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Reviewed  
4/16/01

APR 09 2001

**REPORT FOR FIRST QUARTER 2001  
GROUNDWATER MONITORING AT**

**A&C Auto Service  
186 E. Lewelling Boulevard  
San Lorenzo, California**

**Prepared for  
Mr. Carl Graffenstatte  
Graffenstatte Property**

**Prepared by  
Sierra Environmental, Inc.**

**April 2, 2001  
Project 01-137.02**



**Sierra Environmental, Inc.**  
*Environmental Consultants*

**April 2, 2001**  
**Project 01-137.02**

**Mr. Carl Graffenstatte**  
**P.O. Box 97397**  
**Tacoma, WA 98497**

**Subject: Report for First Quarter 2001 Groundwater Monitoring at A&C Auto Service, 186 E. Lewelling Boulevard, San Lorenzo, California**

**Dear Mr. Graffenstatte:**

Sierra Environmental, Inc. (Sierra) is pleased to submit this report summarizing the results of the first quarter 2001 groundwater monitoring event which we conducted at the subject location, hereafter, referred to as Site. Site location is shown in Figure 1. This monitoring event was requested by Alameda County Health Care Services (ACHCS) in a letter dated February 23, 2001. As part of a case closure procedure, ACHCS requested that quarterly groundwater monitoring shall be resumed at the Site. The purpose of the groundwater monitoring is to determine whether gasoline constituents in groundwater beneath the Site remain stable and decrease with natural attenuation.

Sierra obtained and recorded groundwater data, and collected groundwater samples from three groundwater monitoring wells (MW1 through MW3) at the Site for chemical analysis. Sierra submitted the samples to Entech Analytical Labs, Inc. (Entech) of Santa Clara, California. Entech is a State-certified analytical laboratory (ELAP # I-2346).

## **BACKGROUND**

On September 5, 1990, three underground storage tanks (USTs) were removed from the Site. The USTs consisted of two 4,000-gallon gasoline and one 350-gallon waste oil tanks. The approximate location of the USTs are shown in the enclosed Figure 2. After

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2084 Alameda Way, Suite 201  
San Jose, California 95126  
Phone (408) 248-3700  
Fax (408) 248-4700

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removal, four soil samples were collected from beneath the gasoline tanks. One soil sample was also collected from beneath the waste oil tank.

Up to 4,000 parts per million (ppm) total petroleum hydrocarbons as gasoline (TPHG) and 1.3 ppm benzene were detected in the soil samples collected from beneath the gasoline tanks.

On June 14 and 15, 1994, CET Environmental Services, Inc. (CET) constructed groundwater monitoring wells MW1, MW2, and MW3 to evaluate groundwater condition beneath the Site. The last groundwater monitoring event was performed by CET in September 11, 1995. The results "Third Quarter 1995 Groundwater Monitoring Report" indicated that groundwater depths ranged between 15.37 to 16.20 feet below top of well casings with a west/northwesterly flow direction. Analytical results showed 0.05 ppm, 39 ppm, and 49 ppm TPHG in groundwater samples collected from MW1 through MW3, respectively.

Sierra understands that CET performed a precision off-site soil and groundwater sampling as part of delineating groundwater impact at the Site on October 17, 1995. According to Plate 2 provided by CET, up to 21 ppm TPHG and 0.088 ppm benzene were detected in the groundwater samples collected off-site, near or at Lewelling Boulevard during this sampling event. Sierra could not obtain a copy of the CET report for this sampling event, because Ms. Young has not paid CET's invoices.

SE  
On April 16, 1999, Sierra Environmental, Inc. performed one groundwater monitoring episode at the Site. Groundwater was measured at approximately 12 to 13 feet below top of casings with a southeast low direction. 0.16 ppm, 50 ppm, and 16 ppm TPHG were detected in MW1 through MW3, respectively. 25 parts per billion (ppb) and 10 ppb benzene were detected in MW2 and MW3 respectively. No methyl tertiary butyl ether (MTBE) was detected in any of the groundwater samples.

## GROUNDWATER MONITORING

SW  
On March 21, 2001, Sierra's field personnel measured the groundwater levels at MW1 through MW3 using an electronic sounder. Depth of groundwater ranged approximately 13.5 to 14.5 below top of the well casings. Groundwater flow direction remained to be toward southwest with a gradient of 0.001 ft/ft. Table I presents the groundwater measurement data.

