



January 29, 2001

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ENVIRONMENTAL
PROTECTION

QUARTERLY GROUNDWATER MONITORING REPORT
JANUARY 2001 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 2001 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 25, 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 0.003-feet/foot.

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 |
| 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 |
| 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 |

3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS

On January 16, 2000, ASE associate geologist Ian Reed collected groundwater samples from monitoring wells MW-1 and MW-2 for analysis. Monitoring well MW-3 was not sampled this quarter due to the fact that hydrocarbons have not been detected since its installation. 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 |
| | 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 |
| 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 |
| 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 | Not | Sampled | | | | |
| 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 4,100 parts per billion (ppb) TPH-G, 34 ppb benzene, 14 ppb toluene, 60 ppb ethyl benzene, 120 ppb total xylenes, and 1,300 ppb MTBE. The groundwater samples collected from monitoring well MW-2 contained 8.2 ppb MTBE. Monitoring well MW-3 was not sampled this quarter due to the fact that hydrocarbons have 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 level (MCL) for drinking water.

The TPH-G and BTEX concentrations in groundwater samples collected from monitoring well MW-1 increased from the previous quarter's results while the MTBE concentration decreased.

ASE recommends that this site remain on a quarterly groundwater monitoring program. Based on this sampling schedule, the next sampling is scheduled for April 2001.

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.

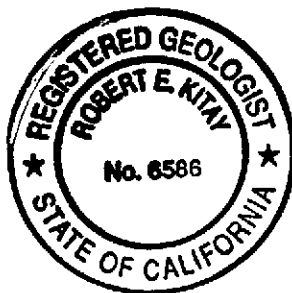
Aqua Science Engineers appreciates the opportunity to provide environmental consulting services for this project. Should you have any questions or comments, please feel free to call us at (925) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.



Ian T. Reed.
Associate Geologist



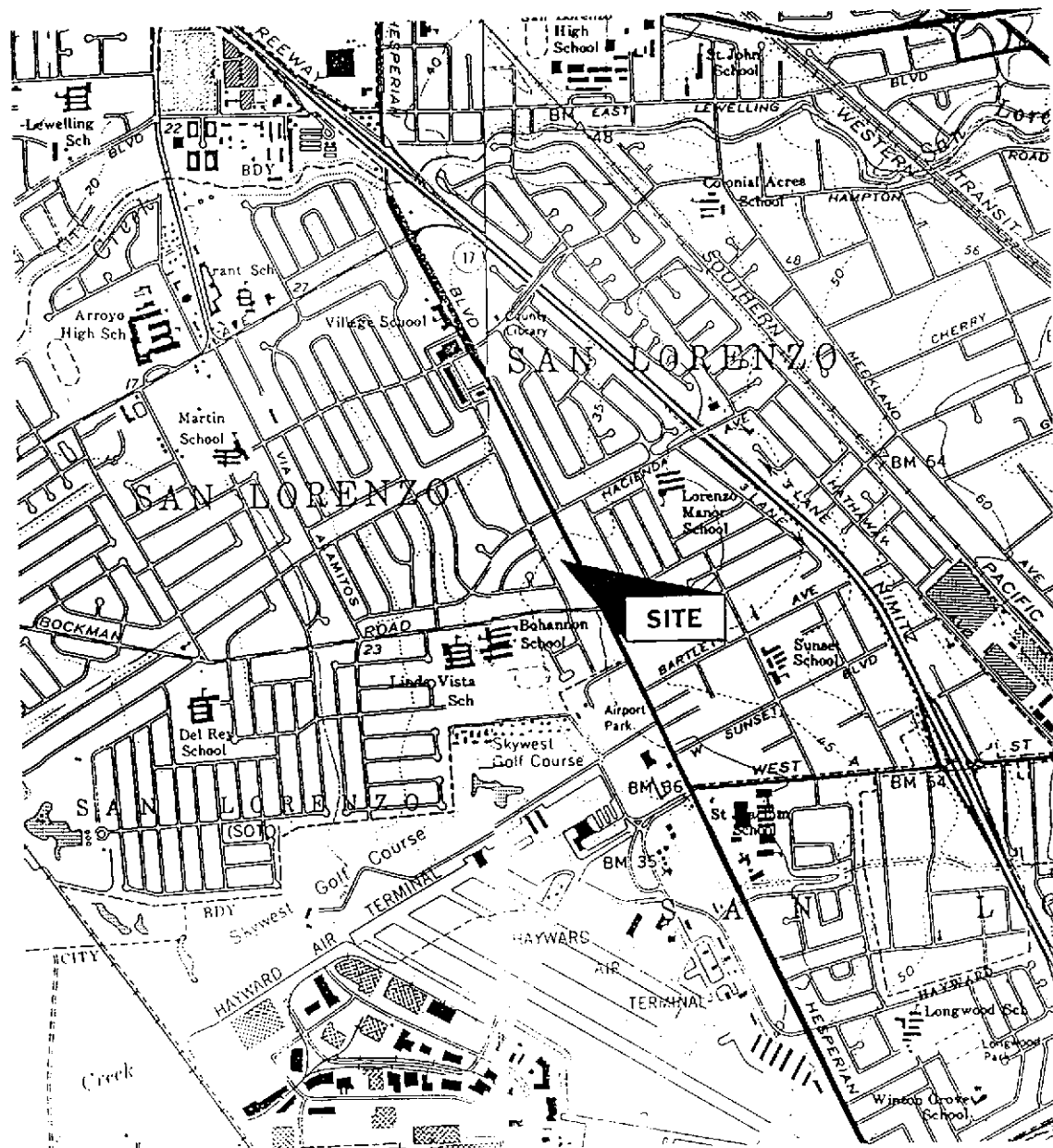
Robert E. Kitay, R.G., R.E.A.
Senior Geologist

