



RO 00010 22

April 13, 2001

QUARTERLY GROUNDWATER MONITORING REPORT  
MARCH 2001 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. Pritpaul Sappal  
c/o 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 March 5, 2001 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 March 5, 2001, ASE associate geologist Erik Paddleford 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 with a product thickness bailer. No free-floating hydrocarbons or sheen were observed in any site monitoring well. Groundwater elevation data is presented as *Table One*. The water table rose approximately 1.9-feet this quarter.

A groundwater potentiometric surface map for the March 5, 2001 sampling is presented as *Figure 2*. Groundwater beneath the site flows to the west with a gradient of approximately 0.0067-feet/foot, which is relatively consistent with previous findings.

## 3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS

Prior to sampling, all monitoring wells were purged of four 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. Samples were not collected until these 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 coolers 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 diesel (TPH-D) by EPA Method 3550/8015M, 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 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 flow was to the west at a gradient of 0.0067 feet/foot, which is relatively consistent with previous findings. The water table rose approximately 1.9-feet this quarter.

Groundwater samples collected from monitoring well MW-1 contained 20,000 parts per billion (ppb) TPH-G, 19 ppb benzene, 480 ppb ethyl benzene, and 870 ppb total xylenes. No MTBE or other oxygenates were detected in groundwater samples collected from monitoring well MW-1. The groundwater samples collected from monitoring well MW-3 contained 29,000 ppb TPH-G, 2,100 ppb benzene, 68 ppb toluene, 280 ppb ethyl benzene, 100 ppb total xylenes, and 180 ppb MTBE. No other oxygenates were detected in monitoring well MW-3. No TPH-G, BTEX, or oxygenates were detected in groundwater samples collected from monitoring well MW-2.

The benzene concentrations in groundwater samples collected from monitoring wells MW-1 and MW-3 exceeded the Department of Health Services (DHS) maximum contaminant level (MCL) for drinking water. The MTBE concentration in groundwater samples collected from monitoring well MW-3 also exceeded the DHS MCL for drinking water.

The hydrocarbon concentrations in groundwater samples collected from monitoring well MW-1 are showing a slight decreasing trend. Hydrocarbon concentrations in groundwater samples collected from monitoring well MW-3 are similar to previous results except for MTBE, which shows a decreasing trend.

## 5.0 RECOMMENDATIONS

ASE recommends that this site remain on a quarterly sampling schedule. The next sampling is scheduled for July 2001. In addition, a workplan to conduct additional environmental assessment activities at the site will be prepared during the quarter.

## 6.0 REPORT LIMITATIONS

The results of this sampling 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.

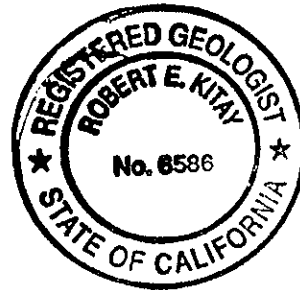
Aqua Science Engineers appreciates the opportunity to provide environmental consulting services for this project, and trust that this report meets your needs. Please feel free to call us at (925) 820-9391 if you have any questions or comments.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.