Sierra's field personnel purged the wells using bailers. pH, temperature, and conductivity of groundwater was recorded during the purging activities to affirm that groundwater in the wells have stabilized. After completion of the purging, groundwater samples MW1 through MW3 were collected from the wells. After collection, the groundwater from each well was transferred into clean volatile organic analysis (VOA)

vials. The VOAs were sealed with Teflon®-septum screw caps, labeled, placed in a cooler, and delivered to Entech with chain-of-custody documentation.

All sampling and measurement equipment were washed with Liqui-Nox® (a phosphate free laboratory detergent), and rinsed with tap water at each measurement and sampling interval. Purged and wash water were stored in a 55-gallon drum at a designated location at the Site. Sierra's quality control/quality assurance (QA/QC) protocol is presented in Appendix A.

## **CHEMICAL ANALYSIS**

The samples were analyzed for TPHG using the United States Environmental Protection Agency (EPA) modified method 8015, and for benzene, toluene, ethyl benzene, and total xylenes (BTEX) using EPA method 8020. Additionally, the samples were analyzed for fuel oxygenates using EPA method 8260B. Certified analytical results and chain-of-custody documentation are presented in Appendix B.

## **ANALYTICAL RESULTS**

The analytical result for the water samples showed a decreasing trend of TPHG, and no detectable concentrations of benzene and MTBE in the groundwater beneath the Site.

Table II presents Summary of the analytical results.

## **CONCLUSION AND RECOMMENDATIONS**

The groundwater data obtained during this monitoring event suggest that natural attenuation has reduced TPHG and benzene in the groundwater beneath the Site. To confirm that this trend will not change, Sierra recommends to continue with the remaining groundwater monitoring for 2001.

## **LIMITATIONS**

The content and conclusion provided by Sierra in this report are based on information collected during its assessment/monitoring, which include, but are not limited to field observations and analytical results for the groundwater samples collected at the Site.

Sierra assumes that the samples collected and laboratory results are reasonably representative of the whole Site, which may not be the case at unsampled areas.

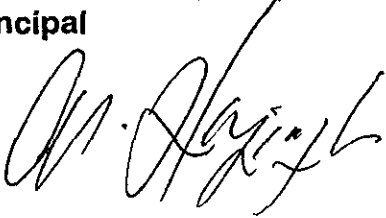
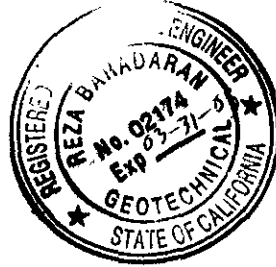
This assessment/monitoring was performed in accordance with generally accepted principles and practices of environmental engineering and assessment in Northern California at the time of the work. This report presents our professional opinion based on our findings, technical knowledge, and experience working on similar projects. No warranty, either expressed or implied, is made. The conclusions presented are based on the analytical results and current regulatory requirements. We are not responsible for the impact of any changes in environmental standards or regulations in the future.

Sierra appreciates the opportunity of serving you on this project. Please feel welcome to call us if you have questions.

Very Truly Yours,  
Sierra Environmental, Inc.



Reza Baradaran, PE, GE  
Principal



Mitch Hajiaghai, REA II, CAC  
Principal

**Attachments:**

- Table I - Groundwater Elevation Data
- Table II - Analytical Results for Groundwater Samples
- Figure 1 - Site Location Map
- Figure 2 - Site Plan
- Figure 3 - Groundwater Elevations and Gradient
- Appendix A - QA/QC Protocol
- Appendix B - Certified Analytical Results and Chain-of-Custody Documentation

cc: Mr. Amir Gholami, ACEH (1 Copy)  
Mr. Craig Ellis, Esq. (1 Copy)

**TABLE I**  
**GROUNDWATER ELEVATION DATA**

Well ID	Measurement Date	Well Casing Diameter (in)	Well Casing Elevation (ft)	Depth to Water <sup>1</sup> (ft)	Water Table <sup>2</sup> Elevation (ft)	Groundwater Flow Direction
MW1	6-23-94	2	44.88	17.37	27.51	NW
	3-15-95			13.47	31.41	W-SW
	6-01-95			13.35	31.53	W-NW
	9-11-95			15.37	29.51	W-NW
	4-16-99			12.05	32.83	W-SW
	3-21-01			13.59	31.29	W-SW
MW2	6-23-94	2	45.26	16.75	28.51	NW
	3-15-95			13.74	31.52	W-SW
	6-1-95			13.52	31.74	W-NW
	9-11-95			15.58	29.68	W-NW
	3-21-01			13.81	31.45	W-SW
MW3	6-23-94	2	45.81	16.55	29.26	NW
	3-15-95			14.43	31.38	W-SW
	6-1-95			14.16	31.65	W-NW
	9-11-95			16.20	29.61	W-NW
	3-21-01			14.44	31.37	W-SW

