aqua science engineers inc.

January 30, 2004

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REPORT
for
SOIL AND GROUNDWATER ASSESSMENT
at the
Alameda Gas Service Station
1310 Central Avenue
Alameda, California

Submitted by:
AQUA SCIENCE ENGINEERS, INC.
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Danville, CA 94526
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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. Amir Gholami
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

This submittal presents Aqua Science Engineers, Inc. (ASE)'s results for an additional soil and groundwater assessment at the Alameda Gas Service Station located at 1310 Central Avenue in Alameda, California (Figure 1). The site assessment activities were initiated by Mr. Nissan Saidian, property owner, as required by the Alameda County Health Care Services Agency (ACHCSA).

2.0 BACKGROUND INFORMATION

The subject site is currently a small operating gasoline service station.

2.1 May 1996 Underground Storage Tank Removal

In May 1996, Petrotek removed one 10,000-gallon gasoline underground storage tank (UST), one 7,500-gallon gasoline UST, and one 5,000-gallon gasoline UST from the western corner of the site. All associated piping and dispensers were also removed. In addition, one 500-gallon waste-oil UST was removed from a location adjacent to the building. Soil samples collected during the UST removal contained elevated hydrocarbon concentrations, and free-product was observed on groundwater within the UST excavation. Apparently, 600 tons of contaminated soil were removed from the site and disposed of off-site, and approximately 15,000 gallons of water and product were pumped from the excavation, treated and discharged into the storm sewer. Two new USTs were installed in the former UST excavations. New dispensers and piping were also installed. It is ASE's understanding that Petrotek did not issue a report regarding these activities.

2.2 November 1998 Soil Boring Assessment

In November 1998, All Environmental, Inc. (AEI) drilled 14 soil borings at the site and collected soil and groundwater samples for analysis. Up to 5,900 parts per million (ppm) total petroleum hydrocarbons as gasoline (TPH-G) were detected in soil samples collected from the borings. Up to 120,000 parts per billion (ppb) TPH-G and 7,200 ppb benzene were detected in groundwater samples collected from the borings.

2.3 December 1999 Monitoring Well Installation

In December 1999, HerSchy Environmental of Bass Lake, California installed three groundwater monitoring wells at the site (Figure 2). Up to 43,000 ppb TPH-G, 8,700 ppb total petroleum hydrocarbons as diesel (TPH-D), 1,300 ppb benzene and 120,000 ppb methyl tertiary butyl ether (MTBE) were detected in groundwater samples collected from the monitoring wells. The groundwater flow direction was to the southwest at a gradient of 0.0085-feet/foot.

2.4 May 2000 Monitoring Well Sampling

On May 16, 2000, ASE collected groundwater samples from the three site monitoring wells. Groundwater samples collected from monitoring well MW-1 contained 2,000 ppb TPH-G, 38 ppb benzene, 6.3 ppb toluene, 740 ppb ethyl benzene, and 1,600 ppb total xylenes. No MTBE or other oxygenates were detected in this groundwater sample. The groundwater samples collected from monitoring well MW-3 contained 17,000 ppb TPH-G, 2,800 ppb benzene, 60 ppb toluene, 380 ppb ethyl benzene, 190 ppb total xylenes, 990 ppb MTBE, 9.1 ppb tert-amyl methyl ether (TAME) and 350 ppb tert-butanol (TBA). No hydrocarbons were detected in groundwater samples collected from monitoring well MW-2. These results are significantly different to the previous results, especially in respect to hydrocarbon concentrations in monitoring well MW-2, and the MTBE concentrations throughout the site. The radically different MTBE concentrations this sampling period are probably related to the use of EPA Method 8260 this period which is a much more reliable method for MTBE identification than EPA Method 8020, which was used during the December 1999 sampling. It appears that the very high MTBE concentrations detected in December 1999 were a false positive. The groundwater flow direction on May 16, 2000 was to the west-southwest.

2.5 July 2000 Soil Boring Assessment

On July 28, 2000, ASE drilled soil borings BH-A through BH-L at the site using a Geoprobe hydraulic sampling rig (Figure 2). The soil samples collected from 3.0-feet below ground surface (bgs) in boring BH-K contained 0.0061 ppm of MTBE. There were no hydrocarbons or oxygenates detected in soil samples from the remaining borings. The groundwater samples collected from boring BH-A contained 0.7 ppb toluene and 0.9 ppb total xylenes. The groundwater samples collected from boring BH-B contained 1,800 ppb TPH-G, 270 ppb benzene, 8.8 ppb toluene, 18 ppb ethyl benzene, 13 ppb total xylenes, 4,100 ppb MTBE, 5.6 ppb TAME, and 440 ppb TBA. The groundwater samples collected from boring BH-C contained 230 ppb TPH-G, 11 ppb benzene, 1.2 ppb toluene, 0.96 ppb total xylenes, 760 ppb MTBE, 6.6 ppb TAME, and 130 ppb TBA. The groundwater samples collected from boring BH-D contained 72 ppb TPH-D and 1.7 ppb MTBE. The groundwater samples collected from boring BH-I contained 0.55 ppb MTBE. The groundwater samples collected from boring BH-J contained 200 ppb TPH-D. The groundwater samples collected from boring BH-K contained 520 ppb TPH-D and 0.77 ppb MTBE. The groundwater samples collected from boring BH-L contained 2.5 ppb MTBE. The analytical results for the soil and

groundwater samples collected during this assessment are tabulated in Tables One and Two.

2.5 Quarterly Groundwater Monitoring

The site continues to be sampled on a quarterly basis. Depth to water data and hydrocarbons concentrations in groundwater are tabulated in Tables Three and Four. There has been variation in the calculated groundwater flow direction during the period of the groundwater monitoring program. The predominant groundwater flow direction has been to the southwest. However, based on the hydrocarbon distribution off-site, the groundwater flow direction appears to be to the northwest.

2.5 December 2002 Subsurface Conduit Study

In December 2002, ASE performed a conduit study to determine whether subsurface utility lines could provide a conduit for the movement of groundwater. ASE contacted Underground Service Alert (USA) to mark underground utility lines in the site vicinity, reviewed sewer line maps at the Alameda City Department of Public Works office, and placed phone calls to agencies whose marks were not visible in the street areas to confirm that no lines were present in these areas. The locations of all lines are shown on Figure 2. The backfill material used throughout the City of Alameda is the same native sand that was removed to create the trenches. Since groundwater beneath the site ranges in depth from 1.9 to 5.6-feet bgs, and the typical depth to groundwater in the site vicinity ranges from 2.75 to 5.5-feet bgs, groundwater almost certainly exists in the backfill of the utility trenches near the site. Although it appears that groundwater is likely present in utility line trenches, it does not appear that the utility lines act as a conduit for the movement of groundwater since (a) the backfill of the utility trenches is the exact same sandy material as the native material, and (b) the Geoprobe borings containing the highest hydrocarbon concentrations are located beyond the conduits and their associated trenches. Even though it does not appear that the utility lines are conduits for the movement of groundwater, the ACHCSA requested that water samples be collected from the sewer to determine whether contaminated groundwater may have entered the sewer line through seams or cracks.

3.0 SCOPE OF WORK (SOW)

ASE's scope of work was to further delineate the extent of soil and groundwater contamination off-site. To accomplish this task, ASE prepared the following scope of work:

1) Prepare a workplan and health and safety plan for submittal to the Alameda County Health Care Services Agency (ACHCSA).

2) Obtain a drilling permit from the Alameda County Public Works Agency and an encroachment permit from the City of Alameda to drill in city right of way areas.

3) Drill four (4) soil borings in areas off-site and collect soil and groundwater samples for analysis.

4) Collect liquid samples from the sewer lines up and downgradient of the site.

5) Analyze one soil and one groundwater sample from each boring and the liquid sample from the sewer line at a CAL-EPA certified analytical laboratory for TPH-D by modified EPA Method 3510/8015, and TPH-G, benzene, toluene, ethylbenzene and total xylenes (collectively known as BTEX) and fuel oxygenates by EPA Method 8260.

6) Following collection of the soil and groundwater samples, each boring will be backfilled with neat cement to the ground surface.

7) Prepare a report presenting results from this assessment.

Details of the assessment are presented below.

4.0 PERMITS

Prior to drilling, ASE obtained a drilling permit from the Alameda County Public Works Agency (ACPWA) and an excavation permit from the City of Alameda. ASE also notified Underground Service Alert (USA) to have underground utility lines marked in the site vicinity. Copies of the drilling and encroachment permits are presented in Appendix A.

5.0 DRILL SOIL BORINGS AND COLLECT SAMPLES

5.1 Drilling and Soil Sampling

On January 14, 2004, Vironex, Inc. of San Leandro, California drilled soil borings BH-M through BH-P at the site using a Geoprobe hydraulic sampling rig (Figure 2). The drilling was directed by ASE associate geologist Damian Hriciga.

Undisturbed soil samples were collected continuously as drilling progressed for lithologic and hydrogeologic description and for possible analysis. The samples were collected by driving a sampler lined with acetate tubes using hydraulic direct push methods. Selective soil samples were immediately trimmed, sealed with Teflon tape, plastic end caps and tape, labeled, sealed in plastic bags and stored on ice for transport to Kiff Analytical, LLC of Davis, California under chain of custody. Soil from the remaining tubes was described by the site geologist using the Unified Soil Classification System and was screened for volatile compounds using an Organic Vapor Meter (OVM). The soil was screened by emptying soil from one of the sample tubes into a plastic bag. The bag was then sealed and placed in the sun for approximately 10 minutes. After the volatile compounds were allowed to volatilize, the OVM measured the vapor in the bag through a small hole punched in the bag. OVM readings are used as a screening tool only, since the procedures are not as rigorous as those used in the laboratory. OVM readings can be found on the boring logs located in Appendix B.

5.2 Groundwater Sample Collection

Groundwater samples were removed from the borings using a bailer. The groundwater samples were contained in 40-ml volatile organic analysis (VOA) vials (pre-preserved with hydrochloric acid) and sealed without headspace. The samples were then labeled and stored on ice for transport to Kiff Analytical, LLC under chain of custody.

5.3 Boring Backfilling and Equipment Decontamination

Upon completion of the soil and groundwater sampling, the borings were backfilled with neat cement to the ground surface.

Drilling equipment was cleaned with a trisodium phosphate (TSP) solution between sampling intervals and between borings to prevent potential cross-contamination.

5.4 Sediments Encountered

Sediments encountered during drilling generally consisted of silty sand to the total depth explored of 5-feet bgs. This lithology is consistent with previous investigations. Groundwater was encountered at approximately 3.0-feet bgs. Boring logs are presented as Appendix B.

5.0 ANALYTICAL RESULTS FOR SOIL

Soil samples collected from 2.5-feet bgs in borings BH-M and BH-N and 2.0-feet bgs in borings BH-O and BH-P were analyzed by Kiff Analytical, LLC for TPH-D by modified EPA Method 3510/8015, and TPH-G, BTEX and fuel oxygenates by EPA Method 8260. These samples represent the capillary zone in each boring. The analytical results are tabulated in Table Five and the certified analytical report and chain of custody forms are included in Appendix C.

The soil sample collected from 2.5-feet bgs in boring BH-M contained 68 ppm TPH-D. The soil sample collected from 2.5-feet bgs in boring BH-N contained 7.2 ppm TPH-D. The soil sample collected from 2.0-feet bgs in boring BH-O contained 2.2 ppm TPH-D. The soil sample collected from 2.0-feet bgs in boring BH-P contained 4.9 ppm TPH-D. The analytical laboratory noted that all of the TPH-D reported in the soil samples exhibited a non-typical chromatographic pattern. All of the hydrocarbons exhibited higher boiling point than typical diesel fuel. No BTEX or oxygenates were detected in any of the soil samples analyzed.

6.0 ANALYTICAL RESULTS FOR GROUNDWATER

The groundwater samples were analyzed by Kiff Analytical, LLC for TPH-D by modified EPA Method 3510/8015, and TPH-G, BTEX and fuel oxygenates by EPA Method 8260. The analytical results are tabulated in Table Six, and the certified analytical report and chain of custody forms are included in Appendix D. TPH-G, benzene, and MTBE isoconcentration maps are presented as Figures 3, 4, and 5, respectively. Since these isoconcentration maps show concentrations during this assessment as well as concentrations from samples collected over three years ago, these maps may not represent actual current site conditions. It should be noted that the hydrocarbon concentrations on-site have decreased significantly during this period.

