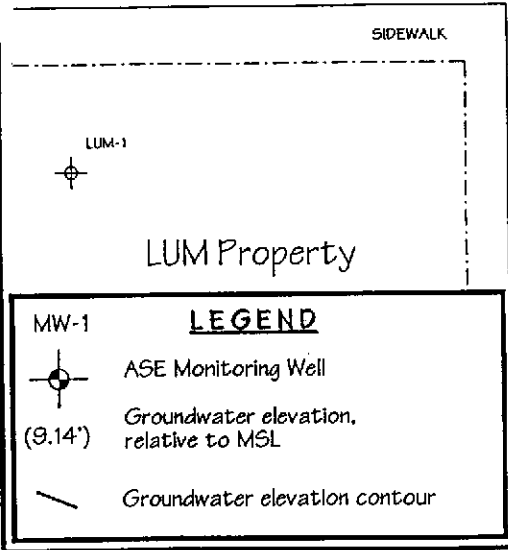


SITE LOCATION MAP	
Lim Property 250 8th Street Oakland, California	
Aqua Science Engineers	Figure 1

BASE: The Thomas Guide, Alameda and Contra Costa Counties Street Guide & Directory, 1990



Alice Street



SIDEWALK

GROUNDWATER GRADIENT MAP
APRIL 24, 2000

LIM PROPERTY
250 8TH STREET
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC. | Figure 2

APPENDIX A

Well Sampling Field Log



WELL SAMPLING FIELD LOG

Project Name and Address: LIM
 Job #: 2808 Date of sampling: 4/24/00
 Well Name: MW1 Sampled by: ITR
 Total depth of well (feet): 27.99 Well diameter (inches): 2"
 Depth to water before sampling (feet): 16.37'
 Thickness of floating product if any: —
 Depth of well casing in water (feet): 11.62
 Number of gallons per well casing volume (gallons): 1.9
 Number of well casing volumes to be removed: 1
 Req'd volume of groundwater to be purged before sampling (gallons): 8
 Equipment used to purge the well: ded. Sailer
 Time Evacuation Began: 1015 Time Evacuation Finished: 1035
 Approximate volume of groundwater purged: 8
 Did the well go dry?: NO After how many gallons: —
 Time samples were collected: 1040
 Depth to water at time of sampling: 16.40
 Percent recovery at time of sampling: 99%
 Samples collected with: ded. Sailer
 Sample color: gray Odor: HC odor
 Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	70.1	6.81	761
2	70.3	6.81	764
3	70.3	6.83	774
4	71.0	6.84	762

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-1					



WELL SAMPLING FIELD LOG

Project Name and Address: LIM
 Job #: 2808 Date of sampling: 4/24/00
 Well Name: MW-2 Sampled by: TR
 Total depth of well (feet): 26.78 Well diameter (inches): 2"
 Depth to water before sampling (feet): 15.67
 Thickness of floating product if any: _____
 Depth of well casing in water (feet): 11.11
 Number of gallons per well casing volume (gallons): 1.9
 Number of well casing volumes to be removed: 4
 Req'd volume of groundwater to be purged before sampling (gallons): 8
 Equipment used to purge the well: deed. bailer
 Time Evacuation Began: 1100 Time Evacuation Finished: 1115
 Approximate volume of groundwater purged: 8
 Did the well go dry?: no After how many gallons: _____
 Time samples were collected: 1120
 Depth to water at time of sampling: 15.70
 Percent recovery at time of sampling: 99.1
 Samples collected with: deed. bailer
 Sample color: gray/black Odor: H2 odor
 Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp.	pH	Conductivity
<u>1</u>	<u>69.9</u>	<u>5.64</u>	<u>210</u>
<u>2</u>	<u>69.8</u>	<u>5.71</u>	<u>234</u>
<u>3</u>	<u>70.1</u>	<u>5.72</u>	<u>230</u>
<u>4</u>	<u>70.3</u>	<u>5.74</u>	<u>241</u>

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>MW-2</u>	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____



WELL SAMPLING FIELD LOG

Project Name and Address: LIM
 Job #: 2808 Date of sampling: 4/24/00
 Well Name: MW-3 Sampled by: LR
 Total depth of well (feet): 26.50' Well diameter (inches): 2"
 Depth to water before sampling (feet): 15.58'
 Thickness of floating product if any: 0.15'
 Depth of well casing in water (feet): 10.92
 Number of gallons per well casing volume (gallons): 1.9
 Number of well casing volumes to be removed: 4
 Req'd volume of groundwater to be purged before sampling (gallons): 8
 Equipment used to purge the well: ded. bailer
 Time Evacuation Began: 1130 Time Evacuation Finished: 1145
 Approximate volume of groundwater purged: 8
 Did the well go dry?: no After how many gallons: -
 Time samples were collected: 1150
 Depth to water at time of sampling: 15.59
 Percent recovery at time of sampling: 99%
 Samples collected with: ded. bailer
 Sample color: clear / grey Odor: strong H₂ odor
 Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	71.0	7.14	671
2	71.4	7.24	644
3	71.3	7.21	683
4	71.4	7.23	670