1. Depths to groundwater were measured to the top of the well casings
2. Water table elevations were measured in relation to the mean sea level (MSL)

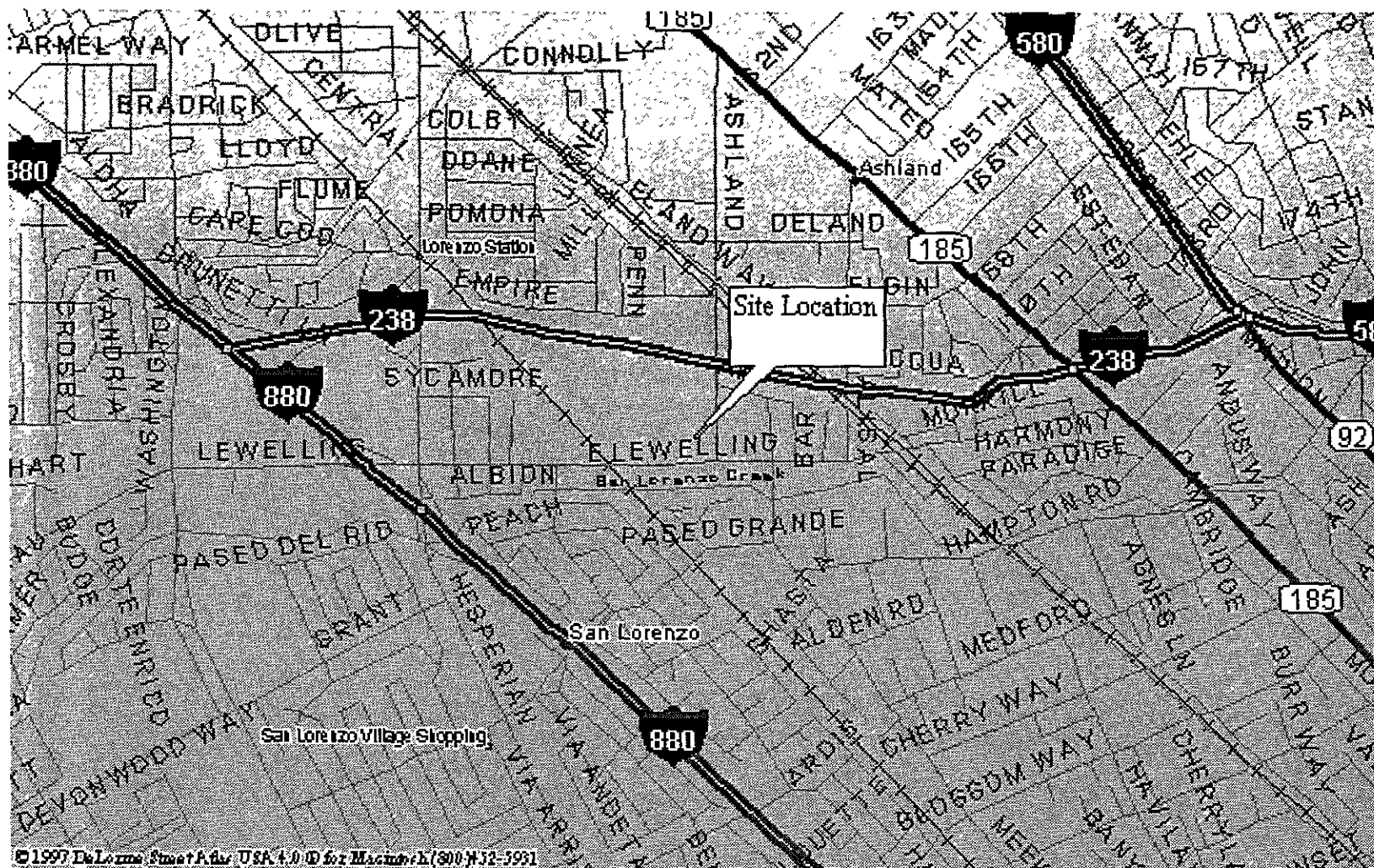
NOTE: Top of the well casings were surveyed relative to a known benchmark referenced to mean sea level (MSL) by CET.

