



*RESPONSE to
10/12/2000
AM*

July 31, 2000

ASO

QUARTERLY GROUNDWATER MONITORING REPORT
July 2000 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 July 2000 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 July 19, 2000, ASE associate geologist Ian Reed measured the depth to water in each site monitoring well using an electric water level sounder. The surface of the groundwater was also checked for the presence of free-floating 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 and groundwater elevation (potentiometric surface) contours are plotted on Figure 2. The groundwater flow is to the northwest at a gradient of 0.002-feet/foot. The water table dropped approximately 0.6-feet this quarter.

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
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
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

3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS

On July 19, 2000, ASE associate geologist Ian Reed collected groundwater samples from all three site monitoring wells for analysis. No free-floating hydrocarbons or sheen were present on the surface of groundwater in any of the monitoring wells. However, hydrocarbon odors were present in

water purged from monitoring well MW-1. Prior to sampling, the wells were purged of four well casing volumes of groundwater. The pH, temperature and conductivity of the purge water were monitored during evacuation, and samples were not collected until these parameters stabilized. Samples were collected from each well using dedicated polyethylene bailers. The groundwater samples were decanted from the bailers into 40-ml volatile organic analysis (VOA) vials, preserved with hydrochloric acid, labeled, placed in protective foam sleeves, and stored on ice for transport to Chromalab, Inc. of Pleasanton, California under chain of custody. Well sampling purge water was contained in sealed and labeled 55-gallon steel drums. See Appendix A for a copy of the Field Logs.

The groundwater samples were analyzed by Chromalab for total petroleum hydrocarbons as gasoline (TPH-G) by modified EPA Method 5030/8015 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.

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
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
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
DHS MCL	NE	1	150	700	1,750	13	

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

NE = DHS MCL not established

4.0 CONCLUSIONS AND RECOMMENDATIONS

The groundwater samples collected from monitoring well MW-1 contained 2,200 parts per billion (ppb) TPH-G, 31 ppb benzene, 81 ppb ethyl benzene, 100 ppb total xylenes, and 2,000 ppb MTBE. No hydrocarbons were detected above the laboratory reporting limits in the groundwater samples collected from monitoring wells MW-2 and MW-3.

The benzene and MTBE concentrations in groundwater samples collected from monitoring well MW-1 exceeded the California Department of Health Services (DHS) maximum contaminant level (MCL) for drinking water.

The analytical results this quarter are similar to last quarter's results with only a noticeable decrease in MTBE concentrations in groundwater samples collected from monitoring well MW-2.

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

ASE also recommends that monitoring well MW-3 be removed from the quarterly monitoring program since no hydrocarbons have been detected in that well and since it is located upgradient of the abandoned tanks.

5.0 REPORT LIMITATIONS

The results of this assessment 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.

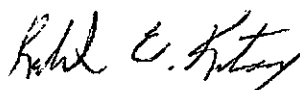
Aqua Science Engineers appreciates the opportunity to provide environmental consulting services for this project. Should you have any questions or comments, please feel free to call us at (925) 820-9391.

Respectfully submitted,

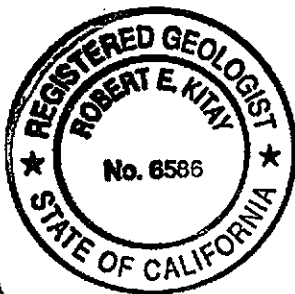
AQUA SCIENCE ENGINEERS, INC.



