



October 15, 2002

Alameda County
OCT 21 2002
Environmental Health

2/2/02
11/14/02
RO 451 ✓

QUARTERLY GROUNDWATER MONITORING REPORT
OCTOBER 2002 GROUNDWATER SAMPLING
ASE JOB NO. 3411
at
Hutch's Carwash
17945 Hesperian Boulevard
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 2002 quarterly groundwater sampling at the Hutch's Carwash property located at 17945 Hesperian Boulevard in San Lorenzo, California (Figures 1 and 2).

2.0 GROUNDWATER FLOW DIRECTION AND GRADIENT

On October 1, 2002, ASE 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 hydrocarbons or sheen. No free-floating hydrocarbons or sheen were observed in any of the monitoring wells. Groundwater elevation data is presented in Table One.

The groundwater flow is to the northwest at a gradient of 0.002-feet/foot. Groundwater elevation (potentiometric surface) contours are plotted on Figure 2.

3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS

On October 1, 2002, ASE collected groundwater samples from monitoring well MW-1 for analysis. Monitoring well MW-3 is no longer being sampled because hydrocarbons have not been detected since its installation. Monitoring well MW-2 is also no longer being sampled in accordance with a letter from the Alameda County Health Care Services Agency (ACHCSA) dated August 12, 2002 stating MW-2 may be excluded from further sampling events until further notice. Prior to sampling, monitoring well MW-1 was purged of three 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 using dedicated polyethylene bailers. The groundwater samples were decanted from the bailers into 40-ml volatile organic analysis (VOA) vials, preserved with hydrochloric acid, labeled, and stored on ice for transport to Severn Trent Laboratories (STL) San Francisco, Inc. of Pleasanton, California under appropriate chain of custody documentation.

The well sampling purge water was contained in sealed and labeled 55-gallon steel drums. The well sampling field logs are included as Appendix A.

The groundwater samples were analyzed by STL San Francisco for total petroleum hydrocarbons as gasoline (TPH-G) by modified EPA Method 5030/8015 and benzene, toluene, ethyl benzene, and total xylenes (collectively known as BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8020.

The analytical results are tabulated in Table Two, and copies of the certified analytical report and chain of custody form are included in Appendix B.

4.0 CONCLUSIONS

The groundwater samples collected from monitoring well MW-1 contained 830 parts per billion (ppb) TPH-G, 3.6 ppb benzene, 7.4 ppb ethyl benzene, 2.9 ppb total xylenes, and 520 ppb MTBE. Monitoring well MW-2 was removed from the sampling schedule this quarter in accordance with a letter from the ACHCSA dated August 12, 2002. Monitoring well MW-3 was removed from the sampling schedule in January 2001 because hydrocarbons had not been detected since its installation.

The benzene and MTBE concentrations in groundwater samples collected from monitoring well MW-1 exceeded the California Department of Health Services (DHS) maximum contaminant levels (MCLs) for drinking water. However, the benzene and MTBE concentrations did not exceed California Regional Water Quality Control Board, San Francisco Bay Region (CRWQCB) Risk Based Screening Levels (RBSLs) presented in the "Application of Risk-Based Screening Levels and Decision Making to Sites with Impacted Soil and Groundwater" document dated December 2001 where water is not a current or potential source of drinking water.

In general, hydrocarbon concentrations detected in groundwater samples collected from monitoring well MW-1 have shown a recent decreasing trend in concentrations.

5.0 RECOMMENDATIONS

ASE recommends that an area well survey be conducted to identify water wells within 2,000-feet of the subject site. ASE recommends the case be reviewed for closure if no drinking water wells are located within the site vicinity.

6.0 REPORT LIMITATIONS

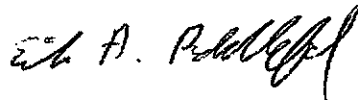
The results presented in this report represent conditions at the time of groundwater sampling, at the specific locations where the samples were collected, and for the specific parameters analyzed by the laboratory.