**TABLE II**  
**ANALYTICAL RESULTS FOR**  
**GROUNDWATER SAMPLES**

Sample ID	Sample Date	TPHG <sup>1</sup> ppm <sup>3</sup>	Benzene ppb <sup>4</sup>	Toluene ppb	Ethylbenzene ppb	Xylenes ppb	MTBE <sup>2</sup> ppb
MW1	6-23-94	3.6	<0.5	<0.5	7.2	2.6	NA <sup>5</sup>
	3-15-95	<0.05	<0.5	<0.5	<0.5	<0.5	NA
	6-1-95	0.10	<0.5	<0.5	<0.5	<0.5	NA
	9-11-95	0.05	<0.5	<0.5	<0.5	<0.5	NA
	4-16-99	0.16	ND <sup>6</sup>	ND	ND	ND	ND
	3-21-01	ND	ND	ND	ND	ND	ND
MW2	6-23-94	71	310	710	2600	4600	NA
	3-15-95	35	150	1000	2100	10000	NA
	6-1-95	49	210	1300	2900	11000	NA
	9-11-95	39	150	1000	2900	13000	NA
	4-16-99	50	25	110	1900	8000	ND
	3-21-01	22	ND	52	1300	3700	ND
MW3	6-23-94	93	550	130	3300	7500	NA
	3-15-95	46	330	94	3800	10000	NA
	6-1-95	42	270	230	3400	10000	NA
	9-11-95	49	190	330	4000	12000	NA
	4-16-99	16	10	ND	2300	940	ND
	3-21-01	12	ND	28	2000	ND	ND

1. TPHG = Total Petroleum Hydrocarbons as Gasoline
2. MTBE = Methyl-tertiary-Butyl Ether
3. ppm = Parts Per Million (mg/l)
4. ppb = Parts Per Billion (µg/l)
5. NA = Not Analyzed
6. ND = Below Laboratory Detection Limit