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-3					



WELL SAMPLING FIELD LOG

Project Name and Address: LIM
 Job #: 2808 Date of sampling: 4/24/00
 Well Name: MW-4 Sampled by: TR
 Total depth of well (feet): 26.60 Well diameter (inches): 7"
 Depth to water before sampling (feet): 16.18
 Thickness of floating product if any: _____
 Depth of well casing in water (feet): 10.42
 Number of gallons per well casing volume (gallons): 1.8
 Number of well casing volumes to be removed: 4
 Req'd volume of groundwater to be purged before sampling (gallons): 7
 Equipment used to purge the well: ded. bailer
 Time Evacuation Began: 1200 Time Evacuation Finished: 1215
 Approximate volume of groundwater purged: 7
 Did the well go dry?: NO After how many gallons: _____
 Time samples were collected: 1220
 Depth to water at time of sampling: 16.19
 Percent recovery at time of sampling: 99%
 Samples collected with: ded. bailer
 Sample color: clear/brown Odor: HC odor
 Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>72.0</u>	<u>7.41</u>	<u>670</u>
<u>2</u>	<u>71.9</u>	<u>7.52</u>	<u>692</u>
<u>3</u>	<u>71.4</u>	<u>7.51</u>	<u>684</u>
<u>4</u>	<u>71.6</u>	<u>7.53</u>	<u>679</u>

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>MW-4</u>	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

APPENDIX B

Certified Analytical Report
and
Chain of Custody Documentation

Aqua Science Engineers, Inc.
208 West El Pintado Road
Danville, CA 94526

Attn.: Mr. Ian T. Reed

Project: 2808
LIM Property

Dear Mr. Reed,

Attached is our report for your samples received on Thursday April 27, 2000
This report has been reviewed and approved for release. Reproduction of this report
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after May 27, 2000
unless you have requested otherwise. We appreciate the opportunity to be of service to you.
If you have any questions, please call me at (925) 484-1919. You can also contact me via email.
My email address is: vwancil@chromalab.com

Sincerely,



Vincent Vancil

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0458

Halogenated Volatile Organic Compounds

Aqua Science Engineers, Inc.

☒ 208 West El Pintado Road
Danville, CA 94526

Attn: Ian T. Reed

Phone: (925) 820-9391 Fax: (925) 837-4853

Project #: 2808

Project: LIM Property

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-1	Water	04/25/2000	1
MW-2	Water	04/25/2000	2

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0458

To: Aqua Science Engineers, Inc.

Test Method: 8010

Attn.: Ian T. Reed

Prep Method: 5030

Halogenated Volatile Organic Compounds

Sample ID: MW-1	Lab Sample ID: 2000-04-0458-001
Project: 2808 LIM Property	Received: 04/27/2000 14:45
Sampled: 04/25/2000	Extracted: 05/01/2000 18:00
Matrix: Water	QC-Batch: 2000/05/01-01.25

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Dichlorodifluoromethane	ND	1.0	ug/L	1.00	05/01/2000 18:00	
Vinyl chloride	ND	0.50	ug/L	1.00	05/01/2000 18:00	
Chloroethane	ND	0.50	ug/L	1.00	05/01/2000 18:00	
Trichlorofluoromethane	ND	0.50	ug/L	1.00	05/01/2000 18:00	
1,1-Dichloroethene	ND	0.50	ug/L	1.00	05/01/2000 18:00	
Methylene chloride	ND	5.0	ug/L	1.00	05/01/2000 18:00	
trans-1,2-Dichloroethene	ND	0.50	ug/L	1.00	05/01/2000 18:00	
cis-1,2-Dichloroethene	ND	0.50	ug/L	1.00	05/01/2000 18:00	
1,1-Dichloroethane	ND	0.50	ug/L	1.00	05/01/2000 18:00	
Chloroform	ND	0.50	ug/L	1.00	05/01/2000 18:00	
1,1,1-Trichloroethane	ND	0.50	ug/L	1.00	05/01/2000 18:00	
Carbon tetrachloride	ND	0.50	ug/L	1.00	05/01/2000 18:00	
1,2-Dichloroethane	ND	0.50	ug/L	1.00	05/01/2000 18:00	
Trichloroethene	ND	0.50	ug/L	1.00	05/01/2000 18:00	
1,2-Dichloropropane	ND	0.50	ug/L	1.00	05/01/2000 18:00	
Bromodichloromethane	ND	0.50	ug/L	1.00	05/01/2000 18:00	
2-Chloroethylvinyl ether	ND	0.50	ug/L	1.00	05/01/2000 18:00	
trans-1,3-Dichloropropene	ND	0.50	ug/L	1.00	05/01/2000 18:00	
cis-1,3-Dichloropropene	ND	0.50	ug/L	1.00	05/01/2000 18:00	
1,1,2-Trichloroethane	ND	0.50	ug/L	1.00	05/01/2000 18:00	
Tetrachloroethene	ND	0.50	ug/L	1.00	05/01/2000 18:00	
Dibromochloromethane	ND	0.50	ug/L	1.00	05/01/2000 18:00	
Chlorobenzene	ND	0.50	ug/L	1.00	05/01/2000 18:00	
Bromoform	ND	2.0	ug/L	1.00	05/01/2000 18:00	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1.00	05/01/2000 18:00	
1,3-Dichlorobenzene	ND	0.50	ug/L	1.00	05/01/2000 18:00	
1,4-Dichlorobenzene	ND	0.50	ug/L	1.00	05/01/2000 18:00	
1,2-Dichlorobenzene	ND	0.50	ug/L	1.00	05/01/2000 18:00	
Trichlorotrifluoroethane	ND	2.0	ug/L	1.00	05/01/2000 18:00	
Chloromethane	ND	1.0	ug/L	1.00	05/01/2000 18:00	
Bromomethane	ND	1.0	ug/L	1.00	05/01/2000 18:00	
Surrogate(s)						
1-Chloro-2-fluorobenzene	92.5	50-150	%	1.00	05/01/2000 18:00	