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

ASPHALT



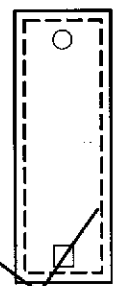
NORTH

SCALE
1 - INCH = 20 - FEET

MW-2
(19.71')

Estimated
Groundwater
Flow Direction

19.75'



FORMER
10,000
GALLON
GAS
UST

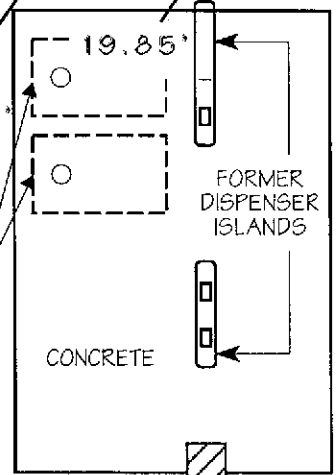
MW-3
(19.89')



CARWASH
BUILDING
AND
STORE

MW-1
(19.78')

19.80'



FORMER
DISPENSER
ISLANDS

CONCRETE

PAY
HUT

FORMER
5,000
GALLON
GAS
USTs

ASPHALT

ASPHALT

TUNE-UP BAYS

LEGEND



MW-1
(19.78')

Monitoring well with
groundwater elevation



Groundwater elevation
contour

GROUNDWATER ELEVATION
CONTOUR MAP - 1/16/01

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: Hutch's Car Wash
 Job #: 344 Date of sampling: 11/16/01
 Well Name: MW-1 Sampled by: ITR
 Total depth of well (feet): 26.68 Well diameter (inches): 2"
 Depth to water before sampling (feet): 15.22
 Thickness of floating product if any: _____
 Depth of well casing in water (feet): 11.46
 Number of gallons per well casing volume (gallons): 1.9
 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: ded. bailer
 Time Evacuation Began: 1335 Time Evacuation Finished: 1405
 Approximate volume of groundwater purged: 8
 Did the well go dry?: NO After how many gallons: —
 Time samples were collected: 1410
 Depth to water at time of sampling: 15.38
 Percent recovery at time of sampling: 97%
 Samples collected with: ded. bailer
 Sample color: clear brown Odor: new
 Description of sediment in sample: silt

