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January 16, 2003

Alameda County
JAN 21 2003
Environmental Health

QUARTERLY GROUNDWATER MONITORING REPORT
DECEMBER 2002 GROUNDWATER SAMPLING
ASE JOB NO. 3648

at
1310 Central Avenue
Alameda, California

Prepared for:
Mr. Nissan Saidian
5733 Medallion Court
Castro Valley, CA 94522

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

1310 Central Avenue
Alameda, CA

Responsible Party

Mr. Nissan Saidian
5733 Medallion Court
Castro Valley, CA 94522

Environmental Consulting Firm

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

Agency Review

Mr. Barney Chan
Alameda County Health Care Services Agency (ACHCSA)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

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

The following is a report detailing the methods and findings of the December 19, 2002 quarterly groundwater sampling at the above-referenced site (*Figure 1*). This sampling was conducted as required by the ACHCSA and RWQCB. ASE has prepared this report on behalf of Mr. Nissan Saidian, owner of the property.

2.0 GROUNDWATER FLOW DIRECTION AND GRADIENT

On December 19, 2002, ASE measured the depth to water in each site groundwater 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 site monitoring well. Groundwater elevation data is presented as *Table One*.

A groundwater potentiometric surface map is presented as *Figure 2*. Groundwater beneath the site flows to the northwest with a gradient of approximately 0.0042-feet/foot. Previous finding had indicated a flow direction to the southwest at a similar gradient. The gradient to the northwest, however, is more consistent with the off-site distribution of hydrocarbons found during a previous subsurface investigation.

3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS

Prior to sampling, all monitoring wells were purged of three well casing volumes of groundwater using dedicated polyethylene bailers. Petroleum hydrocarbon odors were present during the purging and sampling of monitoring wells MW-1 and MW-3. The parameters pH, temperature, and conductivity were monitored during the well purging, and samples were not collected until the parameters stabilized. Groundwater samples were collected from each well using dedicated polyethylene bailers.

All samples were decanted from the bailers into 40-ml volatile organic analysis (VOA) vials, pre-preserved with hydrochloric acid, and sealed without headspace. The samples were then labeled and placed in a cooler with wet ice for transport to Kiff Analytical, LLC of Davis, California under appropriate chain-of-custody documentation. Well sampling field logs are presented in *Appendix A*.

The well purge water was placed in 55-gallon steel drums and labeled for temporary storage.

The groundwater samples collected from all three site monitoring wells were analyzed for total petroleum hydrocarbons as gasoline (TPH-G), benzene, toluene, ethyl benzene, and total xylenes (collectively known as BTEX) and fuel oxygenates by EPA Method 8260. The analysis for total petroleum hydrocarbons as diesel (TPH-D) by EPA Method 3550/8015M was inadvertently left off of the chain of custody and therefore not performed this quarter. TPH-D analysis will resume again next quarter.

The analytical results are presented in *Table Two*, and the certified analytical report and chain-of-custody documentation are included as *Appendix B*.

4.0 CONCLUSIONS

The groundwater beneath the site flows to the northwest with a gradient of approximately 0.0042-feet/foot. Previous finding had indicated a flow direction to the southwest at a similar gradient.

Groundwater samples collected from monitoring well MW-1 continue to show a decreasing trend in hydrocarbon concentrations. Concentrations are currently at an all time low for that well. MTBE was detected at 16 ppb in the groundwater samples collected from monitoring well MW-2. Groundwater samples collected from monitoring well MW-3 show a decreasing trend but concentrations of TPH-G and benzene remain elevated.

The benzene concentration detected in groundwater samples collected from monitoring well MW-3 exceeded the Risk-Based Screening Level (RBSL) for groundwater that is not a current or potential source of drinking water as 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 dated December 2001. The TPH-G and total xylene concentrations in the water samples collected from monitoring wells MW-1 and MW-3 also exceeded the RBSLs. The analysis for total petroleum hydrocarbons as diesel (TPH-D) by EPA Method 3550/8015M was inadvertently left off of the chain of custody and therefore not performed this quarter. TPH-D analysis will resume again next quarter.