1220 Quarry Lane * Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0458

To: Aqua Science Engineers, Inc.
Attn.: Ian T. Reed

Test Method: 8010
Prep Method: 5030

Batch QC Report Halogenated Volatile Organic Compounds

Method Blank	Water	QC Batch # 2000/05/02-01.26
MB: 2000/05/02-01.26-001		Date Extracted: 05/02/2000 09:36

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Dichlorodifluoromethane	ND	1.0	ug/L	05/02/2000 09:36	
Vinyl chloride	ND	0.5	ug/L	05/02/2000 09:36	
Chloroethane	ND	0.5	ug/L	05/02/2000 09:36	
Trichlorofluoromethane	ND	0.5	ug/L	05/02/2000 09:36	
1,1-Dichloroethene	ND	0.5	ug/L	05/02/2000 09:36	
Methylene chloride	ND	5.0	ug/L	05/02/2000 09:36	
trans-1,2-Dichloroethene	ND	0.5	ug/L	05/02/2000 09:36	
cis-1,2-Dichloroethene	ND	0.5	ug/L	05/02/2000 09:36	
1,1-Dichloroethane	ND	0.5	ug/L	05/02/2000 09:36	
Chloroform	ND	0.5	ug/L	05/02/2000 09:36	
1,1,1-Trichloroethane	ND	0.5	ug/L	05/02/2000 09:36	
Carbon tetrachloride	ND	0.5	ug/L	05/02/2000 09:36	
1,2-Dichloroethane	ND	0.5	ug/L	05/02/2000 09:36	
Trichloroethene	ND	0.5	ug/L	05/02/2000 09:36	
1,2-Dichloropropane	ND	0.5	ug/L	05/02/2000 09:36	
Bromodichloromethane	ND	0.5	ug/L	05/02/2000 09:36	
2-Chloroethylvinyl ether	ND	0.5	ug/L	05/02/2000 09:36	
trans-1,3-Dichloropropene	ND	0.5	ug/L	05/02/2000 09:36	
cis-1,3-Dichloropropene	ND	0.5	ug/L	05/02/2000 09:36	
1,1,2-Trichloroethane	ND	0.5	ug/L	05/02/2000 09:36	
Tetrachloroethene	ND	0.5	ug/L	05/02/2000 09:36	
Dibromochloromethane	ND	0.5	ug/L	05/02/2000 09:36	
Chlorobenzene	ND	0.5	ug/L	05/02/2000 09:36	
Bromoform	ND	2.0	ug/L	05/02/2000 09:36	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	05/02/2000 09:36	
1,3-Dichlorobenzene	ND	0.5	ug/L	05/02/2000 09:36	
1,4-Dichlorobenzene	ND	0.5	ug/L	05/02/2000 09:36	
1,2-Dichlorobenzene	ND	0.5	ug/L	05/02/2000 09:36	
Trichlorotrifluoroethane	ND	2.0	ug/L	05/02/2000 09:36	
Chloromethane	ND	1.0	ug/L	05/02/2000 09:36	
Bromomethane	ND	1.0	ug/L	05/02/2000 09:36	
Surrogate(s)					
1-Chloro-2-fluorobenzene	87.5	50-150	%	05/02/2000 09:36	

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0458

To: Aqua Science Engineers, Inc.

Test Method: 8010

Attn: Ian T. Reed

Prep Method: 5030

Batch QC Report

Halogenated Volatile Organic Compounds

Laboratory Control Spike (LCS/LCSD)	Water	QC Batch # 2000/05/01-01.25
LCS: 2000/05/01-01.25-002	Extracted: 05/01/2000 10:18	Analyzed 05/01/2000 10:18
LCSD: 2000/05/01-01.25-003	Extracted: 05/01/2000 11:04	Analyzed 05/01/2000 11:04

Compound	Conc. [ug/L]		Exp. Conc. [ug/L]		Recovery [%]			RPD		Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	RPD [%]	Recovery	RPD	LCS	LCSD	LCS	LCSD
1,1-Dichloroethene	23.2	21.6	20.0	20.0	116.0	108.0	7.1	50-140	20				
Trichloroethene	23.1	21.5	20.0	20.0	115.5	107.5	7.2	50-150	20				
Chlorobenzene	22.0	21.3	20.0	20.0	110.0	106.5	3.2	50-150	20				
Surrogate(s)													
1-Chloro-2-fluorobenzene	21.3	19.3	20	20	106.5	96.5		50-150					

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0458

To: Aqua Science Engineers, Inc.

