



November 28, 2000

ENVIRONMENTAL  
PROTECTION  
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QUARTERLY GROUNDWATER MONITORING REPORT  
OCTOBER 2000 GROUNDWATER SAMPLING  
ASE JOB NO. 3406  
at  
Former Olympic Service Station  
1436 Grant Avenue  
San Lorenzo, California

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

## 1.0 INTRODUCTION

The following is a report detailing the results of the October 2000 quarterly groundwater sampling at the Former Olympic Service Station located at 1436 Grant Avenue, San Lorenzo, California (Figures 1 and 2).

## 2.0 GROUNDWATER FLOW DIRECTION AND GRADIENT

On October 25, 2000, ASE associate geologist Ian Reed measured the depth to water in each site monitoring well using an electric water level sounder. The surface of the groundwater was also checked for the presence of free-floating product or sheen. **No free-floating product or sheen was observed in any of the site monitoring wells.** Groundwater elevation data is presented in Table One, and groundwater elevation (potentiometric surface) contours are plotted on Figure 2. The groundwater flow is to the west at a gradient of 0.004-feet/foot, which is consistent with previous findings.

**TABLE ONE**  
Groundwater Elevation Data

Well I.D.	Date of Measurement	Top of Casing Elevation (relative to project datum)	Depth to Water (feet)	Groundwater Elevation (project data)
MW-1	10/06/99	15.00	8.35	6.65
	01/13/00		7.90	7.10
	04/12/00		7.08	7.92
	07/19/00		7.66	7.34
	<b>10/25/00</b>		<b>7.91</b>	<b>7.09</b>
MW-2	10/06/99	14.46	7.87	6.59
	01/13/00		7.46	7.00
	04/12/00		6.67	7.79
	07/19/00		7.23	7.23
	<b>10/25/00</b>		<b>7.52</b>	<b>6.94</b>
MW-3	10/06/99	14.41	7.90	6.51
	01/13/00		7.50	6.91
	04/12/00		6.61	7.80
	07/19/00		7.24	7.17
	<b>10/25/00</b>		<b>7.52</b>	<b>6.89</b>

### 3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS

On October 25, 2000, ASE associate geologist Ian Reed collected groundwater samples from all three site monitoring wells for analysis. Prior to sampling, the wells were purged of four well casing volumes of groundwater. The pH, temperature and conductivity of the purge water were monitored during evacuation, and samples were not collected until these parameters stabilized. **A slight hydrocarbon odor was present in water purged from monitoring well MW-3.** Samples were collected from each well using dedicated polyethylene bailers. The groundwater samples to be analyzed for non-volatile compounds were decanted from the bailers into 1-liter amber glass bottles. The samples to be analyzed for volatile compounds were contained in 40-ml volatile organic analysis (VOA) vials, preserved with hydrochloric acid, and sealed without headspace. All the samples were labeled, placed in protective foam sleeves, and 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. See Appendix A for a copy of the Field Logs.

The groundwater samples were analyzed by Chromalab for total petroleum hydrocarbons as gasoline (TPH-G) by modified EPA Method 5030/8015, total petroleum hydrocarbons as diesel (TPH-D) by modified EPA Method 3510/8015, and benzene, toluene, ethyl benzene, and total xylenes (collectively known as BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8020. Groundwater samples collected from monitoring well MW-2, located near the former waste-oil underground storage tank (UST), were also analyzed for total petroleum hydrocarbons as motor oil (TPH-MO) by modified EPA Method 3510/8015. 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.

**TABLE TWO**  
**Summary of Chemical Analysis of GROUNDWATER Samples**  
**TPH-G, TPH-D, TPH-MO, BTEX, MTBE and O&G**  
**All results are in parts per billion**

Well ID & Date Sampled	TPH Gasoline	TPH Diesel	TPH Motor Oil	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	Oil & Grease
<u>MW-1</u>									
10/06/99	3,900*	84**	---	< 25	< 25	< 25	< 25	3,500	---
1/13/00	< 1,300	< 50	---	18	< 13	< 13	< 13	1,700	---
4/12/00	< 1,000	56**	---	66	< 10	< 10	< 10	1,600	---
7/19/00	< 1,000	52**	---	< 10	< 10	< 10	< 10	1,200	---
10/25/00	<b>4,100*</b>	<b>76**</b>	---	<b>120</b>	< 25	< 25	< 25	<b>6,100</b>	---
<u>MW-2</u>									
10/06/99	70*	< 50	< 500	< 0.5	< 0.5	< 0.5	< 0.5	11	< 1,000
1/13/00	< 50	< 50	< 500	< 0.5	< 0.5	< 0.5	< 0.5	6.2	< 1,000
4/12/00	< 50	< 50	< 500	< 0.5	< 0.5	< 0.5	< 0.5	39	1,100
7/19/00	< 1,000	< 50	< 500	< 10	< 10	< 10	< 10	990	1,300
10/25/00	<b>370*</b>	< 50	< 500	< 2.5	< 2.5	< 2.5	< 2.5	<b>690</b>	---
<u>MW-3</u>									
10/06/99	3,900	300**	---	900	89	160	560	790	---
1/13/00	740	210	---	110	4.8	35	18	290	---
4/12/00	2,200	640**	---	650	9.7	180	24	140	---
7/19/00	2,700*	270**	---	420	< 2.5	160	< 2.5	99	---
10/25/00	<b>710*</b>	<b>150**</b>	---	<b>180</b>	< 2.5	<b>24</b>	< 2.5	<b>71</b>	---
MCL	NE	NE	NE	1.0	150	700	1,750	13	NE

Notes:

Most recent concentrations are in **bold**.

