aqua science engineers inc.

ENVIRONMENTAL PROTECTION
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May 10, 2000

QUARTERLY GROUNDWATER MONITORING REPORT
APRIL 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 April 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 April 12, 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.

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**
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**
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**

3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS

On April 12, 2000, ASE associate geologist Ian Reed collected groundwater samples from all three site monitoring wells for analysis. No free-floating hydrocarbons or sheen was present on the surface of groundwater in any of the monitoring wells. However, hydrocarbon odors were present in water purged from monitoring well MW-1. 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. Samples were collected from each well using dedicated polyethylene bailers. The groundwater samples to be analyzed for non-volatile compunds were decanted from the bailers into 1-liter amber glass bottles. The samples to be analyzed for volatile compunds 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 and left on-site for temporary storage until off-site disposal can be arranged. 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, and Oil and Grease (O&G) by Standard Method 5520. 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, BTEX, MTBE and Total Lead
All results are in **parts per billion**

Borng & Date Sampled	TPH Gasoline	TPH Diesel	Motor Oil	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	Oil & Grease
MW-1									
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**	**---**
MW-2									
10/06/99	70*	< 50	< 500	< 0.50	< 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**
MW-3									
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**	**---**
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**

Date Sampled	VOCs	SVOCs
10/06/99	ND	ND
1/13/00	ND	ND
4/12/00	**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 56 parts per billion (ppb) TPH-D, 66 ppb benzene and 1,600 ppb MTBE. The groundwater samples collected from monitoring well MW-2 contained 39 ppb MTBE and 1,100 ppb O&G. The groundwater samples collected from monitoring well MW-3 contained 2,200 ppb TPH-G, 640 ppb TPH-D, 650 ppb benzene, 180 ppb ethyl benzene, 9.7 ppb toluene, 24 ppb total xylenes, and 140 ppb MTBE.

In general, the hydrocarbon concentrations detected in groundwater samples collected from all three site wells are very similar to previous results. No hydrocarbons were detected in groundwater samples collected from monitoring well MW-2, other than 39 ppb MTBE and 1,100 O&G The benzene and MTBE concentrations in groundwater samples from monitoring wells MW-1 and MW-3 exceeded California Department of Health Services (DHS) maximum contaminant levels (MCLs) for drinking water.

ASE recommends that this site remain on a quarterly groundwater monitoring program. Based on the sampling schedule, the next sampling is scheduled for July 2000.

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.