Erik H. Paddleford  
Associate Geologist



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

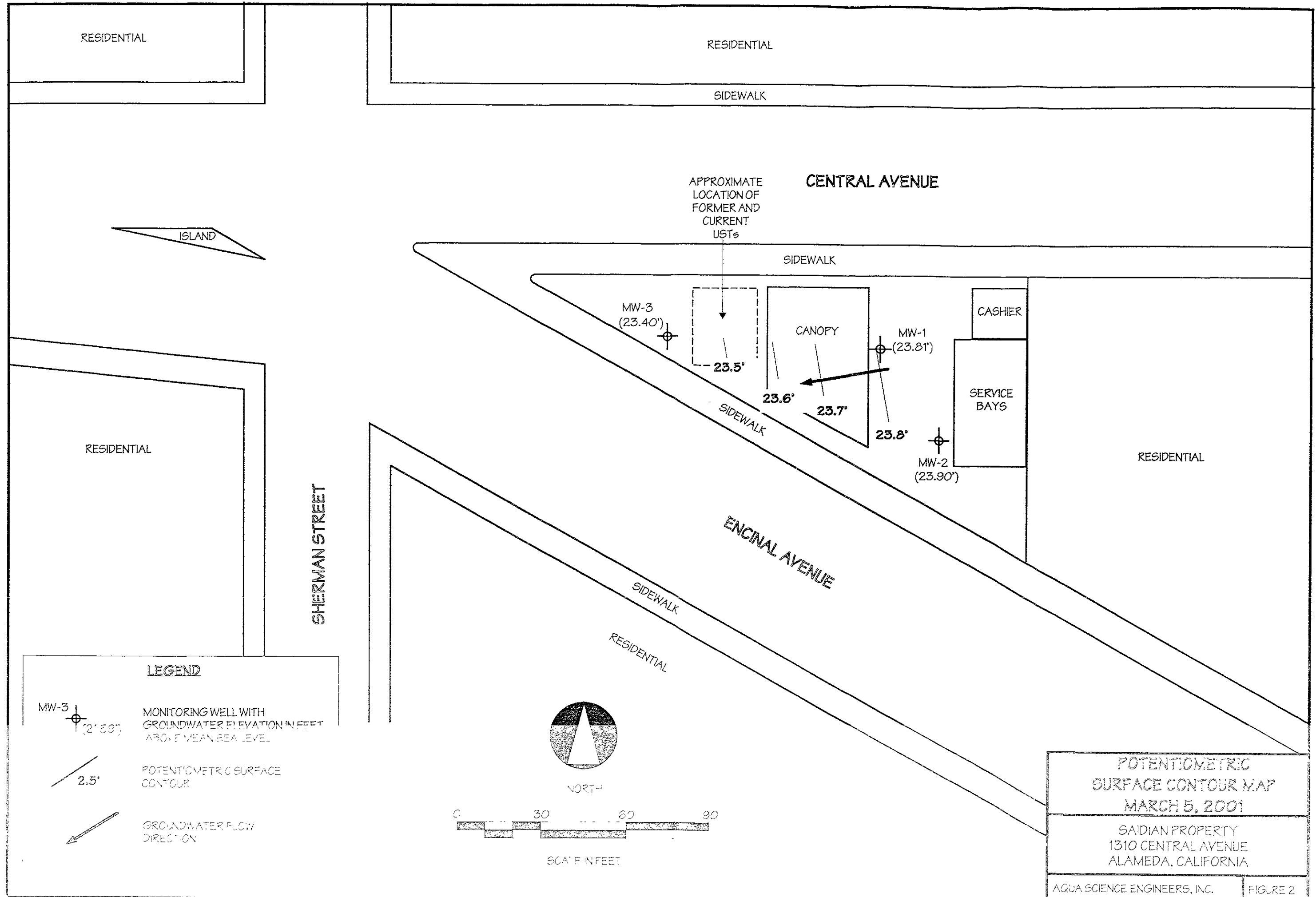
Attachments: Table One and Two  
Figures 1 and 2  
Appendices A and B

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

## **FIGURES**



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





# TABLES

TABLE ONE  
GROUNDWATER ELEVATION DATA

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
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
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

## TABLE TWO

### Summary of Chemical Analysis of GROUNDWATER Samples

#### Saldan Property-Alameda

#### Petroleum Hydrocarbons

All results are in parts per billion

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	TAME	TBA	Other Oxygenates
<u>MW-1</u>										
9/6/1999	5,700	8,700	170	59	22	85	20,000	NA	NA	NA
5/16/2000	20,000	<7,500	38	6.3	740	1,600	<5.0	<5.0	<50	<5.0
8/3/2000	20,000	<6,000	56	9.7	920	1,600	<0.5	<0.5	<50	<0.5
12/5/2000	31,000	<4,000	64	27	820	2,200	<10	<5.0	<50	<5.0
3/5/2001	20,000	<4,000	19	<5.0	480	870	<5.0	<5.0	<50	<5.0
<u>MW-2</u>										
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	<50	<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
<u>MW-3</u>										
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
DHS MCL	NE	NE	1	150	700	1,750	13	NE	NE	VARIES