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

MCL is the California Department of Health Services maximum contaminant level for drinking water.

NE = MCL is not established.

\* = Hydrocarbons not typical of gasoline pattern.

\*\* = Hydrocarbons not typical of diesel pattern.

--- = Not analyzed

**TABLE THREE**  
**Summary of Chemical Analysis of GROUNDWATER Samples**  
**Monitoring Well MW-2**  
**VOCs and SVOCs**  
**All results are in parts per billion**

<u>Date Sampled</u>	<u>VOCs</u>	<u>SVOCs</u>
10/06/99	ND	ND
01/13/00	ND	ND
04/12/00	NA	NA
7/19/00	NA	NA
10/25/00	NA	NA

Notes:

ND = No compounds detected at various detection limits.

NA = Samples were not analyzed for VOCs and SVOCs.

#### 4.0 CONCLUSIONS AND RECOMMENDATIONS

The groundwater samples collected from monitoring well MW-1 contained 4,100 parts per billion (ppb) TPH-G, 76 ppb TPH-D, 120 ppb benzene, and 6,100 ppb MTBE. The groundwater samples collected from monitoring well MW-2 contained 370 ppb TPH-G and 690 ppb MTBE. The groundwater samples collected from monitoring well MW-3 contained 710 ppb TPH-G, 150 ppb TPH-D, 180 ppb benzene, 24 ppb ethyl benzene, and 71 ppb MTBE.

The MTBE concentrations in groundwater samples collected from all three wells exceeded the California Department of Health Services (DHS) maximum contaminant level (MCL) for drinking water. The benzene concentration detected in groundwater samples collected from monitoring wells MW-1 and MW-3 also exceeded the DHS MCL for drinking.

Since the monitoring wells have now been sampled quarterly for over one year, our client, Mr. George Jaber, requests that the Alameda County Health Care Services Agency (ACHCSA) review this case for closure. ASE requests that the ACHCSA respond to this request in writing during the next quarter. The next quarterly sampling is scheduled for January 2001.

## 5.0 REPORT LIMITATIONS


The results of this assessment 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.

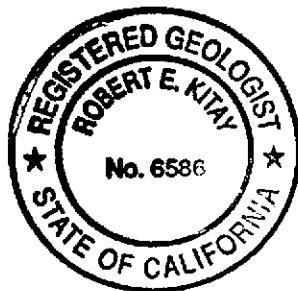
It does not fully characterize the site for contamination resulting from unknown sources, or for parameters not analyzed by the laboratory. All of the laboratory work cited in this report was prepared under the direction of an independent CAL-EPA certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

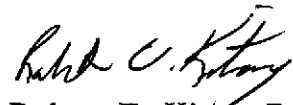
Aqua Science Engineers appreciates the opportunity to provide environmental consulting services for this project. Should you have any questions or comments, please feel free to call us at (925) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

