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REPORT FOR THIRD 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.

October 1, 2001
Project 01-137.03

Sierra Environmental, Inc.
Environmental Consultants

October 1, 2001
Project 01-137.03

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

Subject: Report for Third 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 Third 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 should 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 is shown in the enclosed Figure 2.

1670 Newhall St., Suite 212
Santa Clara, Ca 95050
Phone: (408) 248-3700
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After 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. CET performed the last groundwater monitoring event in September 11, 1995. The results "Third Quarter 1995 Groundwater Monitoring Report" indicated that groundwater depths ranged between 15.37 to 16. 20 feet bellow 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.

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 flow 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.

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 northwest with a gradient of 0.001 ft/ft. Table I presents the groundwater measurement data.

On June 26, 2001, Sierra performed the second quarterly groundwater monitoring at the Site. The results are presented in Table I and II.

GROUNDWATER MONITORING

On September 18, 2001, Sierra's field personnel measured the groundwater levels at MW1 through MW3 using an electronic sounder. Depth of groundwater ranged approximately 16 to 17 below top of the well casings. Groundwater flow direction was changed toward northwest with a gradient of 0.004 ft/ft. Table I presents the groundwater measurement data.

Sierra's field personnel purged the wells using bailers and peristaltic pump. 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. 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 constituents in the groundwater beneath the Site. No benzene or MTBE were detected in any of the groundwater samples. To confirm that

this trend will continue, Sierra recommends performing the fourth quarter 2001 groundwater monitoring.

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.

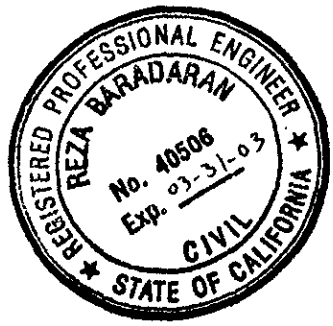
Sierra assumes that the samples collected and laboratory results are reasonably representative of the whole Site, which may not be the case at unsampled areas.

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 to have the opportunity to continue 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 & Groundwater Monitoring Data Form

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

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TABLE I
GROUNDWATER ELEVATION DATA

Well ID	Measurement Date	Well Casing Diameter (in)	Well Casing Elevation (ft)	Depth to Water[1] (ft)	Water Table[2] 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	SE
	3-21-01			13.59	31.29	NW
	6-26-01			14.72	30.16	NE
	9-18-01			15.98	28.90	NW
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	SE
	3-21-01			13.81	31.45	NW
	6-26-01			15.55	29.71	NE
	9-18-01			16.22	29.04	NW
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	SE
	3-21-01			14.44	31.37	NW
	6-26-01			14.97	30.84	NE
	9-18-01			16.82	28.99	NW