Test Method: 8010

Attn: Ian T. Reed

Prep Method: 5030

Batch QC Report

Halogenated Volatile Organic Compounds

Laboratory Control Spike (LCS/LCSD)		Water		QC Batch # 2000/05/02-01.26	
LCS:	2000/05/02-01.26-002	Extracted:	05/02/2000 10:18	Analyzed	05/02/2000 10:18
LCSD:	2000/05/02-01.26-003	Extracted:	05/02/2000 11:00	Analyzed	05/02/2000 11:00

Compound	Conc. [ug/L]		Exp. Conc. [ug/L]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
1,1-Dichloroethene	19.2	20.8	20.0	20.0	96.0	104.0	8.0	50-140	20		
Trichloroethene	19.8	21.8	20.0	20.0	99.0	109.0	9.6	50-150	20		
Chlorobenzene	20.2	21.2	20.0	20.0	101.0	106.0	4.8	50-150	20		
Surrogate(s)											
1-Chloro-2-fluorobenzene	18.5	19.1	20	20	92.5	95.5		50-150			

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

To: Aqua Science Engineers, Inc.
Attn: Ian T. Reed

Test Method: 8010
Prep Method: 5030

Legend & Notes

Halogenated Volatile Organic Compounds

Analysis Flags

ln

Reporting limits raised due to high level of non-target analyte materials.

Volatile Organic Compounds

Aqua Science Engineers, Inc.	☒ 208 West El Pintado Road Danville, CA 94526
Attn: Ian T. Reed	Phone: (925) 820-9391 Fax: (925) 837-4853
Project #: 2808	Project: LIM Property

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-3	Water	04/25/2000	3
MW-4	Water	04/25/2000	4

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0458

To: Aqua Science Engineers, Inc.

Test Method: 8260A

Attn.: Ian T. Reed

Prep Method: 5030

Volatile Organic Compounds

Sample ID: MW-3	Lab Sample ID: 2000-04-0458-003
Project: 2808 LIM Property	Received: 04/27/2000 14:45
Sampled: 04/25/2000	Extracted: 05/04/2000 20:37
Matrix: Water	QC-Batch: 2000/05/04-01.39
Sample/Analysis Flag o (See Legend & Note section)	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Acetone	ND	100000	ug/L	2000.00	05/04/2000 20:37	
Benzene	35000	1000	ug/L	2000.00	05/04/2000 20:37	
Bromodichloromethane	ND	1000	ug/L	2000.00	05/04/2000 20:37	
Bromoform	ND	1000	ug/L	2000.00	05/04/2000 20:37	
Bromomethane	ND	2000	ug/L	2000.00	05/04/2000 20:37	
Carbon tetrachloride	ND	1000	ug/L	2000.00	05/04/2000 20:37	
Chlorobenzene	ND	1000	ug/L	2000.00	05/04/2000 20:37	
Chloroethane	ND	2000	ug/L	2000.00	05/04/2000 20:37	
2-Butanone(MEK)	ND	100000	ug/L	2000.00	05/04/2000 20:37	
2-Chloroethylvinyl ether	ND	1000	ug/L	2000.00	05/04/2000 20:37	
Chloroform	ND	1000	ug/L	2000.00	05/04/2000 20:37	
Chloromethane	ND	2000	ug/L	2000.00	05/04/2000 20:37	
Dibromochloromethane	ND	1000	ug/L	2000.00	05/04/2000 20:37	
1,2-Dichlorobenzene	ND	1000	ug/L	2000.00	05/04/2000 20:37	
1,3-Dichlorobenzene	ND	1000	ug/L	2000.00	05/04/2000 20:37	
1,4-Dichlorobenzene	ND	1000	ug/L	2000.00	05/04/2000 20:37	
1,2-Dibromo-3-chloropropane	ND	10000	ug/L	2000.00	05/04/2000 20:37	
1,2-Dibromoethane	ND	1000	ug/L	2000.00	05/04/2000 20:37	
Dibromomethane	ND	1000	ug/L	2000.00	05/04/2000 20:37	
Dichlorodifluoromethane	ND	1000	ug/L	2000.00	05/04/2000 20:37	
1,1-Dichloroethane	ND	1000	ug/L	2000.00	05/04/2000 20:37	
1,2-Dichloroethane	ND	1000	ug/L	2000.00	05/04/2000 20:37	
1,1-Dichloroethene	ND	1000	ug/L	2000.00	05/04/2000 20:37	
cis-1,2-Dichloroethene	ND	1000	ug/L	2000.00	05/04/2000 20:37	
trans-1,2-Dichloroethene	ND	1000	ug/L	2000.00	05/04/2000 20:37	
1,2-Dichloropropane	ND	1000	ug/L	2000.00	05/04/2000 20:37	
cis-1,3-Dichloropropene	ND	1000	ug/L	2000.00	05/04/2000 20:37	
trans-1,3-Dichloropropene	ND	1000	ug/L	2000.00	05/04/2000 20:37	
Ethylbenzene	18000	1000	ug/L	2000.00	05/04/2000 20:37	
2-Hexanone	ND	100000	ug/L	2000.00	05/04/2000 20:37	
Methylene chloride	ND	10000	ug/L	2000.00	05/04/2000 20:37	
4-Methyl-2-pentanone (MIBK)	ND	100000	ug/L	2000.00	05/04/2000 20:37	
Naphthalene	3800	2000	ug/L	2000.00	05/04/2000 20:37	
Styrene	ND	1000	ug/L	2000.00	05/04/2000 20:37	