Notes:

MTBE = Methyl-t-butyl ether

TAME = Tert-amyl methyl ether

TBA = Tert-Butanol

DHS MCL is the California Department of Health Services maximum contaminant level for drinking water.

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: Saidiya - Alameda  
 Job #: 3648 Date of sampling: 3-5-01  
 Well Name: MW-1 Sampled by: EP  
 Total depth of well (feet): 17.8 <sup>(AP)</sup> 18.0 Well diameter (inches): 2  
 Depth to water before sampling (feet): 3.04  
 Thickness of floating product if any: -  
 Depth of well casing in water (feet): 14.96  
 Number of gallons per well casing volume (gallons): 2.54  
 Number of well casing volumes to be removed: 4  
 Req'd volume of groundwater to be purged before sampling (gallons): 10.17  
 Equipment used to purge the well: bailer  
 Time Evacuation Began: 1810 Time Evacuation Finished: 1830  
 Approximate volume of groundwater purged: 10  
 Did the well go dry?: NO After how many gallons: -  
 Time samples were collected: 1835  
 Depth to water at time of sampling: 3.52  
 Percent recovery at time of sampling: 86%  
 Samples collected with: bailer  
 Sample color: brown/gray Odor: slight HC odor - visible sheen  
 Description of sediment in sample: silt - fine sand

## CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>17.1</u>	<u>7.78</u>	<u>1</u>
<u>2</u>	<u>17.2</u>	<u>7.74</u>	<u>1</u>
<u>3</u>	<u>17.1</u>	<u>7.71</u>	<u>1</u>
<u>4</u>	<u>17.1</u>	<u>7.74</u>	<u>1</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: Sedign Alameda  
 Job #: 3098 Date of sampling: 3-5-01  
 Well Name: MW-7 Sampled by: EP  
 Total depth of well (feet): 17.8 Well diameter (inches): 2"  
 Depth to water before sampling (feet): 3.28  
 Thickness of floating product if any: -  
 Depth of well casing in water (feet): 14.52  
 Number of gallons per well casing volume (gallons): 2.46  
 Number of well casing volumes to be removed: 4  
 Req'd volume of groundwater to be purged before sampling (gallons): 9.8  
 Equipment used to purge the well: bailey  
 Time Evacuation Began: 15:30 Time Evacuation Finished: 15:55  
 Approximate volume of groundwater purged: 10  
 Did the well go dry?: 15:30 No After how many gallons: -  
 Time samples were collected: 16:05  
 Depth to water at time of sampling: 4.02  
 Percent recovery at time of sampling: 76%  
 Samples collected with: bailey  
 Sample color: brown Odor: none  
 Description of sediment in sample: silt

## CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>17.8</u>	<u>8.06</u>	<u>1</u>
<u>2</u>	<u>17.8</u>	<u>8.10</u>	<u>1</u>
<u>3</u>	<u>17.8</u>	<u>8.04</u>	<u>1</u>
<u>4</u>	<u>17.8</u>	<u>8.05</u>	<u>1</u>

## SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>MW-7</u>	<u>5</u>	<u>50mL VOA</u>	<u>X</u>	<u>X</u>	



# WELL SAMPLING FIELD LOG

Project Name and Address: Saidian - Alameda  
 Job #: 3648 Date of sampling: 3-5-01  
 Well Name: MW-3 Sampled by: EP  
 Total depth of well (feet): 18 Well diameter (inches): 2  
 Depth to water before sampling (feet): 1.90 - pressure build up due to J-plug  
 Thickness of floating product if any: -  
 Depth of well casing in water (feet): 16.20  
 Number of gallons per well casing volume (gallons): 2.73  
 Number of well casing volumes to be removed: 4  
 Req'd volume of groundwater to be purged before sampling (gallons): 10.95  
 Equipment used to purge the well: bailer  
 Time Evacuation Began: 1645 Time Evacuation Finished: 1705  
 Approximate volume of groundwater purged: 11 gal  
 Did the well go dry?: NO After how many gallons: -  
 Time samples were collected: 17:15  
 Depth to water at time of sampling: 2.10  
 Percent recovery at time of sampling: 90%  
 Samples collected with: bailer  
 Sample color: brown/gray Odor: moderat HC odor - visible steam  
 Description of sediment in sample: silt - fine sand

## CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	18.0	7.63	1
2	17.8	7.72	1
3	17.8	7.68	1
4	17.9	7.70	1

## SAMPLES COLLECTED

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

# **APPENDIX B**

Certified Analytical Report  
and  
Chain of Custody Documentation





Report Number : 19465

Date : 3/14/01

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,



Joel Kiff



Report Number : 19465

Date : 3/14/01

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

## Case Narrative

The Method Reporting Limit for TPH as Diesel has been increased due to interference from Gasoline-Range Hydrocarbons for the following samples:

MW-1  
MW-3

Approved By:  \_\_\_\_\_  
Joel Kiff



Report Number : 19465

Date : 3/14/01

Project Name : **Saidian-Alameda**

Project Number : **3648**

Sample : **MW-1**

Matrix : **Water**

Lab Number : **19465-01**

Sample Date : **3/5/01**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	19	5.0	ug/L	EPA 8260B	3/11/01
Toluene	< 5.0	5.0	ug/L	EPA 8260B	3/11/01
Ethylbenzene	480	5.0	ug/L	EPA 8260B	3/11/01
Total Xylenes	870	5.0	ug/L	EPA 8260B	3/11/01
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	3/11/01
Diisopropyl ether (DIPE)	< 5.0	5.0	ug/L	EPA 8260B	3/11/01
Ethyl-t-butyl ether (ETBE)	< 5.0	5.0	ug/L	EPA 8260B	3/11/01
Tert-amyl methyl ether (TAME)	< 5.0	5.0	ug/L	EPA 8260B	3/11/01
Tert-Butanol	< 50	50	ug/L	EPA 8260B	3/11/01
TPH as Gasoline	20000	2000	ug/L	EPA 8260B	3/13/01
TPH as Diesel	< 4000	4000	ug/L	M EPA 8015	3/10/01
Toluene - d8 (Surr)	106		% Recovery	EPA 8260B	3/11/01
4-Bromofluorobenzene (Surr)	96.2		% Recovery	EPA 8260B	3/11/01

Approved By:  Joel Kiff



Report Number : 19465

Date : 3/14/01

Project Name : **Saidian-Alameda**

Project Number : **3648**

Sample : **MW-2**

Matrix : **Water**

Lab Number : **19465-02**

Sample Date : **3/5/01**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/11/01
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/11/01
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/11/01
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/11/01
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/11/01
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	3/11/01
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	3/11/01
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	3/11/01
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	3/11/01
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/11/01
TPH as Diesel	< 50	50	ug/L	M EPA 8015	3/10/01
Toluene - d8 (Surr)	96.2		% Recovery	EPA 8260B	3/11/01
4-Bromofluorobenzene (Surr)	91.2		% Recovery	EPA 8260B	3/11/01