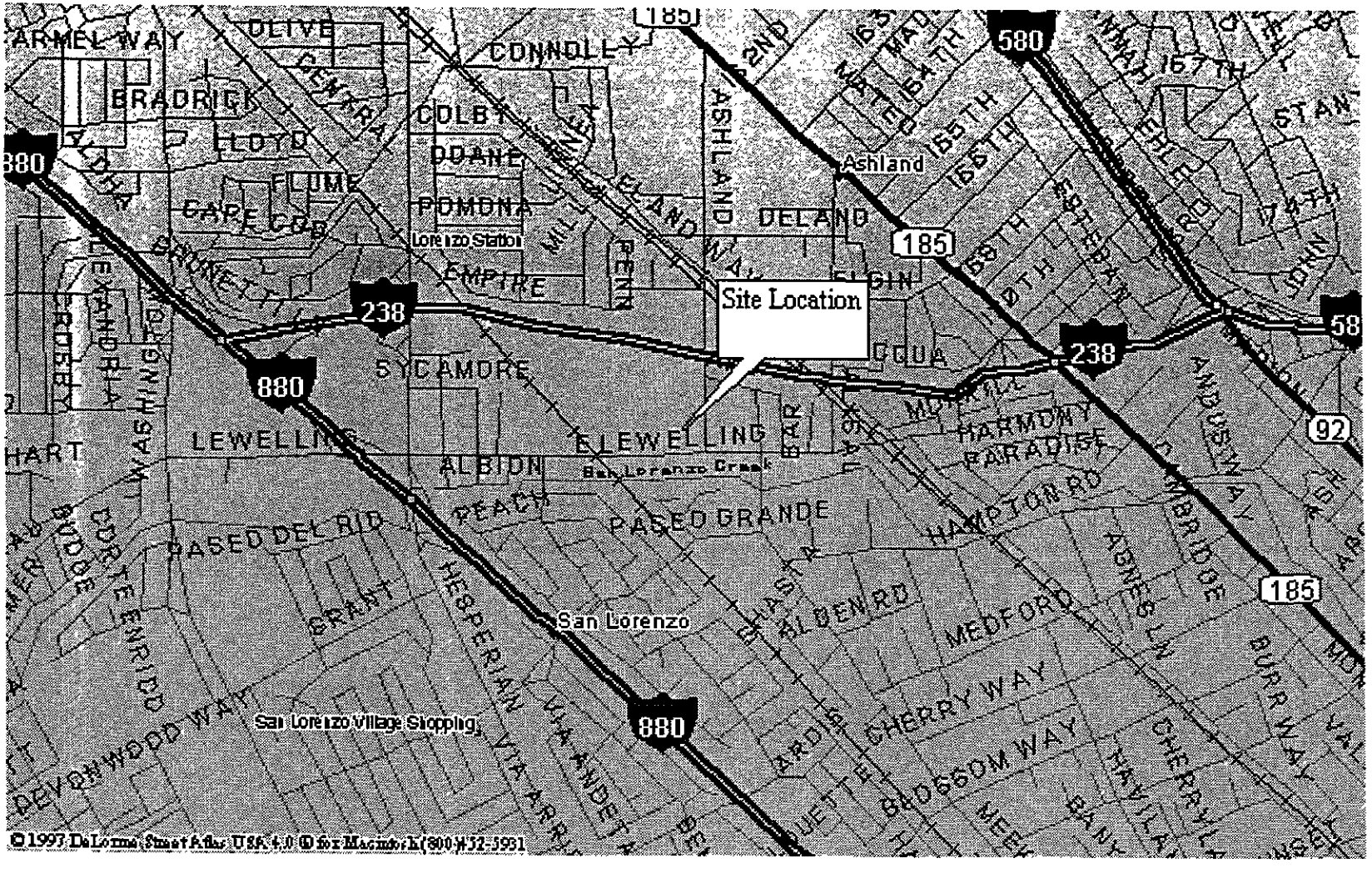
1. Depths to groundwater were measured to the top of the well casings
2. Water table elevations were measured in relation to the mean sea level (MSL)

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[1] ppm[3]	Benzene ppb[4]	Toluene ppb	Ethylbenzene ppb	Xylenes ppb	MTBE[2] ppb
MW1	6-23-94	3.6	<0.5	<0.5	7.2	2.6	NA[5]
	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[6]	ND	ND	ND	ND
	3-21-01	ND	ND	ND	ND	ND	ND
	6-26-01	ND	ND	ND	ND	ND	ND
	9-18-01	0.082	ND	ND	2.1	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
	911-95	39	150	1000	2900	13000	NA
	4-16-99	50	25	110	1900	8000	ND
	3-21-01	22	ND	52	1300	3700	ND
	6-26-01	15	ND	ND	910	2100	ND
	9-18-01	14	ND	ND	1	2	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
	6-26-01	14	ND	ND	2100	ND	ND
	9-18-01	13	ND	ND	1.5	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