1220 Quarry Lane * Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0458

To: Aqua Science Engineers, Inc.
Attn.: Ian T. Reed

Test Method: 8260A
Prep Method: 5030

Volatile Organic Compounds

Sample ID: MW-3	Lab Sample ID: 2000-04-0458-003
Project: 2808 LIM Property	Received: 04/27/2000 14:45
Sampled: 04/25/2000	Extracted: 05/04/2000 20:37
Matrix: Water	QC-Batch: 2000/05/04-01.39
Sample/Analysis Flag o (See Legend & Note section)	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
1,1,2,2-Tetrachloroethane	ND	1000	ug/L	2000.00	05/04/2000 20:37	
Tetrachloroethene	ND	1000	ug/L	2000.00	05/04/2000 20:37	
Toluene	87000	1000	ug/L	2000.00	05/04/2000 20:37	
1,1,1-Trichloroethane	ND	1000	ug/L	2000.00	05/04/2000 20:37	
1,1,2-Trichloroethane	ND	1000	ug/L	2000.00	05/04/2000 20:37	
Trichloroethene	ND	1000	ug/L	2000.00	05/04/2000 20:37	
1,1,1,2-Tetrachloroethane	ND	1000	ug/L	2000.00	05/04/2000 20:37	
Vinyl acetate	ND	10000	ug/L	2000.00	05/04/2000 20:37	
Vinyl chloride	ND	1000	ug/L	2000.00	05/04/2000 20:37	
Total xylenes	84000	2000	ug/L	2000.00	05/04/2000 20:37	
Trichlorotrifluoroethane	ND	1000	ug/L	2000.00	05/04/2000 20:37	
Carbon disulfide	ND	2000	ug/L	2000.00	05/04/2000 20:37	
Isopropylbenzene	1200	1000	ug/L	2000.00	05/04/2000 20:37	
Bromobenzene	ND	1000	ug/L	2000.00	05/04/2000 20:37	
Bromochloromethane	ND	2000	ug/L	2000.00	05/04/2000 20:37	
Trichlorofluoromethane	ND	4000	ug/L	2000.00	05/04/2000 20:37	
Surrogate(s)						
4-Bromofluorobenzene	107.0	86-115	%	1.00	05/04/2000 20:37	
1,2-Dichloroethane-d4	100.0	76-114	%	1.00	05/04/2000 20:37	
Toluene-d8	97.0	88-110	%	1.00	05/04/2000 20:37	

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0458

To: Aqua Science Engineers, Inc.

Test Method: 8260A

Attn.: Ian T. Reed

Prep Method: 5030

Volatile Organic Compounds

Sample ID: MW-4	Lab Sample ID: 2000-04-0458-004
Project: 2808 LIM Property	Received: 04/27/2000 14:45
Sampled: 04/25/2000	Extracted: 05/04/2000 21:12
Matrix: Water	QC-Batch: 2000/05/04-01.39
Sample/Analysis Flag o (See Legend & Note section)	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Acetone	ND	25000	ug/L	500.00	05/04/2000 21:12	
Benzene	4500	250	ug/L	500.00	05/04/2000 21:12	
Bromodichloromethane	ND	250	ug/L	500.00	05/04/2000 21:12	
Bromoform	ND	250	ug/L	500.00	05/04/2000 21:12	
Bromomethane	ND	500	ug/L	500.00	05/04/2000 21:12	
Carbon tetrachloride	ND	250	ug/L	500.00	05/04/2000 21:12	
Chlorobenzene	ND	250	ug/L	500.00	05/04/2000 21:12	
Chloroethane	ND	500	ug/L	500.00	05/04/2000 21:12	
2-Butanone(MEK)	ND	25000	ug/L	500.00	05/04/2000 21:12	
2-Chloroethylvinyl ether	ND	250	ug/L	500.00	05/04/2000 21:12	
Chloroform	ND	250	ug/L	500.00	05/04/2000 21:12	
Chloromethane	ND	500	ug/L	500.00	05/04/2000 21:12	
Dibromochloromethane	ND	250	ug/L	500.00	05/04/2000 21:12	
1,2-Dichlorobenzene	ND	250	ug/L	500.00	05/04/2000 21:12	
1,3-Dichlorobenzene	ND	250	ug/L	500.00	05/04/2000 21:12	
1,4-Dichlorobenzene	ND	250	ug/L	500.00	05/04/2000 21:12	
1,2-Dibromo-3-chloropropane	ND	2500	ug/L	500.00	05/04/2000 21:12	
1,2-Dibromoethane	ND	250	ug/L	500.00	05/04/2000 21:12	
Dibromomethane	ND	250	ug/L	500.00	05/04/2000 21:12	
Dichlorodifluoromethane	ND	250	ug/L	500.00	05/04/2000 21:12	
1,1-Dichloroethane	ND	250	ug/L	500.00	05/04/2000 21:12	
1,2-Dichloroethane	ND	250	ug/L	500.00	05/04/2000 21:12	
1,1-Dichloroethene	ND	250	ug/L	500.00	05/04/2000 21:12	
cis-1,2-Dichloroethene	ND	250	ug/L	500.00	05/04/2000 21:12	
trans-1,2-Dichloroethene	ND	250	ug/L	500.00	05/04/2000 21:12	
1,2-Dichloropropane	ND	250	ug/L	500.00	05/04/2000 21:12	
cis-1,3-Dichloropropene	ND	250	ug/L	500.00	05/04/2000 21:12	
trans-1,3-Dichloropropene	ND	250	ug/L	500.00	05/04/2000 21:12	
Ethylbenzene	2800	250	ug/L	500.00	05/04/2000 21:12	
2-Hexanone	ND	25000	ug/L	500.00	05/04/2000 21:12	
Methylene chloride	ND	2500	ug/L	500.00	05/04/2000 21:12	
4-Methyl-2-pentanone (MIBK)	ND	25000	ug/L	500.00	05/04/2000 21:12	
Naphthalene	590	500	ug/L	500.00	05/04/2000 21:12	
Styrene	ND	250	ug/L	500.00	05/04/2000 21:12	

1220 Quarry Lane * Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0458

To: Aqua Science Engineers, Inc.