CHEMICAL DATA

| Volume Purged | Temp | pH | Conductivity |
|---------------|-----------|-------------|--------------|
| <u>1</u> | <u>16</u> | <u>7.05</u> | <u>1</u> |
| <u>2</u> | <u>16</u> | <u>7.0</u> | <u>2</u> |
| <u>3</u> | <u>16</u> | <u>7.0</u> | <u>3</u> |
| <u>4</u> | <u>16</u> | <u>7.0</u> | <u>1</u> |

SAMPLES COLLECTED

| Sample | # of containers | Volume & type container | Pres | Iced? | Analysis |
|-------------|-----------------|-------------------------|-------------------------------------|-------------------------------------|----------|
| <u>MW-1</u> | <u>3</u> | <u>VVA</u> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |



WELL SAMPLING FIELD LOG

Project Name and Address: Hutch's Car Wash
 Job #: 3411 Date of sampling: 1/16/01
 Well Name: MW-2 Sampled by: ITR
 Total depth of well (feet): 25.50 Well diameter (inches): 7"
 Depth to water before sampling (feet): 15.50
 Thickness of floating product if any: —
 Depth of well casing in water (feet): 10.00
 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. bailer
 Time Evacuation Began: 1345 Time Evacuation Finished: 1406
 Approximate volume of groundwater purged: 6.8
 Did the well go dry?: NO After how many gallons: —
 Time samples were collected: 1410
 Depth to water at time of sampling: 15.58
 Percent recovery at time of sampling: 99%
 Samples collected with: dec. bailer
 Sample color: clear / tan Odor: none
 Description of sediment in sample: f. silt

CHEMICAL DATA

| Volume Purged | Temp | pH | Conductivity |
|---------------|------|------|--------------|
| 1 | 16.2 | 7.00 | 2 |
| 2 | 16.2 | 7.01 | 2 |
| 3 | 16.1 | 7.0 | 2 |
| 4 | 16.2 | 7.00 | 2 |

SAMPLES COLLECTED

| Sample | # of containers | Volume & type container | Pres | Iced? | Analysis |
|--------|-----------------|-------------------------|------|-------|----------|
| MW-2 | 3 | 40ml VCA | ✓ | ✓ | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |



WELL SAMPLING FIELD LOG

Project Name and Address: Hutch's Car Wash
Job #: 3411 Date of sampling: 1/16/01
Well Name: MW 3 Sampled by: ITR
Total depth of well (feet): _____ Well diameter (inches): 2"
Depth to water before sampling (feet): 14.58
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: _____

NOT SAMPLED

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

STL ChromaLab
Environmental Services (CA 1094)

Submission #: 2001-01-0301

Date: January 25, 2001

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

Attn.: Mr. Ian T. Reed

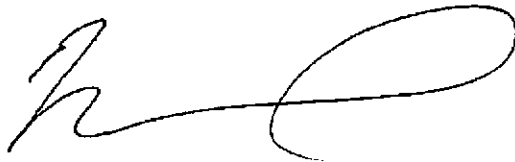
Project: Hutch Car Wash

Dear Mr. Reed,

Attached is our report for your samples received on Thursday January 18, 2001
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 March 4, 2001
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: wancil@chromalab.com

Sincerely,



Vincent Vancil

STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-01-0301

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 #:

Project: Hutch Car Wash

Samples Reported

| Sample ID | Matrix | Date Sampled | Lab # |
|-----------|--------|------------------|-------|
| MW-1 | Water | 01/16/2001 14:10 | 1 |
| MW-2 | Water | 01/16/2001 14:10 | 2 |

STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-01-0301

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: 2001-01-0301-001 |
| Project: Hutch Car Wash | Received: 01/18/2001 08:30 |
| Sampled: 01/16/2001 14:10 | Extracted: 01/24/2001 17:53 |
| Matrix: Water | QC-Batch: 2001/01/24-01.01 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|--------------------------|--------|-----------|-------|----------|------------------|------|
| Gasoline | 4100 | 500 | ug/L | 10.00 | 01/24/2001 17:53 | |
| Benzene | 34 | 5.0 | ug/L | 10.00 | 01/24/2001 17:53 | |
| Toluene | 14 | 5.0 | ug/L | 10.00 | 01/24/2001 17:53 | |
| Ethyl benzene | 60 | 5.0 | ug/L | 10.00 | 01/24/2001 17:53 | |
| Xylene(s) | 120 | 5.0 | ug/L | 10.00 | 01/24/2001 17:53 | |
| MTBE | 1300 | 50 | ug/L | 10.00 | 01/24/2001 17:53 | |
| Surrogate(s) | | | | | | |
| Trifluorotoluene | 99.0 | 58-124 | % | 1.00 | 01/24/2001 17:53 | |
| 4-Bromofluorobenzene-FID | 93.0 | 50-150 | % | 1.00 | 01/24/2001 17:53 | |

STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-01-0301

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: 2001-01-0301-002 |
| Project: Hutch Car Wash | Received: 01/18/2001 08:30 |
| Sampled: 01/16/2001 14:10 | Extracted: 01/23/2001 21:54 |
| Matrix: Water | QC-Batch: 2001/01/23-01.01 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|--------------------------|--------|-----------|-------|----------|------------------|------|
| Gasoline | ND | 50 | ug/L | 1.00 | 01/23/2001 21:54 | |
| Benzene | ND | 0.50 | ug/L | 1.00 | 01/23/2001 21:54 | |
| Toluene | ND | 0.50 | ug/L | 1.00 | 01/23/2001 21:54 | |
| Ethyl benzene | ND | 0.50 | ug/L | 1.00 | 01/23/2001 21:54 | |
| Xylene(s) | ND | 0.50 | ug/L | 1.00 | 01/23/2001 21:54 | |
| MTBE | 8.2 | 5.0 | ug/L | 1.00 | 01/23/2001 21:54 | |
| Surrogate(s) | | | | | | |
| Trifluorotoluene | 99.8 | 58-124 | % | 1.00 | 01/23/2001 21:54 | |
| 4-Bromofluorobenzene-FID | 100.5 | 50-150 | % | 1.00 | 01/23/2001 21:54 | |

1220 Quarry Lane * Pleasanton, CA 94566-4756
 Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-01-0301

To: Aqua Science Engineers, Inc.

Test Method: 8015M

8020

Attn.: Ian T. Reed

Prep Method: 5030

Batch QC Report

Gas/BTEX and MTBE

Method Blank

Water

QC Batch # 2001/01/23-01.01

MB: 2001/01/23-01.01-001

Date Extracted: 01/23/2001 10:47

| Compound | Result | Rep.Limit | Units | Analyzed | Flag |
|--------------------------|--------|-----------|-------|------------------|------|
| Gasoline | ND | 50 | ug/L | 01/23/2001 10:47 | |
| Benzene | ND | 0.5 | ug/L | 01/23/2001 10:47 | |
| Toluene | ND | 0.5 | ug/L | 01/23/2001 10:47 | |
| Ethyl benzene | ND | 0.5 | ug/L | 01/23/2001 10:47 | |
| Xylene(s) | ND | 0.5 | ug/L | 01/23/2001 10:47 | |
| MTBE | ND | 5.0 | ug/L | 01/23/2001 10:47 | |
| Surrogate(s) | | | | | |
| Trifluorotoluene | 98.6 | 58-124 | % | 01/23/2001 10:47 | |
| 4-Bromofluorobenzene-FID | 93.4 | 50-150 | % | 01/23/2001 10:47 | |

STL ChromaLab
Environmental Services (CA 1094)

Submission #: 2001-01-0301

To: Aqua Science Engineers, Inc.