The groundwater samples collected from boring BH-M contained 170 ppb TPH-D. The groundwater samples collected from boring BH-N contained

68 ppb TPH-D. The groundwater samples collected from boring BH-O contained 100 ppb TPH-D and 19 ppb MTBE. The groundwater samples collected from boring BH-P contained 72 ppb TPH-D. The laboratory noted that the TPH-D reported in the groundwater sample collected from boring BH-M exhibited a non-typical chromatographic pattern. No TPH-G or BTEX were detected in any of the groundwater samples analyzed. No oxygenates were detected in any of the groundwater samples other than the MTBE concentration in the groundwater sample collected from BH-O.

7.0 SEWER LIQUID SAMPLE COLLECTION

7.1 Sample Collection

On January 23, 2004, ASE senior geologist Robert Kitay collected water samples from the sewer manholes on the corner of Central Avenue and Sherman Street (this sample was labeled sewer #1) and the corner of Central Avenue and Morton Street (sample labeled sewer #2). The water samples were collected by lowering a bailer into the sewer and collecting a sample of the liquid. The liquid was decanted as much as possible and contained in a 40-ml VOA vial, pre-preserved with hydrochloric acid, and sealed without headspace. The samples were then labeled and stored on ice for transport to Kiff Analytical, LLC under chain of custody. Only one VOA could be collected from each location.

7.2 Sample Analysis

The samples were analyzed by Kiff Analytical, LLC for TPH-G, BTEX and fuel oxygenates by EPA Method 8260. The analytical results are tabulated in Table Seven, and the certified analytical report and chain of custody forms are included in Appendix D.

The only compound detected in these samples was TPH-G at 67 ppb in sewer #1 (downgradient most sample) and 72 ppb in sewer #2 (the upgradient most sample). In both cases, the laboratory noted that the hydrocarbons reported as TPH-G did not exhibit a typical gasoline chromatographic pattern. No BTEX or oxygenates were detected in either sample. Since both the upgradient and downgradient sewer samples contained virtually identical TPH-G concentrations and no BTEX or oxyenates, it does not appear that this sewer is being impacted by groundwater contamination related to the site and that this line is not a conduit for the movement of groundwater contamination.

8.0 CONCLUSIONS AND RECOMMENDATION

The soil samples analyzed from all four borings contained very low concentrations of TPH-D at a maximum concentration of 68 ppm TPH-D, and the analytical laboratory noted that all of the hydrocarbons reported as TPH-D exhibited a non-typical diesel chromatographic pattern. No TPH-G, BTEX or oxygenates were detected in any of the soil samples analyzed. Based on these concentrations, none of the soil in these off-site borings presents a threat to human health or the environment.

The groundwater samples collected from all four borings contained TPH-D at concentrations up to 170 ppb TPH-D. The laboratory noted that the TPH-D reported in the groundwater sample collected from boring BH-M exhibited a non-typical chromatographic pattern, with a higher boiling point than typical diesel fuel. This sample contained the highest TPH-D concentration, and all of the other samples contained no more than 100 ppb TPH-D. The groundwater samples collected from boring BH-O contained 19 ppb MTBE. None of the other samples contained detectable concentrations of TPH-G, BTEX or oxygenates.

Only very low concentrations of TPH-G were detected in liquid samples collected from the sewer both upgradient and downgradient of the site. No BTEX or oxygenates were detected in either of these samples. Based on these results (both for the sewer and groundwater samples), it does not appear that the sewer line is a potential conduit for the movement of groundwater. It appears that groundwater moves to the northwest across Central Avenue and crosses Sherman Street approximately 100-feet north of Central Avenue. The MTBE concentration at this point is only 19 ppb.

It appears that the extent of contamination is defined in each direction except to the northwest. Although the downgradient extent of MTBE is not completely defined, the downgradient most boring contains only 19 ppb MTBE. ASE recommends the installation of one downgradient groundwater monitoring well near boring BH-O as well as one additional boring further to the northwest on Sherman Street to completely define the extent of groundwater contamination in this direction.

9.0 REPORT LIMITATIONS

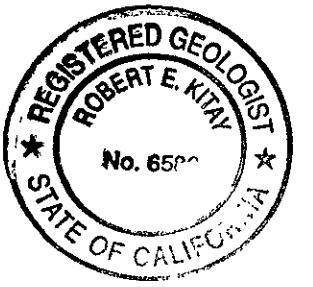
The results presented in this report represent conditions at the time of the soil and groundwater sampling, at the specific locations where the samples were collected, and for the specific parameters analyzed by the laboratory.

This report 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 CA-DHS certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

Aqua Science Engineers appreciates the opportunity 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.



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

Attachments: Tables One through Seven
Figures 1 through 5
Appendices A through D

cc: Mr. Nissan Saidian
Mr. Amir Gholami, ACHCSA
Mr. Chuck Headlee, RWQCB, San Francisco Bay Region

TABLES

TABLE ONE

Summary of Chemical Analysis of SOIL Samples

Alameda Gas - Collected on July 29, 2000

Petroleum Hydrocarbons

All results are in parts per million

Boring - Depth	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	TAME	TBA	Other Oxygenates
BH-A-3.5'	< 1.0	< 1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
BH-B-2.5'	< 1.0	< 1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
BH-C-3.0'	< 1.0	< 1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
BH-D-3.0'	< 1.0	< 1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
BH-E-3.0'	< 1.0	< 1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
BH-F-3.0'	< 1.0	< 1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
BH-G-3.0'	< 1.0	< 1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
BH-H-3.0'	< 1.0	< 1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
BH-I-3.0'	< 1.0	< 1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
ESL	100	100	0.044	2.9	3.3	1.5	0.023	NE	NE	NE

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TABLE ONE

Summary of Chemical Analysis of SOIL Samples

Alameda Gas - Collected on July 29, 2000

Petroleum Hydrocarbons

All results are in parts per million

Boring	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	TAME	TBA	Other Oxygenates
BH-J-3.0'	< 1.0	< 1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
BH-K-3.0'	< 1.0	< 1.0	< 0.005	< 0.005	< 0.005	< 0.005	**0.0061**	< 0.005	< 0.005	< 0.005
BH-L-3.5'	< 1.0	< 1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
ESL	100	100	0.044	2.9	3.3	1.5	0.023	NE	NE	NE

Notes:

MTBE = Methyl-t-butyl ether

TAME = Tert-amyl methyl ether

TBA = Tert-Butanol

ESL = Environmental Screening Level established by the RWQCB for shallow residential soil where groundwater is a current or potential source of drinking water.

NE = ESL has not been established.

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

Detectable concentrations are in bold.

TABLE TWO

Summary of Chemical Analysis of GROUNDWATER Samples

Alameda Gas - Collected on July 29, 2000

Petroleum Hydrocarbons

All results are in parts per billion

Boring	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	TAME	TBA	Other Oxygenates
BH-A	< 50	< 50	< 0.5	0.7	< 0.5	0.9	< 0.5	< 0.5	< 5.0	< 0.5
BH-B	1,800	< 2,000	270	8.8	18	13	4,100	5.6	440	< 3.0
BH-C	230	< 100	11	1.2	< 0.5	0.96	760	6.6	130	< 0.5
BH-D	< 50	72	< 0.5	< 0.5	< 0.5	< 0.5	1.7	< 0.5	< 5.0	< 0.5
BH-E	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5
BH-F	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5
BH-G	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5
BH-H	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5
BH-I	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	0.55	< 0.5	< 5.0	< 0.5
ESL	100	100	1	2.9	3.3	1.5	5	NE	NE	VARIES

table continued on next page

TABLE TWO

Summary of Chemical Analysis of GROUNDWATER Samples

Alameda Gas - Collected on July 29, 2000

Petroleum Hydrocarbons

All results are in parts per billion

Boring	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	TAME	TBA	Other Oxygenates
BH-J	< 50	**200**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5
BH-K	< 50	**520**	< 0.5	< 0.5	< 0.5	< 0.5	**0.77**	< 0.5	< 5.0	< 0.5
BH-L	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	**2.5**	< 0.5	< 5.0	< 0.5
ESL	100	100	1	2.9	3.3	1.5	5	NE	NE	VARIES

Notes:

MTBE = Methyl-t-butyl ether

TAME = Tert-amyl methyl ether

TBA = Tert-Butanol

ESL is the Environmental Screening Level established by the RWQCB for sites where groundwater is a current or potential source of drinking water.

NE = ESL is not established.

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

Detectable concentrations are in bold.

TABLE THREE
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
	3/10/03		3.50	23.35
	6/3/03		3.66	23.19
	9/18/03		4.91	21.94
	12/22/03		**4.30**	**22.55**
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
	3/10/03		3.58	23.60
	6/3/03		3.87	23.31
	9/18/03		5.24	21.94
	12/22/03		**4.47**	**22.71**
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
	3/10/03		2.36	22.94
	6/3/03		2.65	22.65
	9/19/03		3.15	22.15
	12/22/03		**2.83**	**22.47**

TABLE FOUR

Summary of Chemical Analysis of GROUNDWATER Samples

Saidian Property-Alameda

Petroleum Hydrocarbons

All results are in parts per billion (ppb)

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	TAME	TBA	Other Oxygenates
MW-1										
9/6/99	5,700	8,700	170	59	22	85	20,000	NA	NA	NA
5/16/00	20,000	< 7,500	38	6.3	740	1,600	< 5.0	< 5.0	< 50	< 5.0
8/3/00	20,000	< 6,000	56	9.7	920	1,600	< 0.5	< 0.5	< 50	< 0.5
12/5/00	31,000	< 4,000	64	27	820	2,200	< 10	< 5.0	< 50	< 5.0
3/5/01	20,000	<4,000	19	<5.0	480	870	<5.0	<5.0	<50	<5.0
6/4/01	23,000	<7,000	58	50	710	2,100	5.1	<5.0	<50	<5.0
6/5/02	7,400	<1,500	9.3	6.7	180	230	<1.0	<1.0	<10	<1.0
9/9/02	8,300	< 3,500	32	20	390	670	< 2.0	< 2.0	< 20	< 2.0
12/19/02	5,100	--	7.9	2.5	56	93	< 1.0	< 1.0	< 10	< 1.0
3/10/03	2,000	< 2,000	3.4	2.9	80	98	< 0.5	< 0.5	< 5.0	< 0.5
6/3/03	7,300	< 4,000	6.8	9.9	300	1000	2.3	< 0.5	< 5.0	< 0.5
9/18/03	9,000	< 3,000	26	22	420	1200	4.5	< 1.5	< 20	< 1.5
12/22/03	**4,300**	**< 2,000**	**12**	**6.7**	**200**	**290**	**9.1**	**< 1.0**	**< 10**	**< 1.0**
MW-2										
9/6/99	6,000	70	1,300	92	50	400	6,800	NA	NA	NA
5/16/00	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 50	< 5.0
8/3/00	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5
12/5/00	< 50	1,400	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5
3/5/01	<50	<50	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5
6/4/01	<50	<50	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5
6/5/02	< 50	2,300	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5
9/9/02	< 50	1,300	< 0.5	< 0.5	< 0.5	< 0.5	1.4	< 0.5	< 5.0	< 0.5
12/19/02	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	16	< 0.5	< 5.0	< 0.5
3/10/03	< 50	3,000	< 0.5	< 0.5	< 0.5	< 0.5	1.0	< 0.5	< 5.0	< 0.5
6/3/03	< 50	700	< 0.5	< 0.5	< 0.5	< 0.5	2.0	< 0.5	< 5.0	< 0.5
9/18/03	< 50	1,400	< 0.5	< 0.5	< 0.5	< 0.5	4.7	< 0.5	< 5.0	< 0.5
12/22/03	**< 50**	**1,000**	**< 0.5**	**< 0.5**	**< 0.5**	**< 0.5**	**39**	**< 0.5**	**< 5.0**	**< 0.5**
MW-3										
9/6/99	43,000	870	860	70	< 0.5	65	120,000	NA	NA	NA
5/16/00	17,000	< 5,000	2,800	60	380	190	990	9.1	350	< 5.0
8/3/00	16,000	< 2,000	1,600	29	210	53	1,200	21	260	< 2.0
12/5/00	17,000	5,800	1,700	45	460	240	1,100	21	230	< 5.0
3/5/01	29,000	<1300	2,100	68	280	100	180	<8.0	<80	<8.0
6/4/01	17,000	<6,000	2,000	56	340	230	300	<10	130	<10
6/5/02	11,000	<2,000	1,600	46	210	47	790	<10	220	<10
9/9/02	12,000	< 800	1,400	44	130	27	760	< 10	160	< 10
12/19/02	10,000	--	740	32	180	38	86	< 5.0	< 50	< 5.0
3/10/03	13,000	< 6,000	1,200	42	240	35	470	5.3	140	< 5.0
6/3/03	6,500	< 3,000	750	21	46	15	1,300	< 50	280	< 2.5
9/18/03	9,800	< 3,000	1,500	38	170	32	420	< 10	150	< 10
12/22/03	**8,800**	**< 2,000**	**1,100**	**32**	**82**	**20**	**330**	**5.8**	**52**	**< 5.0**
ESL	500	640	46	130	290	13	1,800	NE	NE	VARIES

Notes:

MTBE = Methyl-t-butyl ether

TAME = Tert-amyl methyl ether

TBA = Tert-Butanol

ESL = Environmental screening levels presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (July 2003)" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region.