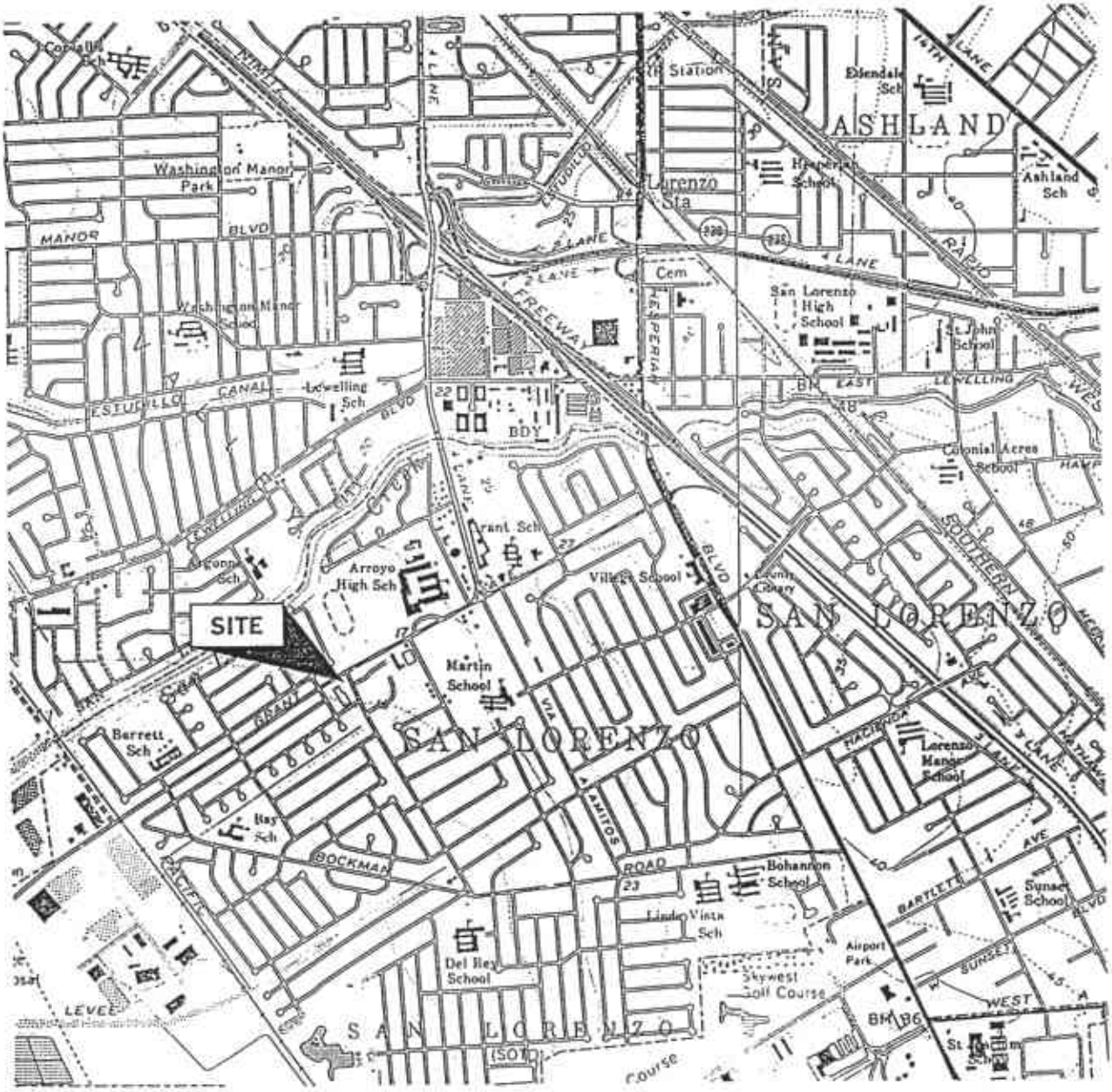
Ian Reed
Associate Geologist

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

Attachments: Figures 1 and 2
Appendices A through B

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

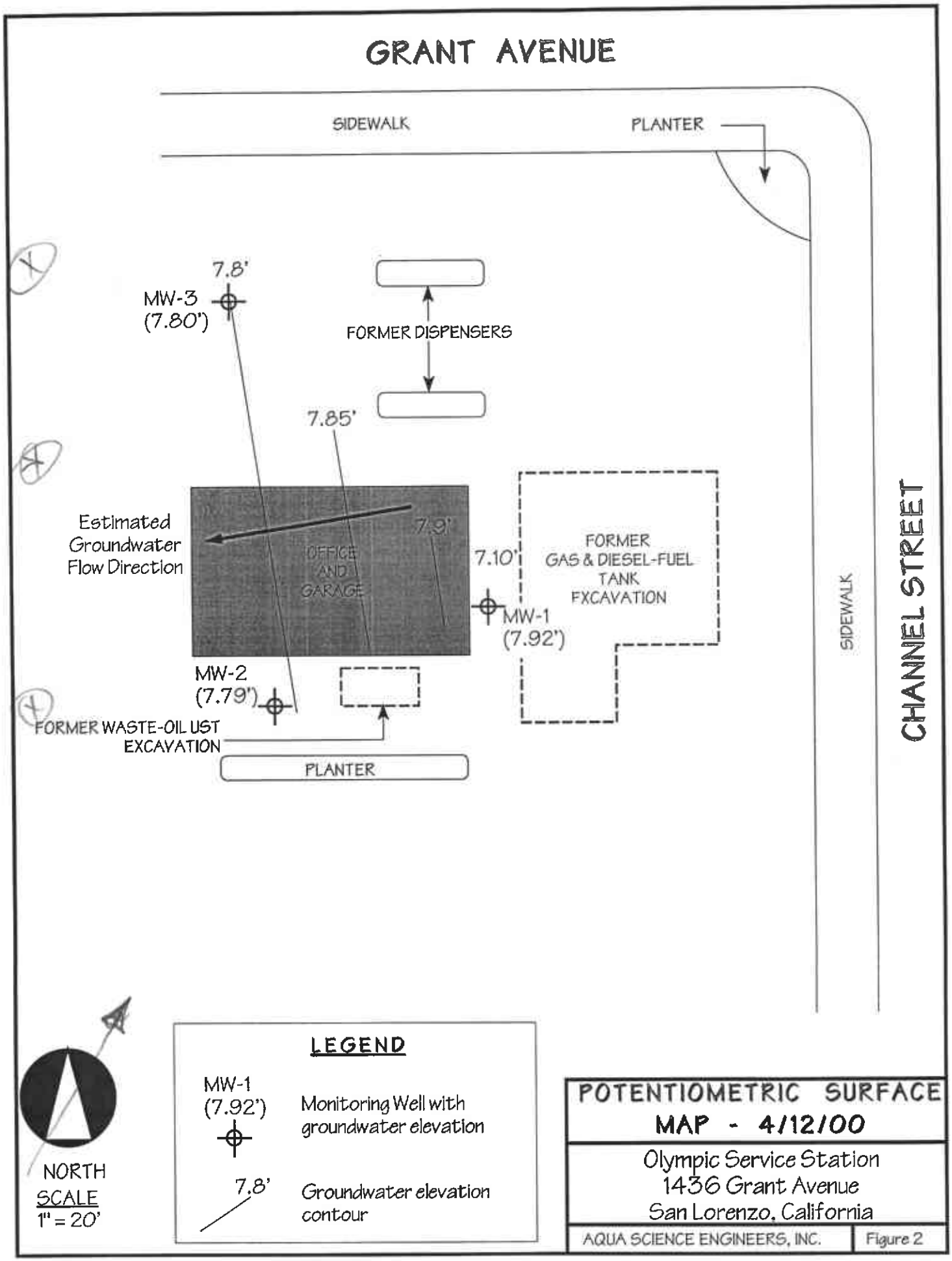
NORTH



LOCATION MAP

Olympic Service Station
1436 Grant Avenue
San Lorenzo, California

AQUA SCIENCE ENGINEERS, INC. | Figure 1



POTENTIOMETRIC SURFACE MAP - 4/12/00

Olympic Service Station
1436 Grant Avenue
San Lorenzo, California

AQUA SCIENCE ENGINEERS, INC. | Figure 2

APPENDIX A

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WELL SAMPLING FIELD LOG

Project Name and Address: TABOR
Job #: _____ Date of sampling: 4/12/00
Well Name: MW-1 Sampled by: ITR
Total depth of well (feet): 24.34 Well diameter (inches): 2"
Depth to water before sampling (feet): 7.08
Thickness of floating product if any: ~~NF~~ —
Depth of well casing in water (feet): 17.26
Number of gallons per well casing volume (gallons): 2.9
Number of well casing volumes to be removed: 4
Req'd volume of groundwater to be purged before sampling (gallons): 11.8
Equipment used to purge the well: ded bailer
Time Evacuation Began: 1125 Time Evacuation Finished: 1140
Approximate volume of groundwater purged: 12
Did the well go dry?: NO After how many gallons: —
Time samples were collected: 1145
Depth to water at time of sampling: 7.10
Percent recovery at time of sampling: 99%
Samples collected with: ded. bailer
Sample color: clear/brown Odor: slight HC odor?
Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	71.2	4.94	697
2	71.3	4.97	699
3	71.0	4.97	690
4	71.1	4.98	643

