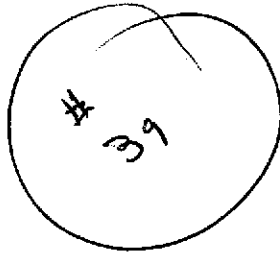




RO 321

November 5, 2001



NOV 09 2001

QUARTERLY GROUNDWATER MONITORING REPORT
OCTOBER 2001 GROUNDWATER SAMPLING
ASE JOB NO. 3412

at
Former Chan's Shell Station
726 Harrison Street
Oakland, CA 94602

Prepared by:
AQUA SCIENCE ENGINEERS, INC.
208 W. El Pintado
Danville, CA 94526
(925) 820-9391

1.0 INTRODUCTION

Site Location (Site), See Figure 1

Former Chan's Shell Station
726 Harrison Street
Oakland, CA 94602
(510) 444-6583

Responsible Party

Kin Chan
4328 Edgewood Avenue
Oakland, CA 94602

Environmental Consulting Firm

Aqua Science Engineers, Inc. (ASE)
208 W. El Pintado
Danville, CA 94526
Contact: Robert Kitay, Senior Geologist
(925) 820-9391

Agency Review

Contact: Mr. Barney Chan
Alameda County Health Care Services Agency (ACHCSA)
1131 Harbor Bay Pkwy., Suite 250
Alameda, CA 94502
(510) 567-6700

California Regional Water Quality Control Board (RWQCB)
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612
Contact: Mr. Chuck Headlee
(510) 622-2433

The following is a report detailing the results of the October 2001 quarterly groundwater sampling at the former Chan's Shell Station. This sampling was conducted as required by the ACHCSA and RWQCB. ASE has prepared this report on behalf of Kin Chan, property owner. This report is intended to supplement the ASE report: "Report of Soil and Groundwater Assessment" dated January 8, 1999.

2.0 GROUNDWATER FLOW DIRECTION AND GRADIENT

On October 10, 2001, ASE associate geologist Erik Paddleford measured the depth to groundwater in four site monitoring wells 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 site monitoring well. Groundwater elevation data is presented in Table One. A groundwater potentiometric surface map is presented as Figure 2. The groundwater flow direction is generally to the south/southwest with a gradient of approximately 0.011-feet/foot. The water table has dropped an average of 0.41-feet this quarter.

3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS

Prior to sampling, monitoring wells MW-1, MW-3, and MW-4 were purged of four well casing volumes of groundwater using dedicated polyethylene bailers. Groundwater monitoring well MW-2 is no longer being sampled at the site in accordance with ASE's recommendation in the April 2001 quarterly groundwater monitoring report and the May 14, 2001 letter from the ACHCSA. Petroleum hydrocarbon odors were noted during the purging and sampling of monitoring wells MW-1 and MW-4. The parameters pH, temperature, and conductivity were monitored during the well purging, and samples were not collected until these parameters stabilized. Groundwater samples were collected from each well using dedicated polyethylene bailers. The samples were decanted from the bailers into 40-ml volatile organic analysis (VOA) vials, pre-preserved with hydrochloric acid. The samples were capped without headspace, labeled and placed in coolers with wet ice for transport to STL Chromalab, of Pleasanton California (DHS #1644) under appropriate chain-of-custody documentation. Well sampling field logs are presented in Appendix A.

The well purge water was placed into a 55-gallon steel drum, labeled, and left on-site for temporary storage.

The groundwater samples were analyzed by STL Chromalab for total petroleum hydrocarbons as gasoline (TPH-G) by EPA Method 5030/8015M, benzene, toluene, ethylbenzene and total xylenes (collectively known as BTEX) by EPA Method 8020 and methyl tertiary butyl ether (MTBE) by EPA Method 8020. The analytical results for this and previous sampling periods are presented in Table Two. The certified

analytical report and chain-of-custody documentation are included as Appendix B.

4.0 CONCLUSIONS

The groundwater samples collected from monitoring well MW-1 contained 17,000 parts per billion (ppb) TPH-G, 1,500 ppb benzene, 210 ppb toluene, 420 ppb ethyl benzene, 790 ppb total xylenes, and 27,000 ppb MTBE. The groundwater samples collected from monitoring well MW-3 contained 1,700 ppb MTBE. The groundwater samples collected from monitoring well MW-4 contained 550 ppb TPH-G and 710 ppb MTBE. The TPH-G concentration detected in monitoring well MW-4 did not match the laboratory gasoline standard.