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.

TABLE FIVE

Summary of Chemical Analysis of SOIL Samples

Alameda Gas - Collected on January 14, 2004

Petroleum Hydrocarbons

All results are in parts per million

Boring	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	TAME	TBA	Other Oxygenates
BH-M-2.5'	< 1.0	**68***	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
BH-N-2.5'	< 1.0	**7.2***	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
BH-O-2.0'	< 1.0	**2.2***	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
BH-P-2.0'	< 1.0	**4.9***	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
ESL	100	100	0.044	2.9	3.3	1.5	0.023	NE	NE	NE

Notes:

MTBE = Methyl-t-butyl ether

TAME = Tert-amyl methyl ether

TBA = Tert-Butanol

ESL = Environmental Screening Level established by the RWQCB for shallow residential soil where groundwater is a current or potential source of drinking water.

NE = ESL has not been established.

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

Detectable concentrations are in bold.

* = Laboratory noted that the hydrocarbons reported as TPH-D exhibited a non-typical diesel pattern.

TABLE SIX

Summary of Chemical Analysis of GROUNDWATER Samples

Alameda Gas - Collected on January 11, 2004

Petroleum Hydrocarbons

All results are in parts per billion

Boring	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	TAME	TBA	Other Oxygenates
BH-M	< 50	**170***	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5
BH-N	< 50	**68**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5
BH-O	< 50	**100**	< 0.5	< 0.5	< 0.5	< 0.5	**19**	< 0.5	< 5.0	< 0.5
BH-P	< 50	**72**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5
ESL	100	100	1	2.9	3.3	1.5	5	NE	NE	VARIES

Notes:

MTBE = Methyl-t-butyl ether

TAME = Tert-amyl methyl ether

TBA = Tert-Butanol

ESL is the Environmental Screening Level established by the RWQCB for sites where groundwater is a current or potential source of drinking water.

NE = ESL is not established.

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

Detectable concentrations are in bold.

* = Laboratory noted that the hydrocarbons reported as TPH-D exhibited a non-typical diesel pattern.

TABLE SEVEN

Summary of Chemical Analysis of SEWER WATER Samples

Alameda Gas - Collected on January 23, 2004

Petroleum Hydrocarbons

All results are in parts per billion

Boring	TPH Gasoline	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	TAME	TBA	Other Oxygenates
Sewer #1	**67***	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5
Sewer #2	**72***	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5
ESL	100	1	2.9	3.3	1.5	5	NE	NE	VARIES

Notes:

MTBE = Methyl-t-butyl ether

TAME = Tert-amyl methyl ether

TBA = Tert-Butanol

ESL is the Environmental Screening Level established by the RWQCB for sites where groundwater is a current or potential source of drinking water.

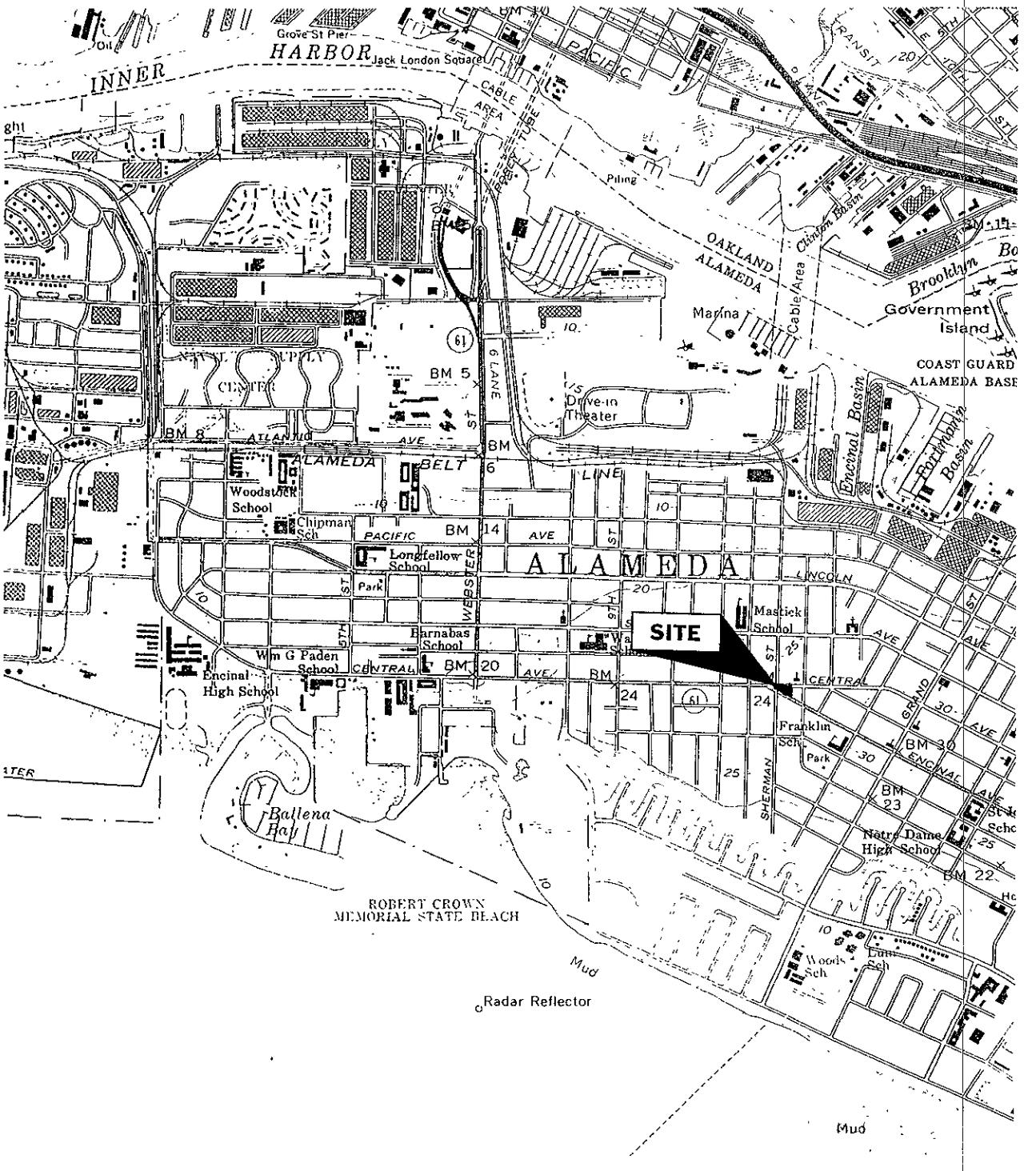
NE = ESL is not established.

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

Detectable concentrations are in bold.

* = Laboratory noted that the hydrocarbons reported as TPH-G exhibited a non-typical gasoline pattern.

FIGURES



NORTH

LOCATION MAP

SAIDIAN PROPERTY
1310 CENTRAL AVENUE
ALAMEDA, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC. | Figure 1

BH-O

BH-N

RESIDENTIAL

Telephone

8" Sewer Line

RESIDENTIAL

SIDEWALK

BH-P

BH-M BH-B BH-C BH-D Telephone BH-E Water BH-F

6" Sewer Line
Approx. 4.5' BGS

Telephone

6" Sewer Line
Approx. 4.15' BGS

Gas

CENTRAL AVENUE

Gas

ISLAND

SIDEWALK

BH-L

MW-3

APPROXIMATE LOCATION OF FORMER AND CURRENT USTs

CANOPY

MW-1

BH-A

CASHIER

SERVICE BAYS

MW-2

SIDEWALK

Gas

ERMAN STREET

Approx. 4.06' BGS

RESIDENTIAL

BH-K

BH-J

BH-I

RESIDENTIAL

ENCINAL AVENUE

BH-

SIDEWALK

6" Sewer Line
Approx. 3.48' BGS

LEGEND

WATER LINE
SEWER LINE
GAS LINE
TELEPHONE LINE

BORING LOCATION

MONITORING WELL

NORTH

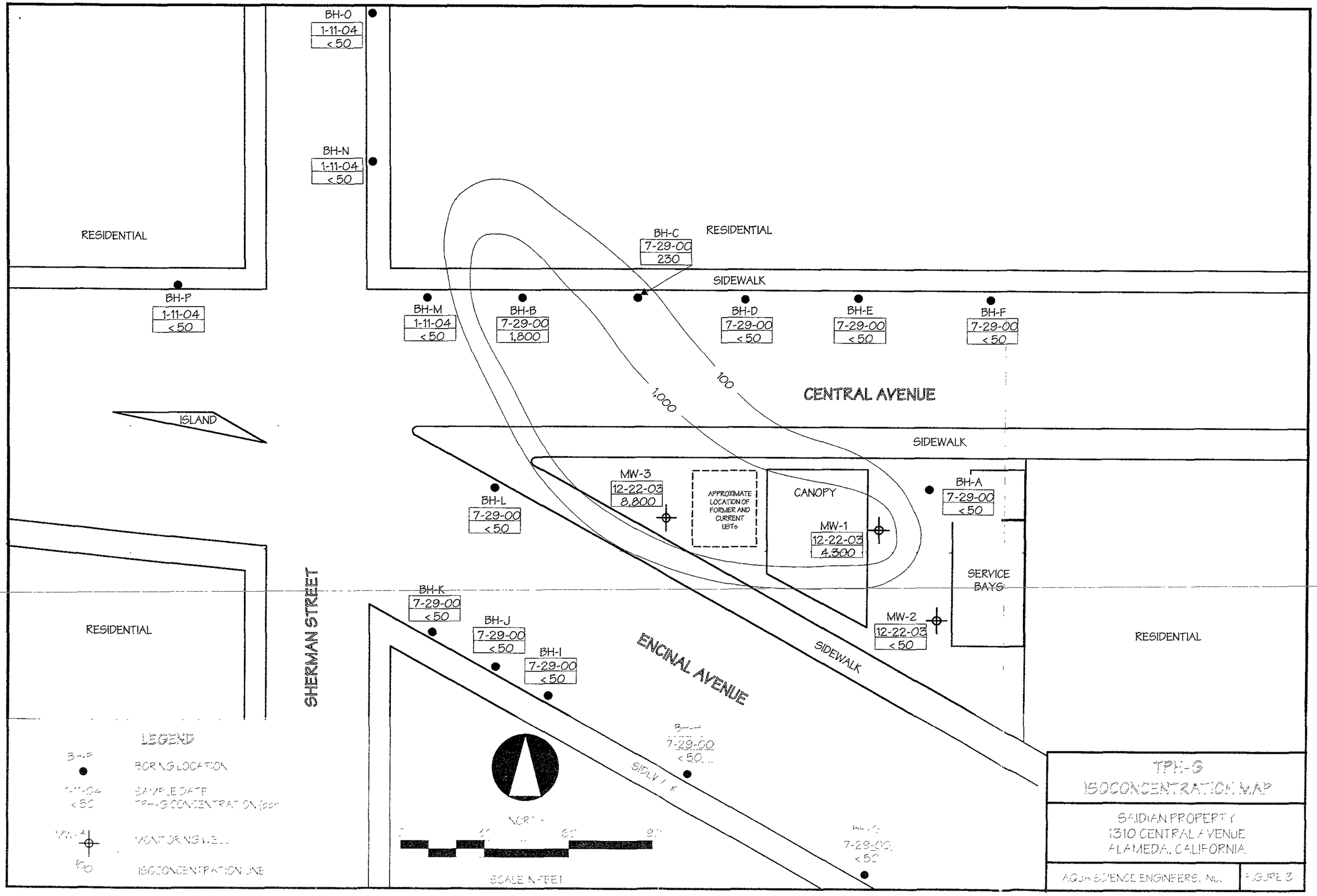
0 30 60 90

SCALE IN FEET

UNDERGROUND UTILITY & BORING LOCATION MAP

SAIDIAN PROPERTY
1310 CENTRAL AVENUE
ALAMEDA, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC. | FIGURE 2


BH-0
1-11-04
< 50
BH-N
1-11-04
< 50
RESIDENTIAL
BH-C
7-29-00
230
RESIDENTIAL
SIDEWALK
BH-P
1-11-04
< 50
BH-M
1-11-04
< 50
BH-B
7-29-00
1,800
BH-D
7-29-00
< 50
BH-E
7-29-00
< 50
BH-F
7-29-00
< 50
100
1,000
CENTRAL AVENUE
ISLAND
SIDEWALK
MW-3
12-22-03
8,800
APPROXIMATE LOCATION OF FORMER AND CURRENT USTs
CANOPY
MW-1
12-22-03
4,300
BH-A
7-29-00
< 50
BH-L
7-29-00
< 50
SERVICE BAYS
BH-K
7-29-00
< 50
BH-J
7-29-00
< 50
BH-I
7-29-00
< 50
MW-2
12-22-03
< 50
SHERMAN STREET
ENCINAL AVENUE
SIDEWALK
RESIDENTIAL
RESIDENTIAL
LEGEND
BORING LOCATION
SAMPLE DATE
TPH-G CONCENTRATION (ppb)
MONITORING WELL
ISOCONCENTRATION LINE
NORTH
SCALE IN FEET
7-29-00
< 50
TPH-G
ISOCONCENTRATION MAP
SAIDIAN PROPERTY
1310 CENTRAL AVENUE
ALAMEDA, CALIFORNIA
AQUA SCIENCE ENGINEERS, INC.
FIGURE 3