5.0 RECOMMENDATIONS

ASE recommends that this site remain on a quarterly sampling schedule. The next sampling is scheduled for March 2003. ASE is awaiting approval of the workplan dated December 13, 2002 for the additional work needed to be performed at the site. Following the approval of the workplan, the cost for the additional assessment will require pre-approval from the UST Cleanup Fund.

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 independent CAL-EPA certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

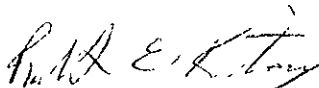
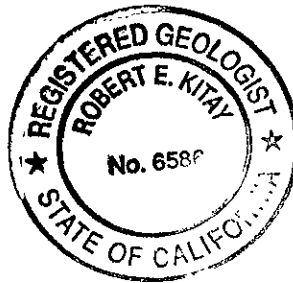
Aqua Science Engineers appreciates the opportunity to provide environmental consulting services for this project, and trust that this report meets your needs. Please feel free to call us at (925) 820-9391 if you have any questions or comments.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.



Erik H. Paddleford
Associate Geologist

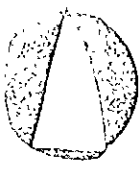
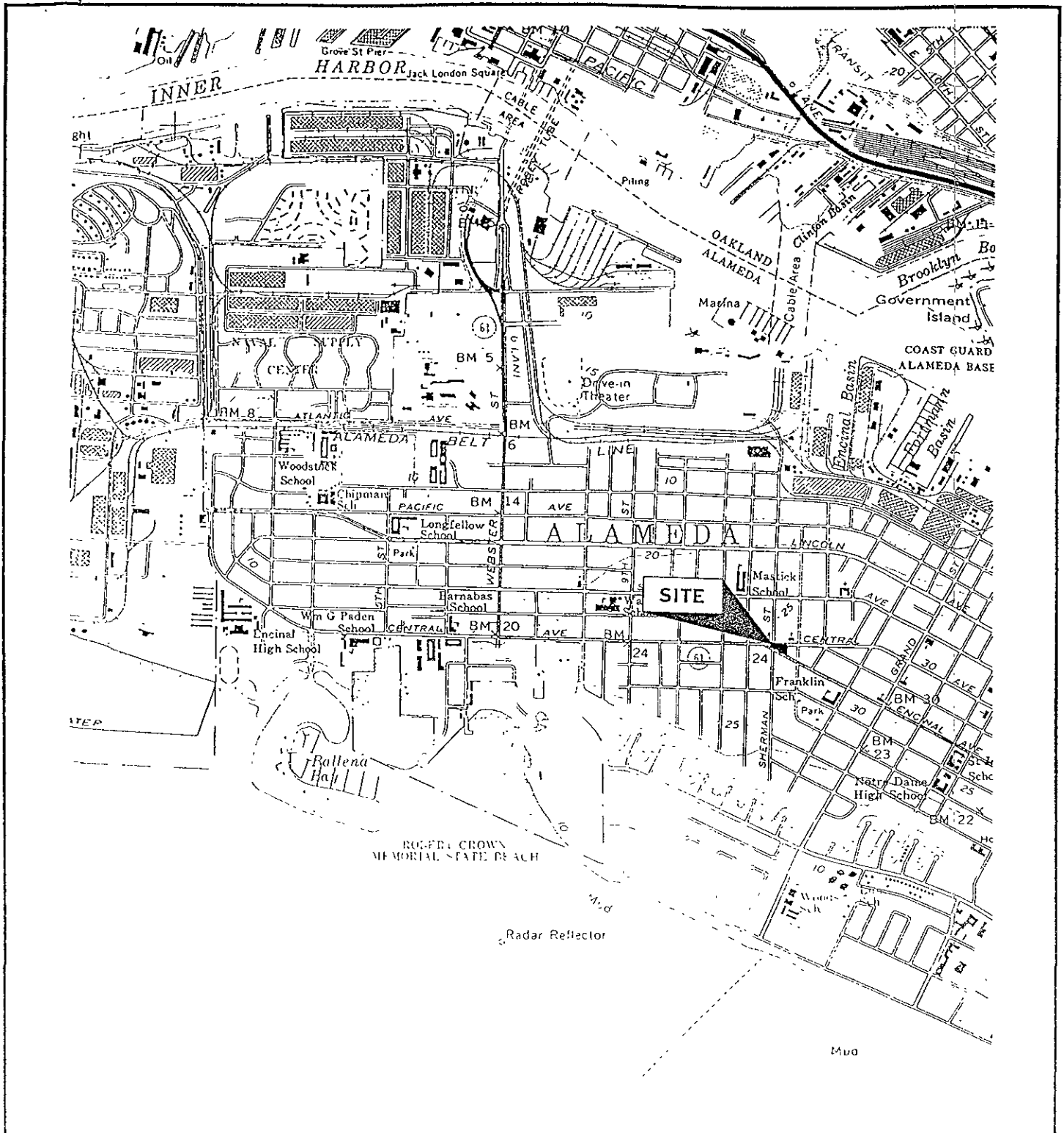