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.

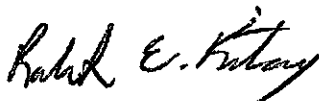
Aqua Science Engineers appreciates the opportunity to provide environmental consulting services for this project. Should you have any questions or comments, please feel free to call us at (925) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.



Erik H. Paddleford
Associate Geologist



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

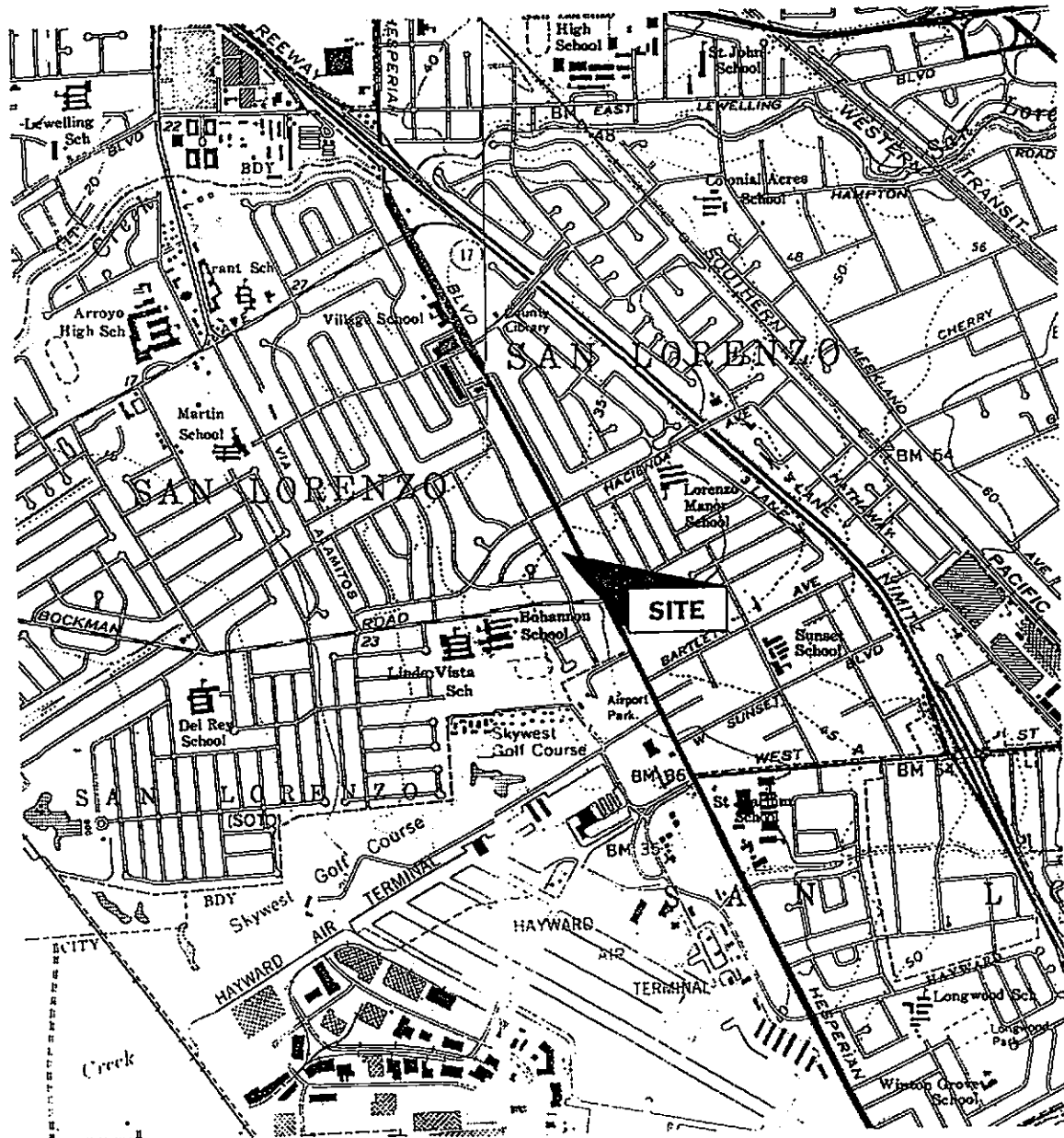


Attachments: Figures 1 and 2
Appendices A and B

cc: Mr. Kirk Hutchison, Hutch's Car Wash
Mr. Scott Seery, Alameda County Health Care Services Agency
Mr. Chuck Headlee, California Regional Water Quality Control Board