Test Method: 8260A

Attn.: Ian T. Reed

Prep Method: 5030

Volatile Organic Compounds

Sample ID: MW-4	Lab Sample ID: 2000-04-0458-004
Project: 2808 LIM Property	Received: 04/27/2000 14:45
Sampled: 04/25/2000	Extracted: 05/04/2000 21:12
Matrix: Water	QC-Batch: 2000/05/04-01.39
Sample/Analysis Flag o (See Legend & Note section)	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
1,1,2,2-Tetrachloroethane	ND	250	ug/L	500.00	05/04/2000 21:12	
Tetrachloroethene	ND	250	ug/L	500.00	05/04/2000 21:12	
Toluene	20000	250	ug/L	500.00	05/04/2000 21:12	
1,1,1-Trichloroethane	ND	250	ug/L	500.00	05/04/2000 21:12	
1,1,2-Trichloroethane	ND	250	ug/L	500.00	05/04/2000 21:12	
Trichloroethene	ND	250	ug/L	500.00	05/04/2000 21:12	
1,1,1,2-Tetrachloroethane	ND	250	ug/L	500.00	05/04/2000 21:12	
Vinyl acetate	ND	2500	ug/L	500.00	05/04/2000 21:12	
Vinyl chloride	ND	250	ug/L	500.00	05/04/2000 21:12	
Total xylenes	14000	500	ug/L	500.00	05/04/2000 21:12	
Trichlorotrifluoroethane	ND	250	ug/L	500.00	05/04/2000 21:12	
Carbon disulfide	ND	500	ug/L	500.00	05/04/2000 21:12	
Isopropylbenzene	ND	250	ug/L	500.00	05/04/2000 21:12	
Bromobenzene	ND	250	ug/L	500.00	05/04/2000 21:12	
Bromochloromethane	ND	500	ug/L	500.00	05/04/2000 21:12	
Trichlorofluoromethane	ND	1000	ug/L	500.00	05/04/2000 21:12	
Surrogate(s)						
4-Bromofluorobenzene	108.7	86-115	%	1.00	05/04/2000 21:12	
1,2-Dichloroethane-d4	99.6	76-114	%	1.00	05/04/2000 21:12	
Toluene-d8	97.5	88-110	%	1.00	05/04/2000 21:12	

1220 Quarry Lane * Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0458

To: Aqua Science Engineers, Inc.

Test Method: 8260A

Attn.: Ian T. Reed

Prep Method: 5030

Batch QC Report Volatile Organic Compounds

Method Blank	Water	QC Batch # 2000/05/04-01.39
MB: 2000/05/04-01.39-001		Date Extracted: 05/04/2000 14:14

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Acetone	ND	50	ug/L	05/04/2000 14:14	
Benzene	ND	0.5	ug/L	05/04/2000 14:14	
Bromodichloromethane	ND	0.5	ug/L	05/04/2000 14:14	
Bromoform	ND	0.5	ug/L	05/04/2000 14:14	
Bromomethane	ND	1.0	ug/L	05/04/2000 14:14	
Carbon tetrachloride	ND	0.5	ug/L	05/04/2000 14:14	
Chlorobenzene	ND	0.5	ug/L	05/04/2000 14:14	
Chloroethane	ND	1.0	ug/L	05/04/2000 14:14	
2-Butanone(MEK)	ND	50	ug/L	05/04/2000 14:14	
2-Chloroethylvinyl ether	ND	0.5	ug/L	05/04/2000 14:14	
Chloroform	ND	0.5	ug/L	05/04/2000 14:14	
Chloromethane	ND	1.0	ug/L	05/04/2000 14:14	
Dibromochloromethane	ND	0.5	ug/L	05/04/2000 14:14	
1,2-Dichlorobenzene	ND	0.5	ug/L	05/04/2000 14:14	
1,3-Dichlorobenzene	ND	0.5	ug/L	05/04/2000 14:14	
1,4-Dichlorobenzene	ND	0.5	ug/L	05/04/2000 14:14	
1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	05/04/2000 14:14	
1,2-Dibromoethane	ND	0.5	ug/L	05/04/2000 14:14	
Dibromomethane	ND	0.5	ug/L	05/04/2000 14:14	
Dichlorodifluoromethane	ND	0.5	ug/L	05/04/2000 14:14	
1,1-Dichloroethane	ND	0.5	ug/L	05/04/2000 14:14	
1,2-Dichloroethane	ND	0.5	ug/L	05/04/2000 14:14	
1,1-Dichloroethene	ND	0.5	ug/L	05/04/2000 14:14	
cis-1,2-Dichloroethene	ND	0.5	ug/L	05/04/2000 14:14	
trans-1,2-Dichloroethene	ND	0.5	ug/L	05/04/2000 14:14	
1,2-Dichloropropane	ND	0.5	ug/L	05/04/2000 14:14	
cis-1,3-Dichloropropene	ND	0.5	ug/L	05/04/2000 14:14	
trans-1,3-Dichloropropene	ND	0.5	ug/L	05/04/2000 14:14	
Ethylbenzene	ND	0.5	ug/L	05/04/2000 14:14	
2-Hexanone	ND	50	ug/L	05/04/2000 14:14	
Methylene chloride	ND	5.0	ug/L	05/04/2000 14:14	
4-Methyl-2-pentanone (MIBK)	ND	50	ug/L	05/04/2000 14:14	
Naphthalene	ND	1.0	ug/L	05/04/2000 14:14	
Styrene	ND	0.5	ug/L	05/04/2000 14:14	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	05/04/2000 14:14	
Tetrachloroethene	ND	0.5	ug/L	05/04/2000 14:14	
Toluene	ND	0.5	ug/L	05/04/2000 14:14	
1,1,1-Trichloroethane	ND	0.5	ug/L	05/04/2000 14:14	
1,1,2-Trichloroethane	ND	0.5	ug/L	05/04/2000 14:14	
Trichloroethene	ND	0.5	ug/L	05/04/2000 14:14	