BH-O
1-11-04
< 0.5

BH-N
1-11-04
< 0.5

RESIDENTIAL

RESIDENTIAL

BH-C
7-29-00
11

SIDEWALK

BH-P
1-11-04
< 0.5

BH-M
1-11-04
< 0.5

BH-B
7-29-00
270

BH-D
7-29-00
< 0.5

BH-E
7-29-00
< 0.5

BH-F
7-29-00
< 0.5

10

100

1,000

CENTRAL AVENUE

ISLAND

SIDEWALK

MW-3
12-22-03
1,100

APPROXIMATE LOCATION OF FORMER AND CURRENT USTs

CANOPY

MW-1
12-22-03
12

BH-A
7-29-00
< 0.5

BH-L
7-29-00
< 0.5

SERVICE BAYS

MW-2
12-22-03
< 0.5

SHERMAN STREET

BH-K
7-29-00
< 0.5

BH-J
7-29-00
< 0.5

BH-I
7-29-00
< 0.5

RESIDENTIAL

RESIDENTIAL

ENCINAL AVENUE

SIDEWALK

BH-F
7-29-00
< 0.5

LEGEND

MW-3 MONITORING WELL

BORING LOCATION

SAMPLE DATE
BENZENE CONCENTRATION (ppb)

10 ISOCONCENTRATION LINE

NORTH

0 30 60 90

SCALE IN FEET

BH-G
7-29-00
< 0.5

BENZENE ISOCONCENTRATION MAP

SHIDIAN PROPERTY
1310 CENTRAL AVENUE
ALAMEDA, CALIFORNIA

ACRON ENGINEERS, INC. | FIGURE 4

BH-0
1-11-04
19

BH-N
1-11-04
< 0.5

RESIDENTIAL

RESIDENTIAL

SIDEWALK

BH-P
1-11-04
< 0.5

BH-M
1-11-04
< 0.5

BH-B
7-29-00
~~5.6~~
4100

BH-C
7-29-00
~~6.0~~
760

BH-D
7-29-00
< 0.5

BH-E
7-29-00
< 0.5

BH-F
7-29-00
< 0.5

CENTRAL AVENUE

ISLAND

SIDEWALK

MW-3
12-22-03
330

APPROXIMATE LOCATION OF FORMER AND CURRENT USTs

CANOPY

BH-A
7-29-00
< 0.5

BH-L
7-29-00
2.5

MW-1
12-22-03
9.1

SERVICE BAYS

100

10

1

BH-K
7-29-00
0.77

MW-2
12-22-03
39

SIDEWALK

RESIDENTIAL

RESIDENTIAL

SHERMAN STREET

BH-I
7-29-00
0.55

BH-J

LEGEND

SITE
SOCONCENTRATION MAP

SHIDIA PROPERTY
1310 CENTRAL AVENUE
ALAMEDA, CALIFORNIA

APPENDIX A

Permits

2263 SANTA CLARA AVENUE, ROOM 190
ALAMEDA, CA 94501

CITY OF ALAMEDA

(510) 748-4530
FAX (510) 748-4548

RIGHT OF WAY PERMIT: EX03-0247

Applicant Information
AQUA SCIENCE ENGINEERS, INC.
208 W. EL PINTADO
DANVILLE, CA 94526
925-820-9391

Contractor Information
AQUA SCIENCE ENGINEERS, INC.
208 W. EL PINTADO
DANVILLE, CA 94526
925-820-9391

Owner Information
SPATZ GARTH E & JANELLE TRS
1314 ENCINAL AV
ALAMEDA, CA 94501

Project Information
Status: **ISSUED**
Applied: **12/19/2003**
Issued: **01/09/2004**
Type: **Right-of-Way Permit**
Finaled:
Expires: **01/08/2005**
Category: **NA**
Sub-Type: **NA**
Parcel Number: **072-0341-005-00**
Valuation: **$132.25**
Job Address: **1314 ENCINAL AVE, ALAMEDA, CA 94501**
Work Description: **(IFO 1314 ENCINAL FOR 1310 CENTRAL AVE) DRILL SOIL BORINGS FOR GROUNDWATER SAMPLES FOR 1310 CENTRAL AVE**

INSPECTIONS

Building: **(510) 748-4564 (7:30-9:30 AM)**
Plumbing & Mechanical: **(510) 748-4563 (7:30-9:30 AM)**
Electrical: **(510) 748-4634 (7:30-9:30 AM)**
Fire: **(510) 749-5885**
Design Review: **(510) 748-4554**

ITEM #	FEE DESCRIPTION	ACCOUNT CODE	UNITS	FEE AMOUNT	PAID
250	250-Filing Fee (per activity)	4520-37450 (1050)	1	$39.00	$39.00
620	620-Records Management Fee	99409-37900 (1464)	1	$3.40	$3.40
782	782-Engineering Plan Check Fee (free form)	4225-37160 (6319)	88	$88.00	$88 00
2999	Permit Tracking Fee	4520-33063 (1051)	1	$1.95	$1.95
				Total Fees:	$132 35

RECEIPT #	PAYMENT METHOD	COMMENTS/PAYEE	RECEIPT DATE	RECEIPT AMT
410000	Check	AQUA SCIENCE ENGINEERS, INC.	12/19/2003	$132.35
			Total Payments:	$132.35
			Balance Due:	$0.00

**** See application for additional requirements ****

INSPECTIONS

(510) 749-5840

Note: All construction within the public right of way must have barricades with flashers for night time protection.

This is to certify that the above work has been completed to my satisfaction and approval.

Date

Inspector

BUILDING SERVICES
CITY OF ALAMEDA

City of Alameda
2263 Santa Clara Avenue, Room 190
Alameda, CA 94501
(510) ~~748-4530~~ 747-6800
Attn: Robert @ 925-837-4853

Submit in Duplicate

RIGHT-OF-WAY PERMIT APPLICATION

_____ SERVICE NUMBER

DATE 12-17 ~~19~~ 2003

Application is hereby made to occupy or perform work in the public right-of-way on the North side of

Central Avenue Ave./St. 50 feet east and west

Of Sherman Street (EO 1314 Encinal)

House No. 1310 Central Ave Owner Nissan Sudian

For the purpose of drilling soil borings for groundwater samples

Name of Applicant Aqua Science Engineers Address 208 W. El Pintado City/State Danville, CA 94526

Contractor's License No. 487010 City Business License No. _____ Phone Number (925) 820-9391

INDICATE LOCATION BELOW OR ATTACH SEPARATE SHEET SHOWING LOCATION

PLEASE NOTE THE FOLLOWING:

1. Urban runoff program requires that no contaminants, including dirt, enter the storm drain system. Contractor is required to protect inlets. ***Failure to comply is subject to $200/day fine.***
2. 48 hour advance notice is required for inspection. Contact: Engineering Division, Construction Inspection office at 749-5840. Required inspections: Trenching, backfill, concrete, traffic/pedestrian detours, urban runoff, final inspection. ***Failure to obtain inspection prior to work may result in rejection of said work.***
3. All striping, painted graphics and pavement markers damaged or destroyed by street excavation work must be restored by the permittee.
4. All construction within the Public Right-of-Way must have barricades with flashers for night time protection.
5. All work involved is to be done in accordance with standard City of Alameda specifications and City of Alameda practices, all to the satisfaction of the City Engineer. Standard details are attached. Inspection charges shall be paid to the City monthly.
6. Processing time for routine permits is 5 days. Permits requiring extensive research may require up to 15 days
7. ***FAILURE TO OBTAIN INSPECTIONS PRIOR TO COMPLETION OF WORK IS SUBJECT TO ADDITIONAL INSPECTION COSTS AT A RATE OF $32.70 PER HOUR.***

Acceptance of this permit constitutes acceptance of the conditions included.

Roy E. Finley Date 12-17-03

APPLICANT SIGNATURE

SPECIAL CONDITIONS

- ☐ NO OPEN TRENCH CUTTING
- ☐ STATE PERMIT REQUIRED
- ☐ ADDITIONAL SETS OF PLANS AND SPECIFICATIONS TO THE ENGINEERING DIVISION PRIOR TO CONSTRUCTION
  # ____ OF SETS
- ☐ OTHER _____

RECEIVED DATE 12/9/2003 SIGNED N. Sugg PERMIT NO. EX03-0247

APPROVED DATE 1-7-03 SIGNED _____

ISSUED DATE 1/10/04 SIGNED _____

BUILDING SERVICES
CITY OF ALAMEDA

City of Alameda
2263 Santa Clara Avenue, Room 190
Alameda, CA 94501
(510) ~~748-4530~~ 747-6800
Attn: Robert @ 925-837-4853

Submit in Duplicate

RIGHT-OF-WAY PERMIT APPLICATION

_____ SERVICE NUMBER

DATE 12-19 2003

Application is hereby made to occupy or perform work in the public right-of-way on the North side of

Central Avenue Ave./St. 50 feet east and west

Of Sherman Street (EO 1314 ENCINAL)

House No. 1310 Central Ave Owner Nissan Saidian

For the purpose of drilling soil borings for groundwater samples

Name of Applicant Agua Science Engineers Address 208 W. El Pintado City/State Danville, CA 94526

Contractor's License No. 487000 City Business License No. _____ Phone Number (925) 820-9391

INDICATE LOCATION BELOW OR ATTACH SEPARATE SHEET SHOWING LOCATION

PLEASE NOTE THE FOLLOWING:

1. Urban runoff program requires that no contaminants, including dirt, enter the storm drain system. Contractor is required to protect inlets. ***Failure to comply is subject to $200/day fine.***
2. 48 hour advance notice is required for inspection. Contact: Engineering Division, Construction Inspection office at 749-5840. Required Inspections: Trenching, backfill, concrete, traffic/pedestrian detours, urban runoff, final inspection. ***Failure to obtain inspection prior to work may result in rejection of said work.***
3. All striping, painted graphics and pavement markers damaged or destroyed by street excavation work must be restored by the permittee.
4. All construction within the Public Right-of-Way must have barricades with flashers for night time protection.
5. All work involved is to be done in accordance with standard City of Alameda specifications and City of Alameda practices, all to the satisfaction of the City Engineer. Standard details are attached. Inspection charges shall be paid to the City monthly.
6. Processing time for routine permits is 5 days. Permits requiring extensive research may require up to 15 days.
7. ***FAILURE TO OBTAIN INSPECTIONS PRIOR TO COMPLETION OF WORK IS SUBJECT TO ADDITIONAL INSPECTION COSTS AT A RATE OF $92.70 PER HOUR.***

Acceptance of this permit constitutes acceptance of the conditions included.

Greg E. Kitay Date 12-19-03

APPLICANT SIGNATURE

SPECIAL CONDITIONS

- ☐ NO OPEN TRENCH CUTTING
- ☐ STATE PERMIT REQUIRED
- ☐ ADDITIONAL SETS OF PLANS AND SPECIFICATIONS TO THE ENGINEERING DIVISION PRIOR TO CONSTRUCTION
  # ___ OF SETS
- ☐ OTHER _____

RECEIVED DATE 12/19/2003 SIGNED D. Sligh PERMIT NO. EX03-0247

APPROVED DATE 12-22-03 SIGNED [signature]

ISSUED DATE 1/10/04 SIGNED [signature]

INDEMNITY AND HOLD HARMLESS AGREEMENT

Agua Science Engineers

whose address is 208 W El Pintado, Danville, CA 94526 (hereinafter "Indemnitor") in consideration of obtaining right of-way permits for drilling soil borings

agrees to the following terms and condition:

Indemnitor shall defend, indemnify, and hold harmless City, its City Council, Boards and Commissions, officers and employees from and against any and all loss, damages, liability, claims, suits, costs and expenses whatsoever, including reasonable attorneys' fees, regardless of the merit of outcome of any such claim or suit arising from or in any manner connected to the services or work conducted or performed pursuant to this Agreement.