NORTH
NOT TO SCALE

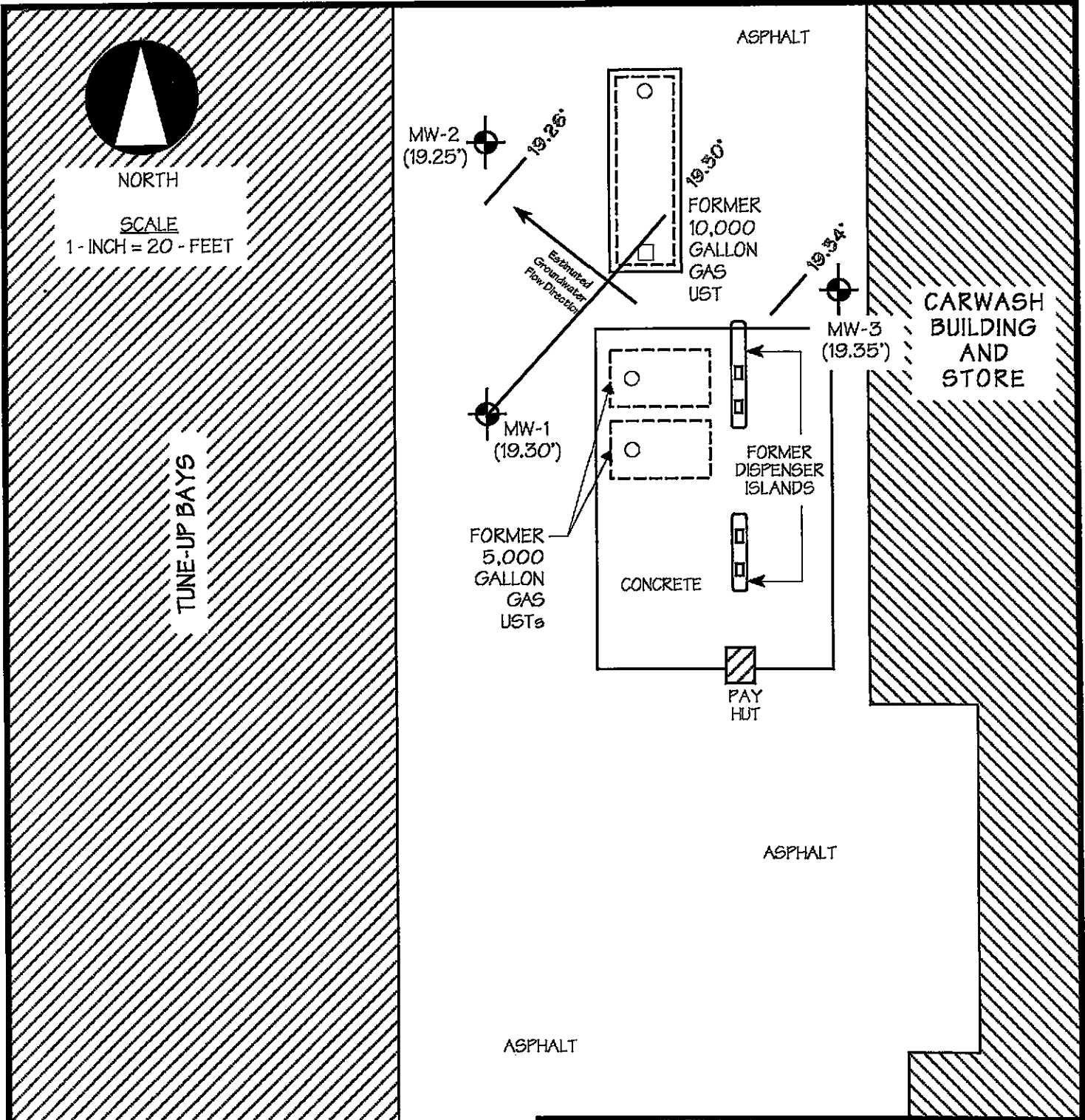


LOCATION MAP

Hutch's Carwash
17945 Hesperian Boulevard
San Lorenzo, California

AQUA SCIENCE ENGINEERS, INC.

Figure 1



LEGEND



MW-1
(19.30')

Monitoring well with
groundwater elevation



Groundwater elevation
contour

**GROUNDWATER ELEVATION
CONTOUR MAP -10/1/02**

HUTCH'S CARWASH
17945 HESPERIAN BOULEVARD
SAN LORENZO, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC.

FIGURE 2

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	35.00	15.58	19.42
	01-13-00		15.58	19.42
	04-12-00		14.75	20.25
	07-19-00		15.29	19.71
	10-25-00		15.56	19.44
	01-16-01		15.22	19.78
	04-04-01		15.05	19.95
	07-06-01		15.49	19.51
	10-01-01		15.78	19.22
	01-07-02		13.83	21.17
	04-02-02		14.83	20.17
	07-09-02		15.41	19.59
	10-01-02		15.70	19.30
	MW-2		10-06-99	35.21
01-13-00		15.78	19.43	
04-12-00		14.94	20.27	
07-19-00		15.54	19.67	
10-25-00		15.81	19.40	
01-16-01		15.50	19.71	
04-04-01		15.28	19.93	
07-06-01		15.73	19.48	
10-01-01		16.06	19.15	
01-07-02		14.08	21.13	
04-02-02		15.04	20.17	
07-09-02		15.66	19.55	
10-01-02		15.96	19.25	
MW-3		10-06-99	34.47	
	01-13-00	14.98		19.49
	04-12-00	14.09		20.38
	07-19-00	14.70		19.77
	10-25-00	14.98		19.49
	01-16-01	14.58		19.89
	04-04-01	14.43		20.04
	07-06-01	14.85		19.62
	10-01-01	15.21		19.26
	01-07-02	13.24		21.23
	04-02-02	14.20		20.27
	07-09-02	14.81		19.66