Test Method: 8015M
8020

Attn.: Ian T. Reed

Prep Method: 5030

Batch QC Report
Gas/BTEX and MTBE

Method Blank

Water

QC Batch # 2001/01/24-01.01

MB: 2001/01/24-01.01-001

Date Extracted: 01/24/2001 10:08

| Compound | Result | Rep.Limit | Units | Analyzed | Flag |
|--------------------------|--------|-----------|-------|------------------|------|
| Gasoline | ND | 50 | ug/L | 01/24/2001 10:08 | |
| Benzene | ND | 0.5 | ug/L | 01/24/2001 10:08 | |
| Toluene | ND | 0.5 | ug/L | 01/24/2001 10:08 | |
| Ethyl benzene | ND | 0.5 | ug/L | 01/24/2001 10:08 | |
| Xylene(s) | ND | 0.5 | ug/L | 01/24/2001 10:08 | |
| MTBE | ND | 5.0 | ug/L | 01/24/2001 10:08 | |
| Surrogate(s) | | | | | |
| Trifluorotoluene | 107.0 | 58-124 | % | 01/24/2001 10:08 | |
| 4-Bromofluorobenzene-FID | 106.8 | 50-150 | % | 01/24/2001 10:08 | |

STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-01-0301

To: Aqua Science Engineers, Inc.

Test Method: 8015M
8020

Attn: Ian T. Reed

Prep Method: 5030

Batch QC Report

Gas/BTEX and MTBE

Laboratory Control Spike (LCS/LCSD)

Water

QC Batch # 2001/01/23-01.01

LCS: 2001/01/23-01.01-002

Extracted: 01/23/2001 11:20

Analyzed 01/23/2001 11:20

LCSD: 2001/01/23-01.01-003

Extracted: 01/23/2001 11:53

Analyzed 01/23/2001 11:53

| 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 | 541 | 566 | 500 | 500 | 108.2 | 113.2 | 4.5 | 75-125 | 20 | | |
| Benzene | 96.6 | 94.6 | 100.0 | 100.0 | 96.6 | 94.6 | 2.1 | 77-123 | 20 | | |
| Toluene | 89.3 | 86.2 | 100.0 | 100.0 | 89.3 | 86.2 | 3.5 | 78-122 | 20 | | |
| Ethyl benzene | 95.7 | 91.9 | 100.0 | 100.0 | 95.7 | 91.9 | 4.1 | 70-130 | 20 | | |
| Xylene(s) | 286 | 277 | 300 | 300 | 95.3 | 92.3 | 3.2 | 75-125 | 20 | | |
| Surrogate(s) | | | | | | | | | | | |
| Trifluorotoluene | 464 | 455 | 500 | 500 | 92.8 | 91.0 | | 58-124 | | | |
| 4-Bromofluorobenzene-FI | 477 | 472 | 500 | 500 | 95.4 | 94.4 | | 50-150 | | | |

STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-01-0301

To: Aqua Science Engineers, Inc.

Test Method: 8015M
8020

Attn: Ian T. Reed

Prep Method: 5030

Batch QC Report

Gas/BTEX and MTBE

Laboratory Control Spike (LCS/LCSD)

Water

QC Batch # 2001/01/24-01.01

LCS: 2001/01/24-01.01-002

Extracted: 01/24/2001 10:41

Analyzed 01/24/2001 10:41

LCSD: 2001/01/24-01.01-003

Extracted: 01/24/2001 11:14

Analyzed 01/24/2001 11:14

| 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 | 540 | 554 | 500 | 500 | 108.0 | 110.8 | 2.6 | 75-125 | 20 | | |
| Benzene | 99.0 | 98.3 | 100.0 | 100.0 | 99.0 | 98.3 | 0.7 | 77-123 | 20 | | |
| Toluene | 88.8 | 88.3 | 100.0 | 100.0 | 88.8 | 88.3 | 0.6 | 78-122 | 20 | | |
| Ethyl benzene | 95.6 | 94.4 | 100.0 | 100.0 | 95.6 | 94.4 | 1.3 | 70-130 | 20 | | |
| Xylene(s) | 285 | 284 | 300 | 300 | 95.0 | 94.7 | 0.3 | 75-125 | 20 | | |
| Surrogate(s) | | | | | | | | | | | |
| Trifluorotoluene | 491 | 484 | 500 | 500 | 98.2 | 96.8 | | 58-124 | | | |
| 4-Bromofluorobenzene-Fl | 464 | 466 | 500 | 500 | 92.8 | 93.2 | | 50-150 | | | |

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