Robert E. Kitay, R.G., R.E.A.
Senior Geologist

Attachments: Table One and Two
Figures 1 and 2
Appendices A and B

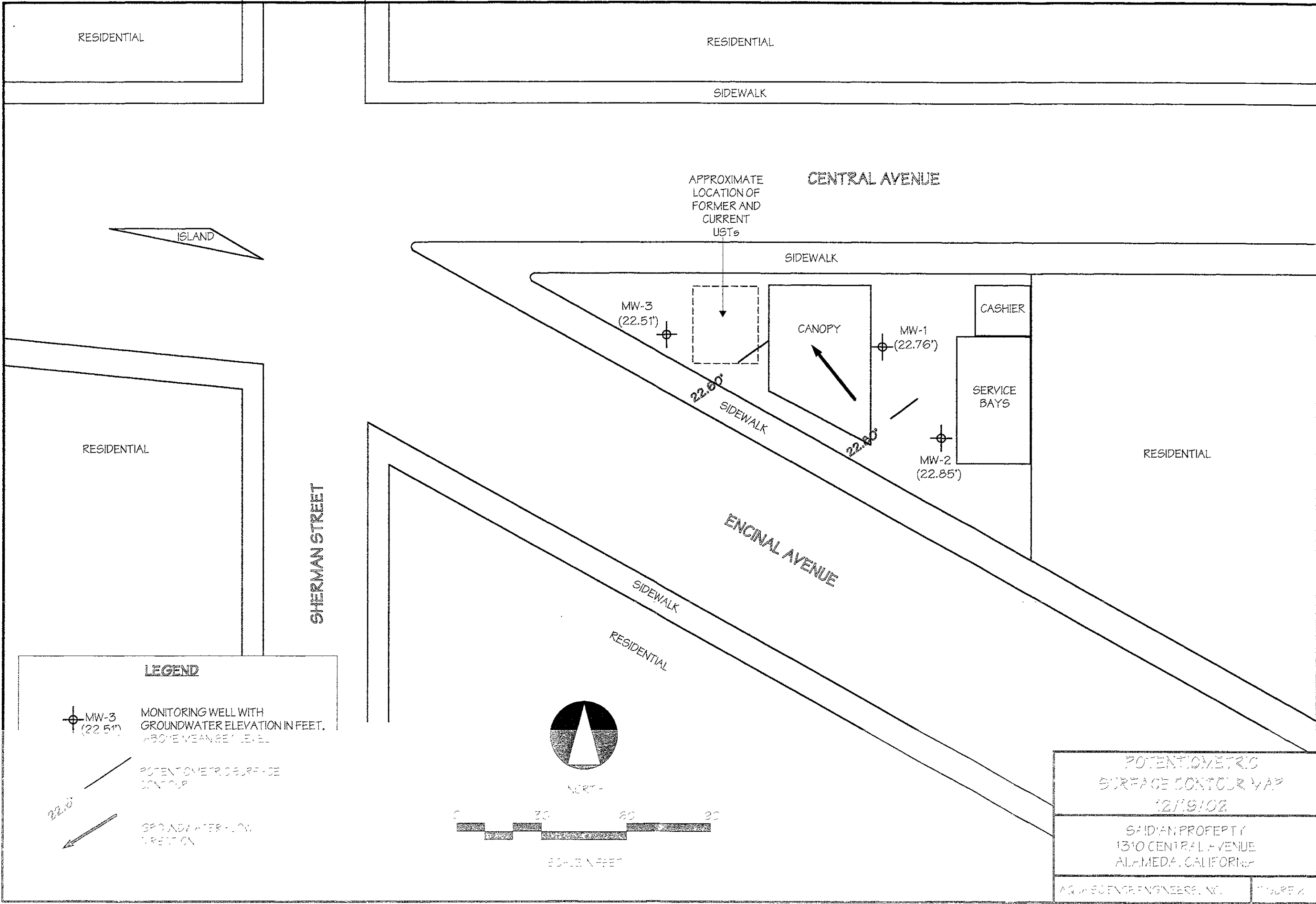
cc: Mr. Nissan Saidian
Mr. Barney Chan, ACHCSA
Mr. Chuck Headlee, RWQCB, San Francisco Bay Region