	10-01-02	15.12		19.35

TABLE TWO
Certified Analytical Results of GROUNDWATER Samples
All results are in parts per billion

Well	Date Sampled	TPH Gasoline	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
MW-1	10-06-99	1,500	3.3	2.3	27	72	120
	01-13-00	1,500	15	19	19	33	650
	04-12-00	1,700	18	13	45	79	2,600
	07-19-00	2,200	31	< 5.0	81	100	2,000
	10-25-00	3,300	20	< 5.0	9.8	9.4	3,300
	01-16-01	4,100	34	14	60	120	1,300
	04-04-01	2,900	14	< 0.5	34	32	2,000
	07-06-01	1,300	4.4	< 0.5	12	13	700
	10-01-01	1,100	4.1	< 0.5	18	19	520
	01-07-02	1,400	34	< 0.5	13	15	1,300
	04-02-02	1,900	30	6.7	24	30	1,000
	07-09-02	1,500	26	< 5.0	12	8.6	820
	10-01-02	830	3.6	< 2.5	7.4	2.9	520
MW-2	10-06-99	< 50	< 0.5	< 0.5	< 0.5	< 0.5	18
	01-13-00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	16
	04-12-00	< 100	< 1.0	< 1.0	< 1.0	< 1.0	240
	07-19-00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
	10-25-00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	6.0
	01-16-01	< 50	< 0.5	< 0.5	< 0.5	< 0.5	8.2
	04-04-01	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
	07-06-01	< 50	< 0.5	< 0.5	< 0.5	< 0.5	5.9
	10-01-01	< 50	< 0.5	< 0.5	< 0.5	< 0.5	21
	01-07-02	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
	04-02-02	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
	07-09-02	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
	10-01-02	No	Longer	Sampled			