SIERRA ENVIRONMENTAL, INC.
Environmental Consultants

1670 Newhall St., Suite 212, Santa Clara, CA 95050
Phone [408]248-3700 • Fax [408] 248-4700

Site Location Map

Third Quarter 2001 Groundwater Monitoring
A & C Auto Service

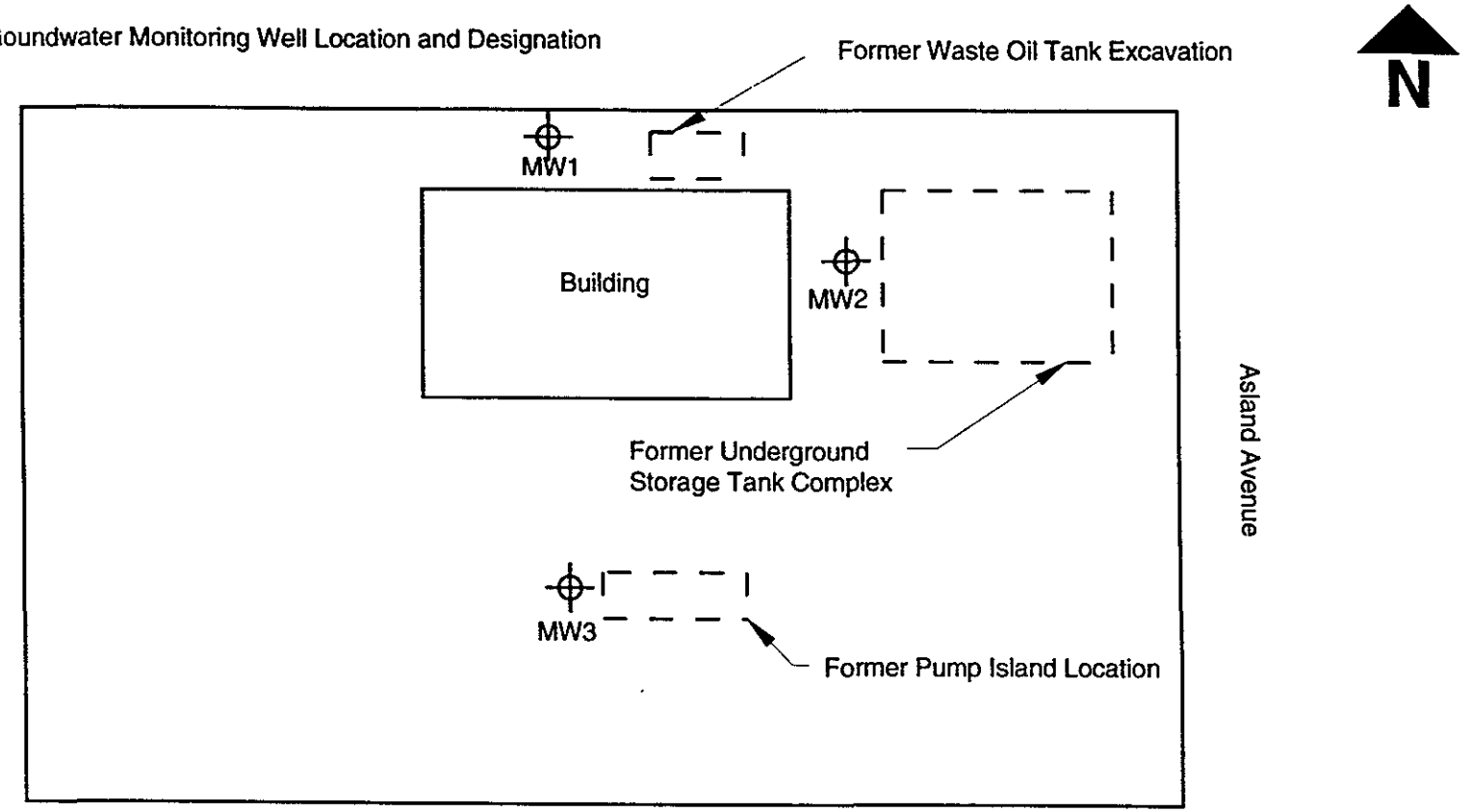
186 E. Lewelling Boulevard, San Lorenzo, California

FIGURE
1

October 1, 2001
Project 01-137.03

LEGEND

MW1 Goundwater Monitoring Well Location and Designation



Approximate Scale: 1' = 20'

