



Ro. 451 ✓

Alameda County
FEB 21 2003
Environmental Health

February 10, 2002^{3/}

Alameda County
FEB 21 2003
Environmental Health

QUARTERLY GROUNDWATER MONITORING REPORT
JANUARY 2003 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 January 2003 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 January 24, 2003, 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 west at a gradient of 0.023-feet/foot. Groundwater elevation (potentiometric surface) contours are plotted on Figure 2.

3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS

On January 24, 2003, 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 1,300 parts per billion (ppb) TPH-G, 6.2 ppb benzene, 12 ppb ethyl benzene, and 680 ppb MTBE. Monitoring well MW-2 was removed from the sampling schedule in October 2002 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 this quarter remain consistent with previous results.

5.0 RECOMMENDATIONS

Since ASE's recommendation for case closure of the site was not approved, ASE recommends the sampling frequency for the site be changed to semi-annual. ASE respectfully requests a written response to this prior to the next scheduled sampling in July 2003.

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.

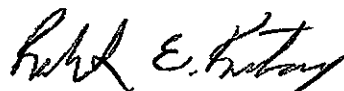
Aqua Science Engineers appreciates the opportunity to provide environmental consulting services for this project. Should you have any questions or comments, please feel free to call us at (925) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.



Erik H. Paddleford
Associate Geologist



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



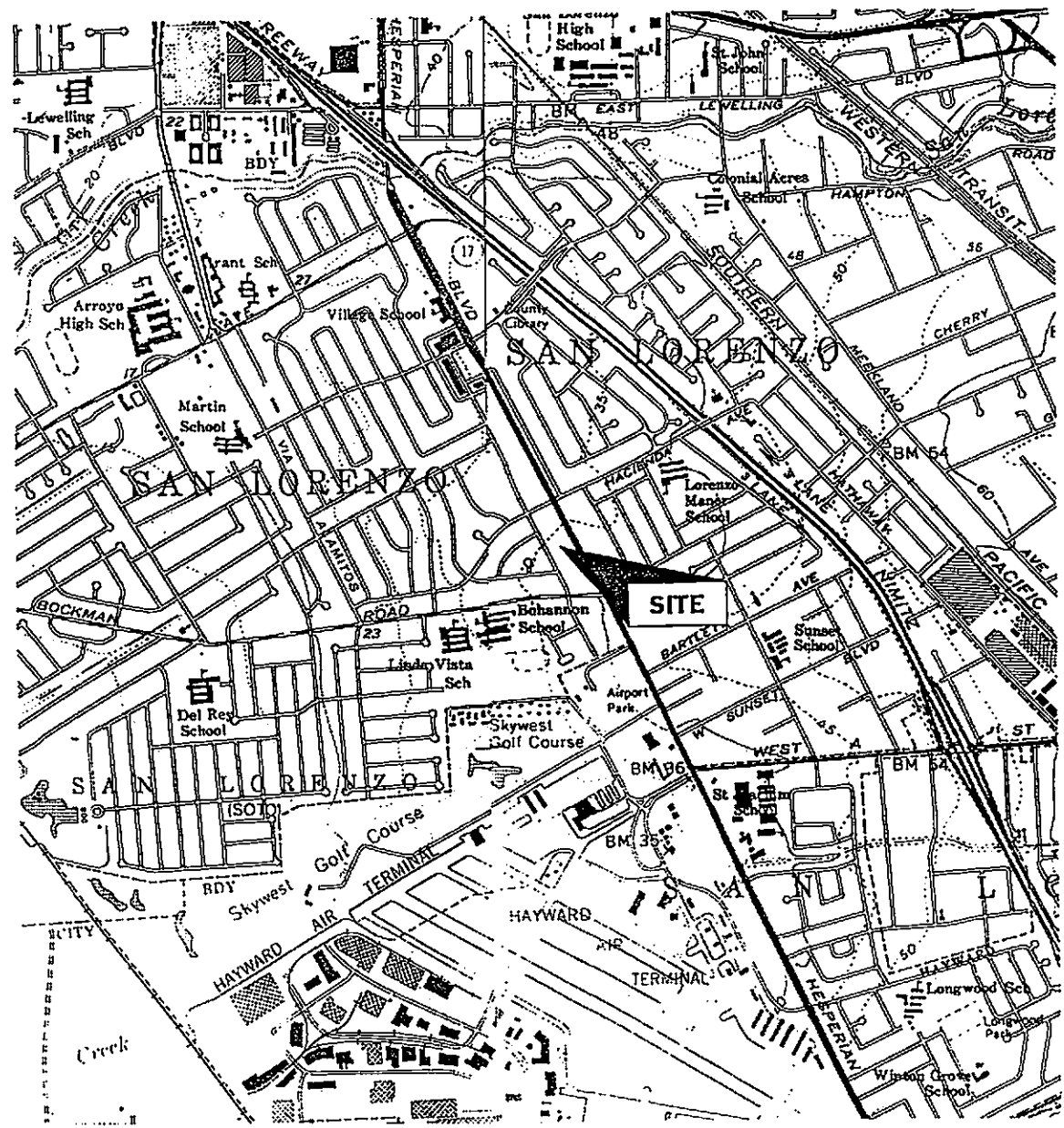
Attachments: Figures 1 and 2
Appendices A and B