Ian T. Reed,
Associate Geologist



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

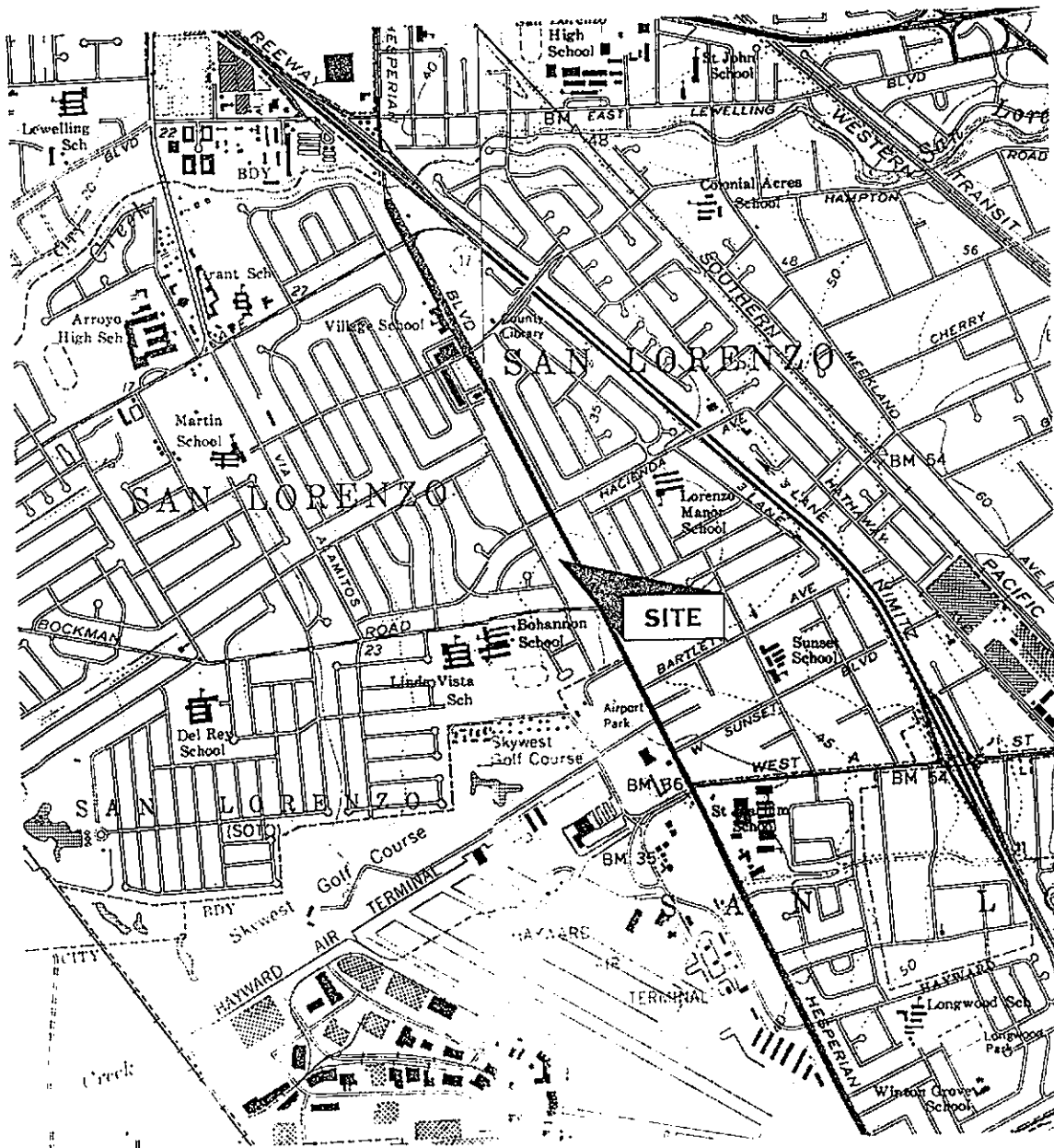


Attachments: Figures 1 and 2
Appendices A and B

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



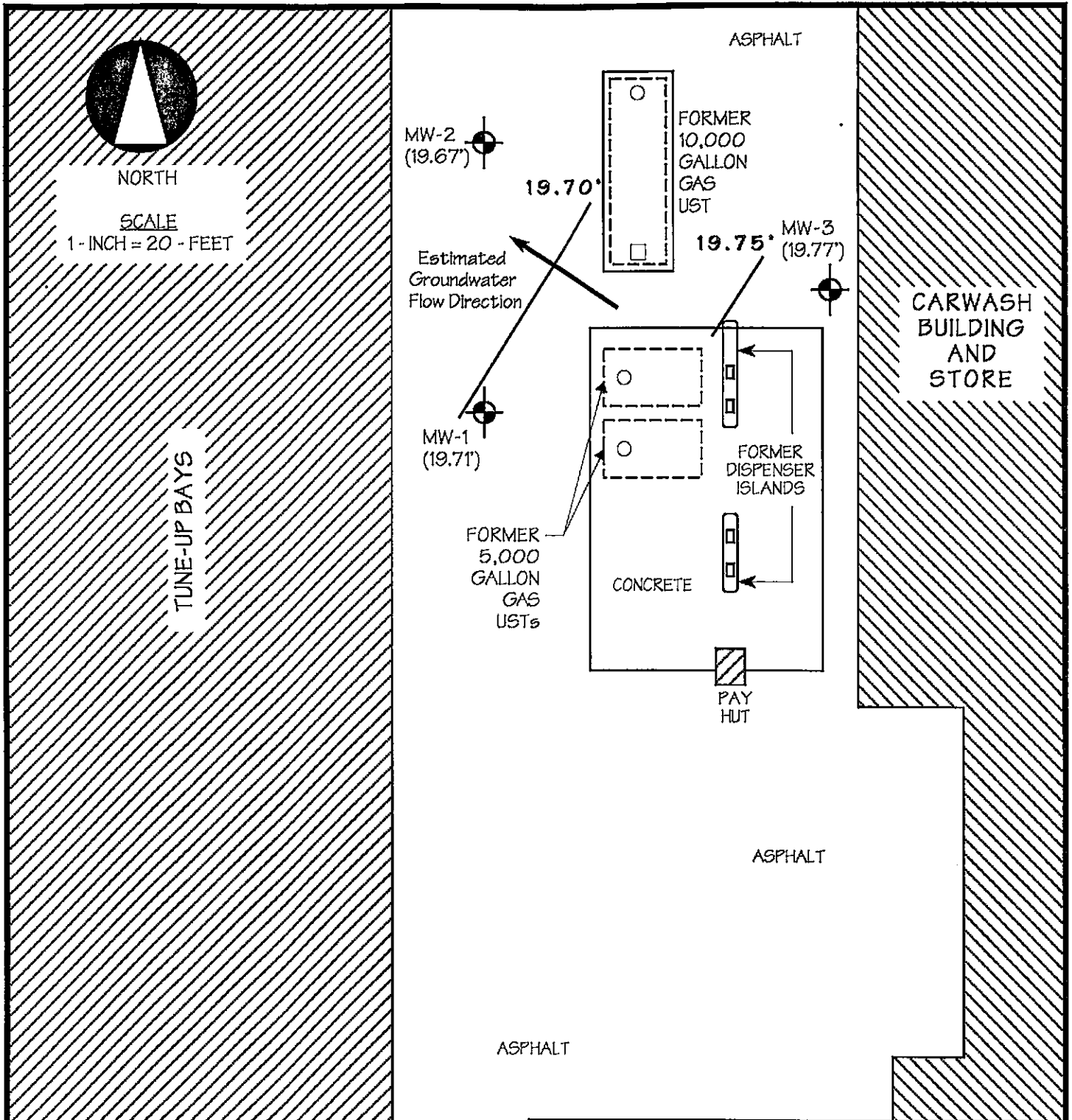
NORTH
NOT TO SCALE



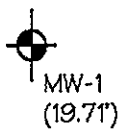
LOCATION MAP

Hutch's Carwash
17945 Hesperian Boulevard
San Lorenzo, California

AQUA SCIENCE ENGINEERS, INC. Figure 1



LEGEND



Monitoring well with groundwater elevation



Groundwater elevation contour

**GROUNDWATER ELEVATION
CONTOUR MAP - 7/19/00**

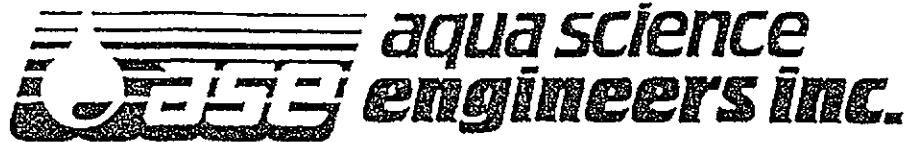
HUTCH'S CARWASH
17945 HESPERIAN BOULEVARD
SAN LORENZO, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC.

FIGURE 2

APPENDIX A

Well Sampling Field Logs



WELL SAMPLING FIELD LOG

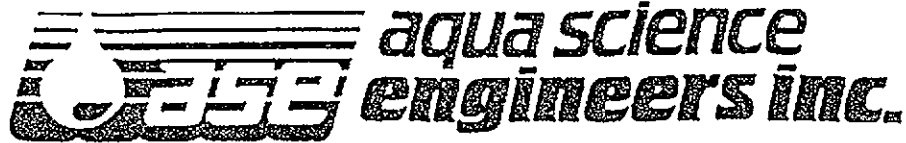
Project Name and Address: Hull Co. 620
 Job #: 3411 Date of sampling: 7/19/00
 Well Name: MW-1 Sampled by: 1172
 Total depth of well (feet): 26.00 Well diameter (inches): 2"
 Depth to water before sampling (feet): 15.29
 Thickness of floating product if any: —