FIGURES



NOR III

<h1>LOCATION MAP</h1>	
SAIDIAN PROPERTY 1310 CENTRAL AVENUE ALAMEDA, CALIFORNIA	
AQUA SCIENCE ENGINEERS, INC.	Figure 1



RESIDENTIAL

RESIDENTIAL

SIDEWALK

APPROXIMATE
LOCATION OF
FORMER AND
CURRENT
USTs

CENTRAL AVENUE

ISLAND

SIDEWALK

MW-3
(22.51')

CANOPY

MW-1
(22.76')

CASHIER

SERVICE
BAYS

RESIDENTIAL

MW-2
(22.85')

RESIDENTIAL

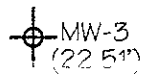
SHERMAN STREET

ENCINAL AVENUE

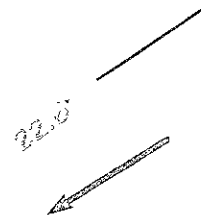
SIDEWALK

RESIDENTIAL

LEGEND

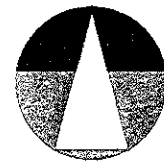


MW-3
(22.51')
MONITORING WELL WITH
GROUNDWATER ELEVATION IN FEET,
ABOVE MEAN SEA LEVEL



POTENTIOMETRIC SURFACE
CONTOUR

GROUNDWATER FLOW
DIRECTION



NORTH



SCALE IN FEET

POTENTIOMETRIC
SURFACE CONTOUR MAP
12/19/02

SAIDIAN PROPERTY
1310 CENTRAL AVENUE
ALAMEDA, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC.

FIGURE 2

TABLES

TABLE ONE
 Groundwater Elevation Data
 Saidian Property-Alameda
 Alameda, CA

Well	Date of Measurement	Top of Casing Elevation (msl)	Depth to Water (feet)	Groundwater Elevation (msl)
MW-1	9/6/99	26.85	5.16	21.69
	5/16/00		3.24	23.61
	8/3/00		4.15	22.70
	12/5/00		4.90	21.95
	3/5/01		3.04	23.81
	6/4/01		4.01	22.84
	6/5/02		3.73	23.12
	9/9/02		5.06	21.79
	12/19/02		4.09	22.76
MW-2	9/6/99	27.18	5.56	21.62
	5/16/00		3.52	23.66
	8/3/00		4.44	22.74
	12/5/00		5.24	21.94
	3/5/01		3.28	23.90
	6/4/01		4.33	22.85
	6/5/02		3.98	23.20
	9/9/02		5.34	21.84
	12/19/02		4.33	22.85
MW-3	9/6/00	25.30	4.02	21.28
	5/16/00		2.06	23.24
	8/3/00		3.20	22.10
	12/5/00		3.71	21.59
	3/5/01		1.90	23.40
	6/4/01		2.72	22.58
	6/5/02		2.75	22.55
	9/9/02		3.88	21.42
	12/19/02		2.79	22.51

TABLE TWO
Summary of Chemical Analysis of GROUNDWATER Samples

Saiaian Property-Alameda

Petroleum Hydrocarbons

All results are in parts per billion (ppb)

No. / Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	TAME	TBA	Other Oxygenates
MW-1										
9/6/1999	5,700	8,700	170	59	22	85	20,000	NA	NA	NA
5/16/2000	20,000	< 7,500	38	63	740	1,600	< 5.0	< 5.0	< 5.0	< 5.0
8/3/2000	20,000	< 6,000	56	97	920	1,600	< 0.5	< 0.5	< 5.0	< 0.5
12/5/2000	31,000	< 4,000	64	27	820	2,200	< 10	< 5.0	< 5.0	< 5.0
3/5/2001	20,000	< 4,000	19	< 5.0	480	870	< 5.0	< 5.0	< 5.0	< 5.0
6/4/2001	23,000	< 7,000	58	50	710	2,100	5.1	< 5.0	< 5.0	< 5.0
6/5/2002	7,400	< 1,500	93	67	180	230	< 10	< 10	< 10	< 10
9/9/2002	8,300	< 3,500	32	20	390	670	< 2.0	< 2.0	< 2.0	< 2.0
12/19/2002	5,100	--	7.9	2.5	56	93	< 1.0	< 1.0	< 1.0	< 1.0
MW-2										
9/6/1999	6,000	70	1,300	92	50	400	6,800	NA	NA	NA
5/16/2000	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 5.0
8/3/2000	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5
12/5/2000	< 50	1,400	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5
3/5/2001	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5
6/4/2001	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5
6/5/2002	< 50	2,300	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5
9/9/2002	< 50	1,300	< 0.5	< 0.5	< 0.5	< 0.5	1.4	< 0.5	< 5.0	< 0.5
12/19/2002	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	16	< 0.5	< 5.0	< 0.5
MW-3										
9/6/1999	43,000	870	860	70	< 0.5	65	120,000	NA	NA	NA
5/16/2000	17,000	< 5,000	2,800	60	380	190	990	9.1	350	< 5.0
8/3/2000	16,000	< 2,000	1,600	29	210	53	1,200	21	260	< 2.0
12/5/2000	17,000	5,800	1,700	45	460	240	1,100	21	230	< 5.0
3/5/2001	29,000	< 1300	2,100	68	280	100	180	< 8.0	< 80	< 8.0
6/4/2001	17,000	< 6,000	2,000	56	340	230	300	< 10	130	< 10
6/5/2002	11,000	< 2,000	1,600	46	210	47	790	< 10	220	< 10
9/9/2002	12,000	< 800	1,400	44	130	27	760	< 10	160	< 10
12/19/2002	10,000	--	740	32	180	38	86	< 5.0	< 50	< 5.0
RBSL	500	640	46	130	290	13	1,200	NE	NE	VARIES

Notes:

MTBE = Methyl-t-butyl ether

TAME = Tert-amyl methyl ether

TBA = Tert-Butanol

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, dated December 2001.

NA = Samples Not Analyzed for this compound

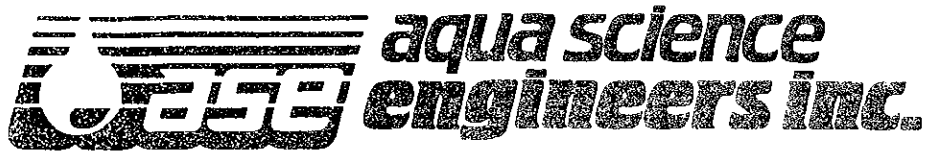
NE = DHS MCLs are not established.

Non-detectable concentrations are noted by the less than symbol (<) followed by the detection limit