  
Ian T. Reed  
Associate Geologist



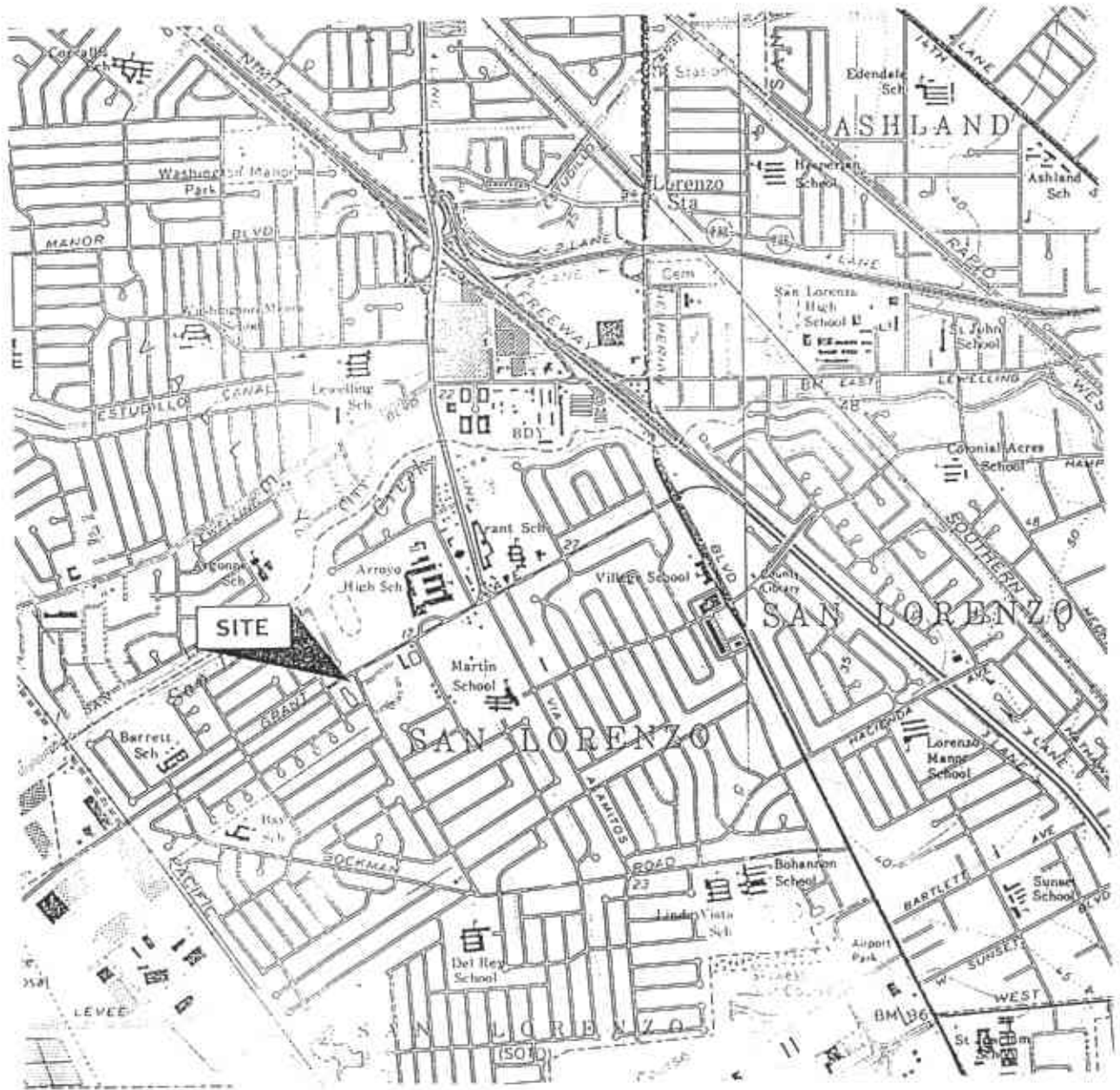
  
Robert E. Kitay, R.G., R.E.A.  
Senior Geologist

Attachments: Figures 1 and 2  
Appendices A through B

cc: Mr. George Jaber  
Mr. Scott Seery, Alameda County Health Care Services Agency  
Mr. Chuck Headlee, California Regional Water Quality Control Board



NORTH



## LOCATION MAP

Olympic Service Station  
1436 Grant Avenue  
San Lorenzo, California

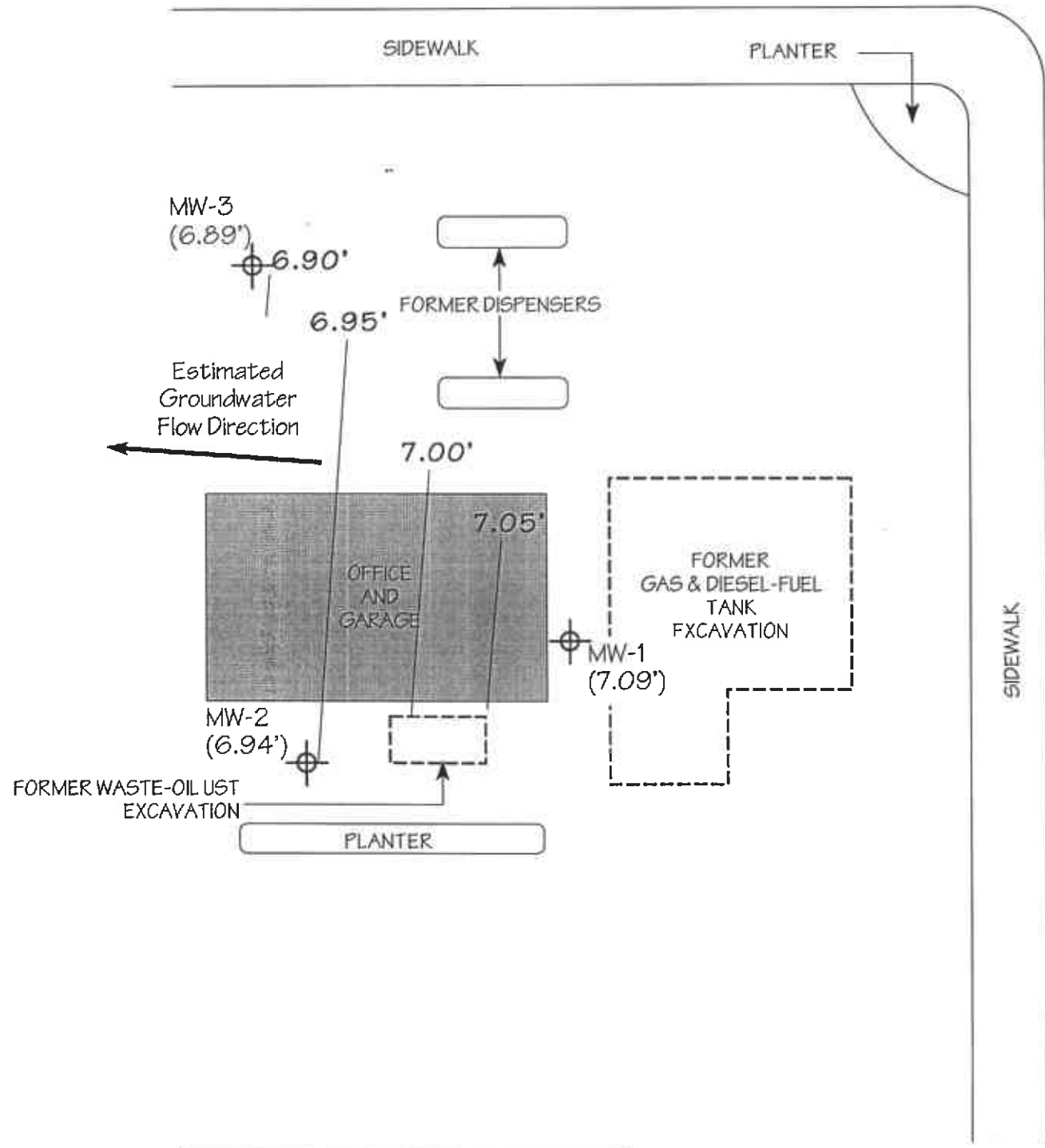
AQUA SCIENCE ENGINEERS, INC.