Approved By:  Joel Kiff



Report Number : 19465

Date : 3/14/01

Project Name : Saidian-Alameda

Project Number : 3648

Sample : MW-3

Matrix : Water

Lab Number : 19465-03

Sample Date : 3/5/01

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	2100	8.0	ug/L	EPA 8260B	3/13/01
Toluene	68	8.0	ug/L	EPA 8260B	3/13/01
Ethylbenzene	280	8.0	ug/L	EPA 8260B	3/13/01
Total Xylenes	100	8.0	ug/L	EPA 8260B	3/13/01
Methyl-t-butyl ether (MTBE)	180	8.0	ug/L	EPA 8260B	3/13/01
Diisopropyl ether (DIPE)	< 8.0	8.0	ug/L	EPA 8260B	3/13/01
Ethyl-t-butyl ether (ETBE)	< 8.0	8.0	ug/L	EPA 8260B	3/13/01
Tert-amyl methyl ether (TAME)	< 8.0	8.0	ug/L	EPA 8260B	3/13/01
Tert-Butanol	< 80	80	ug/L	EPA 8260B	3/13/01
TPH as Gasoline	29000	800	ug/L	EPA 8260B	3/13/01
TPH as Diesel	< 1300	1300	ug/L	M EPA 8015	3/10/01
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	3/13/01
4-Bromofluorobenzene (Surr)	97.3		% Recovery	EPA 8260B	3/13/01

Approved By:  Joel Kiff

19465

Aqua Science Engineers, Inc.  
 208 W. El Pintado Road  
 Danville, CA 94526  
 (925) 820-9391  
 FAX (925) 837-4853

# Chain of Custody

PAGE 1 OF 1

SAMPLER (SIGNATURE) Sid Radebe (PHONE NO.) 925-820-9391

PROJECT NAME Saidian-Alameda JOB NO. 3648  
 ADDRESS 1310 Central Ave, Alameda, CA DATE 3/5/01

## ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:  
5 Day TAT  
Standard

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH-GAS / MTBE & BTEX (EPA 5030/8015-8020)	TPH-GASOLINE (EPA 5030/8015)	TPH-DIESEL (EPA 3510/8015)	PURGEABLE HALOCARBONS (EPA 601/8010)	PURGEABLE AROMATICS (EPA 602/8020)	VOLATILE ORGANICS (EPA 624/8240)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	OIL & GREASE (EPA 5520)	LUFT METALS (S) (EPA 6010+7000)	CAM 17 METALS (EPA 6010+7000)	PCBs & PESTICIDES (EPA 608/8080)	ORGANOPHOSPHORUS PESTICIDES (EPA 8140) (EPA 608/8080)	ORGANOCHLORINE HERBICIDES (EPA 8150)	FUEL OXYGENATES (EPA 8260)	TPH-Gas/S Oxy's / BTEX (8260)	COMPOSITE
-01 MW-1	3-5	1635	W	5			X												X	
-02 MW-2	3-5	1605	↓	↓			X												X	
-03 MW-3	3-5	1715	↓	↓			X												X	

RELINQUISHED BY:  
Sid Radebe 1150  
 (signature) (time)  
Erik Radebe 5-6-01  
 (printed name) (date)

RECEIVED BY:  
 \_\_\_\_\_  
 (signature) (time)  
 \_\_\_\_\_  
 (printed name) (date)

RELINQUISHED BY:  
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 (signature) (time)  
 \_\_\_\_\_  
 (printed name) (date)

RECEIVED BY LABORATORY:  
John Cutler 1155  
 (signature) (time)  
JOHN CUTLER 030601  
 (printed name) (date)

COMMENTS:

Company-  
ASE

Company-  
 \_\_\_\_\_

Company-  
 \_\_\_\_\_

Company-  
KIFE ANALYTICAL

# TABLES

TABLE ONE  
GROUNDWATER ELEVATION DATA

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
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
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