TABLE TWO
Certified Analytical Results of GROUNDWATER Samples
 All results are in **parts per billion**

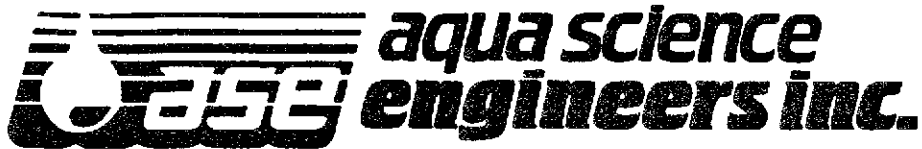
Well	Date Sampled	TPH Gasoline	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
MW-3	10-06-99	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
	01-13-00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
	04-12-00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
	07-19-00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
	10-25-00	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
	01-16-01	No	Longer	Sampled			
DHS MCL		NE	1	150	700	1,750	13
RBSL		400	46	130	290	13	1,800

Notes:

- Most recent concentrations are in **bold**.
- Non-detectable concentrations are noted by the less than symbol (<) followed by the detection limit.
- DHS MCL = California Department of Health Services maximum contaminant level for drinking water
- RBSL = Risk based screening levels presented in the "Application of Risk-Based Screening Levels and Decision Making to Sites With Impacted Soil and Groundwater" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region.
- NE = DHS MCL not established

APPENDIX A

Well Sampling Field Logs



WELL SAMPLING FIELD LOG

Project Name and Address: Hutch's Carwash
 Job #: 3411 Date of sampling: 10/1/02
 Well Name: MW-1 Sampled by: EP
 Total depth of well (feet): 26.68 Well diameter (inches): 2
 Depth to water before sampling (feet): 15.70
 Thickness of floating product if any: -
 Depth of well casing in water (feet): 10.98
 Number of gallons per well casing volume (gallons): 1.76
 Number of well casing volumes to be removed: 3
 Req'd volume of groundwater to be purged before sampling (gallons): 5.2
 Equipment used to purge the well: bauler
 Time Evacuation Began: 1235 Time Evacuation Finished: 1250
 Approximate volume of groundwater purged: 5
 Did the well go dry?: no After how many gallons: -
 Time samples were collected: 1300
 Depth to water at time of sampling: -
 Percent recovery at time of sampling: -
 Samples collected with: bauler
 Sample color: clear/brown Odor: none
 Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>70.6</u>	<u>6.13</u>	<u>845</u>
<u>2</u>	<u>68.1</u>	<u>6.57</u>	<u>850</u>
<u>3</u>	<u>67.4</u>	<u>6.66</u>	<u>852</u>

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>MW-1</u>	<u>3</u>	<u>40 ml VOA</u>	<u>x</u>	<u>x</u>	



WELL SAMPLING FIELD LOG

Project Name and Address: Hutch's Carwash
Job #: 3411 Date of sampling: 10/2/02
Well Name: MW-2 Sampled by: EP
Total depth of well (feet): 25.56 Well diameter (inches): 2
Depth to water before sampling (feet): 15.96
Thickness of floating product if any: -
Depth of well casing in water (feet): _____
Number of gallons per well casing volume (gallons): _____
Number of well casing volumes to be removed: _____
Req'd volume of groundwater to be purged before sampling (gallons): _____
Equipment used to purge the well: _____
Time Evacuation Began: _____ Time Evacuation Finished: _____
Approximate volume of groundwater purged: _____
Did the well go dry?: _____ After how many gallons: _____
Time samples were collected: _____
Depth to water at time of sampling: _____
Percent recovery at time of sampling: _____
Samples collected with: _____
Sample color: _____ Odor: _____
Description of sediment in sample: _____