Most recent data in bold

APPENDIX A

Well Sampling Field Logs



WELL SAMPLING FIELD LOG

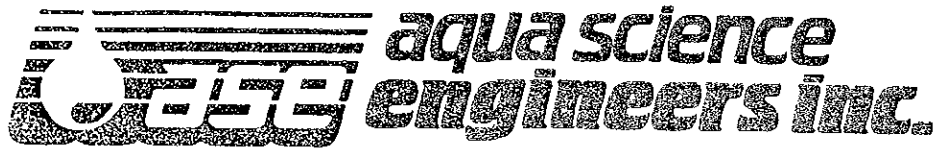
Project Name and Address: Sandica - Alameda
 Job #: 3648 Date of sampling: 12/19/02
 Well Name: MW-1 Sampled by: ep
 Total depth of well (feet): 18.0 Well diameter (inches): 2
 Depth to water before sampling (feet): 4.09
 Thickness of floating product if any: -
 Depth of well casing in water (feet): 13.91
 Number of gallons per well casing volume (gallons): ~~9.82~~ 1.57
 Number of well casing volumes to be removed: 3
 Req'd volume of groundwater to be purged before sampling (gallons): 9.7
 Equipment used to purge the well: bailer
 Time Evacuation Began: 9:10 Time Evacuation Finished: 9:25
 Approximate volume of groundwater purged: 6.5
 Did the well go dry?: no After how many gallons: -
 Time samples were collected: 9:30
 Depth to water at time of sampling: -
 Percent recovery at time of sampling: -
 Samples collected with: bailer
 Sample color: clear/gray Odor: slight
 Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>71.7</u>	<u>6.13</u>	<u>542</u>
<u>2</u>	<u>70.4</u>	<u>6.14</u>	<u>571</u>
<u>3</u>	<u>70.2</u>	<u>6.15</u>	<u>582</u>

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>MW-1</u>	<u>5</u>	<u>40 ml VOA</u>	<u>X</u>	<u>X</u>	



WELL SAMPLING FIELD LOG

Project Name and Address: Sandian Alameda
 Job #: 3648 Date of sampling: 12/9/02
 Well Name: M4-2 Sampled by: EP
 Total depth of well (feet): 17.80 Well diameter (inches): 2
 Depth to water before sampling (feet): 4.33
 Thickness of floating product if any: -
 Depth of well casing in water (feet): 13.47
 Number of gallons per well casing volume (gallons): 2.15
 Number of well casing volumes to be removed: 3
 Req'd volume of groundwater to be purged before sampling (gallons): 6.5
 Equipment used to purge the well: bauler
 Time Evacuation Began: 1000 Time Evacuation Finished: 1025
 Approximate volume of groundwater purged: 6.5
 Did the well go dry?: NO After how many gallons: -
 Time samples were collected: 1030
 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>74.3</u>	<u>6.10</u>	<u>376</u>
<u>2</u>	<u>74.0</u>	<u>6.02</u>	<u>380</u>
<u>3</u>	<u>73.8</u>	<u>5.98</u>	<u>382</u>

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>M4-2</u>	<u>5</u>	<u>40ml 100A</u>	<u>X</u>	<u>X</u>	



WELL SAMPLING FIELD LOG

Project Name and Address: Sandian - Alameda
 Job #: 3648 Date of sampling: 12/19/02
 Well Name: MW-3 Sampled by: PP
 Total depth of well (feet): 2.79 18.0 Well diameter (inches): 2
 Depth to water before sampling (feet): 2.79
 Thickness of floating product if any: -
 Depth of well casing in water (feet): 15.21
 Number of gallons per well casing volume (gallons): 2.5
 Number of well casing volumes to be removed: 3
 Req'd volume of groundwater to be purged before sampling (gallons): 7.5
 Equipment used to purge the well: bailer
 Time Evacuation Began: 935 Time Evacuation Finished: 950
 Approximate volume of groundwater purged: 7.5
 Did the well go dry?: NO After how many gallons: -
 Time samples were collected: 1000
 Depth to water at time of sampling: -
 Percent recovery at time of sampling: -
 Samples collected with: bailer
 Sample color: clear/grey Odor: moderate
 Description of sediment in sample: silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>73.1</u>	<u>6.24</u>	<u>648</u>
<u>2</u>	<u>72.6</u>	<u>6.28</u>	<u>653</u>
<u>3</u>	<u>72.4</u>	<u>6.31</u>	<u>657</u>
-----	-----	-----	-----
-----	-----	-----	-----

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>MW-3</u>	<u>5</u>	<u>40 ml VOA</u>	<u>X</u>	<u>X</u>	-----
-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----

APPENDIX B

Certified Analytical Report
and
Chain of Custody Documentation



Report Number : 30522

Date : 12/30/02

Eric Paddleford
Aqua Science Engineers, Inc.
208 West El Pintado Rd.
Danville, CA 94526

Subject : 3 Water Samples
Project Name : Saidian - Alameda
Project Number : 3648

Dear Mr. Paddleford,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink that reads "Joel Kiff". The signature is written in a cursive style.