SAMPLES COLLECTED

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

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WELL SAMPLING FIELD LOG

Project Name and Address: Tabor —
Job #: _____ Date of sampling: 4/12/00
Well Name: MW-2 Sampled by: ITR
Total depth of well (feet): 18.56 Well diameter (inches): 2"
Depth to water before sampling (feet): 6.67
Thickness of floating product if any: —
Depth of well casing in water (feet): 11.89
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: disp. bailer
Time Evacuation Began: 1100 Time Evacuation Finished: 1110
Approximate volume of groundwater purged: 8
Did the well go dry?: NO After how many gallons: —
Time samples were collected: 1115
Depth to water at time of sampling: 6.69
Percent recovery at time of sampling: 99%
Samples collected with: disp. bailer
Sample color: brown/clear Odor: none
Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	69.7	7.41	916
2	69.9	7.32	942
3	69.8	7.30	941
4	69.9	7.33	951

SAMPLES COLLECTED

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

2411 Old Crow Canyon Road #4 San Ramon, CA 94583 • 510-820-9391 • Fax 510-837-4853

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WELL SAMPLING FIELD LOG

Project Name and Address: JABOR
Job #: _____ Date of sampling: 4/12/00
Well Name: MW-3 Sampled by: TR
Total depth of well (feet): 19.00' Well diameter (inches): 2"
Depth to water before sampling (feet): 6.61
Thickness of floating product if any: -
Depth of well casing in water (feet): 12.39
Number of gallons per well casing volume (gallons): 2.1
Number of well casing volumes to be removed: 4
Req'd volume of groundwater to be purged before sampling (gallons): 8.4
Equipment used to purge the well: ded. bailer
Time Evacuation Began: 1200 Time Evacuation Finished: 1215
Approximate volume of groundwater purged: 8.5
Did the well go dry?: NO After how many gallons: -
Time samples were collected: 1220
Depth to water at time of sampling: 6.65
Percent recovery at time of sampling: 99%
Samples collected with: ded. bailer
Sample color: Clear/Brown Odor: none
Description of sediment in sample: v. fine silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	71.0	6.61	810
2	69.9	6.74	925
3	69.9	6.73	926
4	69.9	6.75	927

SAMPLES COLLECTED

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

APPENDIX B

CHROMALAB, INC.
Environmental Services (SDB)

Submission #: 2000-04-0207
Date: April 20, 2000

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

Attn.: Mr. Ian T. Reed

Project: 3406
Jabor

Dear Mr. Reed,

Attached is our report for your samples received on Thursday April 13, 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 13, 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

Sincerely,

Vincent Vancil

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0207

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 #: 3406

Project: Jabor

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-1	Water	04/12/2000 11:45	1
MW-3	Water	04/12/2000 12:20	2

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0207

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

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

Diesel

Sample ID:	**MW-1**	Lab Sample ID:	**2000-04-0207-001**
Project:	3406 Jabor	Received:	04/13/2000 18:10
		Extracted:	04/17/2000 11:01
Sampled:	04/12/2000 11:45	QC-Batch:	2000/04/17-03.10
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	56	50	ug/L	1.00	04/17/2000 20:22	ndp
Surrogate(s)						
o-Terphenyl	84.8	60-130	%	1.00	04/17/2000 20:22	

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

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

Diesel

Sample ID:	**MW-3**	Lab Sample ID:	**2000-04-0207-002**
Project:	3406 Jabor	Received:	04/13/2000 18:10
		Extracted:	04/17/2000 11:01
Sampled:	04/12/2000 12:20	QC-Batch:	2000/04/17-03.10
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	640	50	ug/L	1.00	04/17/2000 21:01	ndp
Surrogate(s)						
o-Terphenyl	99.8	60-130	%	1.00	04/17/2000 21:01	

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

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

Batch QC Report
Diesel

Method Blank	**Water**	**QC Batch # 2000/04/17-03.10**
MB: 2000/04/17-03.10-001		Date Extracted: 04/17/2000 11:01

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Diesel	ND	50	ug/L	04/17/2000 15:47	
Surrogate(s)					
o-Terphenyl	99.5	60-130	%	04/17/2000 15:47	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0207