0 0.266 mile



**SIERRA ENVIRONMENTAL, INC.**  
Environmental Consultants

2084 Alameda Way, Suite 201, San Jose, CA 95126  
Phone [408]248-3700 • Fax [408] 248-4700

**Site Location Map**

**First Quarter 2001 Groundwater Monitoring  
A & C Auto Service**

**186 E. Lewelling Boulevard, San Lorenzo, California**

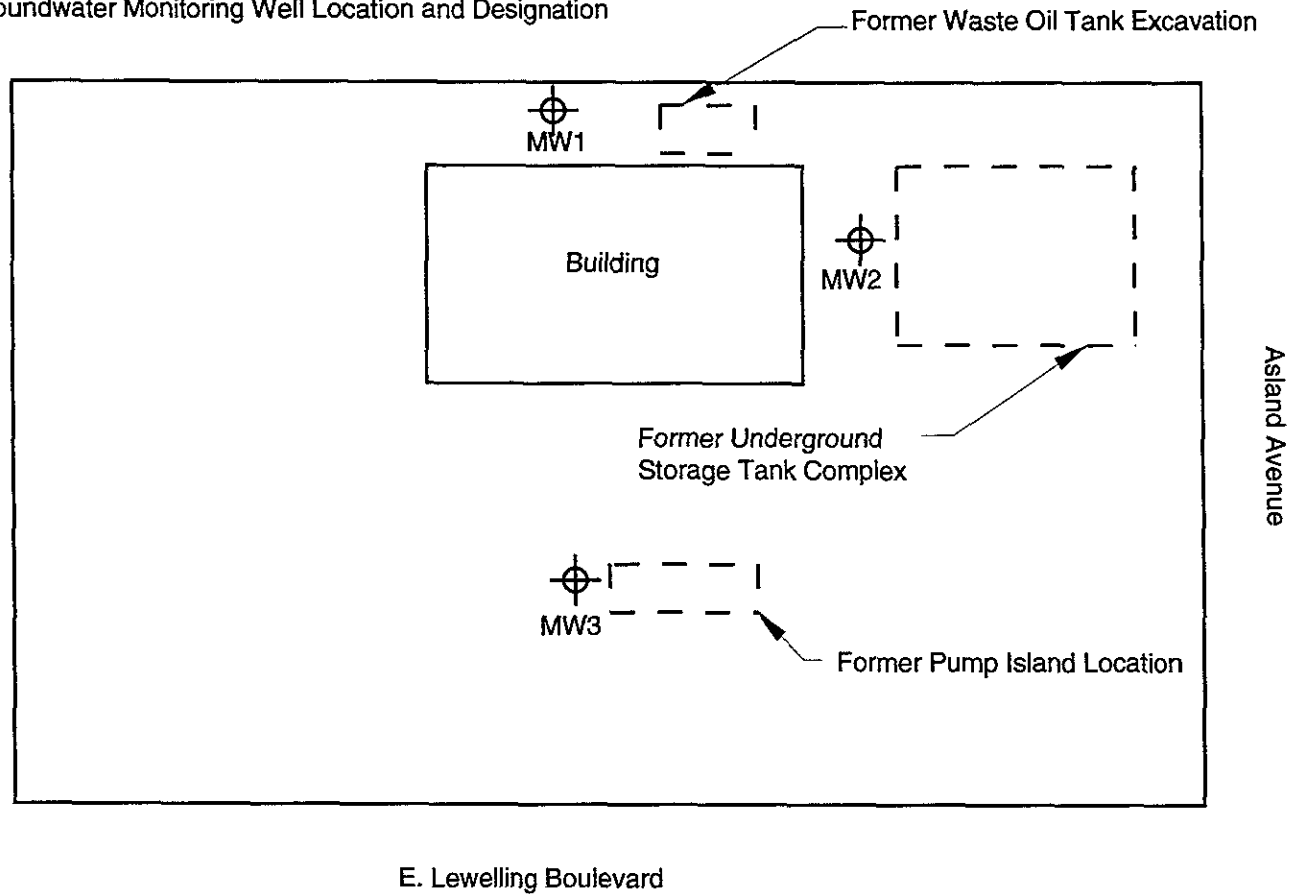
**FIGURE**

**1**

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**LEGEND**

⊕ MW1 Goundwater Monitoring Well Location and Designation



Approximate Scale: 1' = 20'



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*Environmental Consultants*

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Phone [408]248-3700 • Fax [408] 248-4700

**Site Plan**

**First Quarter 2001 Groundwater Monitoring  
A & C Auto Service**

**186 E. Lewelling Boulevard, San Lorenzo, California**

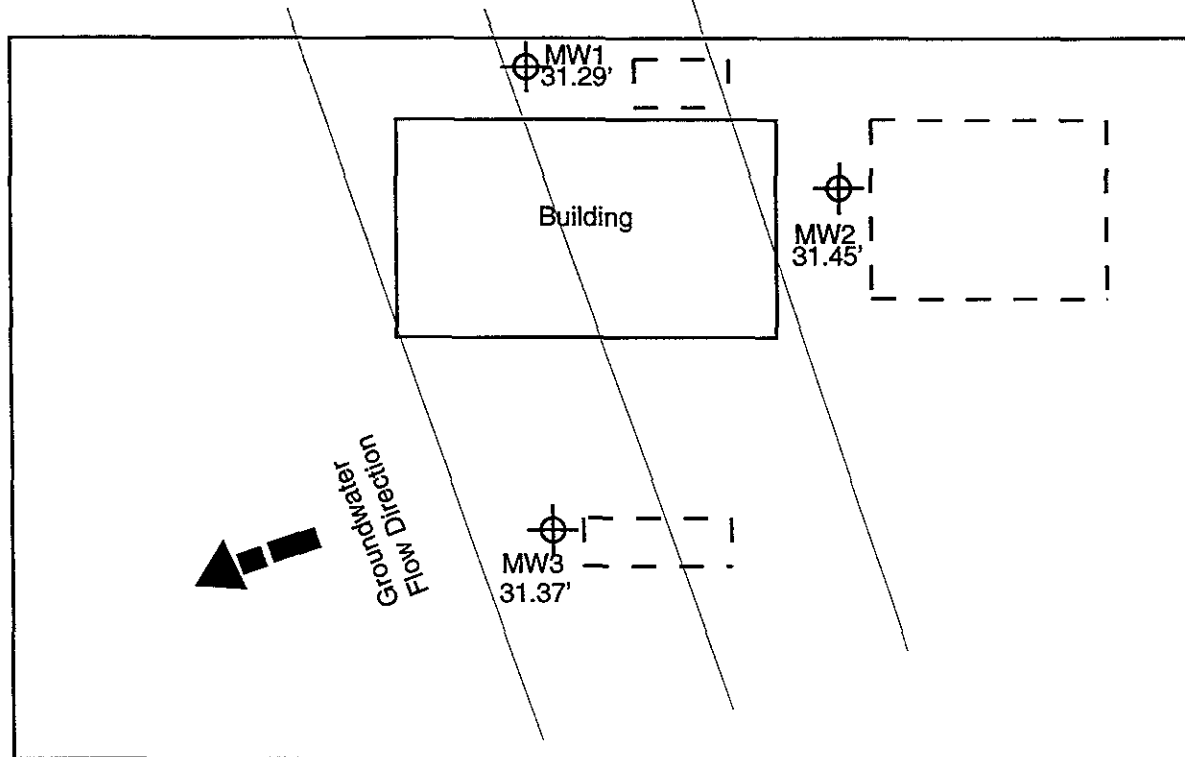
**FIGURE**

**2**

April 2, 2001  
Project 01-137.02

**LEGEND**

- ⊕ MW1 Groundwater Monitoring Well Location and Designation
- 32.96' Groundwater Elevation in Relation with Mean Sea Level