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



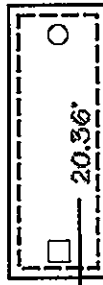
NORTH

SCALE
1 - INCH = 20 - FEET

TUNE-UP BAYS

MW-2
(20.31')

20.32'



FORMER
10,000
GALLON
GAS
UST

20.40'

Estimated
Groundwater
Flow Direction

MW-1
(20.31')

MW-3
(20.42')

CARWASH
BUILDING
AND
STORE

FORMER
5,000
GALLON
GAS
USTs

FORMER
DISPENSER
ISLANDS

CONCRETE

PAY
HUT

ASPHALT

ASPHALT

LEGEND



MW-1
(20.31')

Monitoring well with
groundwater elevation



Groundwater elevation
contour

GROUNDWATER ELEVATION
CONTOUR MAP -1/24/03

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
	01-24-03		14.69	20.31
MW-2	10-06-99	35.21	15.84	19.37
	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
	01-24-03		14.90	20.31
MW-3	10-06-99	34.47	14.98	19.49
	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
	01-24-03		14.05	20.42

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
	01-24-03	1,300	6.2	< 5.0	12	< 5.0	680
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: 1/29/03
 Well Name: ~~NW-1~~ NW-1 Sampled by: ep
 Total depth of well (feet): 26.68 Well diameter (inches): _____
 Depth to water before sampling (feet): 14.69
 Thickness of floating product if any: -
 Depth of well casing in water (feet): 11.99
 Number of gallons per well casing volume (gallons): 1.92
 Number of well casing volumes to be removed: 3
 Req'd volume of groundwater to be purged before sampling (gallons): 5.75
 Equipment used to purge the well: bailer
 Time Evacuation Began: 1330 Time Evacuation Finished: 1345
 Approximate volume of groundwater purged: 6
 Did the well go dry?: NO After how many gallons: -
 Time samples were collected: 1350
 Depth to water at time of sampling: -
 Percent recovery at time of sampling: -
 Samples collected with: bailer
 Sample color: ~~clear brown~~ gray/green Odor: none
 Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>65.8</u>	<u>6.92</u>	<u>848</u>
<u>2</u>	<u>65.4</u>	<u>6.88</u>	<u>840</u>
<u>3</u>	<u>65.3</u>	<u>6.83</u>	<u>836</u>
_____	_____	_____	_____
_____	_____	_____	_____

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iccd?	Analysis
<u>NW-1</u>	<u>3</u>	<u>90 ml VOA</u>	<u>X</u>	<u>X</u>	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____



WELL SAMPLING FIELD LOG

Project Name and Address: Hotel's Carwash
Job #: 3411 Date of sampling: 1/24/03
Well Name: MW-2 Sampled by: ep
Total depth of well (feet): 25.56 Well diameter (inches): 2
Depth to water before sampling (feet): 14.90
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: Hutch's Carwash
Job #: 3411 Date of sampling: 1/24/03
Well Name: MW-3 Sampled by: pp
Total depth of well (feet): 26.83 Well diameter (inches): 2
Depth to water before sampling (feet): 14.05
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?: NO 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
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