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Site Plan

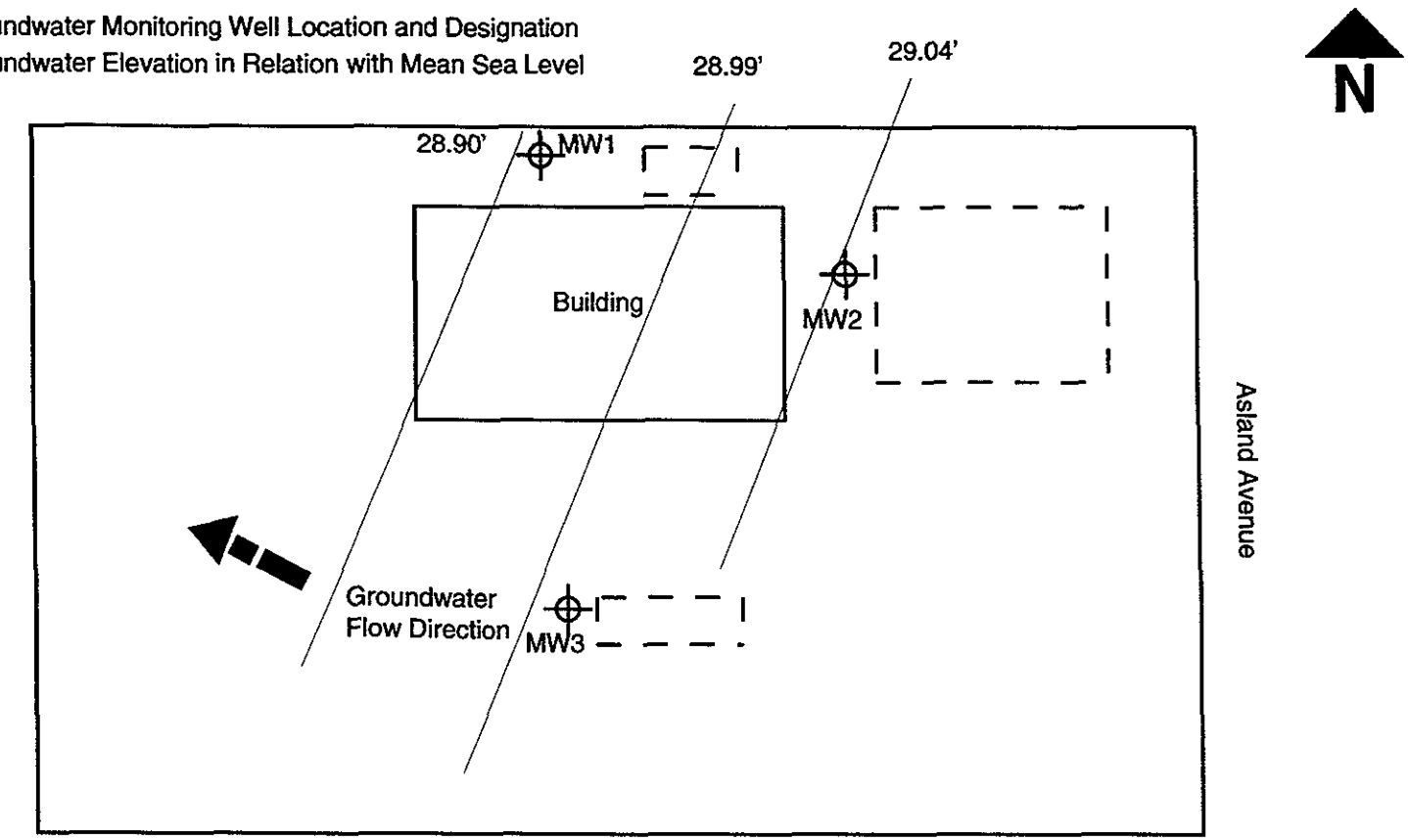
Third Quarter 2001 Groundwater Monitoring
A & C Auto Service

186 E. Lewelling Boulevard, San Lorenzo, California

FIGURE
2
October 1, 2001
Project 01-137.02

LEGEND

MW1 Groundwater Monitoring Well Location and Designation
29.04' Groundwater Elevation in Relation with Mean Sea Level



Approximate Scale: 1' = 20'

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Groundwater Elevations and Gradient

Third Quarter 2001 Groundwater Monitoring
A & C Auto Service

186 E. Lewelling Boulevard, San Lorenzo, California

FIGURE
3
October 1, 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, peristaltic 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® (a phosphate free laboratory detergent), and rinsed with tap water before each sampling event, and at each sampling interval. To reduce the risk of cross contamination, wells that 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 B

CERTIFIED ANALYTICAL RESULTS AND CHAIN-OF-CUSTODY DOCUMENTATION & GROUNDWATER MONITORING DATA FORM

Entech Analytical Labs, Inc.