The groundwater samples collected from all three monitoring wells had hydrocarbon concentrations consistent with previous findings.

The benzene, toluene, and MTBE concentrations detected 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 MTBE concentrations detected in groundwater samples collected from monitoring wells MW-3 and MW-4 also exceeded the DHS MCL for drinking water.

5.0 RECOMMENDATIONS

ASE prepared a workplan dated April 30, 2001 to conduct an additional soil and groundwater assessment and remediation feasibility tests at the site. These tests were conducted between the months of August and October 2001. A report will be prepared documenting these activities. ASE recommends continued groundwater monitoring on a quarterly basis. The next groundwater sampling is scheduled for January 2002.

6.0 REPORT LIMITATIONS

The results presented in this report represent the conditions at the time of the groundwater sampling, at the specific locations where the groundwater samples were collected, and for the specific parameters analyzed by the laboratory. It does not fully characterize the site for contamination resulting from sources other than the former underground storage tanks and associated plumbing at the site, 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, and trust that this report meets your needs. Please feel free to call us at (925) 820-9391 if you have any questions or comments.

Respectfully submitted,

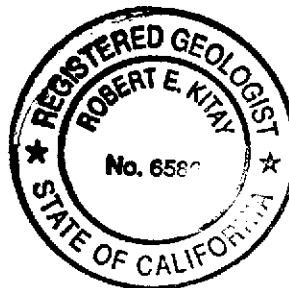
AQUA SCIENCE ENGINEERS, INC.



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. Barney Chan, Alameda County Health Care Services
Mr. Chuck Headlee, RWQCB, San Francisco Bay Region

TABLE ONE
Groundwater Elevation Data
Chan's Former Shell Station

Well ID	Date of Measurement	Top of Casing Elevation (relative to Project Datum)	Depth to Water (feet)	Groundwater Elevation (project data)	
<u>MW-1</u>	12/15/1998	31.95	17.32	14.63	
	3/4/1999		15.52	16.43	
	6/17/1999		16.9	15.05	
	8/27/1999		17.39	14.56	
	12/9/1999		18.03	13.92	
	3/7/2000		15.11	16.84	
	6/7/2000		16.66	15.29	
	10/11/2000		18.08	13.87	
	1/18/2001		17.96	13.99	
	4/5/2001		16.35	15.60	
	7/17/2001		16.94	15.01	
10/5/2001	17.35	14.60			
<u>MW-2</u>	12/15/1998	32.40	18.03	14.37	
	3/4/1999		16.11	16.29	
	6/17/1999		17.72	14.68	
	8/27/1999		Inaccessible		
	12/9/1999		Inaccessible		
	3/7/2000		Inaccessible		
	6/7/2000			17.67	14.73
	10/11/2000			18.91	13.49
	1/18/2001			18.66	13.74
	4/5/2001			16.97	15.43
	7/17/2001			17.54	14.86
10/5/2001		17.98	14.42		
<u>MW-3</u>	12/15/1998	31.61	17.26	14.35	
	3/4/1999		15.47	16.14	
	6/17/1999		16.92	14.69	
	8/27/1999		17.40	14.21	
	12/9/1999		18.01	13.60	
	3/7/2000		16.15	15.46	
	6/7/2000		16.85	14.76	
	10/11/2000		18.07	13.54	
	1/18/2001		17.89	13.72	
	4/5/2001		16.21	15.40	
	7/17/2001		16.90	14.71	
10/5/2001	17.32	14.29			

TABLE ONE
Groundwater Elevation Data
Chan's Former Shell Station

Well ID	Date of Measurement	Top of Casing Elevation (relative to Project Datum)	Depth to Water (feet)	Groundwater Elevation (project data)
<u>MW-4</u>	12/15/1998	32.53	17.59	14.94
	3/4/1999		15.88	16.65
	6/17/1999		17.14	15.39
	8/27/1999		17.65	14.88
	12/9/1999		18.28	14.25
	3/7/2000		15.41	17.12
	6/7/2000		17.09	15.44
	10/11/2000		18.33	14.20
	1/18/2001		18.23	14.30
	4/5/2001		16.69	15.84
	7/17/2001		17.32	15.21
	10/5/2001		17.71	14.82

TABLE TWO
Certified Analytical Results for GROUNDWATER Samples
Chan's Former Shell Station
All results are in parts per billion (ppb)