Figure 1

# GRANT AVENUE

CHANNEL STREET

SIDEWALK



NORTH  
SCALE  
1" = 20'

## LEGEND

- MW-1 (7.09')  
 Monitoring Well with groundwater elevation
- 7.05'  
 Groundwater elevation contour

POTENTIOMETRIC SURFACE  
MAP - 10/25/00

Olympic Service Station  
1436 Grant Avenue  
San Lorenzo, California

AQUA SCIENCE ENGINEERS, INC.

Figure 2





# WELL SAMPLING FIELD LOG

Project Name and Address: Jaber  
 Job #: 3406 Date of sampling: 10/25/00  
 Well Name: MW-1 Sampled by: TR  
 Total depth of well (feet): 24.34 Well diameter (inches): 2"  
 Depth to water before sampling (feet): 7.91  
 Thickness of floating product if any: \_\_\_\_\_  
 Depth of well casing in water (feet): 16.43  
 Number of gallons per well casing volume (gallons): 2.8  
 Number of well casing volumes to be removed: 4  
 Req'd volume of groundwater to be purged before sampling (gallons): 20  
 Equipment used to purge the well: ded. bailer  
 Time Evacuation Began: 1220 Time Evacuation Finished: 1240  
 Approximate volume of groundwater purged: 20  
 Did the well go dry?: NO After how many gallons: -  
 Time samples were collected: 1245  
 Depth to water at time of sampling: 8.95'  
 Percent recovery at time of sampling: \_\_\_\_\_  
 Samples collected with: ded. bailer  
 Sample color: clear/brown Odor: none slight H<sub>2</sub>S odor  
 Description of sediment in sample: f. silt

## CHEMICAL DATA

Volume Purged	Temp °C	pH	Conductivity (µS)
1	19.9	7.23	21
2	20.1	7.23	21
3	20.2	7.22	20
4	20.0	7.22	21

## SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-1	3	40ml VOA	✓	✓	
	2	1-liter Amber		✓	



# WELL SAMPLING FIELD LOG

Project Name and Address: Jaber  
 Job #: 3406 Date of sampling: 10/25/00  
 Well Name: MW-2 Sampled by: ITR  
 Total depth of well (feet): 18.56 Well diameter (inches): 2"  
 Depth to water before sampling (feet): 7.52'  
 Thickness of floating product if any: \_\_\_\_\_  
 Depth of well casing in water (feet): 11.04  
 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): 7.6  
 Equipment used to purge the well: ded. bailer  
 Time Evacuation Began: 1150 Time Evacuation Finished: 1210  
 Approximate volume of groundwater purged: 7.6  
 Did the well go dry?: no After how many gallons: -  
 Time samples were collected: 1215  
 Depth to water at time of sampling: 8.13'  
 Percent recovery at time of sampling: \_\_\_\_\_  
 Samples collected with: ded. bailer  
 Sample color: clear/brown Odor: none  
 Description of sediment in sample: f. silt

## CHEMICAL DATA

Volume Purged	Temp °C	pH	Conductivity (µS)
1	21.4	7.31	22
2	21.4	7.30	22
3	21.3	7.30	22
4	21.4	7.31	22

## SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-2	3	40ml VOA	✓	✓	
	3	1-liter Amber		✓	



# WELL SAMPLING FIELD LOG

Project Name and Address: Jaber  
 Job #: 3406 Date of sampling: 10/25/10  
 Well Name: MW-3 Sampled by: ITR  
 Total depth of well (feet): 19.0' Well diameter (inches): 2"  
 Depth to water before sampling (feet): 7.52'  
 Thickness of floating product if any: —  
 Depth of well casing in water (feet): 11.48  
 Number of gallons per well casing volume (gallons): 2  
 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: 1255 Time Evacuation Finished: 1305  
 Approximate volume of groundwater purged: 8  
 Did the well go dry?: no After how many gallons: —  
 Time samples were collected: 1310  
 Depth to water at time of sampling: 8.33  
 Percent recovery at time of sampling: —  
 Samples collected with: ded. bailer  
 Sample color: clear/brown Odor: slight HC odor  
 Description of sediment in sample: fine silt

## CHEMICAL DATA

Volume Purged	Temp °C	pH	Conductivity (µS)
1	19.9	7.41	19
2	20.0	7.40	20
3	20.0	7.40	20
4	20.0	7.40	21

## SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-3	3	40ml VOA	✓	✓	
	2	1-liter Amber		✓	

## **APPENDIX B**

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

Attn.: Mr. Ian T. Reed

Project: 3406  
Jaber

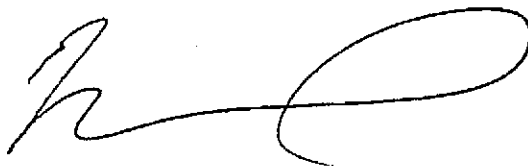
Site: 1436 Grant Ave.  
San Leandro, CA

Dear Mr. Reed,

Attached is our report for your samples received on Wednesday October 25, 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 December 9, 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: [vvancil@chromalab.com](mailto:vvancil@chromalab.com)

Sincerely,



Vincent Vancil

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0516

Diesel

<b>Aqua Science Engineers, Inc.</b>	☒ 208 West El Pintado Road Danville, CA 94526
Attn: Ian T. Reed	Phone: (925) 820-9391 Fax: (925) 837-4853
Project #: 3406	Project: Jaber
Site: 1436 Grant Ave. San Leandro, CA	

### Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-1	Water	10/25/2000 12:45	1
MW-3	Water	10/25/2000 13:10	3

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

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0516

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

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

Diesel

Sample ID: MW-1	Lab Sample ID: 2000-10-0516-001
Project: 3406 Jaber	Received: 10/25/2000 14:30
Site: 1436 Grant Ave. San Leandro, CA	Extracted: 10/26/2000 13:25
Sampled: 10/25/2000 12:45	QC-Batch: 2000/10/26-03.10
Matrix: Water	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	<del>76</del>	50	ug/L	1.00	10/28/2000 17:32	ndp
<i>Surrogate(s)</i> o-Terphenyl	105.7	60-130	%	1.00	10/28/2000 17:32	

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

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0516

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

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

Diesel

Sample ID:	MW-3	Lab Sample ID:	2000-10-0516-003
Project:	3406 Jaber	Received:	10/25/2000 14:30
Site:	1436 Grant Ave. San Leandro, CA	Extracted:	10/26/2000 13:25
Sampled:	10/25/2000 13:10	QC-Batch:	2000/10/26-03.10
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	150	50	ug/L	1.00	10/28/2000 18:49	ndp
Surrogate(s) o-Terphenyl	119.3	60-130	%	1.00	10/28/2000 18:49	

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



# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0516

To: Aqua Science Engineers, Inc.

Test Method: 8015M

Attn.: Ian T. Reed

Prep Method: 3510/8015M

## Batch QC Report

Diesel

Method Blank	Water	QC Batch # 2000/10/26-03.10
MB: 2000/10/26-03.10-003		Date Extracted: 10/26/2000 13:25

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Diesel	ND	50	ug/L	10/28/2000 10:28	
<i>Surrogate(s)</i> o-Terphenyl	100.0	60-130	%	10/28/2000 10:28	

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

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0516

To: Aqua Science Engineers, Inc.

Test Method: 8015M

Attn: Ian T. Reed

Prep Method: 3510/8015M

## Batch QC Report

Diesel

Laboratory Control Spike (LCS/LCSD)	Water	QC Batch # 2000/10/26-03.10
LCS: 2000/10/26-03.10-001	Extracted: 10/26/2000 13:25	Analyzed 10/28/2000 11:06
LCSD: 2000/10/26-03.10-002	Extracted: 10/26/2000 13:25	Analyzed 10/28/2000 11:45

Compound	Conc. [ ug/L ]		Exp.Conc. [ ug/L ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Diesel	1180	1150	1250	1250	94.4	92.0	2.6	60-130	25		
<i>Surrogate(s)</i> o-Terphenyl	25.4	24.8	20.0	20.0	127.0	124.0		60-130			

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

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0516

To: Aqua Science Engineers, Inc.

Attn: Ian T. Reed

Test Method: 8015M

Prep Method: 3510/8015M

## Legend & Notes

Diesel

### Analyte Flags

ndp

Hydrocarbon reported does not match the pattern of our Diesel standard

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0516

Gas/BTEX and MTBE

<b>Aqua Science Engineers, Inc.</b>	☒ 208 West El Pintado Road Danville, CA 94526
Attn: Ian T. Reed	Phone: (925) 820-9391 Fax: (925) 837-4853
Project #: 3406	Project: Jaber
Site: 1436 Grant Ave. San Leandro, CA	

## Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-1	Water	10/25/2000 12:45	1
MW-2	Water	10/25/2000 12:15	2
MW-3	Water	10/25/2000 13:10	3

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

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0516

To: Aqua Science Engineers, Inc.

Test Method: 8020  
8015M

Attn.: Ian T. Reed

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID: <b>MW-1</b>	Lab Sample ID: <b>2000-10-0516-001</b>
Project: 3406 Jaber	Received: 10/25/2000 14:30
Site: 1436 Grant Ave. San Leandro, CA	Extracted: 10/30/2000 19:44
Sampled: 10/25/2000 12:45	QC-Batch: 2000/10/30-01.02
Matrix: Water	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	<b>4100</b>	2500	ug/L	50.00	10/30/2000 19:44	g
Benzene	120	25	ug/L	50.00	10/30/2000 19:44	
Toluene	ND	25	ug/L	50.00	10/30/2000 19:44	
Ethyl benzene	ND	25	ug/L	50.00	10/30/2000 19:44	
Xylene(s)	ND	25	ug/L	50.00	10/30/2000 19:44	
MTBE	<b>6100</b>	250	ug/L	50.00	10/30/2000 19:44	
<b>Surrogate(s)</b>						
Trifluorotoluene	72.4	58-124	%	50.00	10/30/2000 19:44	
4-Bromofluorobenzene-FID	78.6	50-150	%	50.00	10/30/2000 19:44	

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

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0516

To: Aqua Science Engineers, Inc.