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0458

To: Aqua Science Engineers, Inc.
Attn.: Ian T. Reed

Test Method: 8260A
Prep Method: 5030

Batch QC Report Volatile Organic Compounds

Method Blank	Water	QC Batch # 2000/05/04-01.39
MB: 2000/05/04-01.39-001		Date Extracted: 05/04/2000 14:14

Compound	Result	Rep.Limit	Units	Analyzed	Flag
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L	05/04/2000 14:14	
Vinyl acetate	ND	5.0	ug/L	05/04/2000 14:14	
Vinyl chloride	ND	0.5	ug/L	05/04/2000 14:14	
Total xylenes	ND	1.0	ug/L	05/04/2000 14:14	
Trichlorotrifluoroethane	ND	0.5	ug/L	05/04/2000 14:14	
Carbon disulfide	ND	1.0	ug/L	05/04/2000 14:14	
Isopropylbenzene	ND	0.5	ug/L	05/04/2000 14:14	
Bromobenzene	ND	0.5	ug/L	05/04/2000 14:14	
Bromochloromethane	ND	1.0	ug/L	05/04/2000 14:14	
Trichlorofluoromethane	ND	2.0	ug/L	05/04/2000 14:14	
Surrogate(s)					
4-Bromofluorobenzene	109.4	86-115	%	05/04/2000 14:14	
1,2-Dichloroethane-d4	104.4	76-114	%	05/04/2000 14:14	
Toluene-d8	94.8	88-110	%	05/04/2000 14:14	

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0458

To: Aqua Science Engineers, Inc.

Test Method: 8260A

Attn: Ian T. Reed

Prep Method: 5030

Batch QC Report

Volatile Organic Compounds

Laboratory Control Spike (LCS/LCSD)		Water		QC Batch # 2000/05/04-01.39	
LCS:	2000/05/04-01.39-002	Extracted:	05/04/2000 12:56	Analyzed	05/04/2000 12:56
LCSD:	2000/05/04-01.39-003	Extracted:	05/04/2000 13:40	Analyzed	05/04/2000 13:40

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Benzene	46.2	51.5	50.0	50.0	92.4	103.0	10.8	69-129	20		
Chlorobenzene	51.4	53.6	50.0	50.0	102.8	107.2	4.2	61-121	20		
1,1-Dichloroethene	52.4	53.7	50.0	50.0	104.8	107.4	2.5	65-125	20		
Toluene	45.0	49.7	50.0	50.0	90.0	99.4	9.9	70-130	20		
Trichloroethene	44.3	46.4	50.0	50.0	88.6	92.8	4.6	74-134	20		
Surrogate(s)											
4-Bromofluorobenzene	520	561	500	500	104.0	112.2		86-115			
1,2-Dichloroethane-d4	463	493	500	500	92.6	98.6		76-114			
Toluene-d8	452	487	500	500	90.4	97.4		88-110			

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0458

To: Aqua Science Engineers, Inc.
Attn: Ian T. Reed

Test Method: 8260A
Prep Method: 5030

Legend & Notes

Volatile Organic Compounds

Analysis Flags

0

Reporting limits were raised due to high level of analyte present in the sample.

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0458

Diesel

Aqua Science Engineers, Inc.