Indemnitor shall defend, indemnify, and hold harmless City, its City Council, Boards and Commissions, officers and employees from and against any and all loss, damages, liability, claims, suits, costs and expenses whatsoever, including reasonable attorneys' fees, accruing or resulting to any and all persons, firms or corporations furnishing or supplying work, services, materials, equipment or supplies arising from or in any manner connected to the services or work conducted or performed pursuant to this Agreement.

By the signature below, Indemnitor agrees that it has read this Indemnity and Hold harmless Agreement and accepts and agrees to each and every term and condition herein.

INDEMNITOR:

BY: Roy E. Kelley

DATED: 12/9/03

Applicant Notice - Right of Way Permits

In the past two years, the City has experienced a dramatic increase in the number of companies seeking permits to install telecommunications-related facilities in the rights-of-way, resulting in a proliferation of street cuts and the installation of associated equipment, which, among other things, have had an adverse impact on the life and quality of the rights-of-way within the City.

As a result, the City is currently re-evaluating its current right-of-way management policies, and is in the process of preparing a revised, comprehensive ordinance that will establish and/or reinforce policies and procedures designed to enable the City to more effectively manage and control its rights-of-ways.

The City does not wish to hold-up new permit applications during this process, thus, the City has decided not to issue a blanket moratorium on new street-cut permits at this time. However, effective immediately, each new street cut permit issued shall be contain the following condition:

> **By accepting this permit, the holder warrants and agrees that it shall comply with each and every provision of the right-of-way management ordinance that the City is currently preparing. The permit-holder further acknowledges and agrees that compliance with the provisions of the future right-of-way management ordinance is a condition to the continued effectiveness of the permit. Nothing herein is intended to prevent the permit-holder from claiming that a particular provision of the ordinance is prohibited by applicable law, provided that by accepting this permit, the permit-holder agrees that in the event that it raises such a claim, it will nevertheless comply with the subject ordinance provision unless and until permit-holder has been released from the obligation to comply by the City or by a court of competent jurisdiction.**

This condition shall be attached to and become a part of each new street-cut permit issued by the City, with the exception of permits for maintenance and/or repair requested by our existing franchised cable providers and the other utilities maintaining or repairing their existing facilities.

I have read the above and acknowledge the condition to the Permit No. EX03-0247

Company: Agua Science Engineers

Authorized Agent:

Robert E. Kelley	Robert E. Kelley	12-8-03
Print Name	Signature	Date

2263 SANTA CLARA AVENUE, ROOM 190
ALAMEDA, CA 94501

CITY OF ALAMEDA

(510) 748-4530
FAX (510) 748-4548

RIGHT OF WAY PERMIT: EX03-0246

Applicant Information
AQUA SCIENCE ENGINEERS, INC.
208 W. EL PINTADO
DANVILLE, CA 94526
925-820-9391

Contractor Information
AQUA SCIENCE ENGINEERS, INC.
208 W. EL PINTADO
DANVILLE, CA 94526
925-820-9391

Owner Information
SAIDIAN & ZEKTSER LLC & G & Z INC
5977 SKYFARM DR
CASTRO VALLEY, CA 94552

Project Information
Status: **ISSUED**
Type: **Right-of-Way Permit**
Category: **NA**
Sub-Type: **NA**
Parcel Number: **072-0341-001-00**
Job Address: **1310 CENTRAL AVE, ALAMEDA, CA 94501**
Work Description: **DRILL SOIL BORINGS FOR GROUNDWATER SAMPLES @ 1310 CENTRAL AND 1400 SHERMAN**

Applied: **12/19/2003**
Finaled:

Issued: **01/09/2004**
Expires: **01/08/2005**

Valuation: **$199.35**

INSPECTIONS

Building: **(510) 748-4564 (7:30-9:30 AM)**
Plumbing & Mechanical: **(510) 748-4563 (7:30-9:30 AM)**
Electrical: **(510) 748-4634 (7:30-9:30 AM)**
Fire: **(510) 749-5885**
Design Review: **(510) 748-4554**

ITEM #	FEE DESCRIPTION	ACCOUNT CODE	UNITS	FEE AMOUNT	PAID
250	250-Filing Fee (per activity)	4520-37450 (1050)	1	$39.00	$39.00
620	620-Records Management Fee	99409-37900 (1464)	1	$3.40	$3.40
782	782-Engineering Plan Check Fee (free form)	4225-37160 (6319)	88	$88.00	$88.00
1160	1160-Business License Fee	2430-33100 (8000)	67	$67.00	$67.00
2999	Permit Tracking Fee	4520-33063 (1051)	1	$1.95	$1.95

Total Fees: $199.35

RECEIPT #	PAYMENT METHOD	COMMENTS/PAYEE	RECEIPT DATE	RECEIPT AMT
409998	Check	AQUA SCIENCE ENGINEERS,INC.	12/19/2003	$199.35
			Total Payments:	$199.35
			Balance Due:	$0.00

**** See application for additional requirements ****

INSPECTIONS

(510) 749-5840

Note: All construction within the public right of way must have barricades with flashers for night time protection.

This is to certify that the above work has been completed to my satisfaction and approval.

Date

Inspector

BUILDING SERVICES CITY OF ALAMEDA
City of Alameda
2263 Santa Clara Avenue, Room 190
Alameda, CA 94501
(510) ~~748-4530~~ 747-6800
Attn: Robert@ 925-837-4853

Submit in Duplicate

RIGHT-OF-WAY PERMIT APPLICATION

_____ SERVICE NUMBER

DATE 12-19 ~~19~~ 2003

Application is hereby made to occupy or perform work in the public right-of-way on the west side of Sherman Street Ave/St. 20 - 90 feet north Of Central Avenue.

House No. 1310 Central Avenue Owner Nissan Sudian

For the purpose of drilling soil borings for groundwater samples

Name of Applicant Aqua Science Engineers Address 208 W. El Pintado City/State Danville, CA 94526

Contractor's License No. 487000 City Business License No. _____ Phone Number (925) 820-9391

INDICATE LOCATION BELOW OR ATTACH SEPARATE SHEET SHOWING LOCATION

PLEASE NOTE THE FOLLOWING:

1. Urban runoff program requires that no contaminants, including dirt, enter the storm drain system. Contractor is required to protect inlets. ***Failure to comply is subject to $200/day fine.***
2. 48 hour advance notice is required for inspection. Contact Engineering Division, Construction Inspection office at 749-5840. Required Inspections: Trenching, backfill, concrete, traffic/pedestrian detours, urban runoff, final inspection. ***Failure to obtain inspection prior to work may result in rejection of said work.***
3. All striping, painted graphics and pavement markers damaged or destroyed by street excavation work must be restored by the permittee.
4. All construction within the Public Right-of-Way must have barricades with flashers for night time protection.
5. All work involved is to be done in accordance with standard City of Alameda specifications and City of Alameda practices, all to the satisfaction of the City Engineer. Standard details are attached. Inspection charges shall be paid to the City monthly.
6. Processing time for routine permits is 5 days. Permits requiring extensive research may require up to 15 days.
7. ***FAILURE TO OBTAIN INSPECTIONS PRIOR TO COMPLETION OF WORK IS SUBJECT TO ADDITIONAL INSPECTION COSTS AT A RATE OF $32.70 PER HOUR.***

Acceptance of this permit constitutes acceptance of the conditions included.

_____ Date 12-19-03
APPLICANT SIGNATURE

SPECIAL CONDITIONS

- ☐ NO OPEN TRENCH CUTTING
- ☐ STATE PERMIT REQUIRED
- ☐ ADDITIONAL SETS OF PLANS AND SPECIFICATIONS TO THE ENGINEERING DIVISION PRIOR TO CONSTRUCTION
  # ____ OF SETS
- ☐ OTHER _____

RECEIVED DATE 1/7/04 SIGNED _____ PERMIT NO. EX03-0246

APPROVED DATE 1/7/04 SIGNED _____

ISSUED DATE 1/11/04 SIGNED _____

INDEMNITY AND HOLD HARMLESS AGREEMENT

Agua Science Engineers

whose address is 208 W El Pintado, Danville, CA 94526 (hereinafter "Indemnitor") in consideration of obtaining right of-way permits for drilling soil borings

agrees to the following terms and condition:

Indemnitor shall defend, indemnify, and hold harmless City, its City Council, Boards and Commissions, officers and employees from and against any and all loss, damages, liability, claims, suits, costs and expenses whatsoever, including reasonable attorneys' fees, regardless of the merit of outcome of any such claim or suit arising from or in any manner connected to the services or work conducted or performed pursuant to this Agreement.

Indemnitor shall defend, indemnify, and hold harmless City, its City Council, Boards and Commissions, officers and employees from and against any and all loss, damages, liability, claims, suits, costs and expenses whatsoever, including reasonable attorneys' fees, accruing or resulting to any and all persons, firms or corporations furnishing or supplying work, services, materials, equipment or supplies arising from or in any manner connected to the services or work conducted or performed pursuant to this Agreement.

By the signature below, Indemnitor agrees that it has read this Indemnity and Hold harmless Agreement and accepts and agrees to each and every term and condition herein.

INDEMNITOR:

BY: Roy E. Kelley

DATED: 12/9/03

Applicant Notice - Right of Way Permits

In the past two years, the City has experienced a dramatic increase in the number of companies seeking permits to install telecommunications-related facilities in the rights-of-way, resulting in a proliferation of street cuts and the installation of associated equipment, which, among other things, have had an adverse impact on the life and quality of the rights-of-way within the City.

As a result, the City is currently re-evaluating its current right-of-way management policies, and is in the process of preparing a revised, comprehensive ordinance that will establish and/or reinforce policies and procedures designed to enable the City to more effectively manage and control its rights-of-ways.

The City does not wish to hold-up new permit applications during this process, thus, the City has decided not to issue a blanket moratorium on new street-cut permits at this time. However, effective immediately, each new street cut permit issued shall be contain the following condition:

> **By accepting this permit, the holder warrants and agrees that it shall comply with each and every provision of the right-of-way management ordinance that the City is currently preparing. The permit-holder further acknowledges and agrees that compliance with the provisions of the future right-of-way management ordinance is a condition to the continued effectiveness of the permit. Nothing herein is intended to prevent the permit-holder from claiming that a particular provision of the ordinance is prohibited by applicable law, provided that by accepting this permit, the permit-holder agrees that in the event that it raises such a claim, it will nevertheless comply with the subject ordinance provision unless and until permit-holder has been released from the obligation to comply by the City or by a court of competent jurisdiction.**

This condition shall be attached to and become a part of each new street-cut permit issued by the City, with the exception of permits for maintenance and/or repair requested by our existing franchised cable providers and the other utilities maintaining or repairing their existing facilities.

I have read the above and acknowledge the condition to the Permit No. EX03-0246

Company: Aguon Science Engineers

Authorized Agent:

Robert E. Kirby — Print Name

Robert E. Kirby — Signature

12-10-03 — Date

✔ *Applicant: Please check work to be performed* ✔

✔	WORK PERFORMED	STANDARDS AND DETAILS	Inspection Required	Estimated Inspection Time (# of Hrs)	Fee per Hour
	SAW CUTTING	Urban Runoff controls including sandbagging inlets and either vacuum OR street sweeping	. Daily		
✓	LANE CLOSURE	Contractor must provide detour plan prior to closure and include signage, cones, lighted barricades to Engineering Office. If parking lane is obstructed by work, contractor must PURCHASE "No Parking, Tow-away Signs" and post 48 hours in advance.	. After placing detour controls . At removal of detour controls		
	STREET DETOUR	Contractor must provide detour plan prior to detour and include signage, cones, lighted barricades. If parking lane is obstructed by work, contractor must PURCHASE "No Parking, Tow-away Signs" and post 48 hours in advance.	. After placing detour controls . At removal of detour controls		
	SIDEWALK CLOSURE/ DETOUR	Contractor must provide property signage, cones, lighted barricades to the nearest crosswalk.	. After placing detour controls . At removal of detour controls		
	TRENCHING	Standard Detail 2930, Case 22 – Trenches must be plated and if in travel lane, must be filleted. Plates cannot remain for more than 5 days; cutback is required after 5 days	. Once plates are in place.		
	BACK FILL	City requires 90% minimum compaction under sidewalks; and 95% minimum compaction under streets and driveways and curbs and gutters. Contractor must provide compaction testing results from an accredited lab prior to covering work.	. Completion of backfill compaction.		
	CONCRETE WORK	Standard Details 6297, Case 24 – Form work and Pour.	. Form work . Approval of mix design		
	FINAL INSPECTION	Clean-up of all Right-of-Way; repair of all damages.	. At completion of work		
	INSPECTION FEE TOTAL				$

Inspection must be scheduled at least ***48-hours in advance***. To schedule an inspection call (510)

Fees due @ Submittal: @ 67 for business license, if necessary
@ 52 for permit
@ 39 filing fee
@ 3.40 per page/microfiche (if attached)

Revised: 07/20/98

Fees due @ issuance - @ 88 ph if site visit required

G:\CENPERM\BII\FORMS\EXCAV.FRM

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554 MARLON MAGALLANES/FRANK CODD (510) 670-5783
FAX (510)782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT
1310 CENDRA AVE
ALAMEDA, CA

CLIENT
Name MR NISAN SAIDIAN
Address 5735 MEADOW LN Phone 510 268 0211
City CASTRO VALLEY Zip 94552

APPLICANT
Name AQUA SCIENCE ENGINEERS Fax 925 537 4853
Address 208 W EL PINTADO Phone 925 820 9391
City DANVILLE Zip 94526

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	☐	General	☐
Water Supply	☐	Contamination	☑
Monitoring	☐	Well Destruction	☐

PROPOSED WATER SUPPLY WELL USE

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other	☐

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐	Auger	☐
Cable	☐	Other	☒ GEOPROBE		

DRILLER'S NAME VIRONEX
DRILLER'S LICENSE NO. C-57 705927

WELL PROJECTS
Drill Hole Diameter ____ in. Maximum
Casing Diameter ____ in. Depth ____ ft.
Surface Seal Depth ____ ft. Owner's Well Number ____

GEOTECHNICAL PROJECTS
Number of Borings 4 Maximum
Hole Diameter 2 in. Depth 8 ft.