Test Method: 8020  
8015M

Attn.: Ian T. Reed

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID: MW-2	Lab Sample ID: 2000-10-0516-002
Project: 3406 Jaber	Received: 10/25/2000 14:30
Site: 1436 Grant Ave. San Leandro, CA	Extracted: 11/01/2000 11:11
Sampled: 10/25/2000 12:15	QC-Batch: 2000/11/01-01.02
Matrix: Water	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	370	250	ug/L	5.00	11/01/2000 11:11	g
Benzene	ND	2.5	ug/L	5.00	11/01/2000 11:11	
Toluene	ND	2.5	ug/L	5.00	11/01/2000 11:11	
Ethyl benzene	ND	2.5	ug/L	5.00	11/01/2000 11:11	
Xylene(s)	ND	2.5	ug/L	5.00	11/01/2000 11:11	
MTBE	690	25	ug/L	5.00	11/01/2000 11:11	
<b>Surrogate(s)</b>						
Trifluorotoluene	103.6	58-124	%	1.00	11/01/2000 11:11	
4-Bromofluorobenzene-FID	82.4	50-150	%	1.00	11/01/2000 11:11	

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

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0516

To: Aqua Science Engineers, Inc.

Test Method: 8020  
8015M

Attn.: Ian T. Reed

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID: MW-3	Lab Sample ID: 2000-10-0516-003
Project: 3406 Jaber	Received: 10/25/2000 14:30
Site: 1436 Grant Ave. San Leandro, CA	Extracted: 10/31/2000 19:43
Sampled: 10/25/2000 13:10	QC-Batch: 2000/10/31-01.02
Matrix: Water	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	710	250	ug/L	5.00	10/31/2000 19:43	g
Benzene	180	2.5	ug/L	5.00	10/31/2000 19:43	
Toluene	ND	2.5	ug/L	5.00	10/31/2000 19:43	
Ethyl benzene	24	2.5	ug/L	5.00	10/31/2000 19:43	
Xylene(s)	ND	2.5	ug/L	5.00	10/31/2000 19:43	
MTBE	71	25	ug/L	5.00	10/31/2000 19:43	
<b>Surrogate(s)</b>						
Trifluorotoluene	83.6	58-124	%	1.00	10/31/2000 19:43	
4-Bromofluorobenzene-FID	78.0	50-150	%	1.00	10/31/2000 19:43	

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

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0516

To: Aqua Science Engineers, Inc.

Test Method: 8015M  
8020  
8021B

Attn.: Ian T. Reed

Prep Method: 5030

## Batch QC Report Gas/BTEX and MTBE

Method Blank	Water	QC Batch # 2000/10/30-01.02
MB: 2000/10/30-01.02-001		Date Extracted: 10/30/2000 07:14

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	10/30/2000 07:14	
Benzene	ND	0.5	ug/L	10/30/2000 07:14	
Toluene	ND	0.5	ug/L	10/30/2000 07:14	
Ethyl benzene	ND	0.5	ug/L	10/30/2000 07:14	
Xylene(s)	ND	0.5	ug/L	10/30/2000 07:14	
MTBE	ND	5.0	ug/L	10/30/2000 07:14	
<b>Surrogate(s)</b>					
Trifluorotoluene	91.2	58-124	%	10/30/2000 07:14	
4-Bromofluorobenzene-FID	77.8	50-150	%	10/30/2000 07:14	

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Environmental Services (SDB)

Submission #: 2000-10-0516

To: Aqua Science Engineers, Inc.

Test Method: 8015M  
8020  
8021B

Attn.: Ian T. Reed

Prep Method: 5030

## Batch QC Report Gas/BTEX and MTBE

Method Blank	Water	QC Batch # 2000/10/31-01.02
MB: 2000/10/31-01.02-001		Date Extracted: 10/31/2000 06:41

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	10/31/2000 06:41	
Benzene	ND	0.5	ug/L	10/31/2000 06:41	
Toluene	ND	0.5	ug/L	10/31/2000 06:41	
Ethyl benzene	ND	0.5	ug/L	10/31/2000 06:41	
Xylene(s)	ND	0.5	ug/L	10/31/2000 06:41	
MTBE	ND	5.0	ug/L	10/31/2000 06:41	
<b>Surrogate(s)</b>					
Trifluorotoluene	79.8	58-124	%	10/31/2000 06:41	
4-Bromofluorobenzene-FID	80.8	50-150	%	10/31/2000 06:41	

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# CHROMALAB, INC.

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Submission #: 2000-10-0516

To: Aqua Science Engineers, Inc.

Test Method: 8015M  
8020  
8021B

Attn.: Ian T. Reed

Prep Method: 5030

**Batch QC Report**  
Gas/BTEX and MTBE

<b>Method Blank</b>	<b>Water</b>	<b>QC Batch # 2000/11/01-01.02</b>
MB: 2000/11/01-01.02-001		Date Extracted: 11/01/2000 05:56

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	11/01/2000 05:56	
Benzene	ND	0.5	ug/L	11/01/2000 05:56	
Toluene	ND	0.5	ug/L	11/01/2000 05:56	
Ethyl benzene	ND	0.5	ug/L	11/01/2000 05:56	
Xylene(s)	ND	0.5	ug/L	11/01/2000 05:56	
MTBE	ND	5.0	ug/L	11/01/2000 05:56	
<b>Surrogate(s)</b>					
Trifluorotoluene	81.6	58-124	%	11/01/2000 05:56	
4-Bromofluorobenzene-FID	82.8	50-150	%	11/01/2000 05:56	

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Environmental Services (SDB)

Submission #: 2000-10-0516

To: Aqua Science Engineers, Inc.