 Depth of well casing in water (feet): 11.39
 Number of gallons per well casing volume (gallons): 19
 Number of well casing volumes to be removed: 4
 Req'd volume of groundwater to be purged before sampling (gallons): 76
 Equipment used to purge the well: dr. boiler
 Time Evacuation Began: 1250 Time Evacuation Finished: 1300
 Approximate volume of groundwater purged: 8
 Did the well go dry?: NO After how many gallons: —
 Time samples were collected: 1305
 Depth to water at time of sampling: 16.17
 Percent recovery at time of sampling: 98%
 Samples collected with: dr. boiler
 Sample color: gray Odor: slight HC odor
 Description of sediment in sample: F. silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>70.1</u>	<u>7.32</u>	<u>1230</u>
<u>2</u>	<u>76.2</u>	<u>7.31</u>	<u>1240</u>
<u>3</u>	<u>70.2</u>	<u>7.52</u>	<u>1230</u>
<u>4</u>	<u>70.2</u>	<u>7.21</u>	<u>1230</u>

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>1172</u>	<u>3</u>	<u>50ml VOA</u>	<u>✓</u>	<u>✓</u>	<u>TPH-G-1 DTEX/MTBE</u>



WELL SAMPLING FIELD LOG

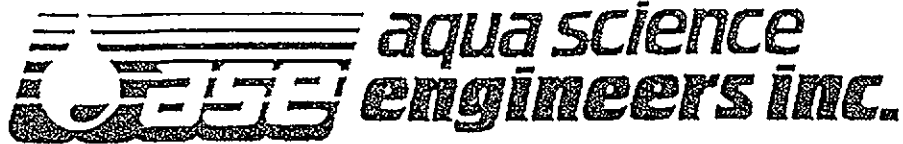
Project Name and Address: Hutch's Car Wash