To: **Aqua Science Engineers, Inc.**

Attn: Ian T. Reed

Test Method: 8015m

Prep Method: 3510/8015M

Batch QC Report

Diesel

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2000/04/17-03.10**

LCS: 2000/04/17-03.10-002 Extracted: 04/17/2000 11:01 Analyzed 04/17/2000 16:26

LCSD: 2000/04/17-03.10-003 Extracted: 04/17/2000 11:01 Analyzed 04/17/2000 17:46

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Diesel	1070	1040	1250	1250	85.6	83.2	2.8	60-130	25		
Surrogate(s)											
o-Terphenyl	19.8	25.3	20.0	20.0	99.0	126.5		60-130			

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 #: 2000-04-0207

Gas/BTEX and MTBE

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 #: 3406

Project: Jabor

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-1	Water	04/12/2000 11:45	1
MW-3	Water	04/12/2000 12:20	2
MW-2	Water	04/12/2000 11:15	3

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0207

To: **Aqua Science Engineers, Inc.**

Attn.: Ian T. Reed

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID:	MW-1	Lab Sample ID:	**2000-04-0207-001**
Project:	3406 Jabor	Received:	04/13/2000 18:10
		Extracted:	04/17/2000 16:14
Sampled:	04/12/2000 11:45	QC-Batch:	2000/04/17-01.01
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	1000	ug/L	20.00	04/17/2000 16:14	
Benzene	66	10	ug/L	20.00	04/17/2000 16:14	
Toluene	ND	10	ug/L	20.00	04/17/2000 16:14	
Ethyl benzene	ND	10	ug/L	20.00	04/17/2000 16:14	
Xylene(s)	ND	10	ug/L	20.00	04/17/2000 16:14	
MTBE	1600	100	ug/L	20.00	04/17/2000 16:14	
Surrogate(s)						
Trifluorotoluene	78.3	58-124	%	1.00	04/17/2000 16:14	
4-Bromofluorobenzene-FID	78.1	50-150	%	1.00	04/17/2000 16:14	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0207

To: **Aqua Science Engineers, Inc.**

Attn.: Ian T. Reed

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID:	**MW-3**	Lab Sample ID:	**2000-04-0207-002**
Project:	3406 Jabor	Received:	04/13/2000 18:10
		Extracted:	04/17/2000 18:04
Sampled:	04/12/2000 12:20	QC-Batch:	2000/04/17-01.01
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	2200	250	ug/L	5.00	04/17/2000 18:04	
Benzene	650	2.5	ug/L	5.00	04/17/2000 18:04	
Toluene	9.7	2.5	ug/L	5.00	04/17/2000 18:04	
Ethyl benzene	180	2.5	ug/L	5.00	04/17/2000 18:04	
Xylene(s)	24	2.5	ug/L	5.00	04/17/2000 18:04	
MTBE	140	25	ug/L	5.00	04/17/2000 18:04	
Surrogate(s)						
Trifluorotoluene	92.8	58-124	%	1.00	04/17/2000 18:04	
4-Bromofluorobenzene-FID	88.0	50-150	%	1.00	04/17/2000 18:04	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0207

To: **Aqua Science Engineers, Inc.**

Attn.: Ian T. Reed

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID:	MW-2	Lab Sample ID:	**2000-04-0207-003**
Project:	3406 Jabor	Received:	04/13/2000 18:10
		Extracted:	04/17/2000 18:38
Sampled:	04/12/2000 11:15	QC-Batch:	2000/04/17-01.01
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	04/17/2000 18:38	
Benzene	ND	0.50	ug/L	1.00	04/17/2000 18:38	
Toluene	ND	0.50	ug/L	1.00	04/17/2000 18:38	
Ethyl benzene	ND	0.50	ug/L	1.00	04/17/2000 18:38	
Xylene(s)	ND	0.50	ug/L	1.00	04/17/2000 18:38	
MTBE	39	5.0	ug/L	1.00	04/17/2000 18:38	
Surrogate(s)						
Trifluorotoluene	91.8	58-124	%	1.00	04/17/2000 18:38	
4-Bromofluorobenzene-FID	86.9	50-150	%	1.00	04/17/2000 18:38	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0207