Test Method: 8015M  
8020  
8021B

Attn: Ian T. Reed

Prep Method: 5030

## Batch QC Report

Gas/BTEX and MTBE

### Laboratory Control Spike (LCS/LCSD)

Water

QC Batch # 2000/10/30-01.02

LCS: 2000/10/30-01.02-002

Extracted: 10/30/2000 07:45

Analyzed 10/30/2000 07:45

LCSD: 2000/10/30-01.02-003

Extracted: 10/30/2000 08:16

Analyzed 10/30/2000 08:16

Compound	Conc. [ug/L]		Exp. Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Gasoline	515	499	500	500	103.0	99.8	3.2	75-125	20		
Benzene	112	109	100.0	100.0	112.0	109.0	2.7	77-123	20		
Toluene	108	104	100.0	100.0	108.0	104.0	3.8	78-122	20		
Ethyl benzene	98.9	96.4	100.0	100.0	98.9	96.4	2.6	70-130	20		
Xylene(s)	283	276	300	300	94.3	92.0	2.5	75-125	20		
<b>Surrogate(s)</b>											
Trifluorotoluene	487	459	500	500	97.4	91.8		58-124			
4-Bromofluorobenzene-FI	451	443	500	500	90.2	88.6		50-150			

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# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0516

To: Aqua Science Engineers, Inc.

Test Method: 8015M  
8020  
8021B

Attn: Ian T. Reed

Prep Method: 5030

## Batch QC Report

Gas/BTEX and MTBE

Laboratory Control Spike (LCS/LCSD)	Water	QC Batch # 2000/10/31-01.02
LCS: 2000/10/31-01.02-002	Extracted: 10/31/2000 07:12	Analyzed 10/31/2000 07:12
LCSD: 2000/10/31-01.02-003	Extracted: 10/31/2000 07:43	Analyzed 10/31/2000 07:43

Compound	Conc. [ug/L]		Exp. Conc. [ug/L]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Gasoline	490	499	500	500	98.0	99.8	1.8	75-125	20		
Benzene	103	102	100.0	100.0	103.0	102.0	1.0	77-123	20		
Toluene	99.7	99.8	100.0	100.0	99.7	99.8	0.1	78-122	20		
Ethyl benzene	92.3	98.6	100.0	100.0	92.3	98.6	6.6	70-130	20		
Xylene(s)	268	287	300	300	89.3	95.7	6.9	75-125	20		
<b>Surrogate(s)</b>											
Trifluorotoluene	434	416	500	500	86.8	83.2		58-124			
4-Bromofluorobenzene-FI	445	457	500	500	89.0	91.4		50-150			

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Environmental Services (SDB)

Submission #: 2000-10-0516

To: Aqua Science Engineers, Inc.

Test Method: 8015M  
8020  
8021B

Attn: Ian T. Reed

Prep Method: 5030

## Batch QC Report

Gas/BTEX and MTBE

Laboratory Control Spike (LCS/LCSD)	Water	QC Batch # 2000/11/01-01.02
LCS: 2000/11/01-01.02-002	Extracted: 11/01/2000 06:27	Analyzed 11/01/2000 06:27
LCSD: 2000/11/01-01.02-003	Extracted: 11/01/2000 06:58	Analyzed 11/01/2000 06:58

Compound	Conc. [ug/L]		Exp. Conc. [ug/L]		Recovery [%] RPD			Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	RPD [%]	Recovery	RPD	LCS	LCSD
Gasoline	499	518	500	500	99.8	103.6	3.7	75-125	20		
Benzene	107	102	100.0	100.0	107.0	102.0	4.8	77-123	20		
Toluene	103	97.4	100.0	100.0	103.0	97.4	5.6	78-122	20		
Ethyl benzene	94.8	90.6	100.0	100.0	94.8	90.6	4.5	70-130	20		
Xylene(s)	274	264	300	300	91.3	88.0	3.7	75-125	20		
<b>Surrogate(s)</b>											
Trifluorotoluene	440	403	500	500	88.0	80.6		58-124			
4-Bromofluorobenzene-FI	448	459	500	500	89.6	91.8		50-150			

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0516

To: Aqua Science Engineers, Inc.

Test Method: 8015M  
8020

Attn: Ian T. Reed

Prep Method: 5030

## Legend & Notes

Gas/BTEX and MTBE

## Analyte Flags

g

Hydrocarbon reported in the gasoline range does not match our gasoline standard.

Total Extractable Petroleum Hydrocarbons (TEPH)

<b>Aqua Science Engineers, Inc.</b>	✉ 208 West El Pintado Road Danville, CA 94526
Attn: Ian T. Reed	Phone: (925) 820-9391 Fax: (925) 837-4853
Project #: 3406	Project: Jaber
Site: 1436 Grant Ave. San Leandro, CA	

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-2	Water	10/25/2000 12:15	2

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0516

To: Aqua Science Engineers, Inc.