 Job #: 3411 Date of sampling: 7/10/02
 Well Name: MW-2 Sampled by: TR
 Total depth of well (feet): 25.56 Well diameter (inches): 2"
 Depth to water before sampling (feet): 15.54
 Thickness of floating product if any: —
 Depth of well casing in water (feet): 10.02
 Number of gallons per well casing volume (gallons): 1.7
 Number of well casing volumes to be removed: 4
 Req'd volume of groundwater to be purged before sampling (gallons): 6.8
 Equipment used to purge the well: dec. boiler
 Time Evacuation Began: 1310 Time Evacuation Finished: 1320
 Approximate volume of groundwater purged: 6.8
 Did the well go dry?: NO After how many gallons: —
 Time samples were collected: 1325
 Depth to water at time of sampling: 16.08
 Percent recovery at time of sampling: 96%
 Samples collected with: dec. boiler
 Sample color: clear brown Odor: none
 Description of sediment in sample: F silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>71.4</u>	<u>6.21</u>	<u>1110</u>
<u>2</u>	<u>71.5</u>	<u>6.20</u>	<u>1110</u>
<u>3</u>	<u>71.0</u>	<u>6.21</u>	<u>1170</u>
<u>4</u>	<u>71.5</u>	<u>6.20</u>	<u>1110</u>