To: **Aqua Science Engineers, Inc.**

Attn.: Ian T. Reed

Test Method: 8020
8015M

Prep Method: 5030

Batch QC Report

Gas/BTEX and MTBE

Method Blank | **Water** | **QC Batch # 2000/04/17-01.01**

MB: 2000/04/17-01.01-001

Date Extracted: 04/17/2000 11:36

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	04/17/2000 11:36	
Benzene	ND	0.5	ug/L	04/17/2000 11:36	
Toluene	ND	0.5	ug/L	04/17/2000 11:36	
Ethyl benzene	ND	0.5	ug/L	04/17/2000 11:36	
Xylene(s)	ND	0.5	ug/L	04/17/2000 11:36	
MTBE	ND	5.0	ug/L	04/17/2000 11:36	
Surrogate(s)					
Trifluorotoluene	93.0	58-124	%	04/17/2000 11:36	
4-Bromofluorobenzene-FID	88.0	50-150	%	04/17/2000 11:36	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0207

To: **Aqua Science Engineers, Inc.**

Attn: Ian T. Reed

Test Method: 8020
8015M

Prep Method: 5030

Batch QC Report

Gas/BTEX and MTBE

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2000/04/17-01.01**

LCS: 2000/04/17-01.01-002 Extracted: 04/17/2000 11:36 Analyzed 04/17/2000 11:36

LCSD: 2000/04/17-01.01-003 Extracted: 04/17/2000 15:05 Analyzed 04/17/2000 15:05

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Gasoline	499	480	500	500	99.8	96.0	3.9	75-125	20		
Benzene	101	97.1	100.0	100.0	101.0	97.1	3.9	77-123	20		
Toluene	97.5	94.2	100.0	100.0	97.5	94.2	3.4	78-122	20		
Ethyl benzene	101	100	100.0	100.0	101.0	100.0	1.0	70-130	20		
Xylene(s)	306	301	300	300	102.0	100.3	1.7	75-125	20		
Surrogate(s)											
Trifluorotoluene	439	444	500	500	87.8	88.8		58-124			
4-Bromofluorobenzene-FI	449	442	500	500	89.8	88.4		50-150			

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0207

To: **Aqua Science Engineers, Inc.**

Attn.: Ian T. Reed

Test Method: 8020
8015M

Prep Method: 5030

Batch QC Report

Gas/BTEX and MTBE

Matrix Spike (MS / MSD) **Water** **QC Batch # 2000/04/17-01.01**

Sample ID: **MW-2** Lab Sample ID: 2000-04-0207-003

MS: 2000/04/17-01.01-004 Extracted: 04/17/2000 19:13 Analyzed: 04/17/2000 19:13 Dilution: 1.0

MSD: 2000/04/17-01.01-005 Extracted: 04/17/2000 19:48 Analyzed: 04/17/2000 19:48 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
Gasoline	385	333	ND	500	500	77.0	66.6	14.5	65-135	20		
Benzene	102	95.0	ND	100.0	100.0	102.0	95.0	7.1	65-135	20		
Toluene	97.1	95.7	ND	100.0	100.0	97.1	95.7	1.5	65-135	20		
Ethyl benzene	99.0	92.3	ND	100.0	100.0	99.0	92.3	7.0	65-135	20		
Xylene(s)	295	266	ND	300	300	98.3	88.7	10.3	65-135	20		
Surrogate(s)												
Trifluorotoluene	438	418		500	500	87.6	83.6		58-124			
4-Bromofluorobenzene-F	372	307		500	500	74.4	61.4		50-150			

CHROMALAB, INC.
Environmental Services (SDB)

Submission #: 2000-04-0207

Petroleum Oil & Grease

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 #: 3406

Project: Jabor

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-2	Water	04/12/2000 11:15	3

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0207

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

Test Method: 5520 B & F
Prep Method: 5520 B & F

Petroleum Oil & Grease

Sample ID:	**MW-2**	Lab Sample ID:	**2000-04-0207-003**
Project:	3406 Jabor	Received:	04/13/2000 18:10
		Extracted:	04/19/2000
Sampled:	04/12/2000 11:15	QC-Batch:	2000/04/19-02.23
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Oil and Grease (Petroleum)	1.1	1.0	mg/L	1.00	04/20/2000	