Well ID & Dates Sampled	TPH-G	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
MW-1						
7/3/1997	18,000	2,700	350	450	900	7,400
12/5/1998	18,000	1,500	270	260	560	14,000
3/4/1999	44,000	2,800	400	440	960	43,000
6/17/1999	33,000	2,200	250	460	660	25,000
8/27/1999	6,000	1,000	97	190	230	14,000/ 16,000*
12/9/1999	15,000	1,500	160	220	420	17,000
3/7/2000	9,300	1,500	210	66	530	12,000
6/7/2000	26,000**	1,700	< 250	360	580	30,000
10/11/2000	13,000**	1,600	< 100	140	160	19,000
1/18/2001	14,000**	450	< 100	110	230	9,600
4/5/2001	38,000	2,200	180	290	590	35,000
7/17/2001	35,000**	1,800	< 100	300	170	35,000
10/5/2001	17,000	1,500	210	420	790	27,000
MW-2						
12/5/1998	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5
3/4/1999		Inaccessible due to car parked over well				
6/17/1999	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5
8/27/1999		Inaccessible due to car parked over well				
12/9/1999		Inaccessible due to car parked over well				
3/7/2000		Inaccessible due to car parked over well				
6/7/2000	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
10/11/2000	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
1/18/2001	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
4/5/2001	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
7/17/2001		No Longer Sampled				
MW-3						
12/5/1998	6,500	< 50	50	60	50	3,900
3/4/1999	2,800	< 25	< 25	< 25	< 25	1,600
6/17/1999	1,000	< 10	< 10	< 10	< 10	1,400
8/27/1999	230	< 0.5	0.51	0.5	1	1,500/ 1,600*
12/9/1999	870**	< 0.5	< 0.5	< 0.5	< 0.5	2,100
3/7/2000	150**	4	< 0.5	< 0.5	< 0.5	830
6/7/2000	140**	< 0.5	< 0.5	< 0.5	< 0.5	1,100
10/11/2000	620**	< 5.0	< 5.0	< 5.0	< 5.0	1,500
1/18/2001	1,200**	< 5.0	< 5.0	< 5.0	< 5.0	1,000
4/5/2001	1,700**	< 5.0	< 5.0	< 5.0	< 5.0	1,900
7/17/2001	1,400**	< 10	< 10	< 10	< 10	1,700
10/5/2001	< 1,000	< 10	< 10	< 10	< 10	1,700

TABLE TWO
Certified Analytical Results for GROUNDWATER Samples
Chan's Former Shell Station
All results are in parts per billion (ppb)

Well ID & Dates Sampled	TPH-G	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
MW-4						
12/5/1998	880	3	< 0.5	< 0.5	< 0.5	950
3/4/1999	3,800	< 25	< 25	< 25	< 25	3,700
6/17/1999	2,700	< 25	< 25	< 25	< 25	2,700
8/27/1999	440	4.7	1.1	0.58	1.3	1,600/ 1,700*
12/9/1999	1,100**	< 2.5	< 2.5	< 2.5	< 2.5	1,700
3/7/2000	< 250	< 2.5	< 2.5	< 2.5	< 2.5	1,700
6/7/2000	530**	8.8	< 2.5	< 2.5	< 2.5	440
10/11/2000	700**	3.9	< 2.5	< 2.5	< 2.5	680
1/18/2001	2,000**	< 2.5	< 2.5	< 2.5	< 2.5	780
4/5/2001	810**	< 2.5	< 2.5	< 2.5	< 2.5	620
7/17/2001	880**	< 2.5	< 2.5	< 2.5	< 2.5	570
10/5/2001	550**	< 2.5	< 2.5	< 2.5	< 2.5	710
DHS MCL	NE	1	150	700	1,750	13

Notes:

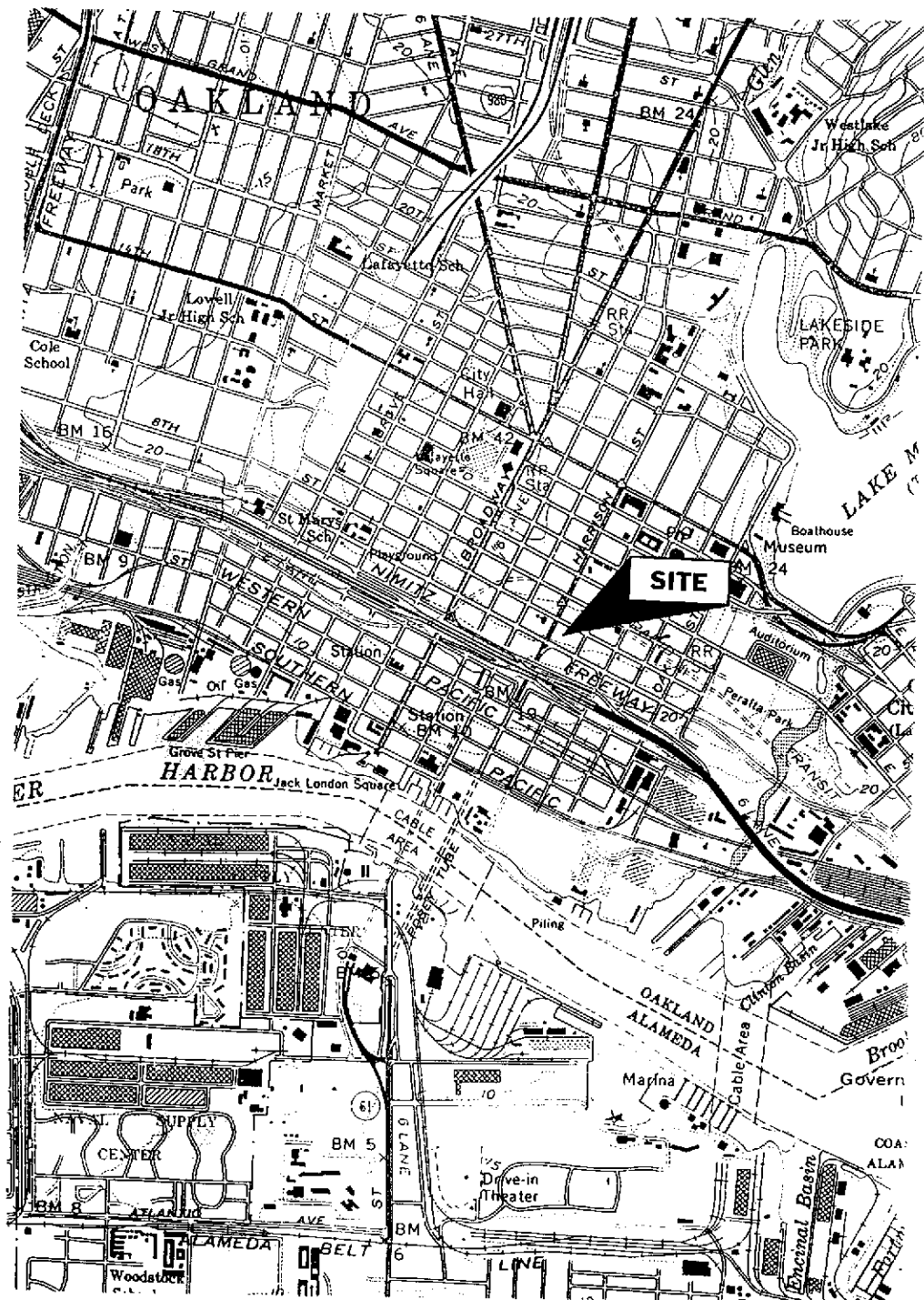
* EPA Method 8020/EPA Method 8260 (MTBE confirmation)

** Hydrocarbon reported in the gasoline range does not match the laboratory gasoline standard

DHS MCL = California Department of Health Services maximum contaminant level for

NE = DHS MCL not established

Non-detectable concentrations noted by the less than sign (<) followed by the laboratory detection limit.



SITE LOCATION MAP	
FORMER CHAN'S SHELL STATION 726 HARRISON STREET OAKLAND, CALIFORNIA	
Aqua Science Engineers	Figure 1