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>MW-2</u>	<u>3</u>	<u>4/100ml VCH</u>	<u>✓</u>	<u>✓</u>	<u>TPH-G/BTEX/MTBE</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____



WELL SAMPLING FIELD LOG

Project Name and Address: Hutch, Co. Wash
 Job #: 3111 Date of sampling: 7/19/00
 Well Name: Hw-3 Sampled by: FR
 Total depth of well (feet): 26.94 Well diameter (inches): 2'
 Depth to water before sampling (feet): 14.70
 Thickness of floating product if any: _____
 Depth of well casing in water (feet): 12.24
 Number of gallons per well casing volume (gallons): 2
 Number of well casing volumes to be removed: 4
 Req'd volume of groundwater to be purged before sampling (gallons): 8
 Equipment used to purge the well: Submersible
 Time Evacuation Began: 1215 Time Evacuation Finished: 1230
 Approximate volume of groundwater purged: 8
 Did the well go dry?: NO After how many gallons: —
 Time samples were collected: 1225
 Depth to water at time of sampling: 14.95
 Percent recovery at time of sampling: 99%
 Samples collected with: disinfectant bottle
 Sample color: Clear/low Odor: None
 Description of sediment in sample: fine silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>73.1</u>	<u>7.71</u>	<u>800</u>
<u>2</u>	<u>73.2</u>	<u>7.71</u>	<u>810</u>
<u>3</u>	<u>73.1</u>	<u>7.70</u>	<u>810</u>
<u>4</u>	<u>73.1</u>	<u>7.72</u>	<u>870</u>
_____	_____	_____	_____

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>HW-3</u>	<u>3</u>	<u>100ml VCA</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>TPA G-1 BTEX /MTBE</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

APPENDIX B

Certified Analytical Report
and
Chain of Custody Documentation

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-07-0289

Date: July 26, 2000

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

Attn.: Mr. Ian T. Reed

Project: 3411
Hutch's Car Wash

Dear Mr. Reed,

Attached is our report for your samples received on Wednesday July 19, 2000
This report has been reviewed and approved for release. Reproduction of this report
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after August 18, 2000
unless you have requested otherwise. We appreciate the opportunity to be of service to you.
If you have any questions, please call me at (925) 484-1919. You can also contact me via email.
My email address is: vvancil@chromalab.com

Sincerely,



Vincent Vancil

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-07-0289

Gas/BTEX and MTBE

Aqua Science Engineers, Inc.

✉ 208 West El Pintado Road
Danville, CA 94526

Attn: Ian T. Reed

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

Project #: 3411

Project: Hutch's Car Wash

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-1	Water	07/19/2000 13:05	1
MW-2	Water	07/19/2000 13:25	2
MW-3	Water	07/19/2000 12:35	3

1220 Quarry Lane * Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-07-0289

To: Aqua Science Engineers, Inc.