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____



WELL SAMPLING FIELD LOG

Project Name and Address: Hotel's Carwash
 Job #: 3411 Date of sampling: 10/1/02
 Well Name: MW-3 Sampled by: EP
 Total depth of well (feet): _____ Well diameter (inches): 2
 Depth to water before sampling (feet): 15.12
 Thickness of floating product if any: _____
 Depth of well casing in water (feet): _____
 Number of gallons per well casing volume (gallons): _____
 Number of well casing volumes to be removed: _____
 Req'd volume of groundwater to be purged before sampling (gallons): _____
 Equipment used to purge the well: _____
 Time Evacuation Began: _____ Time Evacuation Finished: _____
 Approximate volume of groundwater purged: _____
 Did the well go dry?: _____ After how many gallons: _____
 Time samples were collected: _____
 Depth to water at time of sampling: _____
 Percent recovery at time of sampling: _____
 Samples collected with: S
 Sample color: _____ Odor: _____
 Description of sediment in sample: _____

CHEMICAL DATA

Volume Purged	Temp	PH	Conductivity
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

APPENDIX B

Certified Analytical Report
and
Chain of Custody Documentation

Submission#: 2002-10-0056

October 09, 2002

SEVERN

TRENT

LABORATORY

Aqua Science Engineers, Inc.

208 West El Pintado

Danville, CA 94526

Attn.: Erik Paddleford

Project#: 3411

Project: Hutch's Carwash

STL San Francisco
1220 Quarry Ln
Pleasanton CA 94566

Tel.: (925) 484-1919
Fax: (925) 484-1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#:2496

Attached is our report for your samples received on 10/02/2002 14:51
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
11/16/2002 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
Project Manager

Submission #: 2002-10-0056

Gas/BTEX Compounds by 8015M/8021

Aqua Science Engineers, Inc.

Attn.: Erik Paddleford

208 West El Pintado

Danville, CA 94526

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

Project: 3411

Hutch's Carwash

Received: 10/02/2002 14:51

SEVERN
TRENT
LABORATORY

STL San Francisco
1220 Quarry Lane
Pleasanton, CA 94566

Tel: (925) 484-1919
Fax: (925) 484-1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP# 2496

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
MW-1	10/01/2002 13:00	Water	1

Submission #: 2002-10-0056

Gas/BTEX Compounds by 8015M/8021

Aqua Science Engineers, Inc.

Attn.: Erik Paddleford
208 West El Pintado
Danville, CA 94526
Phone: (925) 820-9391 Fax: (925) 837-4853

Project: 3411
Hutch's Carwash

Received: 10/02/2002 14:51

SEVERN

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Pleasanton, CA 94566

Tel: (925) 484-1919
Fax: (925) 484-1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP# 2496

Prep(s): 5030
5030
Sample ID: MW-1
Sampled: 10/01/2002 13:00
Matrix: Water
Test(s): 8021B
8015M
Lab ID: 2002-10-0056 - 1
Extracted: 10/9/2002 12:53
QC Batch#: 2002/10/09-01.03

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	830	250	ug/L	5.00	10/09/2002 12:53	
Benzene	3.6	2.5	ug/L	5.00	10/09/2002 12:53	
Toluene	ND	2.5	ug/L	5.00	10/09/2002 12:53	
Ethyl benzene	7.4	2.5	ug/L	5.00	10/09/2002 12:53	
Xylene(s)	2.9	2.5	ug/L	5.00	10/09/2002 12:53	
MTBE	520	25	ug/L	5.00	10/09/2002 12:53	
Surrogates(s)						
Trifluorotoluene	94.9	58-124	%	5.00	10/09/2002 12:53	
4-Bromofluorobenzene-FID	86.3	50-150	%	5.00	10/09/2002 12:53	

Submission #: 2002-10-0056

Gas/BTEX Compounds by 8015M/8021

Aqua Science Engineers, Inc.