ESTIMATED STARTING DATE 1/14/04
ESTIMATED COMPLETION DATE 1/14/04

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE [signature] DATE 1/8/04

PLEASE PRINT NAME DAMIAN HRICIGA

FOR OFFICE USE

PERMIT NUMBER WO4-0053
WELL NUMBER
APN

PERMIT CONDITIONS
Circled Permit Requirements Apply

A. GENERAL
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL (Contamination)
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind ~~or with compacted cuttings~~.

E. CATHODIC
Fill hole anode zone with concrete placed by tremie.

F. WELL DESTRUCTION
See attached requirements for destruction of shallow wells. Send a map of work site. A different permit application is required for wells deeper than 45 feet.

SPECIAL CONDITIONS B # 1

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

APPROVED [signature] DATE 1-12-04

Rev.6 -5-00

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD, CA. 94544-1395
PHONE (510) 670-6633 James Yoo FAX (510) 782-1939

PERMIT NO. W04-0053

WATER RESOURCES SECTION
GROUNDWATER PROTECTION ORDINANCE
B#1-GENERAL CONDITIONS: GEOTECHNICAL & CONTAMINATION BOREHOLES

1. Prior to any drilling activities shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that Federal, State, County or to the City and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained.

2. Boreholes shall not be left open for a period of more than **24 hours**. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

3. Permitte, permittee's, contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statues regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on-or off site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

4. Permit is valid only for the purpose specified herein **January 14 to January 14, 2004**. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

5. Drilling Permit(s) can be voided/ canceled only in writing. It is the applicants responsibilities to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.

6. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

APPENDIX B

Boring Logs

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS

Boring: BH-M

Project Name: Saidian - Alameda	Project Location: 1310 Central Avenue, Alameda, CA	Page 1 of 1
Driller: Vironex	Type of Rig: Geoprobe	Size of Drill: 2.0" Diameter
Logged By: Damian Hriciga	Date Drilled: January 14, 2004	Checked By: Robert E. Kitay, R.G.

WATER AND WELL DATA

Depth of Water First Encountered: 3.0'

Static Depth of Water in Well: NA

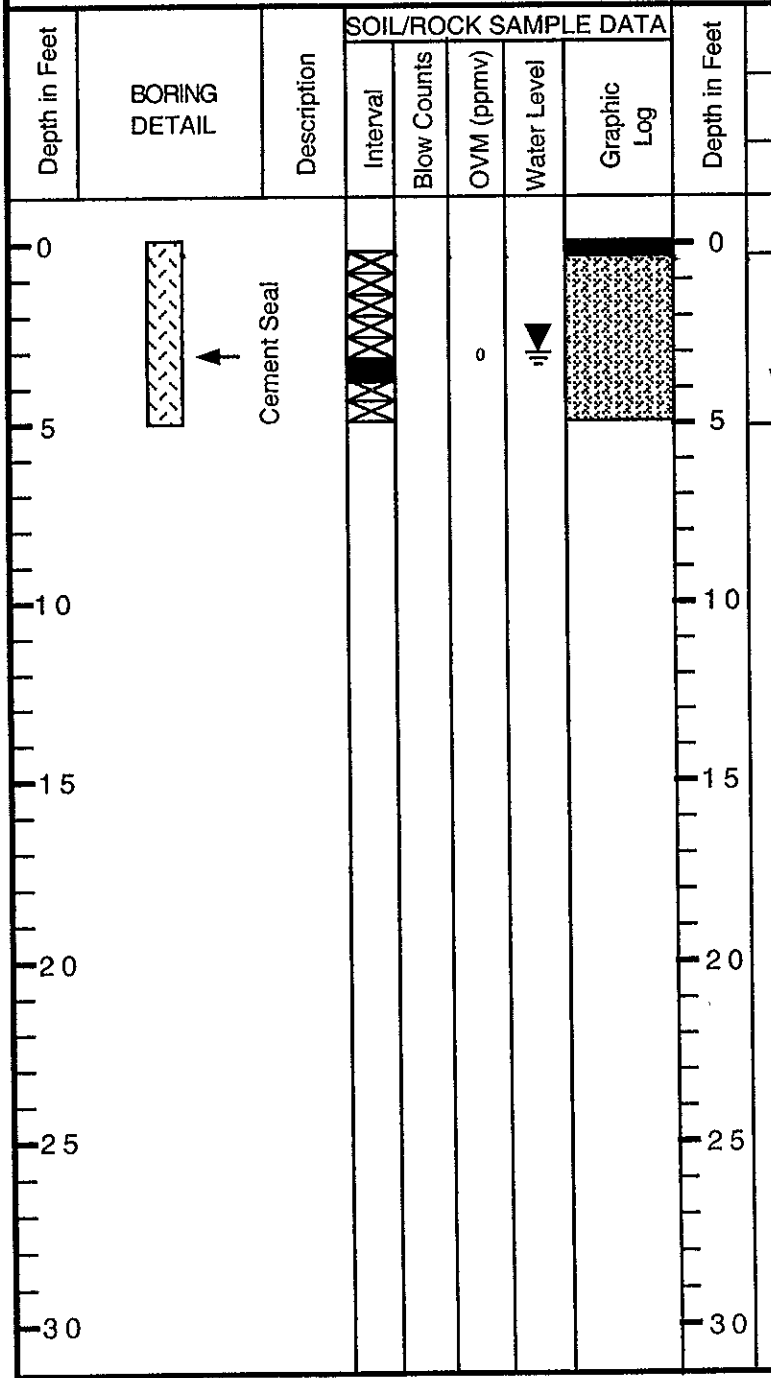
Total Depth of Boring: 5.0'

Total Depth of Well Completed: NA

Well Screen Type and Diameter: NA

Well Screen Slot Size: NA

Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler



DESCRIPTION OF LITHOLOGY

standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.

Concrete

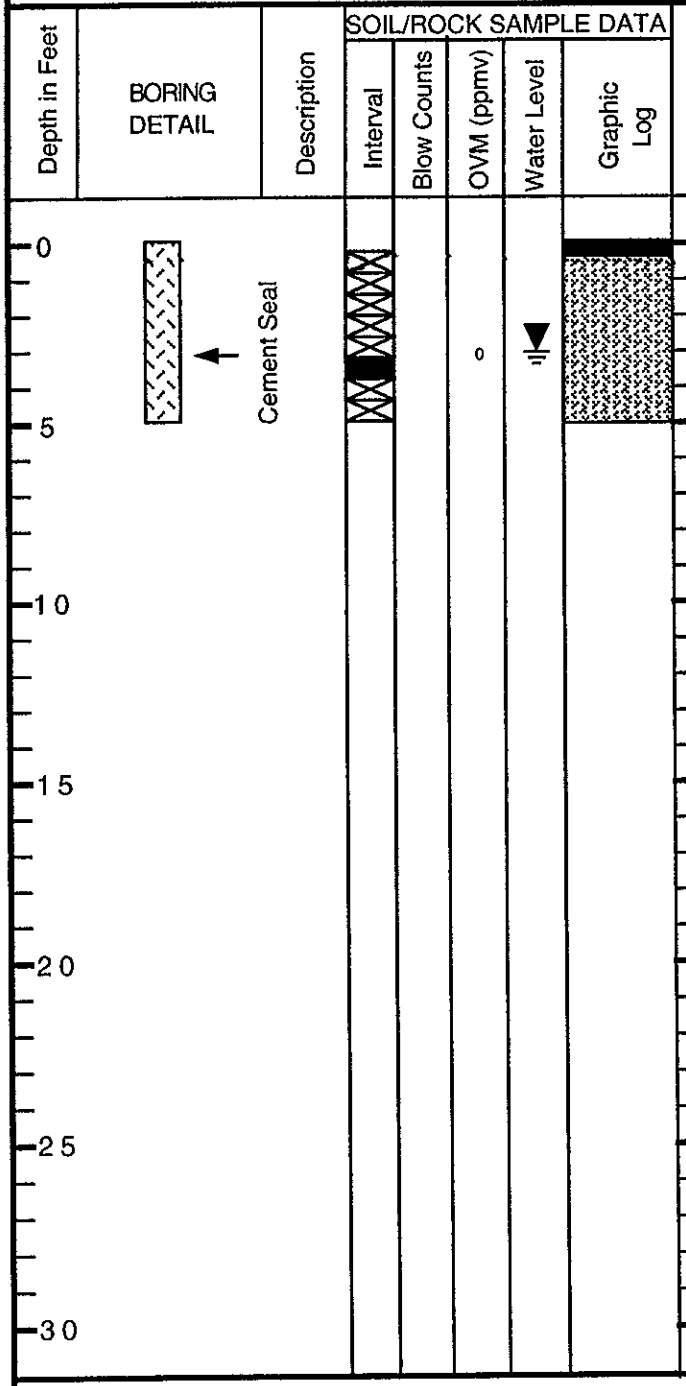
Silty SAND (SM); dark brown to gray; loose; moist; 70% fine sand; 30% silt; trace gravel; non-plastic; high-medium estimated K; no odor
wet at 3'

End of Boring at 5.0'

AQUA SCIENCE ENGINEERS, INC.

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS		Boring: BH-N
Project Name: Saidian - Alameda	Project Location: 1310 Central Avenue, Alameda, CA	Page 1 of 1
Driller: Vironex	Type of Rig: Geoprobe	Size of Drill: 2.0" Diameter
Logged By: Damian Hriciga	Date Drilled: January 14, 2004	Checked By: Robert E. Kitay, R.G.

WATER AND WELL DATA	
Depth of Water First Encountered: 3.0'	Total Depth of Well Completed: NA
Static Depth of Water in Well: NA	Well Screen Type and Diameter: NA
Total Depth of Boring: 5.0'	Well Screen Slot Size: NA
	Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler



Depth in Feet	DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
0	Concrete
	Silty SAND (SM); dark brown to gray; loose; moist; 70% fine sand; 30% silt; trace gravel; non-plastic; high-medium estimated K; no odor wet at 3'
5	End of Boring at 5'
10	
15	
20	
25	
30	

AQUA SCIENCE ENGINEERS, INC.

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS

Boring: BH-O

Project Name: Saidian - Alameda	Project Location: 1310 Central Avenue, Alameda, CA	Page 1 of 1
Driller: Vironex	Type of Rig: Geoprobe	Size of Drill: 2.0" Diameter
Logged By: Damian Hriciga	Date Drilled: January 14, 2004	Checked By: Robert E. Kitay, R.G.