APPENDIX B

Certified Analytical Report
and
Chain of Custody Documentation

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: 01/29/2003 15:53

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
MW-1	01/24/2003 13:50	Water	1

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: 01/29/2003 15:53

Prep(s):	5030	Test(s):	8015M
	5030		8021B
Sample ID:	MW-1	Lab ID:	2003-01-0535 - 1
Sampled:	01/24/2003 13:50	Extracted:	2/5/2003 13:45
Matrix:	Water	QC Batch#:	2003/02/05-01-05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	1300	500	ug/L	10.00	02/05/2003 13:45	g
Benzene	6.2	5.0	ug/L	10.00	02/05/2003 13:45	
Toluene	ND	5.0	ug/L	10.00	02/05/2003 13:45	
Ethyl benzene	12	5.0	ug/L	10.00	02/05/2003 13:45	
Xylene(s)	ND	5.0	ug/L	10.00	02/05/2003 13:45	
MTBE	680	50	ug/L	10.00	02/05/2003 13:45	
Surrogates(s)						
Trifluorotoluene	91.6	58-124	%	10.00	02/05/2003 13:45	
4-Bromofluorobenzene-FID	85.6	50-150	%	10.00	02/05/2003 13:45	

Sewern Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

02/05/2003 15:57

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: 01/29/2003 15:53

Batch QC Report					
Prep(s): 5030				Test(s): 8015M	
Method Blank		Water		QC Batch # 2003/02/05-01.05	
MB: 2003/02/05-01.05-005				Date Extracted: 02/05/2003 10:00	

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	02/05/2003 10:00	
Benzene	ND	0.5	ug/L	02/05/2003 10:00	
Toluene	ND	0.5	ug/L	02/05/2003 10:00	
Ethyl benzene	ND	0.5	ug/L	02/05/2003 10:00	
Xylene(s)	ND	0.5	ug/L	02/05/2003 10:00	
MTBE	ND	5.0	ug/L	02/05/2003 10:00	
Surrogates(s)					
Trifluorotoluene	89.6	58-124	%	02/05/2003 10:00	
4-Bromofluorobenzene-FID	88.9	50-150	%	02/05/2003 10:00	

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: 01/29/2003 15:53

Batch QC Report									
Prep(s): 5030					Test(s): 8021B				
Laboratory Control Spike			Water			QC Batch # 2003/02/05-01.05			
LCS	2003/02/05-01.05-006		Extracted: 02/05/2003			Analyzed: 02/05/2003 10:33			
LCSD	2003/02/05-01.05-007		Extracted: 02/05/2003			Analyzed: 02/05/2003 11:05			

Compound	Conc. ug/L		Exp.Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	97.4	105	100.0	97.4	105.0	7.5	77-123	20		
Toluene	97.9	105	100.0	97.9	105.0	7.0	78-122	20		
Ethyl benzene	96.2	101	100.0	96.2	101.0	4.9	70-130	20		
Xylene(s)	289	302	300	96.3	100.7	4.5	75-125	20		
Surrogates(s)										
Trifluorotoluene	454	515	500	90.8	103.0		58-124			

Sewern Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

02/05/2003 15:57

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: 01/29/2003 15:53

Batch QC Report										
Prep(s): 5030						Test(s): 8015M				
Laboratory Control Spike				Water			QC Batch # 2003/02/05-01.05			
LCS	2003/02/05-01.05-008			Extracted: 02/05/2003			Analyzed: 02/05/2003 11:37			
LCSD	2003/02/05-01.05-009			Extracted: 02/05/2003			Analyzed: 02/05/2003 12:09			
Compound	Conc. ug/L		Exp.Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Gasoline	495	527	500	99.0	105.4	6.3	75-125	20		
<i>Surrogates(s)</i>										
4-Bromofluorobenzene-FID	441	457	500	88.2	91.4		50-150			

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

02/05/2003 15:57

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: 01/29/2003 15:53

Legend and Notes

Result Flag

9

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

Aqua Science Engineers, Inc.

February 05, 2003

208 West El Pintado
Danville, CA 94526

Attn.: Erik Paddleford

Project#: 3411

Project: Hutch's Carwash

Attached is our report for your samples received on 01/29/2003 15:53
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
03/15/2003 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@stl-inc.com

Sincerely,



Vincent Vancil
Project Manager