☒ 208 West El Pintado Road
Danville, CA 94526

Attn: Ian T. Reed

Phone: (925) 820-9391 Fax: (925) 837-4853

Project #: 2808

Project: LIM Property

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-1	Water	04/25/2000	1
MW-2	Water	04/25/2000	2
MW-3	Water	04/25/2000	3
MW-4	Water	04/25/2000	4

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0458

To: Aqua Science Engineers, Inc.
Attn.: Ian T. Reed

Test Method: 8015m
Prep Method: 3510/8015M

Diesel

Sample ID: MW-1	Lab Sample ID: 2000-04-0458-001
Project: 2808 LIM Property	Received: 04/27/2000 14:45
Sampled: 04/25/2000	Extracted: 04/27/2000 09:00
Matrix: Water	QC-Batch: 2000/04/27-03.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	280	50	ug/L	1.00	05/01/2000 19:36	edr
<i>Surrogate(s)</i> o-Terphenyl	85.9	60-130	%	1.00	05/01/2000 19:36	

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0458

To: Aqua Science Engineers, Inc.
Attn.: Ian T. Reed

Test Method: 8015m
Prep Method: 3510/8015M

Diesel

Sample ID: MW-2	Lab Sample ID: 2000-04-0458-002
Project: 2808 LIM Property	Received: 04/27/2000 14:45
Sampled: 04/25/2000	Extracted: 04/27/2000 09:00
Matrix: Water	QC-Batch: 2000/04/27-03.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	23000	500	ug/L	10.00	05/01/2000 18:56	edr
<i>Surrogate(s)</i> o-Terphenyl	95.6	60-130	%	10.00	05/01/2000 18:56	

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0458

To: Aqua Science Engineers, Inc.
Attn.: Ian T. Reed

Test Method: 8015m
Prep Method: 3510/8015M

Diesel

Sample ID: MW-3	Lab Sample ID: 2000-04-0458-003
Project: 2808 LIM Property	Received: 04/27/2000 14:45
Sampled: 04/25/2000	Extracted: 04/27/2000 09:00
Matrix: Water	QC-Batch: 2000/04/27-03.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	700000	5000	ug/L	100.00	05/02/2000 13:48	edr
<i>Surrogate(s)</i> o-Terphenyl	ND	60-130	ug/L	100.00	05/02/2000 13:48	sd

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0458

To: Aqua Science Engineers, Inc.

Test Method: 8015m

Attn.: Ian T. Reed

Prep Method: 3510/8015M

Diesel

Sample ID: MW-4	Lab Sample ID: 2000-04-0458-004
Project: 2808 LIM Property	Received: 04/27/2000 14:45
Sampled: 04/25/2000	Extracted: 04/27/2000 09:00
Matrix: Water	QC-Batch: 2000/04/27-03.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	44000	500	ug/L	10.00	05/01/2000 18:17	edr
<i>Surrogate(s)</i> o-Terphenyl	86.4	60-130	%	10.00	05/01/2000 18:17	

51790

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

Chain of Custody

2000-04-0458

PAGE 1 OF 1

SAMPLER (SIGNATURE) Lat Reed (PHONE NO.) (925) 820-9391 PROJECT NAME LIM Property JOB NO. 2808
 ADDRESS 250 8th Street, Oakland CA DATE 4/27/00

ANALYSIS REQUEST					TPH-GAS / MTBE & BTEX (EPA 5030/8015-8020)	TPH-GASOLINE (EPA 5030/8015)	TPH-DIESEL (EPA 3510/8015)	PURGEABLE HALOCARBONS (EPA 601/8010)	PURGEABLE AROMATICS (EPA 602/8020)	VOLATILE ORGANICS (EPA 624/8240) <u>0178</u>	SEMI-VOLATILE ORGANICS (EPA 625/8270)	OIL & GREASE (EPA 5520)	LUFT METALS (5) (EPA 6010+7000)	CAM 17 METALS (EPA 6010+7000)	PCBs & PESTICIDES (EPA 608/8080)	ORGANOPHOSPHORUS PESTICIDES (EPA 8140) (EPA 608/8080)	ORGANOCHLORINE HERBICIDES (EPA 8150)	FUEL OXYGENATES (EPA 8260)				COMPOSITE	
SPECIAL INSTRUCTIONS:	SAMPLE ID.	DATE	TIME	MATRIX																			NO. OF SAMPLES
<u>5-day TAT</u>																							
	<u>MW-1</u>	<u>4/25</u>		<u>water</u>	<u>8</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>															
	<u>MW-2</u>	<u>4/25</u>		<u>water</u>	<u>8</u>	<u>XX</u>	<u>XX</u>	<u>XX</u>				<u>XX</u>											
	<u>MW-3 *</u>	<u>4/25</u>		<u>water</u>	<u>8</u>	<u>XX</u>	<u>XX</u>			<u>XX</u>		<u>XX</u>											
	<u>MW-4</u>	<u>4/25</u>		<u>water</u>	<u>8</u>	<u>XX</u>	<u>XX</u>			<u>XX</u>		<u>XX</u>											

43

RELINQUISHED BY: <u>Lat Reed</u> <u>0920</u> (signature) (time)	RECEIVED BY: <u>Tom Wright</u> <u>0920</u> (signature) (time)	RELINQUISHED BY: <u>Tom Wright</u> <u>1445</u> (signature) (time)	RECEIVED BY LABORATORY: <u>CRISTINA</u> <u>14:45</u> (signature) (time)	COMMENTS: <u>5-day TAT</u>
<u>Lat Reed</u> <u>4/27/00</u> (printed name) (date)	<u>Tom Wright</u> <u>4/27/00</u> (printed name) (date)	<u>Tom Wright</u> <u>4/27/00</u> (printed name) (date)	<u>CRISTINA</u> <u>4/27/00</u> (printed name) (date)	
Company: <u>A/E</u>	Company: <u>C/L</u>	Company: <u>C/L</u>	Company: <u>CL</u>	

* - Free Product in well *