Attn.: Erik Paddleford

208 West El Pintado

Danville, CA 94526

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

Project: 3411

Hutch's Carwash

Received: 10/02/2002 14:51

SEVERN

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Pleasanton, CA 94566

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www.chromalab.com

CA DHS ELAP# 2496

Batch QC Report

Prep(s): 5030

Method Blank

MB: 2002/10/09-01.03-003

Water

Test(s): 8015M

QC Batch # 2002/10/09-01.03

Date Extracted: 10/09/2002 08:12

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	10/09/2002 08:12	
Benzene	ND	0.5	ug/L	10/09/2002 08:12	
Toluene	ND	0.5	ug/L	10/09/2002 08:12	
Ethyl benzene	ND	0.5	ug/L	10/09/2002 08:12	
Xylene(s)	ND	0.5	ug/L	10/09/2002 08:12	
MTBE	ND	5.0	ug/L	10/09/2002 08:12	
Surrogates(s)					
Trifluorotoluene	95.2	58-124	%	10/09/2002 08:12	
4-Bromofluorobenzene-FID	84.7	50-150	%	10/09/2002 08:12	

Submission #: 2002-10-0056

Gas/BTEX Compounds by 8015M/8021

Aqua Science Engineers, Inc.

Attn.: Erik Paddleford
208 West El Pintado
Danville, CA 94526
Phone: (925) 820-9391 Fax: (925) 837-4853

Project: 3411
Hutch's Carwash

Received: 10/02/2002 14:51

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1220 Quarry Lane
Pleasanton, CA 94566

Tel: (925) 484-1919
Fax: (925) 484-1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP# 2496

Batch QC Report

Prep(s): 5030

Test(s): 8021B

Laboratory Control Spike

Water

QC Batch # 2002/10/09-01.03

LCS 2002/10/09-01.03-004

Extracted: 10/09/2002

Analyzed: 10/09/2002 08:42

LCSD 2002/10/09-01.03-008

Extracted: 10/09/2002

Analyzed: 10/09/2002 11:22

Compound	Conc. ug/L		Exp.Conc.	Recovery		RPD %	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		Rec.	RPD	LCS	LCSD
Benzene	91.7	91.2	100.0	91.7	91.2	0.5	77-123	20		
Toluene	86.6	86.3	100.0	86.6	86.3	0.3	78-122	20		
Ethyl benzene	86.7	86.2	100.0	86.7	86.2	0.6	70-130	20		
Xylene(s)	249	248	300	83.0	82.7	0.4	75-125	20		
Surrogates(s)										
Trifluorotoluene	435	460	500	87.0	92.0		58-124			

Submission #: 2002-10-0056

Gas/BTEX Compounds by 8015M/8021

Aqua Science Engineers, Inc.

Attn.: Erik Paddleford

208 West El Pintado

Danville, CA 94526

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

Project: 3411

Hutch's Carwash

Received: 10/02/2002 14:51

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Pleasanton, CA 94566

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Fax: (925) 484-1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP# 2496

Batch QC Report

Prep(s): 5030

Test(s): 8015M

Laboratory Control Spike

Water

QC Batch # 2002/10/09-01.03

LCS: 2002/10/09-01.03-006

Extracted: 10/09/2002

Analyzed: 10/09/2002 09:42

LCSD: 2002/10/09-01.03-007

Extracted: 10/09/2002

Analyzed: 10/09/2002 10:12

Compound	Conc. ug/L		Exp. Conc.	Recovery		RPD	Ctrl. Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Gasoline	518	501	500	103.6	100.2	3.3	75-125	20		
Surrogates(s)										
4-Bromofluorobenzene-FID	429	414	500	85.8	82.8		50-150			