WATER AND WELL DATA

Depth of Water First Encountered: 2.5'

Static Depth of Water in Well: NA

Total Depth of Boring: 5.0'

Total Depth of Well Completed: NA

Well Screen Type and Diameter: NA

Well Screen Slot Size: NA

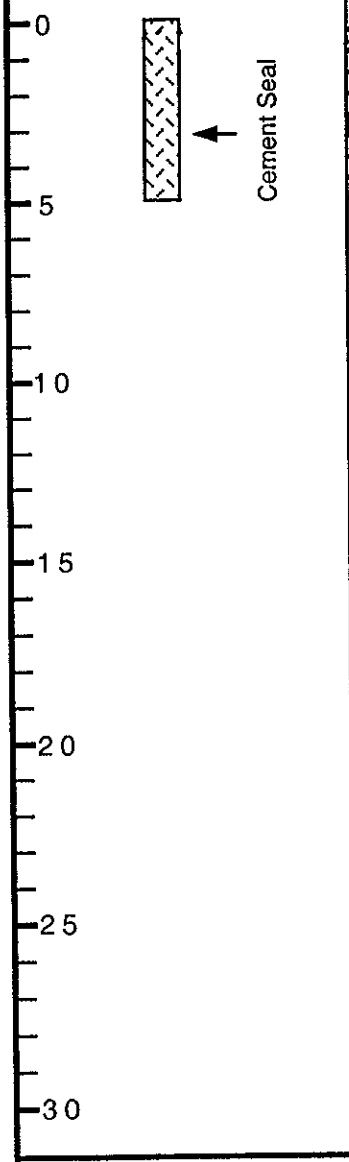
Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler

Depth in Feet	BORING DETAIL	Description	SOIL/ROCK SAMPLE DATA: Interval	Blow Counts	OVM (ppmv)	Water Level	Graphic Log	Depth in Feet	DESCRIPTION OF LITHOLOGY (standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.)
0								0	Top Soil
									Silty SAND (SM); dark brown to gray; loose; moist; 70% fine sand; 30% silt; trace gravel; non-plastic; high-medium estimated K; no odor
					0				wet at 2.5'
5		Cement Seal						5	End of Boring at 5'
10								10	
15								15	
20								20	
25								25	
30								30	

AQUA SCIENCE ENGINEERS, INC.

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS		Boring: BH-P
Project Name: Saidian - Alameda	Project Location: 1310 Central Avenue, Alameda, CA	Page 1 of 1
Driller: Vironex	Type of Rig: Geoprobe	Size of Drill: 2.0" Diameter
Logged By: Damian Hriciga	Date Drilled: January 14, 2004	Checked By: Robert E. Kitay, R.G.

WATER AND WELL DATA	
Depth of Water First Encountered: 2.5'	Total Depth of Well Completed: NA
Static Depth of Water in Well: NA	Well Screen Type and Diameter: NA
Total Depth of Boring: 5.0'	Well Screen Slot Size: NA
	Type and Size of Soil Sampler: 2.0" I.D. Macro Sampler



DESCRIPTION OF LITHOLOGY

standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.

Top Soil

Silty SAND (SM); dark brown to gray; loose; moist; 70% fine sand; 30% silt; trace gravel; non-plastic; high-medium estimated K; no odor
wet at 2.5'

End of Boring at 5'

AQUA SCIENCE ENGINEERS, INC.

APPENDIX C

Certified Analytical Report
and
Chain of Custody Documentation
for
Soil and Groundwater Samples

KIFF ANALYTICAL LLC

Report Number : 36669
Date : 1/22/2004

Damian Hriciga
Aqua Science Engineers, Inc.
208 W. El Pintado Road
Danville, CA 94526

Subject : 4 Soil Samples and 4 Water Samples
Project Name : ALAMEDA
Project Number :

Dear Mr. Hriciga,

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,

Jeff Dahl

KIFF ANALYTICAL LLC

Report Number : 36669
Date : 1/22/2004

Subject : 4 Water Samples and 4 Soil Samples
Project Name : ALAMEDA
Project Number :

Case Narrative

Hydrocarbons reported as TPH as Diesel do not exhibit a typical Diesel chromatographic pattern for samples BH-M, BH-M 2.5', BH-N 2.5', BH-O 2' and BH-P 2'. These hydrocarbons are higher boiling than typical diesel fuel.

Approved By: Jeff Dahl

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

KIFF ANALYTICAL LLC

Report Number : 3666
Date : 1/22/2004

Project Name : **ALAMEDA**

Project Number :

Sample : **BH-M** Matrix : Water Lab Number : 36669-01

Sample Date :1/14/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/17/2004
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	1/17/2004
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/17/2004
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	1/17/2004
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	1/17/2004
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	1/17/2004
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	1/17/2004
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	1/17/2004
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	1/17/2004
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	1/17/2004
Toluene - d8 (Surr)	96.8		% Recovery	EPA 8260B	1/17/2004
4-Bromofluorobenzene (Surr)	110		% Recovery	EPA 8260B	1/17/2004
TPH as Diesel	**170**	50	ug/L	M EPA 8015	1/17/2004
Octacosane (Diesel Surrogate)	112		% Recovery	M EPA 8015	1/17/2004

Approved By: Jeff Dahl

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

KIFF ANALYTICAL LLC

Report Number : 36669
Date : 1/22/2004

Project Name : **ALAMEDA**
Project Number :

Sample : **BH-N** Matrix : Water Lab Number : 36669-02
Sample Date :1/14/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/17/2004
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	1/17/2004
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/17/2004
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	1/17/2004
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	1/17/2004
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	1/17/2004
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	1/17/2004
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	1/17/2004
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	1/17/2004
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	1/17/2004
Toluene - d8 (Surr)	99.2		% Recovery	EPA 8260B	1/17/2004
4-Bromofluorobenzene (Surr)	109		% Recovery	EPA 8260B	1/17/2004
TPH as Diesel	**68**	50	ug/L	M EPA 8015	1/21/2004
Octacosane (Diesel Surrogate)	89.0		% Recovery	M EPA 8015	1/21/2004

Approved By: Jeff Dahl

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

KIFF ANALYTICAL LLC

Report Number : 36669
Date : 1/22/2004

Project Name : **ALAMEDA**
Project Number :

Sample : **BH-O** Matrix : Water Lab Number : 36669-03
Sample Date :1/14/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/16/2004
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	1/16/2004
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/16/2004
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	1/16/2004
Methyl-t-butyl ether (MTBE)	**19**	0.50	ug/L	EPA 8260B	1/16/2004
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	1/16/2004
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	1/16/2004
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	1/16/2004
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	1/16/2004
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	1/16/2004
Toluene - d8 (Surr)	98.1		% Recovery	EPA 8260B	1/16/2004
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	1/16/2004
TPH as Diesel	**100**	50	ug/L	M EPA 8015	1/17/2004
Octacosane (Diesel Surrogate)	120		% Recovery	M EPA 8015	1/17/2004

Approved By: Jeff Dahl

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KIFF ANALYTICAL LLC

Report Number : 36669
Date : 1/22/2004

Project Name : **ALAMEDA**
Project Number :

Sample : **BH-P** Matrix : Water Lab Number : 36669-04
Sample Date :1/14/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/16/2004
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	1/16/2004
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/16/2004
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	1/16/2004
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	1/16/2004
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	1/16/2004
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	1/16/2004
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	1/16/2004
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	1/16/2004
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	1/16/2004
Toluene - d8 (Surr)	98.3		% Recovery	EPA 8260B	1/16/2004
4-Bromofluorobenzene (Surr)	108		% Recovery	EPA 8260B	1/16/2004
TPH as Diesel	**72**	50	ug/L	M EPA 8015	1/17/2004
Octacosane (Diesel Surrogate)	99.7		% Recovery	M EPA 8015	1/17/2004

Approved By: Jeff Dahl

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KIFF ANALYTICAL LLC

Report Number : 36669
Date : 1/22/2004

Project Name : **ALAMEDA**
Project Number :

Sample : **BH-M 2.5'** Matrix : Soil Lab Number : 36669-05
Sample Date :1/14/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Methyl-t-butyl ether (MTBE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Diisopropyl ether (DIPE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Ethyl-t-butyl ether (ETBE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Tert-amyl methyl ether (TAME)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Tert-Butanol	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	1/15/2004
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	1/15/2004
4-Bromofluorobenzene (Surr)	99.9		% Recovery	EPA 8260B	1/15/2004
TPH as Diesel	**68**	10	mg/Kg	M EPA 8015	1/20/2004
1-Chlorooctadecane (Diesel Surrogate)	53.3		% Recovery	M EPA 8015	1/20/2004

Approved By: Jeff Dahl

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

KIFF ANALYTICAL LLC

Report Number : 36669
Date : 1/22/2004

Project Name : **ALAMEDA**
Project Number :

Sample : **BH-N 2.5'** Matrix : Soil Lab Number : 36669-06
Sample Date :1/14/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Methyl-t-butyl ether (MTBE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Diisopropyl ether (DIPE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Ethyl-t-butyl ether (ETBE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Tert-amyl methyl ether (TAME)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Tert-Butanol	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	1/15/2004
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	1/15/2004
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	1/15/2004
TPH as Diesel	**7.2**	1.0	mg/Kg	M EPA 8015	1/19/2004
1-Chlorooctadecane (Diesel Surrogate)	120		% Recovery	M EPA 8015	1/19/2004

Approved By: Jeff Dahl

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

KIFF ANALYTICAL LLC

Report Number : 36669
Date : 1/22/2004

Project Name : **ALAMEDA**
Project Number :

Sample : **BH-O 2'** Matrix : Soil Lab Number : 36669-07
Sample Date :1/14/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Methyl-t-butyl ether (MTBE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Diisopropyl ether (DIPE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Ethyl-t-butyl ether (ETBE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Tert-amyl methyl ether (TAME)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Tert-Butanol	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	1/15/2004
Toluene - d8 (Surr)	92.5		% Recovery	EPA 8260B	1/15/2004
4-Bromofluorobenzene (Surr)	94.2		% Recovery	EPA 8260B	1/15/2004
TPH as Diesel	**2.2**	1.0	mg/Kg	M EPA 8015	1/20/2004
1-Chlorooctadecane (Diesel Surrogate)	96.0		% Recovery	M EPA 8015	1/20/2004

Approved By: Jeff Dahl

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

KIFF ANALYTICAL LLC

Report Number : 36669
Date : 1/22/2004

Project Name : **ALAMEDA**
Project Number :

Sample : **BH-P 2'** Matrix : Soil Lab Number : 36669-08
Sample Date :1/14/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Toluene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Ethylbenzene	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Total Xylenes	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Methyl-t-butyl ether (MTBE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Diisopropyl ether (DIPE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Ethyl-t-butyl ether (ETBE)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Tert-amyl methyl ether (TAME)	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
Tert-Butanol	**< 0.0050**	0.0050	mg/Kg	EPA 8260B	1/15/2004
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	1/15/2004
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	1/15/2004
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	1/15/2004
TPH as Diesel	**4.9**	1.0	mg/Kg	M EPA 8015	1/21/2004
1-Chlorooctadecane (Diesel Surrogate)	94.4		% Recovery	M EPA 8015	1/21/2004

Approved By: Jeff Dahl

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

Report Number : 36669

Date : 1/22/2004

QC Report : Method Blank Data

Project Name : **ALAMEDA**

Project Number :

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 1.0	1 0	mg/Kg	M EPA 8015	1/18/2004
1-Chlorooctadecane (Diesel Surrogate)	82.5		%	M EPA 8015	1/18/2004
TPH as Diesel	< 50	50	ug/L	M EPA 8015	1/16/2004
Octacosane (Diesel Surrogate)	90 0		%	M EPA 8015	1/16/2004
TPH as Diesel	< 50	50	ug/L	M EPA 8015	1/21/2004
Octacosane (Diesel Surrogate)	85.2		%	M EPA 8015	1/21/2004
Benzene	< 0.0050	0 0050	mg/Kg	EPA 8260B	1/15/2004
Toluene	< 0 0050	0.0050	mg/Kg	EPA 8260B	1/15/2004
Ethylbenzene	< 0.0050	0 0050	mg/Kg	EPA 8260B	1/15/2004
Total Xylenes	< 0 0050	0.0050	mg/Kg	EPA 8260B	1/15/2004
Methyl-t-butyl ether (MTBE)	< 0.0050	0 0050	mg/Kg	EPA 8260B	1/15/2004
Diisopropyl ether (DIPE)	< 0.0050	0 0050	mg/Kg	EPA 8260B	1/15/2004
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/15/2004
Tert-amyl methyl ether (TAME)	< 0.0050	0 0050	mg/Kg	EPA 8260B	1/15/2004
Tert-Butanol	< 0 0050	0.0050	mg/Kg	EPA 8260B	1/15/2004
TPH as Gasoline	< 1.0	1 0	mg/Kg	EPA 8260B	1/15/2004
Toluene - d8 (Surr)	102		%	EPA 8260B	1/15/2004
4-Bromofluorobenzene (Surr)	101		%	EPA 8260B	1/15/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0 50	ug/L	EPA 8260B	1/16/2004
Toluene	< 0 50	0.50	ug/L	EPA 8260B	1/16/2004
Ethylbenzene	< 0 50	0.50	ug/L	EPA 8260B	1/16/2004
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/16/2004
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	1/16/2004
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	1/16/2004
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	1/16/2004
Tert-amyl methyl ether (TAME)	< 0 50	0.50	ug/L	EPA 8260B	1/16/2004
Tert-Butanol	< 5.0	5 0	ug/L	EPA 8260B	1/16/2004
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/16/2004
Toluene - d8 (Surr)	97.9		%	EPA 8260B	1/16/2004
4-Bromofluorobenzene (Surr)	103		%	EPA 8260B	1/16/2004
Benzene	< 0.50	0 50	ug/L	EPA 8260B	1/16/2004
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/16/2004
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/16/2004
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/16/2004
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	1/16/2004
Diisopropyl ether (DIPE)	< 0.50	0 50	ug/L	EPA 8260B	1/16/2004
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	1/16/2004
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	1/16/2004
Tert-Butanol	< 5.0	5 0	ug/L	EPA 8260B	1/16/2004
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/16/2004
Toluene - d8 (Surr)	97.3		%	EPA 8260B	1/16/2004
4-Bromofluorobenzene (Surr)	108		%	EPA 8260B	1/16/2004