Test Method: 8015M

Attn.: Ian T. Reed

Prep Method: 3510/8015M

## Total Extractable Petroleum Hydrocarbons (TEPH)

Sample ID: MW-2	Lab Sample ID: 2000-10-0516-002
Project: 3406 Jaber	Received: 10/25/2000 14:30
Site: 1436 Grant Ave. San Leandro, CA	Extracted: 10/26/2000 13:25
Sampled: 10/25/2000 12:15	QC-Batch: 2000/10/26-03.10
Matrix: Water	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	ND	50	ug/L	1.00	10/28/2000 18:11	
Motor Oil	ND	500	ug/L	1.00	10/28/2000 18:11	
<b>Surrogate(s)</b> o-Terphenyl	118.0	60-130	%	1.00	10/28/2000 18:11	

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



# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0516

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

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

## Batch QC Report Total Extractable Petroleum Hydrocarbons (TEPH)

Method Blank	Water	QC Batch # 2000/10/26-03.10
MB: 2000/10/26-03.10-003		Date Extracted: 10/26/2000 13:25

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Diesel	ND	50	ug/L	10/28/2000 10:28	
Motor Oil	ND	500	ug/L	10/28/2000 10:28	
Surrogate(s) o-Terphenyl	100.0	60-130	%	10/28/2000 10:28	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0516

To: Aqua Science Engineers, Inc.

Test Method: 8015M

Attn: Ian T. Reed

Prep Method: 3510/8015M

## Batch QC Report

### Total Extractable Petroleum Hydrocarbons (TEPH)

Laboratory Control Spike (LCS/LCSD)	Water	QC Batch # 2000/10/26-03.10
LCS: 2000/10/26-03.10-001	Extracted: 10/26/2000 13:25	Analyzed 10/28/2000 11:06
LCSD: 2000/10/26-03.10-002	Extracted: 10/26/2000 13:25	Analyzed 10/28/2000 11:45

Compound	Conc. [ ug/L ]		Exp.Conc. [ ug/L ]		Recovery [%] RPD			Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	RPD [%]	Recovery	RPD	LCS	LCSD
Diesel	1180	1150	1250	1250	94.4	92.0	2.6	60-130	25		
<i>Surrogate(s)</i> o-Terphenyl	25.4	24.8	20.0	20.0	127.0	124.0		60-130			

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# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0516

To: Aqua Science Engineers, Inc.

Test Method: 8015M

Attn.: Ian T. Reed

Prep Method: 3510/8015M

## Batch QC Report

### Total Extractable Petroleum Hydrocarbons (TEPH)

<b>Matrix Spike ( MS / MSD )</b>	<b>Water</b>	<b>QC Batch # 2000/10/26-03.10</b>
Sample ID: V-1		Lab Sample ID: 2000-10-0520-003
MS: 2000/10/26-03.10-004	Extracted: 10/26/2000 13:25	Analyzed: 10/28/2000 12:24 Dilution: 1.0
MSD: 2000/10/26-03.10-005	Extracted: 10/26/2000 13:25	Analyzed: 10/28/2000 13:02 Dilution: 1.0

Compound	Conc. [ug/L]			Exp. Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Diesel	1250	1240	ND	1276	1250	98.0	99.2	1.2	60-130	25		
<b>Surrogate(s)</b> o-Terphenyl	25.1	25.3		20.0	20.0	125.5	126.5		60-130			

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

# Chain of Custody 2000-10-0516

PAGE 1 OF 1

SAMPLER (SIGNATURE) Art. Reed (PHONE NO.) (925) 820-9391

PROJECT NAME JABER JOB NO. 3406  
 ADDRESS 1436 Grant Ave, San Lorenzo, CA

## ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

S-day TAT

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH-GAS / MTBE & BTEX (EPA 5030/8015-8020)	TPH-DIESEL (EPA 3510/8015)	TPH-DIESEL & MOTOR OIL (EPA 3510/8015)	PURGEABLE HALOCARBONS (EPA 601/8010)	VOLATILE ORGANICS (EPA 624/8240/8260)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	OIL & GREASE (EPA 5520)	LIFT METALS (5) (EPA 6010+7000)	CAM 17 METALS (EPA 6010+7000)	PCBs & PESTICIDES (EPA 608/8080)	ORGANOPHOSPHORUS PESTICIDES (EPA 8140 EPA 608/8080)	FUEL OXYGENATES (EPA 8260)	Pb (TOTAL or DISSOLVED) (EPA 6010)	TPH-GIBTEX/5 OXY'S (EPA 8260)	TPH-GIBTEX/7 OXY'S / HYOCS (EPA 8260)	COMPOSITE
MW-1	10/25	1245	water	5	X	X														
MW-2	11/25	1215	water	6	X	X	X													
MW-3	11/25	1310	water	5	X	X														

RELINQUISHED BY: Art. Reed 11/30  
 (signature) (time)  
Art. Reed 11/25/00  
 (printed name) (date)  
 Company- ATE

RECEIVED BY:  
 (signature) (time)  
 (printed name) (date)  
 Company-

RELINQUISHED BY:  
 (signature) (time)  
 (printed name) (date)  
 Company-

RECEIVED BY LABORATORY:  
CRUSENZA 10/25/00 14:30  
 (signature) (time)  
 (printed name) (date)  
 Company- CR

COMMENTS:  
 TURN AROUND TIME  
 STANDARD 24Hr 48Hr 72Hr  
 OTHER: 4 hrs.