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

September 25, 2001

Alicia Falk
Sierra Environmental, Inc.
1670 Newhall Street
Santa Clara, CA 95050

Order: 26958
Project Name: A & C Auto Service
Project Number: 01-137 04
Project Notes:

Date Collected: 9/18/01
Date Received: 9/18/01
P.O. Number: 01-137 04

On September 18, 2001, samples were received under documentented chain of custody. Results for the following analyses are attached:

Matrix	Test	Method
Liquid	Gas/BTEX/MTBE	EPA 8015 MOD. (Purgeable)
		EPA 8020

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
Laboratory Director

Entech Analytical Labs, Inc.

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

Sierra Environmental, Inc.
1670 Newhall Street
Santa Clara, CA 95050
***Attn:* Alicia Falk**

Date: 9/25/01
Date Received: 9/18/01
Project Name: A & C Auto Service
Project Number: 01-137 04
P.O. Number: 01-137 04
Sampled By: Alicia Falk

Certified Analytical Report

Order ID: 26958 **Lab Sample ID:** 26958-001 **Client Sample ID:** MW-1

Sample Time: **Sample Date:** 9/18/01 **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	9/19/01	WGC42166	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	9/19/01	WGC42166	EPA 8020
Ethyl Benzene	2.1		1	0.5	0.5	µg/L	N/A	9/19/01	WGC42166	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	9/19/01	WGC42166	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	92	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	9/19/01	WGC42166	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	92	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	82	x	1	50	50	µg/L	N/A	9/19/01	WGC42166	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	100	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.
1670 Newhall Street
Santa Clara, CA 95050
Attn: Alicia Falk

Date: 9/25/01
Date Received: 9/18/01
Project Name: A & C Auto Service
Project Number: 01-137 04
P.O. Number: 01-137 04
Sampled By: Alicia Falk

Certified Analytical Report

Order ID: 26958 **Lab Sample ID:** 26958-002 **Client Sample ID:** MW-2

Sample Time: **Sample Date:** 9/18/01 **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	9/19/01	WGC42166	EPA 8020
Toluene	ND		50	0.5	25	µg/L	N/A	9/19/01	WGC42166	EPA 8020
Ethyl Benzene	1000		50	0.5	25	µg/L	N/A	9/19/01	WGC42166	EPA 8020
Xylenes, Total	2000		50	0.5	25	µg/L	N/A	9/19/01	WGC42166	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	91	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	9/19/01	WGC42166	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	91	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	14000		50	50	2500	µg/L	N/A	9/19/01	WGC42166	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 ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

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Sierra Environmental, Inc.
1670 Newhall Street
Santa Clara, CA 95050
Attn: Alicia Falk

Date: 9/25/01
Date Received: 9/18/01
Project Name: A & C Auto Service
Project Number: 01-137 04
P.O. Number: 01-137 04
Sampled By: Alicia Falk

Certified Analytical Report

Order ID: 26958 **Lab Sample ID:** 26958-003 **Client Sample ID:** MW-3

Sample Time: **Sample Date:** 9/18/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		25	0.5	12.5	µg/L	N/A	9/20/01	WGC22168	EPA 8020
Toluene	ND		25	0.5	12.5	µg/L	N/A	9/20/01	WGC22168	EPA 8020
Ethyl Benzene	1500		25	0.5	12.5	µg/L	N/A	9/20/01	WGC22168	EPA 8020
Xylenes, Total	ND		25	0.5	12.5	µg/L	N/A	9/20/01	WGC22168	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	71	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		25	5	125	µg/L	N/A	9/20/01	WGC22168	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	71	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	13000		25	50	1250	µg/L	N/A	9/20/01	WGC22168	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	107	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