NORTH

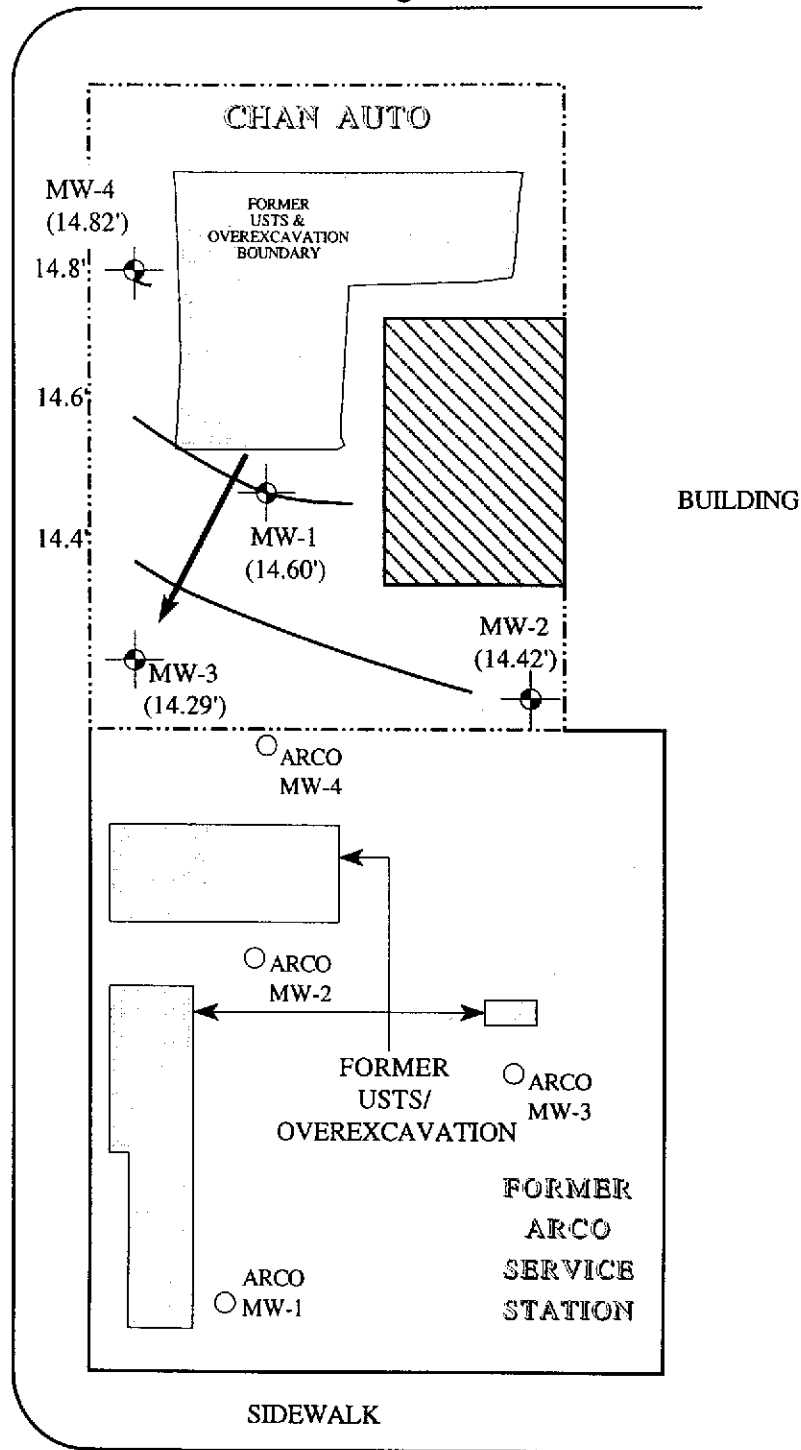
SCALE
1" = 30'

8TH STREET

Unocal
MW-7

Unocal
MW-8

HARRISON STREET



ARCO
○ MW-7

MW-1

LEGEND



ASE Monitoring Well

(14.60')

Groundwater elevation,
relative to MSL



Groundwater elevation contour

GROUNDWATER ELEVATION
CONTOUR MAP - 10/5/01

726 HARRISON STREET
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS

Figure 2

APPENDIX A

Well Sampling Field Logs



WELL SAMPLING FIELD LOG

Project Name and Address: Chan Auto
 Job #: 3412 Date of sampling: 10/5/01
 Well Name: MW-1 Sampled by: EP
 Total depth of well (feet): 27.21 Well diameter (inches): 2
 Depth to water before sampling (feet): 17.35
 Thickness of floating product if any: -
 Depth of well casing in water (feet): 9.86
 Number of gallons per well casing volume (gallons): 1.57
 Number of well casing volumes to be removed: 4
 Req'd volume of groundwater to be purged before sampling (gallons): 6.3
 Equipment used to purge the well: bailer
 Time Evacuation Began: 8:20 Time Evacuation Finished: 8:35
 Approximate volume of groundwater purged: 6
 Did the well go dry?: NO After how many gallons: -
 Time samples were collected: 8:40
 Depth to water at time of sampling: -
 Percent recovery at time of sampling: -
 Samples collected with: bailer
 Sample color: clear/gay Odor: strong HC odor
 Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	65.1	6.75	706
2	65.8	6.62	781
3	66.1	6.51	774
4	66.2	7.35	660