Test Method: 8020
8015M

Attn.: Ian T. Reed

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID: MW-1	Lab Sample ID: 2000-07-0289-001
Project: 3411 Hutch's Car Wash	Received: 07/19/2000 14:10
Sampled: 07/19/2000 13:05	Extracted: 07/24/2000 16:21
Matrix: Water	QC-Batch: 2000/07/24-01.01

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	2200	500	ug/L	10.00	07/24/2000 16:21	
Benzene	31	5.0	ug/L	10.00	07/24/2000 16:21	
Toluene	ND	5.0	ug/L	10.00	07/24/2000 16:21	
Ethyl benzene	81	5.0	ug/L	10.00	07/24/2000 16:21	
Xylene(s)	100	5.0	ug/L	10.00	07/24/2000 16:21	
MTBE	2000	50	ug/L	10.00	07/24/2000 16:21	
Surrogate(s)						
Trifluorotoluene	78.8	58-124	%	1.00	07/24/2000 16:21	
4-Bromofluorobenzene-FID	78.6	50-150	%	1.00	07/24/2000 16:21	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-07-0289

To: Aqua Science Engineers, Inc.

Test Method: 8020
8015M

Attn.: Ian T. Reed

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID: MW-2	Lab Sample ID: 2000-07-0289-002
Project: 3411 Hutch's Car Wash	Received: 07/19/2000 14:10
Sampled: 07/19/2000 13:25	Extracted: 07/24/2000 16:57
Matrix: Water	QC-Batch: 2000/07/24-01.01

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	07/24/2000 16:57	
Benzene	ND	0.50	ug/L	1.00	07/24/2000 16:57	
Toluene	ND	0.50	ug/L	1.00	07/24/2000 16:57	
Ethyl benzene	ND	0.50	ug/L	1.00	07/24/2000 16:57	
Xylene(s)	ND	0.50	ug/L	1.00	07/24/2000 16:57	
MTBE	ND	5.0	ug/L	1.00	07/24/2000 16:57	
Surrogate(s)						
Trifluorotoluene	85.3	58-124	%	1.00	07/24/2000 16:57	
4-Bromofluorobenzene-FID	75.5	50-150	%	1.00	07/24/2000 16:57	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-07-0289

To: Aqua Science Engineers, Inc.

Test Method: 8020
8015M

Attn.: Ian T. Reed

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID: MW-3	Lab Sample ID: 2000-07-0289-003
Project: 3411 Hutch's Car Wash	Received: 07/19/2000 14:10
Sampled: 07/19/2000 12:35	Extracted: 07/25/2000 14:39
Matrix: Water	QC-Batch: 2000/07/25-01.03

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	07/25/2000 14:39	
Benzene	ND	0.50	ug/L	1.00	07/25/2000 14:39	
Toluene	ND	0.50	ug/L	1.00	07/25/2000 14:39	
Ethyl benzene	ND	0.50	ug/L	1.00	07/25/2000 14:39	
Xylene(s)	ND	0.50	ug/L	1.00	07/25/2000 14:39	
MTBE	ND	5.0	ug/L	1.00	07/25/2000 14:39	
Surrogate(s)						
Trifluorotoluene	110.6	58-124	%	1.00	07/25/2000 14:39	
4-Bromofluorobenzene-FID	112.5	50-150	%	1.00	07/25/2000 14:39	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-07-0289

To: Aqua Science Engineers, Inc.

Test Method: 8020
8015M

Attn.: Ian T. Reed

Prep Method: 5030

Batch QC Report Gas/BTEX and MTBE

Method Blank	Water	QC Batch # 2000/07/24-01.01
MB: 2000/07/24-01.01-001		Date Extracted: 07/24/2000 06:22

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	07/24/2000 06:22	
Benzene	ND	0.5	ug/L	07/24/2000 06:22	
Toluene	ND	0.5	ug/L	07/24/2000 06:22	
Ethyl benzene	ND	0.5	ug/L	07/24/2000 06:22	
Xylene(s)	ND	0.5	ug/L	07/24/2000 06:22	
MTBE	ND	5.0	ug/L	07/24/2000 06:22	
<i>Surrogate(s)</i>					
Trifluorotoluene	90.4	58-124	%	07/24/2000 06:22	
4-Bromofluorobenzene-FID	75.0	50-150	%	07/24/2000 06:22	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-07-0289

To: Aqua Science Engineers, Inc.