Quality Control Results Summary

QC Batch #: WGC42166
Matrix: Liquid
Units: µg/L
Date Analyzed: 9/19/01

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
Test: TPH as Gasoline											
TPH as Gasoline	EPA 8015 M	ND		561		461.33	LCS	82.2			59.2 - 111.9
	Surrogate			**Surrogate Recovery**		**Control Limits (%)**					
	aaa-Trifluorotoluene			96		65 - 135					
Test: BTEX											
Benzene	EPA 8020	ND		6.2		5.835	LCS	94.1			65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		7.8		7.409	LCS	95.0			65.0 - 135.0
Toluene	EPA 8020	ND		35.8		34.970	LCS	97.7			65.0 - 135.0
Xylenes, total	EPA 8020	ND		43		39.047	LCS	90.8			65.0 - 135.0
	Surrogate			**Surrogate Recovery**		**Control Limits (%)**					
	aaa-Trifluorotoluene			94		65 - 135					
Test: MTBE by EPA 8020											
Methyl-t-butyl Ether	EPA 8020	ND		52.8		45.363	LCS	85.9			65.0 - 135.0
	Surrogate			**Surrogate Recovery**		**Control Limits (%)**					
	aaa-Trifluorotoluene			94		65 - 135					
Test: TPH as Gasoline											
TPH as Gasoline	EPA 8015 M	ND		561		454.94	LCSD	81.1	1.39	25.00	59.2 - 111.9
	Surrogate			**Surrogate Recovery**		**Control Limits (%)**					
	aaa-Trifluorotoluene			98		65 - 135					
Test: BTEX											
Benzene	EPA 8020	ND		6.2		6.109	LCSD	98.5	4.59	25.00	65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		7.8		7.395	LCSD	94.8	0.19	25.00	65.0 - 135.0
Toluene	EPA 8020	ND		35.8		34.732	LCSD	97.0	0.68	25.00	65.0 - 135.0
Xylenes, total	EPA 8020	ND		43		39.311	LCSD	91.4	0.67	25.00	65.0 - 135.0
	Surrogate			**Surrogate Recovery**		**Control Limits (%)**					
	aaa-Trifluorotoluene			99		65 - 135					
Test: MTBE by EPA 8020											
Methyl-t-butyl Ether	EPA 8020	ND		52.8		40.968	LCSD	77.6	10.18	25.00	65.0 - 135.0
	Surrogate			**Surrogate Recovery**		**Control Limits (%)**					
	aaa-Trifluorotoluene			99		65 - 135					

Entech Analytical Labs, Inc.

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

Quality Control Results Summary

QC Batch #: WGC22168
Matrix: Liquid
Units: µg/L
Date Analyzed: 9/20/01

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
Test: TPH as Gasoline											
TPH as Gasoline	EPA 8015 M	ND		561		440.370	LCS	78.5			65.0 - 135.0
	Surrogate		**Surrogate Recovery**			**Control Limits (%)**					
	aaa-Trifluorotoluene		99			65 - 135					
Test: BTEX											
Benzene	EPA 8020	ND		6.2		6.149	LCS	99.2			65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		7.8		6.121	LCS	78.5			65.0 - 135.0
Toluene	EPA 8020	ND		35.8		32.996	LCS	92.2			65.0 - 135.0
Xylenes, total	EPA 8020	ND		43		36.967	LCS	86.0			65.0 - 135.0
	Surrogate		**Surrogate Recovery**			**Control Limits (%)**					
	aaa-Trifluorotoluene		97			65 - 135					
Test: MTBE by EPA 8020											
Methyl-t-butyl Ether	EPA 8020	ND		52.8		48.725	LCS	92.3			65.0 - 135.0
	Surrogate		**Surrogate Recovery**			**Control Limits (%)**					
	aaa-Trifluorotoluene		97			65 - 135					
Test: TPH as Gasoline											
TPH as Gasoline	EPA 8015 M	ND		561		432.779	LCSD	77.1	1.74	25.00	65.0 - 135.0
	Surrogate		**Surrogate Recovery**			**Control Limits (%)**					
	aaa-Trifluorotoluene		98			65 - 135					
Test: BTEX											
Benzene	EPA 8020	ND		6.2		6.238	LCSD	100.6	1.44	25.00	65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		7.8		6.203	LCSD	79.5	1.33	25.00	65.0 - 135.0
Toluene	EPA 8020	ND		35.8		33.087	LCSD	92.4	0.28	25.00	65.0 - 135.0
Xylenes, total	EPA 8020	ND		43		37.412	LCSD	87.0	1.20	25.00	65.0 - 135.0
	Surrogate		**Surrogate Recovery**			**Control Limits (%)**					
	aaa-Trifluorotoluene		98			65 - 135					
Test: MTBE by EPA 8020											
Methyl-t-butyl Ether	EPA 8020	ND		52.8		48.698	LCSD	92.2	0.06	25.00	65.0 - 135.0
	Surrogate		**Surrogate Recovery**			**Control Limits (%)**					
	aaa-Trifluorotoluene		98			65 - 135					

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CHAIN OF CUSTODY

Project Name: A & C Auto Service **Project No:** 01-137.04 **Date:** 9-18-01

Project Location: 186 E. Lewelling Blvd **Client:** Carl Graffenstatte **Sampler:** Mitch Hajiaghai / Alicia Falk