SAMPLES COLLECTED

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



WELL SAMPLING FIELD LOG

Project Name and Address: Chan Auto
Job #: 3412 Date of sampling: 10/5/01
Well Name: MW-2 Sampled by: EP
Total depth of well (feet): 27.0 Well diameter (inches): 2
Depth to water before sampling (feet): 17.98
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

NOT SAMPLED

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

SAMPLES COLLECTED

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



WELL SAMPLING FIELD LOG

Project Name and Address: Chan Auto
 Job #: 3412 Date of sampling: 10/5/01
 Well Name: MW-3 Sampled by: EP
 Total depth of well (feet): 29.66 Well diameter (inches): 2
 Depth to water before sampling (feet): 17.32
 Thickness of floating product if any: -
 Depth of well casing in water (feet): 12.76
 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: bailer
 Time Evacuation Began: 920 Time Evacuation Finished: 940
 Approximate volume of groundwater purged: 8
 Did the well go dry?: NO After how many gallons: -
 Time samples were collected: 945
 Depth to water at time of sampling: -
 Percent recovery at time of sampling: -
 Samples collected with: bailer
 Sample color: clear/tan Odor: none
 Description of sediment in sample: Silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>66.0</u>	<u>6.82</u>	<u>580</u>
<u>2</u>	<u>66.2</u>	<u>6.98</u>	<u>562</u>
<u>3</u>	<u>66.3</u>	<u>7.14</u>	<u>556</u>
<u>4</u>	<u>66.5</u>	<u>7.24</u>	<u>544</u>

SAMPLES COLLECTED

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



WELL SAMPLING FIELD LOG

Project Name and Address: Chan Auto
 Job #: 3412 Date of sampling: 10/5/01
 Well Name: MW-4 Sampled by: EP
 Total depth of well (feet): 29.97 Well diameter (inches): 2
 Depth to water before sampling (feet): 17.71
 Thickness of floating product if any: -
 Depth of well casing in water (feet): 12.26
 Number of gallons per well casing volume (gallons): 1.96
 Number of well casing volumes to be removed: 4
 Req'd volume of groundwater to be purged before sampling (gallons): 7.8
 Equipment used to purge the well: bailer
 Time Evacuation Began: 845 Time Evacuation Finished: 905
 Approximate volume of groundwater purged: 8
 Did the well go dry?: no After how many gallons: -
 Time samples were collected: 910
 Depth to water at time of sampling: -
 Percent recovery at time of sampling: -
 Samples collected with: bailer
 Sample color: gray Odor: slight HC
 Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>65.8</u>	<u>6.54</u>	<u>860</u>
<u>2</u>	<u>66.2</u>	<u>6.82</u>	<u>851</u>
<u>3</u>	<u>66.6</u>	<u>6.97</u>	<u>829</u>
<u>4</u>	<u>66.8</u>	<u>7.20</u>	<u>818</u>

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>MW-4</u>	<u>3</u>	<u>40 ml VOA</u>	<u>x</u>	<u>x</u>	

APPENDIX B

Certified Analytical Report
and
Chain of Custody Documentation

Submission #: 2001-10-0174

Gas/BTEX Compounds by 8015M/8021

SEVERN

TRENT

SERVICES

Aqua Science Engineers, Inc.

☒ 208 West El Pintado
Danville, CA 94526

Attn: Erik Paddleford

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

3412

Project: Chan Auto

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Tel 925 484 1819
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#1094

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-1	Water	10/05/2001 08:40	1
MW-3	Water	10/05/2001 09:45	2
MW-4	Water	10/05/2001 09:10	3

Submission #: 2001-10-0174

Gas/BTEX Compounds by 8015M/8021

SEVERN

TRENT

SERVICES

Aqua Science Engineers, Inc.