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

Test Method: 5520 B & F
Prep Method: 5520 B & F

Batch QC Report
Petroleum Oil & Grease

Method Blank | **Water** | **QC Batch # 2000/04/19-02.23**

MB: 2000/04/19-02.23-001 | Date Extracted: 04/19/2000

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Oil and Grease (Petroleum)	ND	1	mg/L	04/20/2000	

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

Test Method: 5520 B & F
Prep Method: 5520 B & F

Batch QC Report

Petroleum Oil & Grease

Laboratory Control Spike (LCS/LCSD)		**Water**		**QC Batch # 2000/04/19-02.23**
LCS:	2000/04/19-02.23-002	Extracted: 04/19/2000	Analyzed	04/20/2000
LCSD:	2000/04/19-02.23-003	Extracted: 04/19/2000	Analyzed	04/20/2000

Compound	Conc. [mg/L]		Exp.Conc. [mg/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Oil and Grease	19.1	19.1	20.0	20.0	95.5	95.5	0.0	80-120	20		

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0207

Total Extractable Petroleum Hydrocarbons (TEPH)

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 #: 3406

Project: Jabor

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-2	Water	04/12/2000 11:15	3

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-04-0207

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

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

Total Extractable Petroleum Hydrocarbons (TEPH)

Sample ID:	**MW-2**	Lab Sample ID:	**2000-04-0207-003**
Project:	3406 Jabor	Received:	04/13/2000 18:10
		Extracted:	04/17/2000 11:01
Sampled:	04/12/2000 11:15	QC-Batch:	2000/04/17-03.10
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	ND	50	ug/L	1.00	04/17/2000 21:41	
Motor Oil	ND	500	ug/L	1.00	04/17/2000 21:41	
Surrogate(s)						
o-Terphenyl	91.9	60-130	%	1.00	04/17/2000 21:41	

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 # 2000/04/17-03.10**

MB: 2000/04/17-03.10-001 | Date Extracted: 04/17/2000 11:01

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Diesel	ND	50	ug/L	04/17/2000 15:47	
Motor Oil	ND	500	ug/L	04/17/2000 15:47	
Surrogate(s)					
o-Terphenyl	99.5	60-130	%	04/17/2000 15:47	

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

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

Batch QC Report

Total Extractable Petroleum Hydrocarbons (TEPH)

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2000/04/17-03.10**

LCS: 2000/04/17-03.10-002 Extracted: 04/17/2000 11:01 Analyzed 04/17/2000 16:26
LCSD: 2000/04/17-03.10-003 Extracted: 04/17/2000 11:01 Analyzed 04/17/2000 17:46

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Diesel	1070	1040	1250	1250	85.6	83.2	2.8	60-130	25		
Surrogate(s)											
o-Terphenyl	19.8	25.3	20.0	20.0	99.0	126.5		60-130			

2000-04-0207

51538

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) Ian T. Reed (PHONE NO.) (925) 820-9391

PROJECT NAME Tabor JOB NO. 3406

ADDRESS 1436 Grant Avenue, San Lorenzo CA DATE 4/12/00

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

5-day TAT

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	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)	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)	TPH-MO/TPH-D			COMPOSITE
MW-1	4/12	1145	water	5	X		X															
MW-2	4/12	1115	water	6	X		X					X							X			
MW-3	4/12	1220	water	5	X		X															

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY LABORATORY:	COMMENTS:
Ian T. Reed (signature) (time)	(signature) (time) 0912	(signature) (time) 1810	Denise Harrington (signature) (time)	3.4°C
Ian T. Reed 4/12/00 (printed name) (date)	(printed name) (date) 4/13/00	B Morrow (printed name) (date) 4/13/00	D. Harrington (printed name) (date)	5 day TAT
Company- ASE	Company- Chromalab	Company- Chromalab	Company- Chromalab 1810 4/13/00	