## TABLE TWO

### Summary of Chemical Analysis of GROUNDWATER Samples

#### Saldian Property-Alameda

#### Petroleum Hydrocarbons

All results are in parts per billion

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	TAME	TBA	Other Oxygenates
<u>MW-1</u>										
9/6/1999	5,700	8,700	170	59	22	85	20,000	NA	NA	NA
5/16/2000	20,000	< 7,500	38	6.3	740	1,600	< 5.0	< 5.0	< 50	< 5.0
8/3/2000	20,000	< 6,000	56	9.7	920	1,600	< 0.5	< 0.5	< 50	< 0.5
12/5/2000	31,000	< 4,000	64	27	820	2,200	< 10	< 5.0	< 50	< 5.0
3/5/2001	20,000	< 4,000	19	< 5.0	480	870	< 5.0	< 5.0	< 50	< 5.0
<u>MW-2</u>										
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	< 50	< 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
<u>MW-3</u>										
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
DHS MCL	NE	NE	1	150	700	1,750	13	NE	NE	VARIES

Notes:

MTBE = Methyl-t-butyl ether

TAME = Tert-amyl methyl ether

TBA = Tert-Butanol

DHS MCL is the California Department of Health Services maximum contaminant level for drinking water.

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: Saidjan - Alameda  
 Job #: 3648 Date of sampling: 3-5-01  
 Well Name: MW-1 Sampled by: EP  
 Total depth of well (feet): 18.0 Well diameter (inches): 2  
 Depth to water before sampling (feet): 3.04  
 Thickness of floating product if any: -  
 Depth of well casing in water (feet): 14.96  
 Number of gallons per well casing volume (gallons): 2.54  
 Number of well casing volumes to be removed: 4  
 Req'd volume of groundwater to be purged before sampling (gallons): 10.17  
 Equipment used to purge the well: bailer  
 Time Evacuation Began: 1810 Time Evacuation Finished: 1830  
 Approximate volume of groundwater purged: 10  
 Did the well go dry?: no After how many gallons: -  
 Time samples were collected: 1835  
 Depth to water at time of sampling: 3.52  
 Percent recovery at time of sampling: 86%  
 Samples collected with: bailer  
 Sample color: brown/gray Odor: slight H<sub>2</sub>S odor - visible sheen  
 Description of sediment in sample: silt - fine sand

## CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>17.1</u>	<u>7.78</u>	<u>1</u>
<u>2</u>	<u>17.2</u>	<u>7.74</u>	<u>1</u>
<u>3</u>	<u>17.1</u>	<u>7.71</u>	<u>1</u>
<u>4</u>	<u>17.1</u>	<u>7.74</u>	<u>1</u>

## SAMPLES COLLECTED

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



# WELL SAMPLING FIELD LOG

Project Name and Address: Sadigan Alameda  
 Job #: 3698 Date of sampling: 3-5-01  
 Well Name: MW-7 Sampled by: EP  
 Total depth of well (feet): 17.8 Well diameter (inches): 2"  
 Depth to water before sampling (feet): 3.28  
 Thickness of floating product if any: -  
 Depth of well casing in water (feet): 14.52  
 Number of gallons per well casing volume (gallons): 2.46  
 Number of well casing volumes to be removed: 4  
 Req'd volume of groundwater to be purged before sampling (gallons): 9.8  
 Equipment used to purge the well: bailer  
 Time Evacuation Began: 1530 Time Evacuation Finished: 15:55  
 Approximate volume of groundwater purged: 10  
 Did the well go dry?: 1530 No After how many gallons: -  
 Time samples were collected: 1605  
 Depth to water at time of sampling: 4.02  
 Percent recovery at time of sampling: 76%  
 Samples collected with: bailer  
 Sample color: brown Odor: none  
 Description of sediment in sample: silt

## CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	17.8	8.06	1
2	17.8	8.10	1
3	17.8	8.04	1
4	17.8	8.05	1

## SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>MW-7</u>	<u>5</u>	<u>50ML VOA</u>	<u>X</u>	<u>X</u>	



# WELL SAMPLING FIELD LOG

Project Name and Address: Saidian - Alameda  
 Job #: 3698 Date of sampling: 3-5-01  
 Well Name: MW-3 Sampled by: EP  
 Total depth of well (feet): 18 Well diameter (inches): 2  
 Depth to water before sampling (feet): 1.90 - pressure builds up due to J-plug  
 Thickness of floating product if any: -  
 Depth of well casing in water (feet): 16.10  
 Number of gallons per well casing volume (gallons): 2.73  
 Number of well casing volumes to be removed: 4  
 Req'd volume of groundwater to be purged before sampling (gallons): 10.95  
 Equipment used to purge the well: bailer  
 Time Evacuation Began: 1645 Time Evacuation Finished: 1705  
 Approximate volume of groundwater purged: 11 gal  
 Did the well go dry?: NO After how many gallons: -  
 Time samples were collected: 17:15  
 Depth to water at time of sampling: 2.10  
 Percent recovery at time of sampling: 90%  
 Samples collected with: bailer  
 Sample color: brown/grey Odor: moderat HC odor - visible steam  
 Description of sediment in sample: silt - fine sand

## CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>18.0</u>	<u>7.63</u>	<u>1</u>
<u>2</u>	<u>17.8</u>	<u>7.72</u>	<u>1</u>
<u>3</u>	<u>17.8</u>	<u>7.68</u>	<u>1</u>
<u>4</u>	<u>17.9</u>	<u>7.70</u>	<u>1</u>

## SAMPLES COLLECTED

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

## **APPENDIX B**

Certified Analytical Report  
and  
Chain of Custody Documentation



Report Number : 19465

Date : 3/14/01

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 with a large initial "J".

Joel Kiff



Report Number : 19465

Date : 3/14/01

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

## Case Narrative

The Method Reporting Limit for TPH as Diesel has been increased due to interference from Gasoline-Range Hydrocarbons for the following samples:

MW-1  
MW-3

Approved By:  \_\_\_\_\_  
Joel Kiff

720 Olive Drive, Suite D Davis, CA 95616 916-297-4800





Report Number : 19465

Date : 3/14/01

Project Name : Saidian-Alameda

Project Number : 3648

Sample : MW-1

Matrix : Water

Lab Number : 19465-01

Sample Date : 3/5/01

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	19	5.0	ug/L	EPA 8260B	3/11/01
Toluene	< 5.0	5.0	ug/L	EPA 8260B	3/11/01
Ethylbenzene	480	5.0	ug/L	EPA 8260B	3/11/01
Total Xylenes	870	5.0	ug/L	EPA 8260B	3/11/01
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	3/11/01
Diisopropyl ether (DIPE)	< 5.0	5.0	ug/L	EPA 8260B	3/11/01
Ethyl-t-butyl ether (ETBE)	< 5.0	5.0	ug/L	EPA 8260B	3/11/01
Tert-amyl methyl ether (TAME)	< 5.0	5.0	ug/L	EPA 8260B	3/11/01
Tert-Butanol	< 50	50	ug/L	EPA 8260B	3/11/01
TPH as Gasoline	20000	2000	ug/L	EPA 8260B	3/13/01
TPH as Diesel	< 4000	4000	ug/L	M EPA 8015	3/10/01
Toluene - d8 (Surr)	106		% Recovery	EPA 8260B	3/11/01
4-Bromofluorobenzene (Surr)	96.2		% Recovery	EPA 8260B	3/11/01

Approved By:  Joel Kiff



Report Number : 19465

Date : 3/14/01

Project Name : Saidian-Alameda

Project Number : 3648

Sample : MW-2

Matrix : Water

Lab Number : 19465-02

Sample Date : 3/5/01

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/11/01
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/11/01
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/11/01
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/11/01
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/11/01
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	3/11/01
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	3/11/01
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	3/11/01
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	3/11/01
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/11/01
TPH as Diesel	< 50	50	ug/L	M EPA 8015	3/10/01
Toluene - d8 (Surr)	96.2		% Recovery	EPA 8260B	3/11/01
4-Bromofluorobenzene (Surr)	91.2		% Recovery	EPA 8260B	3/11/01