Test Method: 8015M
8021B

Attn: Erik Paddelford

Prep Method: 5030

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

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

CA DHS ELAP#1094

Sample ID: MW-1	Lab Sample ID: 2001-10-0174-001
Project: 3412 Chan Auto	Received: 10/05/2001 11:55
Sampled: 10/05/2001 08:40	Extracted: 10/18/2001 13:13
Matrix: Water	QC-Batch: 2001/10/18-01.05

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	17000	10000	ug/L	200.00	10/18/2001 13:13	
Benzene	1500	100	ug/L	200.00	10/18/2001 13:13	
Toluene	210	100	ug/L	200.00	10/18/2001 13:13	
Ethyl benzene	420	100	ug/L	200.00	10/18/2001 13:13	
Xylene(s)	790	100	ug/L	200.00	10/18/2001 13:13	
MTBE	27000	5.0	ug/L	200.00	10/18/2001 13:13	
Surrogate(s)						
Trifluorotoluene	76.5	58-124	%	200.00	10/18/2001 13:13	
4-Bromofluorobenzene-FID	85.7	50-150	%	200.00	10/18/2001 13:13	

Submission #: 2001-10-0174

SEVERN

TRENT

SERVICES

Gas/BTEX Compounds by 8015M/8021

Aqua Science Engineers, Inc.

Test Method: 8015M
8021B

Attn: Erik Paddleford

Prep Method: 5030

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

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

CA DHS ELAP#1094

Sample ID: MW-3	Lab Sample ID: 2001-10-0174-002
Project: 3412 Chan Auto	Received: 10/05/2001 11:55
Sampled: 10/05/2001 09:45	Extracted: 10/18/2001 13:46
Matrix: Water	QC-Batch: 2001/10/18-01.05

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	1000	ug/L	20.00	10/18/2001 13:46	
Benzene	ND	10	ug/L	20.00	10/18/2001 13:46	
Toluene	ND	10	ug/L	20.00	10/18/2001 13:46	
Ethyl benzene	ND	10	ug/L	20.00	10/18/2001 13:46	
Xylene(s)	ND	10	ug/L	20.00	10/18/2001 13:46	
MTBE	1700	5.0	ug/L	20.00	10/18/2001 13:46	
Surrogate(s)						
Trifluorotoluene	72.4	58-124	%	20.00	10/18/2001 13:46	
4-Bromofluorobenzene-FID	87.3	50-150	%	20.00	10/18/2001 13:46	

Submission #: 2001-10-0174

SEVERN
TRENT
SERVICES

Gas/BTEX Compounds by 8015M/8021

Aqua Science Engineers, Inc.

Test Method: 8015M
8021B

Attn: Erik Paddleford

Prep Method: 5030

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

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

CA DHS ELAP#1094

Sample ID: MW-4	Lab Sample ID: 2001-10-0174-003
Project: 3412 Chan Auto	Received: 10/05/2001 11:55
	Extracted: 10/18/2001 14:18
Sampled: 10/05/2001 09:10	QC-Batch: 2001/10/18-01.05
Matrix: Water	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	550	250	ug/L	5.00	10/18/2001 14:18	g
Benzene	ND	2.5	ug/L	5.00	10/18/2001 14:18	
Toluene	ND	2.5	ug/L	5.00	10/18/2001 14:18	
Ethyl benzene	ND	2.5	ug/L	5.00	10/18/2001 14:18	
Xylene(s)	ND	2.5	ug/L	5.00	10/18/2001 14:18	
MTBE	710	5.0	ug/L	5.00	10/18/2001 14:18	
Surrogate(s)						
Trifluorotoluene	84.3	58-124	%	5.00	10/18/2001 14:18	
4-Bromofluorobenzene-FID	93.7	50-150	%	5.00	10/18/2001 14:18	

Submission #: 2001-10-0174



Gas/BTEX Compounds by 8015M/8021

Batch QC report

Test Method: 8021B

Prep Method: 5030

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Laboratory Control Spike (LCS/LCSD)		Water	QC Batch # 2001/10/18-01.05
LCS: 2001/10/18-01.05-004	Extracted: 10/18/2001 08:37	Analyzed: 10/18/2001 08:37	
LCSD: 2001/10/18-01.05-005	Extracted: 10/18/2001 09:10	Analyzed: 10/18/2001 09:10	

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

CA DHS ELAP#1094

Compound	Conc. [µg/L]		Exp. Conc. [µg/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		[%]	Recovery	RPD	LCS
Benzene	98.1	94.2	100.0	100.0	98.1	94.2	4.1	77-123	20		
Toluene	101	95.5	100.0	100.0	101.0	95.5	5.6	78-122	20		
Ethyl benzene	99.9	93.8	100.0	100.0	99.9	93.8	6.3	70-130	20		
Xylene(s)	299	283	300	300	99.7	94.3	5.6	75-125	20		
Surrogate(s)											
Trifluorotoluene	472	445	500	500	94.4	89.0		58-124			