Groundwater Flow Direction

E. Lewelling Boulevard

Asiland Avenue

Approximate Scale: 1" = 20'



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**Groundwater Elevations and Gradient**

**First Quarter 2001 Groundwater Monitoring  
A & C Auto Service**

**186 E. Lewelling Boulevard, San Lorenzo, California**

**FIGURE**

**3**

April 2, 2001  
Project 01-137.02

**Appendix A**  
**QA/QC PROTOCOL**

## QA/QC PROTOCOL

### Groundwater Level and Well Depth Measurements

Groundwater level and well depths are measured using electrical sounder. An electrical sounder consists of a reel, two-conductor cable, a water sensor, and a control panel with a buzzer. To measure groundwater level, the sensor is lowered into a well. A low current circuit is completed when the sensor makes contact with water. The current in the circuit is then amplified and activate a buzzer which produce an audible signal. Cable markings are divided at 0.05-foot increments. Well depths are measured to the nearest 0.01 foot. Groundwater levels are measured before and after sample collection to ensure data accuracy.

### Well Purging

Low flow submersible electrical pumps or bailers are used to purge groundwater monitoring wells. Approximately 3 to 5 well casing volume of water is removed from the well as a measure to stabilize natural, and representative groundwater in each well. pH, electrical conductivity, and temperature of the purged water is measured and recorded at approximately each casing volume interval. Purge water is stabilized when pH is recorded within 0.5 unit, electrical conductivity is within 5 percent, and temperature is within 1.0 degree Celsius.

### Groundwater Sampling

Groundwater samples are transferred into appropriate containers provided by certified analytical laboratories. The containers include proper preservatives, and labels with appropriate project information. Groundwater is transferred into the containers with as little agitation as possible. After collection, containers are sealed and checked to ensure that no head space or air bubbles are present in the sample.

After collection, if required, samples are kept in a cooler to be delivered to analytical laboratory with chain-of-custody documentation.

### Equipment Decontamination

All sampling equipment are washed with Liqui-Nox<sup>®</sup> (a phosphate free laboratory detergent), and rinsed with tap and deionized water before each sampling event, and at each sampling interval. To reduce the risk of cross contamination, wells which have shown lower levels of contamination historically are purged and sampled first.

## **Analytical Procedures**

Samples are analyzed by an accredited State-certified analytical laboratory using procedures prescribed by United State Environmental Protection Agency (EPA) and other Federal, State, and Local agencies. At minimum a field blank is analyzed with each group of samples for quality assurance measures. At minimum two qualified personnel review analytical results and compare them with historical data for consistency and accuracy.

## **Field Reports**

All field observations are documented in field reports. A field report contain project information, climatic condition, contractor/subcontractor information, field observation, discussions and communications during each particular field activity. Field reports are stored in appropriate project files. Project managers review field reports to obtain necessary information regarding the status of each project on daily basis.

**Appendix A**  
**QA/QC PROTOCOL**

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## **Appendix B**

### **CERTIFIED ANALYTICAL RESULTS AND CHAIN-OF-CUSTODY DOCUMENTATION**

APR 03 2001 0:12PM 110.00.0 P. 2/3

# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

April 03, 2001

Alicia Falk  
Sierra Environmental, Inc.  
2084 Alameda Way, Suite 201  
San Jose, CA 95126

<b>Order:</b> 24860	<b>Date Collected:</b> 3/21/01
<b>Project Name:</b> A&C Auto Service	<b>Date Received:</b> 3/21/01
<b>Project Number:</b> 01-137.02	<b>P.O. Number:</b> 01-137.02
<b>Project Notes:</b>	

On March 21, 2001, samples were received under documented chain of custody. Results for the following analyses are attached:

<u>Matrix</u>	<u>Test</u>	<u>Method</u>
Liquid	Gas/BTEX/MTBE	EPA 8015 MOD. (Purgeable)
	Oxygenates by EPA 8260B	EPA 8020
		EPA 8260B

Chemical analysis of these samples has been completed. Summaries of the data are contained on the following pages. USEPA protocols for sample storage and preservation were followed.