Approved By:  Joel Kiff



Report Number : 19465

Date : 3/14/01

Project Name : Saidian-Alameda

Project Number 3648

Sample : MW-3

Matrix : Water

Lab Number : 19465-03

Sample Date :3/5/01

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	2100	8.0	ug/L	EPA 8260B	3/13/01
Toluene	68	8.0	ug/L	EPA 8260B	3/13/01
Ethylbenzene	280	8.0	ug/L	EPA 8260B	3/13/01
Total Xylenes	100	8.0	ug/L	EPA 8260B	3/13/01
Methyl-t-butyl ether (MTBE)	180	8.0	ug/L	EPA 8260B	3/13/01
Diisopropyl ether (DIPE)	< 8.0	8.0	ug/L	EPA 8260B	3/13/01
Ethyl-t-butyl ether (ETBE)	< 8.0	8.0	ug/L	EPA 8260B	3/13/01
Tert-amyl methyl ether (TAME)	< 8.0	8.0	ug/L	EPA 8260B	3/13/01
Tert-Butanol	< 80	80	ug/L	EPA 8260B	3/13/01
TPH as Gasoline	29000	800	ug/L	EPA 8260B	3/13/01
TPH as Diesel	< 1300	1300	ug/L	M EPA 8015	3/10/01
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	3/13/01
4-Bromofluorobenzene (Surr)	97.3		% Recovery	EPA 8260B	3/13/01

Approved By:  Joel Kiff

19465

Aqua Science Engineers, Inc.  
 208 W. El Pintado Road  
 Danville, CA 94526  
 (925) 820-9391  
 FAX (925) 837-4853

# Chain of Custody

PAGE 1 OF 1

SAMPLER (SIGNATURE) Erik Paddeloni (PHONE NO.) 925-820-9391

PROJECT NAME Saidien-Alameda JOB NO. 3648  
 ADDRESS 1310 Central Ave, Alameda, CA DATE 3/5/01

## ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:  
5 Day TAT  
Standard

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH-GAS / MTBE & BTEX (EPA 5030/8015-8020)	TPH-GASOLINE (EPA 5030/8015)	TPH-DIESEL (EPA 3510/8015)	PURGEABLE HALOCARBONS (EPA 601/8010)	PURGEABLE AROMATICS (EPA 602/8020)	VOLATILE ORGANICS (EPA 624/8240)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	OIL & GREASE (EPA 5520)	LUFT METALS (S) (EPA 6010+7000)	CAM 17 METALS (EPA 6010+7000)	PCBs & PESTICIDES (EPA 608/8080)	ORGANOPHOSPHORUS PESTICIDES (EPA 8140) (EPA 608/8080)	ORGANOCHLORINE HERBICIDES (EPA 8150)	FUEL OXYGENATES (EPA 8260)	TPH-Gas/S Oxy's / BTEX (8260)	COMPOSITE	
-01 MW-1	3-5	1635	W	5			X												X		
-02 MW-2	3-5	1605	↓	↓			X												X		
-03 MW-3	3-5	1715	↓	↓			X												X		

RELINQUISHED BY:  
Erik Paddeloni 1150  
 (signature) (time)

RECEIVED BY:  
 \_\_\_\_\_  
 (signature) (time)

RELINQUISHED BY:  
 \_\_\_\_\_  
 (signature) (time)

RECEIVED BY LABORATORY:  
John Cutler 1155  
 (signature) (time)

COMMENTS:

Erik Paddeloni 5-6-01  
 (printed name) (date)

\_\_\_\_\_  
 (printed name) (date)

\_\_\_\_\_  
 (printed name) (date)

JOHN CUTLER 030601  
 (printed name) (date)

Company-  
ASE

Company-  
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Company-  
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Company-  
KIPP ANALYTICAL