Submission #: 2001-10-0174



Gas/BTEX Compounds by 8015M/8021

Batch QC report

Test Method: 8015M

Prep Method: 5030

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Laboratory Control Spike (LCS/LCSD)		Water	QC Batch # 2001/10/18-01.05
LCS: 2001/10/18-01.05-006	Extracted: 10/18/2001 09:42	Analyzed: 10/18/2001 09:42	
LCSD: 2001/10/18-01.05-007	Extracted: 10/18/2001 10:14	Analyzed: 10/18/2001 10:14	

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www.chromalab.com

CA DHS ELAP#1094

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD	Ctrl.Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Gasoline	514	519	500	500	102.8	103.8	1.0	75-125	20		
Surrogate(s)											
4-Bromofluorobenzene-	530	537	500	500	106.0	107.4		50-150			

Submission #: 2001-10-0174



Gas/BTEX Compounds by 8015M/8021

Legend & Notes

Test Method: 8015M
8021B

Prep Method: 5030

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CA DHS ELAP#1094

Analyte Flags

g

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

2001-10-0174

From						Analysis Request															Number of Containers			
Proj. Mgr	Company	Address	Sampler (Signature)	Phone	Fax/Email	TPH (EPA 8015, 8020/8021) <input checked="" type="checkbox"/> Gas w/ <input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> MTBE	Purgeable Aromatics BTEX (EPA 8020/8021)	TEPH (EPA 8015M) <input type="checkbox"/> Silica Gel <input type="checkbox"/> Diesel <input type="checkbox"/> Motor Oil <input type="checkbox"/> Other	Fuel Oxygenates (8260B): <input type="checkbox"/> DCA, EDB <input type="checkbox"/> Full Oxygenate List <input type="checkbox"/> MTBE <input type="checkbox"/> BTEX	Purgeable Halocarbons (HVOCs) (EPA 8010/8021)	Volatile Organics GC/MS (VOCs) (EPA 8260A/8260B)	Semivolatiles GC/MS (EPA 8270)	Oil and Grease <input type="checkbox"/> Petroleum (EPA 1664) <input type="checkbox"/> Total	<input type="checkbox"/> Pesticides (EPA 8081) <input type="checkbox"/> PCBs (EPA 8082)	PNAs by <input type="checkbox"/> 8270 <input type="checkbox"/> 8310	CAM17 Metals (EPA 6010/7470/7471)	Metals: <input type="checkbox"/> Lead <input type="checkbox"/> LUFT <input type="checkbox"/> RCRA <input type="checkbox"/> Other:	<input type="checkbox"/> W.E.T (STLC) <input type="checkbox"/> TCLP	Hexavalent Chromium pH (24h hold time for H ₂ O)	<input type="checkbox"/> Spec Cond. <input type="checkbox"/> Alkalinity <input type="checkbox"/> TSS		Anions: <input type="checkbox"/> Cl <input type="checkbox"/> SO ₄ <input type="checkbox"/> NO ₃ <input type="checkbox"/> F <input type="checkbox"/> Br <input type="checkbox"/> NO ₂ <input type="checkbox"/> PO ₄		
Sample ID	Date	Time	Mat rix	Pres erv.																				
MW-1	10/5	840	W	Hel		X																		3
MW-3	10/5	945	W	Hel		X																		3
MW-4	10/5	910	W	Hel		X																		3

Project Info.				Sample Receipt			
Project Name: <u>Chan Auto</u>				# of Containers:			
Project#: <u>3412</u>				Head Space:			
PO#:				Temp: <u>16.7</u>			
Credit Card#:				Conforms to record:			
T	Std 5	72h	48h	24h	Other		
A	Report: <input type="checkbox"/> Routine <input type="checkbox"/> Level 2 <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4 <input type="checkbox"/> EDD						
T	Special Instructions / Comments:						

1) Relinquished by:
E Paddleford 1155
Signature Time
E Paddleford 10/5/11
Printed Name Date
ASE
Company

1) Received by:
Signature Time
Printed Name Date
Company

2) Relinquished by:
Signature Time
Printed Name Date
Company

2) Received by:
Signature Time
Printed Name Date
Company

3) Relinquished by:
Signature Time
Printed Name Date
Company

3) Received by:
Sam McCallum 11:55
Signature Time
Sam McCallum 10/05/11
Printed Name Date
STL, CL
Company