Joel Kiff



Report Number : 30522

Date : 12/30/02

Project Name : **Saidian - Alameda**

Project Number : **3648**

Sample : **MW-1**

Matrix : Water

Lab Number : 30522-01

Sample Date :12/19/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	7.9	1.0	ug/L	EPA 8260B	12/30/02
Toluene	2.5	1.0	ug/L	EPA 8260B	12/30/02
Ethylbenzene	56	1.0	ug/L	EPA 8260B	12/30/02
Total Xylenes	93	1.0	ug/L	EPA 8260B	12/30/02
Methyl-t-butyl ether (MTBE)	< 1.0	1.0	ug/L	EPA 8260B	12/30/02
Diisopropyl ether (DIPE)	< 1.0	1.0	ug/L	EPA 8260B	12/30/02
Ethyl-t-butyl ether (ETBE)	< 1.0	1.0	ug/L	EPA 8260B	12/30/02
Tert-amyl methyl ether (TAME)	< 1.0	1.0	ug/L	EPA 8260B	12/30/02
Tert-Butanol	< 10	10	ug/L	EPA 8260B	12/30/02
TPH as Gasoline	5100	100	ug/L	EPA 8260B	12/30/02
Toluene - d8 (Surr)	108		% Recovery	EPA 8260B	12/30/02
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	12/30/02

Approved By: Joel Kiff



Report Number : 30522

Date : 12/30/02

Project Name : **Saidian - Alameda**

Project Number : **3648**


Sample : **MW-2**

Matrix : Water

Lab Number : 30522-02

Sample Date :12/19/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/22/02
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/22/02
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/22/02
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/22/02
Methyl-t-butyl ether (MTBE)	16	0.50	ug/L	EPA 8260B	12/22/02
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	12/22/02
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	12/22/02
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	12/22/02
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/22/02
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/22/02
Toluene - d8 (Surr)	99.0		% Recovery	EPA 8260B	12/22/02
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	12/22/02

Approved By:  Joel Kiff



Report Number : 30522

Date : 12/30/02

Project Name : **Saidian - Alameda**

Project Number : **3648**

Sample : **MW-3**

Matrix : Water

Lab Number : 30522-03

Sample Date :12/19/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	740	5.0	ug/L	EPA 8260B	12/27/02
Toluene	32	5.0	ug/L	EPA 8260B	12/27/02
Ethylbenzene	180	5.0	ug/L	EPA 8260B	12/27/02
Total Xylenes	38	5.0	ug/L	EPA 8260B	12/27/02
Methyl-t-butyl ether (MTBE)	86	5.0	ug/L	EPA 8260B	12/27/02
Diisopropyl ether (DIPE)	< 5.0	5.0	ug/L	EPA 8260B	12/27/02
Ethyl-t-butyl ether (ETBE)	< 5.0	5.0	ug/L	EPA 8260B	12/27/02
Tert-amyl methyl ether (TAME)	< 5.0	5.0	ug/L	EPA 8260B	12/27/02
Tert-Butanol	< 50	50	ug/L	EPA 8260B	12/27/02
TPH as Gasoline	10000	500	ug/L	EPA 8260B	12/27/02
Toluene - d8 (Surr)	98.9		% Recovery	EPA 8260B	12/27/02
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	12/27/02

Approved By:  Joel Kiff




Report Number : 30522

Date : 12/30/02

Subject : 3 Water Samples
Project Name : Saidian - Alameda
Project Number : 3648

Case Narrative

Matrix Spike/Matrix Spike Duplicate Results associated with sample MW-1 for the analyte Methyl-t-butyl ether were affected by the analyte concentrations already present in the un-spiked sample.