Approved By: Jeff Dahl

KIFF ANALYTICAL, LLC

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

Report Number : 36669

Date : 1/22/2004

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **ALAMEDA**

Project Number :

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
TPH as Diesel	36684-03	2.6	20.0	20.0	19.9	20.3	mg/Kg	M EPA 8015	1/18/04	88.0	89.9	2.20	60-140	25
TPH as Diesel	Blank	<50	1000	1000	969	1110	ug/L	M EPA 8015	1/16/04	96.9	111	13.9	70-130	25
Benzene	36669-05	<0.0050	0.0397	0.0391	0.0279	0.0310	mg/Kg	EPA 8260B	1/15/04	70.3	79.4	12.1	70-130	25
Toluene	36669-05	<0.0050	0.0397	0.0391	0.0280	0.0313	mg/Kg	EPA 8260B	1/15/04	70.7	80.2	12.6	70-130	25
Tert-Butanol	36669-05	<0.0050	0.198	0.195	0.176	0.191	mg/Kg	EPA 8260B	1/15/04	88.7	98.0	9.94	70-130	25
Methyl-t-Butyl Ether	36669-05	<0.0050	0.0397	0.0391	0.0338	0.0349	mg/Kg	EPA 8260B	1/15/04	85.3	89.4	4.61	70-130	25
Benzene	36669-03	<0.50	37.9	42.2	39.0	43.2	ug/L	EPA 8260B	1/16/04	103	102	0.536	70-130	25
Toluene	36669-03	<0.50	37.9	42.2	38.9	42.1	ug/L	EPA 8260B	1/16/04	103	99.7	3.01	70-130	25
Tert-Butanol	36669-03	<5.0	189	211	191	215	ug/L	EPA 8260B	1/16/04	101	102	0.868	70-130	25
Methyl-t-Butyl Ether	36669-03	19	37.9	42.2	59.1	62.4	ug/L	EPA 8260B	1/16/04	105	102	2.90	70-130	25
Benzene	36705-44	<0.50	40.0	40.0	41.1	40.3	ug/L	EPA 8260B	1/16/04	103	101	1.79	70-130	25
Toluene	36705-44	<0.50	40.0	40.0	41.4	40.3	ug/L	EPA 8260B	1/16/04	103	101	2.57	70-130	25
Tert-Butanol	36705-44	<5.0	200	200	197	203	ug/L	EPA 8260B	1/16/04	98.3	101	3.11	70-130	25
Methyl-t-Butyl Ether	36705-44	<0.50	40.0	40.0	45.6	41.3	ug/L	EPA 8260B	1/16/04	114	103	9.83	70-130	25
TPH as Diesel	Blank	<50	1000	1000	945	945	ug/L	M EPA 8015	1/21/04	94.5	94.5	0.00	70-130	25

Approved By: Jeff Dahl

KIFF ANALYTICAL, LLC

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

Report Number : 36669

QC Report : Laboratory Control Sample (LCS)

Date : 1/22/2004

Project Name : **ALAMEDA**

Project Number :

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
TPH as Diesel	20.0	mg/Kg	M EPA 8015	1/18/04	98.9	70-130
Benzene	0.0381	mg/Kg	EPA 8260B	1/15/04	95.4	70-130
Toluene	0.0381	mg/Kg	EPA 8260B	1/15/04	98.6	70-130
Tert-Butanol	0.190	mg/Kg	EPA 8260B	1/15/04	90.8	70-130
Methyl-t-Butyl Ether	0.0381	mg/Kg	EPA 8260B	1/15/04	98.1	70-130
Benzene	40.0	ug/L	EPA 8260B	1/15/04	104	70-130
Toluene	40.0	ug/L	EPA 8260B	1/15/04	102	70-130
Tert-Butanol	200	ug/L	EPA 8260B	1/15/04	101	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	1/15/04	106	70-130
Benzene	40.0	ug/L	EPA 8260B	1/16/04	99.5	70-130
Toluene	40.0	ug/L	EPA 8260B	1/16/04	98.8	70-130
Tert-Butanol	200	ug/L	EPA 8260B	1/16/04	94.8	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	1/16/04	99.7	70-130

KIFF ANALYTICAL, LLC

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

Approved By: Jeff Dahl

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

Chain of Custody

36669

PAGE 1 OF 1

SAMPLER (SIGNATURE)

PROJECT NAME ALAMEDA JOB NO.

ADDRESS CENTRAL AVE, ALAMEDA

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH-GAS / MTBE & BTEX (EPA 5030/8015-8020)	TPH-DIESEL (EPA 3510/8015)	TPH-DIESEL & MOTOR OIL (EPA 3510/8015)	PURGEABLE HALOCARBONS (EPA 601/8010)	VOLATILE ORGANICS (EPA 624/8240/8260)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	OIL & GREASE (EPA 5520) ____	LUFT METALS (5) (EPA 6010+7000)	CAM 17 METALS (EPA 6010+7000)	PCBs & PESTICIDES (EPA 608/8080)	ORGANOPHOSPHORUS PESTICIDES (EPA 8140 EPA 608/8080)	FUEL OXYGENATES (EPA 8260)	Pb (TOTAL or DISSOLVED) (EPA 6010)	TPH-G/BTEX/5 OXY'S (EPA 8260)	TPH-G/BTEX/ 7 OXY'S / LEAD SCAVANGERS/ 1,2-DCP (EPA 8260)			
BH-M	1/11/04	925	W	5		X												X				01
BH-N	1/	1005	W	5		X												X				02
BH-O		1015	W	1		X												X				03
BH-P		1025	W	5		X												X				04
BH-M 2.5'		0905	S	1		X												X				05
BH-N 2.5'		0938	S	1		X												X				06
BH-O 2'		0954	S	1		X												X				07
BH-P 2'		1040	S	1		X																08

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY LABORATORY:
(signature) (time) 8:30	(signature) (time)	(signature) (time)	Michelle Woodworth 0830 (signature) (time)
DAMIAN HRICIC 9/15/04 (printed name) (date)	(printed name) (date)	(printed name) (date)	Michelle Woodworth 01504 (printed name) (date)
Company- ASE	Company-	Company-	Company- Kiff Analytical

COMMENTS:
1,2-DCP = 1,2-dichloropropane

TURN AROUND TIME
~~STANDARD~~ 24Hr 48Hr 72Hr
OTHER:

APPENDIX D

Certified Analytical Report
and
Chain of Custody Documentation
for
Sewer Samples

KIFF ANALYTICAL LLC

Report Number : 36807
Date : 1/28/2004

David Allen
Aqua Science Engineers, Inc.
208 West El Pintado Rd.
Danville, CA 94526

Subject : 2 Water Samples
Project Name : Saidian - Alameda
Project Number : 3648

Dear Mr. Allen,

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,

Jeff Dahl

KIFF ANALYTICAL LLC

Report Number : 36807
Date : 1/28/2004

Subject : 2 Water Samples
Project Name : Saidian - Alameda
Project Number : 3648

Case Narrative

Hydrocarbons reported as TPH as Gasoline do not exhibit a typical Gasoline chromatographic pattern for samples Sewer #1 and Sewer #2.

Approved By: Jeff Dahl

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

KIFF ANALYTICAL LLC

Report Number : 36807
Date : 1/28/2004

Project Name : **Saidian - Alameda**
Project Number : **3648**

Sample : **Sewer #1** Matrix : Water Lab Number : 36807-01
Sample Date :1/23/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/28/2004
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	1/28/2004
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/28/2004
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	1/28/2004
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	1/28/2004
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	1/28/2004
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	1/28/2004
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	1/28/2004
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	1/28/2004
TPH as Gasoline	**67**	50	ug/L	EPA 8260B	1/28/2004
Toluene - d8 (Surr)	93.5		% Recovery	EPA 8260B	1/28/2004
4-Bromofluorobenzene (Surr)	98.4		% Recovery	EPA 8260B	1/28/2004

Approved By: Jeff Dahl

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KIFF ANALYTICAL LLC

Report Number : 36807
Date : 1/28/2004

Project Name : **Saidian - Alameda**
Project Number : **3648**

Sample : **Sewer #2** Matrix : Water Lab Number : 36807-02
Sample Date :1/23/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/28/2004
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	1/28/2004
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/28/2004
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	1/28/2004
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	1/28/2004
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	1/28/2004
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	1/28/2004
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	1/28/2004
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	1/28/2004
TPH as Gasoline	**72**	50	ug/L	EPA 8260B	1/28/2004
Toluene - d8 (Surr)	91.1		% Recovery	EPA 8260B	1/28/2004
4-Bromofluorobenzene (Surr)	95.1		% Recovery	EPA 8260B	1/28/2004

Approved By: Jeff Dahl

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

Report Number : 36807

Date : 1/28/2004

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	1/27/2004
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/27/2004
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/27/2004
Total Xylenes	< 0.50	0 50	ug/L	EPA 8260B	1/27/2004
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	1/27/2004
Diisopropyl ether (DIPE)	< 0.50	0 50	ug/L	EPA 8260B	1/27/2004
Ethyl-t-butyl ether (ETBE)	< 0.50	0 50	ug/L	EPA 8260B	1/27/2004
Tert-amyl methyl ether (TAME)	< 0.50	0 50	ug/L	EPA 8260B	1/27/2004
Tert-Butanol	< 5 0	5.0	ug/L	EPA 8260B	1/27/2004
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/27/2004
Toluene - d8 (Surr)	100		%	EPA 8260B	1/27/2004
4-Bromofluorobenzene (Surr)	103		%	EPA 8260B	1/27/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

Approved By: Jeff Dahl

KIFF ANALYTICAL, LLC

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

Report Number : 36807

Date : 1/28/2004

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	36799-02	<0.50	40.0	40.0	41.9	41.1	ug/L	EPA 8260B	1/27/04	105	103	1.90	70-130	25
Toluene	36799-02	<0.50	40.0	40.0	43.1	41.9	ug/L	EPA 8260B	1/27/04	108	105	2 73	70-130	25
Tert-Butanol	36799-02	<5.0	200	200	197	198	ug/L	EPA 8260B	1/27/04	98.5	98.8	0.208	70-130	25
Methyl-t-Butyl Ether	36799-02	<0.50	40.0	40.0	44.1	43.8	ug/L	EPA 8260B	1/27/04	110	109	0.706	70-130	25

Approved By: Jeff Dahl

KIFF ANALYTICAL, LLC

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

Report Number : 36807

QC Report : Laboratory Control Sample (LCS)

Date : 1/28/2004

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	1/27/04	103	70-130
Toluene	40.0	ug/L	EPA 8260B	1/27/04	105	70-130
Tert-Butanol	200	ug/L	EPA 8260B	1/27/04	98.8	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	1/27/04	109	70-130

Approved By: Jeff Dahl

KIFF ANALYTICAL, LLC

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

36807

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) Robert E. Kitay (PHONE NO.) (925) 820-9391

PROJECT NAME Saidian - Alameda JOB NO. 3648

ADDRESS 1310 Central Avenue, Alameda DATE 1-23-04

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

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 (5) (EPA 6010+7000)	CAM 17 METALS (EPA 6010+7000)	PCBs & PESTICIDES (EPA 608/8080)	ORGANOPHOSPHORUS PESTICIDES (EPA 8140)	ORGANOCHLORINE HERBICIDES (EPA 8150)	FUEL OXYGENATES (EPA 8260)	TPH-G/BTEX/5 oxy (EPA 8260)			COMPOSITE
Sewer #1	1-23-04	12:00	Water	1			X												X			-01
Sewer #2	1-23-04	12:20	Water	1			X												X			-02

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY LABORATORY:	COMMENTS:
Robert E. Kitay (signature) (time)	(signature) (time)	(signature) (time)	A. B (signature) (time) 1357	5-DAY T.A.T.
Robert E. Kitay (printed name) (date)	(printed name) (date)	(printed name) (date)	BRIAN A BRANSCUM (printed name) (date) 01-27-04	
Company- ASE	Company-	Company-	Company- Kiff Analytical	