Entech Analytical Labs, Inc. is certified by the State of California (#2346). If you have any questions regarding procedures or results, please call me at 408-588-0200.

Sincerely,



Michelle L. Anderson  
Lab Director

# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Sierra Environmental, Inc.  
2084 Alameda Way, Suite 201  
San Jose, CA 95126  
Attn: Alicia Falk

Date: 04/02/01  
Date Received: 3/21/01  
Project Name: A&C Auto Service  
Project Number: 01-137.02  
P.O. Number: 01-137.02  
Sampled By: Alicia Falk

## Certified Analytical Report

Order ID: 24860

Lab Sample ID: 24860-001

Client Sample ID: MW-1

Sample Time:

Sample Date: 3/21/01

Matrix: Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	µg/L	N/A	3/26/01	WGC4010326A	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	3/26/01	WGC4010326A	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	3/26/01	WGC4010326A	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	3/26/01	WGC4010326A	EPA 8020
			Surrogate			Surrogate Recovery			Control Limits (%)	
			aaa-Trifluorotoluene			93			65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	N/A	3/26/01	WGC4010326A	EPA 8020
			Surrogate			Surrogate Recovery			Control Limits (%)	
			aaa-Trifluorotoluene			93			65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	50	50	µg/L	N/A	3/26/01	WGC4010326A	EPA 8015 MOD. (Purgeable)
			Surrogate			Surrogate Recovery			Control Limits (%)	
			aaa-Trifluorotoluene			99			65 - 135	


DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Sierra Environmental, Inc.  
 2084 Alameda Way, Suite 201  
 San Jose, CA 95126  
 Attn: Alicia Falk

Date: 04/03/01  
 Date Received: 3/21/01  
 Project Name: A&C Auto Service  
 Project Number: 01-137.02  
 P.O. Number: 01-137.02  
 Sampled By: Alicia Falk

## Certified Analytical Report

Order ID: 24860

Lab Sample ID: 24860-001

Client Sample ID: MW-1

Sample Time:

Sample Date: 3/21/01

Matrix: Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Diisopropyl Ether	ND		1	5	5	µg/L	3/28/01	WMS2010327	EPA 8260B
Ethyl-t-butyl Ether	ND		1	5	5	µg/L	3/28/01	WMS2010327	EPA 8260B
Methyl-t-butyl Ether	ND		1	5	5	µg/L	3/28/01	WMS2010327	EPA 8260B
tert-Amyl Methyl Ether	ND		1	5	5	µg/L	3/28/01	WMS2010327	EPA 8260B
tert-Butanol	ND		1	20	20	µg/L	3/28/01	WMS2010327	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	101	65 - 135
Dibromofluoromethane	110	57 - 139
Toluene-d8	94	65 - 135

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
 Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201


Sierra Environmental, Inc.  
 2084 Alameda Way, Suite 201  
 San Jose, CA 95126  
 Attn: Alicia Falk

Date: 04/02/01  
 Date Received: 3/21/01  
 Project Name: A&C Auto Service  
 Project Number: 01-137.02  
 P.O. Number: 01-137.02  
 Sampled By: Alicia Falk

## Certified Analytical Report

Order ID: 24860	Lab Sample ID: 24860-002	Client Sample ID: MW-2								
Sample Time:	Sample Date: 3/21/01	Matrix: Liquid								
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		100	0.5	50	µg/L	N/A	3/26/01	WGC4010326A	EPA 8020
Toluene	52		100	0.5	50	µg/L	N/A	3/26/01	WGC4010326A	EPA 8020
Ethyl Benzene	1300		100	0.5	50	µg/L	N/A	3/26/01	WGC4010326A	EPA 8020
Xylenes, Total	3700		100	0.5	50	µg/L	N/A	3/26/01	WGC4010326A	EPA 8020
Surrogate							Surrogate Recovery		Control Limits (%)	
aaa-Trifluorotoluene							90		65 - 135	
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		100	5	500	µg/L	N/A	3/26/01	WGC4010326A	EPA 8020
Surrogate							Surrogate Recovery		Control Limits (%)	
aaa-Trifluorotoluene							90		65 - 135	
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	22000		100	50	5000	µg/L	N/A	3/26/01	WGC4010326A	EPA 8015 MOD. (Purgeable)
Surrogate							Surrogate Recovery		Control Limits (%)	
aaa-Trifluorotoluene							93		65 - 135	

DF = Dilution Factor      ND = Not Detected      DLR = Detection Limit Reported      PQL = Practical Quantitation Limit  
 Analysis performed by Entech Analytical Labs, Inc. (CA BLAP #2346)