Approved By:  _____
Joel Kiff

2795 2nd St, Suite 300 Davis, CA 95616 916-297-4800

Report Number . 30522

Date : 12/30/02

QC Report : Method Blank Data

Project Name : **Saidian - Alameda**

Project Number : **3648**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/27/02
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/27/02
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/27/02
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/27/02
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/27/02
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	12/27/02
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	12/27/02
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	12/27/02
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/27/02
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/27/02
Toluene - d8 (Surr)	102		%	EPA 8260B	12/27/02
4-Bromofluorobenzene (Surr)	90.2		%	EPA 8260B	12/27/02
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/22/02
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/22/02
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/22/02
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/22/02
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/22/02
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	12/22/02
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	12/22/02
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	12/22/02
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/22/02
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/22/02
Toluene - d8 (Surr)	97.1		%	EPA 8260B	12/22/02
4-Bromofluorobenzene (Surr)	99.1		%	EPA 8260B	12/22/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/26/02
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/26/02
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/26/02
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/26/02
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/26/02
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	12/26/02
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	12/26/02
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	12/26/02
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/26/02
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/26/02
Toluene - d8 (Surr)	97.3		%	EPA 8260B	12/26/02
4-Bromofluorobenzene (Surr)	100		%	EPA 8260B	12/26/02

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 30522

Date : 12/30/02

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **Saidian - Alameda**

Project Number : **3648**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	30440-28	9.1	39.5	39.9	43.8	44.6	ug/L	EPA 8260B	12/27/02	87.7	88.9	1.42	70-130	25
Toluene	30440-28	10	39.5	39.9	44.0	45.0	ug/L	EPA 8260B	12/27/02	85.2	87.1	2.13	70-130	25
Tert-Butanol	30440-28	30	198	200	206	214	ug/L	EPA 8260B	12/27/02	89.2	92.3	3.45	70-130	25
Methyl-t-Butyl Ether	30440-28	220	39.5	39.9	243	240	ug/L	EPA 8260B	12/27/02	71.4	62.4	13.4	70-130	25
Benzene	30493-01	8.3	40.0	40.0	44.8	43.9	ug/L	EPA 8260B	12/22/02	91.0	88.9	2.39	70-130	25
Toluene	30493-01	12	40.0	40.0	49.0	48.4	ug/L	EPA 8260B	12/22/02	91.9	90.2	1.78	70-130	25
Tert-Butanol	30493-01	<5.0	200	200	195	194	ug/L	EPA 8260B	12/22/02	97.7	97.1	0.554	70-130	25
Methyl-t-Butyl Ether	30493-01	33	40.0	40.0	72.5	74.6	ug/L	EPA 8260B	12/22/02	99.0	104	5.22	70-130	25
Benzene	30566-04	<0.50	40.0	40.0	40.7	39.4	ug/L	EPA 8260B	12/26/02	102	98.5	3.22	70-130	25
Toluene	30566-04	<0.50	40.0	40.0	40.2	39.2	ug/L	EPA 8260B	12/26/02	100	97.9	2.57	70-130	25
Tert-Butanol	30566-04	<5.0	200	200	209	201	ug/L	EPA 8260B	12/26/02	104	101	3.58	70-130	25
Methyl-t-Butyl Ether	30566-04	<0.50	40.0	40.0	48.4	46.8	ug/L	EPA 8260B	12/26/02	121	117	3.46	70-130	25

Joel Kiff

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 30522

Date : 12/30/02

QC Report : Laboratory Control Sample (LCS)

Project Name : **Saidian - Alameda**

Project Number : **3648**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	12/27/02	99.5	70-130
Toluene	40.0	ug/L	EPA 8260B	12/27/02	94.4	70-130
Tert-Butanol	200	ug/L	EPA 8260B	12/27/02	96.2	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	12/27/02	106	70-130
Benzene	40.0	ug/L	EPA 8260B	12/22/02	96.9	70-130
Toluene	40.0	ug/L	EPA 8260B	12/22/02	98.1	70-130
Tert-Butanol	200	ug/L	EPA 8260B	12/22/02	99.6	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	12/22/02	107	70-130
Benzene	40.0	ug/L	EPA 8260B	12/26/02	98.7	70-130
Toluene	40.0	ug/L	EPA 8260B	12/26/02	97.4	70-130
Tert-Butanol	200	ug/L	EPA 8260B	12/26/02	108	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	12/26/02	116	70-130

KIFF ANALYTICAL, LLC

Approved By:  Joel Kiff