Test Method: 8020
8015M

Attn.: Ian T. Reed

Prep Method: 5030

Batch QC Report Gas/BTEX and MTBE

Method Blank	Water	QC Batch # 2000/07/25-01.03
MB: 2000/07/25-01.03-001		Date Extracted: 07/25/2000 07:57

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	07/25/2000 07:57	
Benzene	ND	0.5	ug/L	07/25/2000 07:57	
Toluene	ND	0.5	ug/L	07/25/2000 07:57	
Ethyl benzene	ND	0.5	ug/L	07/25/2000 07:57	
Xylene(s)	ND	0.5	ug/L	07/25/2000 07:57	
MTBE	ND	5.0	ug/L	07/25/2000 07:57	
<i>Surrogate(s)</i>					
Trifluorotoluene	115.8	58-124	%	07/25/2000 07:57	
4-Bromofluorobenzene-FID	119.0	50-150	%	07/25/2000 07:57	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-07-0289

To: Aqua Science Engineers, Inc.

Test Method: 8020
8015M

Attn: Ian T. Reed

Prep Method: 5030

Batch QC Report

Gas/BTEX and MTBE

Laboratory Control Spike (LCS/LCSD)		Water		QC Batch # 2000/07/24-01.01	
LCS:	2000/07/24-01.01-002	Extracted:	07/24/2000 06:57	Analyzed	07/24/2000 06:57
LCSD:	2000/07/24-01.01-003	Extracted:	07/24/2000 07:32	Analyzed	07/24/2000 07:32

Compound	Conc. [ug/L]		Exp. Conc. [ug/L]		Recovery [%] RPD			Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	RPD [%]	Recovery	RPD	LCS	LCSD
Gasoline	531	474	500	500	106.2	94.8	11.3	75-125	20		
Benzene	93.5	91.3	100.0	100.0	93.5	91.3	2.4	77-123	20		
Toluene	88.2	85.5	100.0	100.0	88.2	85.5	3.1	78-122	20		
Ethyl benzene	86.0	81.7	100.0	100.0	86.0	81.7	5.1	70-130	20		
Xylene(s)	251	241	300	300	83.7	80.3	4.1	75-125	20		
Surrogate(s)											
Trifluorotoluene	429	410	500	500	85.8	82.0		58-124			
4-Bromofluorobenzene-FI	394	378	500	500	78.8	75.6		50-150			

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-07-0289

To: Aqua Science Engineers, Inc.

Test Method: 8020
8015M

Attn: Ian T. Reed

Prep Method: 5030

Batch QC Report

Gas/BTEX and MTBE

Laboratory Control Spike (LCS/LCSD)		Water		QC Batch # 2000/07/25-01.03	
LCS:	2000/07/25-01.03-002	Extracted:	07/25/2000 08:27	Analyzed	07/25/2000 08:27
LCSD:	2000/07/25-01.03-003	Extracted:	07/25/2000 09:28	Analyzed	07/25/2000 09:28

Compound	Conc. [ug/L]		Exp. Conc. [ug/L]		Recovery [%] RPD			Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	RPD [%]	Recovery	RPD	LCS	LCSD
Gasoline	582	580	500	500	116.4	116.0	0.3	75-125	20		
Benzene	50.6	49.9	50	50	101.2	99.8	1.4	77-123	20		
Toluene	49.0	48.5	50	50	98.0	97.0	1.0	78-122	20		
Ethyl benzene	50.5	50.0	50	50	101.0	100.0	1.0	70-130	20		
Xylene(s)	152	151	150	150	101.3	100.7	0.6	75-125	20		
Surrogate(s)											
Trifluorotoluene	273	268	250	250	109.2	107.2		58-124			
4-Bromofluorobenzene-FI	556	558	500	500	111.2	111.6		50-150			