Sample ID	Date Sampled	Sampling Time	Matrix	Nº of Containers	Analysis Requested							Turnaround Time
					8015/8020 TPHG BTEX, MTBE	8015 TPHD	418.1 TRPH	8010 VOCs	8270 SVOCs	Total Lead		
MW 1			Water	6	X				26958-001			24-hour Other ___ Normal
MW2			↓	↓	↓					-002		24-hour Other ___ Normal
MW3			↓	↓	↓					-003		24-hour Other ___ Normal
												24-hour Other ___ Normal
												24-hour Other ___ Normal
												24-hour Other ___ Normal
												24-hour Other ___ Normal

Remarks:

Relinquished by	Date	Time	Received by	Date	Time
Alicia Falk	9/18/01	16:27	Joseph Pacheco	9/18/01	1627
Relinquished by	*Date*	*Time*	*Received by*	*Date*	*Time*

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GROUNDWATER MONITORING DATA FORM

Project No: 01-137.04 **Date:** 9-18-01

Project Name: A&C Auto Services **Well Nº:** MW1

Field Personnel: Mitch Hajiaghai **Weather:** Sunny and Warm

Project Location: 186 E. Lewelling Blvd, San Lorenzo, CA

PURGE WATER VOLUME CALCULATION	Total Well Depth (ft)	Depth to Water (ft	Water Column (ft)	Multiplier Casing Diameter			Casing Volume (gal)	Purged Volume (gal)
				(2")	4"	6"		
	21.4	15.98		0.16	0.64	1.44		6

Purge Method: Bailer **Measuring Reference:** Top of Well Casing

Time	1:15	1:20	1:52	1:57		
Volume Purged (gal)	0	2	4	6		
Temperature (° F)	73.6	69.9	68.1	67.7		
pH	5.81	5.47	5.61	5.82		
Specific Conductivity (umhos/cm)	570	540	520	520		
Turbidity/Color	clear	grey	→	→		
Odor	HC Faint	HC odor	→	→		

Comments:

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GROUNDWATER MONITORING DATA FORM

Project No: 01-137.04 **Date:** 9-18-01

Project Name: A&C Auto Services **Well Nº:** MW2

Field Personnel: Mitch Hajiaghai **Weather:** Sunny and Warm

Project Location: 186 E. Lewelling Blvd, San Lorenzo, CA

PURGE WATER VOLUME CALCULATION	Total Well Depth (ft)	Depth to Water (ft	Water Column (ft)	Multiplier Casing Diameter			Casing Volume (gal)	Purged Volume (gal)
				(2")	4"	6"		
	22.70	16.22		0.16	0.64	1.44		6

Purge Method: _____ **Measuring Reference:** Top of Well Casing

Time	1:48	1:55	2:02	2:04		
Volume Purged (gal)	0	2	4	6		
Temperature (° F)	70.1	69.5	68.1	69.6		
pH	5.30	5.52	6.66	6.10		
Specific Conductivity (umhos/cm)	620	590	570	590		
Turbidity/Color	Clear	→	→	→		
Odor	HC Odor	→	→	→		

Comments: _____

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GROUNDWATER MONITORING DATA FORM

Project No: 01-137.04 **Date:**

Project Name: A&C Auto Services **Well Nº:** MW3

Field Personnel: Mitch Hajiaghai **Weather:** Sunny and Warm.

Project Location: 186 E. Lewelling Blvd, San Lorenzo, CA

PURGE WATER VOLUME CALCULATION	Total Well Depth (ft)	Depth to Water (ft	Water Column (ft)	Multiplier Casing Diameter			Casing Volume (gal)	Purged Volume (gal)
				(2")	4"	6"		
	19.60	16.82		0.16	0.64	1.44		6

Purge Method: **Measuring Reference:** Top of Well Casing

Time	2:25	2:27	2:31	2:35		
Volume Purged (gal)	0	2	4	6		
Temperature (° F)	71.8	73.3	74.6	75.1		
pH	5.28	5.82	6.19	5.93		
Specific Conductivity (umhos/cm)	670	680	690	690		
Turbidity/Color	Clear	Lt Grey	Grey	Grey		
Odor	HC odor	→	→	→		

Comments:

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