  
 Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Sierra Environmental, Inc.  
 2084 Alameda Way, Suite 201  
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 Attn: Alicia Falk

Date: 04/03/01  
 Date Received: 3/21/01  
 Project Name: A&C Auto Service  
 Project Number: 01-137.02  
 P.O. Number: 01-137.02  
 Sampled By: Alicia Falk

## Certified Analytical Report


Order ID: 24860      Lab Sample ID: 24860-002      Client Sample ID: MW-2  
 Sample Time:      Sample Date: 3/21/01      Matrix: Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Diisopropyl Ether	ND		20	5	100	µg/L	3/28/01	WMS2010327	EPA 8260B
Ethyl-t-butyl Ether	ND		20	5	100	µg/L	3/28/01	WMS2010327	EPA 8260B
Methyl-t-butyl Ether	ND		20	5	100	µg/L	3/28/01	WMS2010327	EPA 8260B
tert-Amyl Methyl Ether	ND		20	5	100	µg/L	3/28/01	WMS2010327	EPA 8260B
tert-Butanol	ND		20	20	400	µg/L	3/28/01	WMS2010327	EPA 8260B
			<b>Surrogate</b>	<b>Surrogate Recovery</b>		<b>Control Limits (%)</b>			
			4-Bromofluorobenzene	100		65 - 135			
			Dibromofluoromethane	104		57 - 139			
			Toluene-d8	93		65 - 135			

Comment: Sample diluted due to high concentrations of non-target hydrocarbons.

DF = Dilution Factor      ND = Not Detected      DLR = Detection Limit Reported      PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
 Michelle L. Anderson, Laboratory Director

*Environmental Analysis Since 1983*

# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Sierra Environmental, Inc.  
2084 Alameda Way, Suite 201  
San Jose, CA 95126  
Attn: Alicia Falk

Date: 04/02/01  
Date Received: 3/21/01  
Project Name: A&C Auto Service  
Project Number: 01-137.02  
P.O. Number: 01-137.02  
Sampled By: Alicia Falk

## Certified Analytical Report

Order ID: 24860      Lab Sample ID: 24860-003      Client Sample ID: MW-3  
Sample Time:      Sample Date: 3/21/01      Matrix: Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		50	0.5	25	µg/L	N/A	3/26/01	WGC4010326A	EPA 8020
Toluene	28		50	0.5	25	µg/L	N/A	3/26/01	WGC4010326A	EPA 8020
Ethyl Benzene	2000		50	0.5	25	µg/L	N/A	3/26/01	WGC4010326A	EPA 8020
Xylenes, Total	ND		50	0.5	25	µg/L	N/A	3/26/01	WGC4010326A	EPA 8020
						Surrogate	Surrogate Recovery		Control Limits (%)	
						aaa-Trifluorotoluene	80		65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		50	5	250	µg/L	N/A	3/26/01	WGC4010326A	EPA 8020
						Surrogate	Surrogate Recovery		Control Limits (%)	
						aaa-Trifluorotoluene	80		65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	12000		50	50	2500	µg/L	N/A	3/26/01	WGC4010326A	EPA 8015 MOD. (Purgeable)
						Surrogate	Surrogate Recovery		Control Limits (%)	
						aaa-Trifluorotoluene	70		65 - 135	

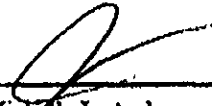
DF = Dilution Factor

ND = Not Detected

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## Certified Analytical Report

Order ID: 24860

Lab Sample ID: 24860-003

Client Sample ID: MW-3

Sample Time:

Sample Date: 3/21/01

Matrix: Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Diisopropyl Ether	ND		20	5	100	µg/L	3/28/01	WMS2010327	EPA 8260B
Ethyl-t-butyl Ether	ND		20	5	100	µg/L	3/28/01	WMS2010327	EPA 8260B
Methyl-t-butyl Ether	ND		20	5	100	µg/L	3/28/01	WMS2010327	EPA 8260B
tert-Amyl Methyl Ether	ND		20	5	100	µg/L	3/28/01	WMS2010327	EPA 8260B
tert-Butanol	ND		20	20	400	µg/L	3/28/01	WMS2010327	EPA 8260B
Surrogate			Surrogate Recovery			Control Limits (%)			
4-Bromofluorobenzene			97			65 - 135			
Dibromofluoromethane			98			57 - 139			
Toluene-d8			91			65 - 135			

Comment: Sample diluted due to high concentrations of non-target hydrocarbons.


DF = Dilution Factor

ND = Not Detected

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