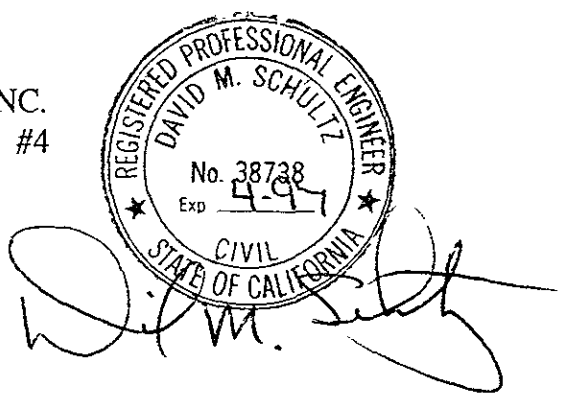
aqua science engineers inc.

December 22, 1995

QUARTERLY GROUNDWATER MONITORING REPORT
DECEMBER 4, 1995 GROUNDWATER SAMPLING
ASE JOB NO. 2750
at
2425 Central Avenue
Alameda, California

Submitted by:
AQUA SCIENCE ENGINEERS, INC.
2411 Old Crow Canyon Road, #4
San Ramon, CA 94583
(510) 820-9391



1.0 INTRODUCTION

This report outlines the methods and findings of Aqua Science Engineers, Inc. (ASE)'s quarterly groundwater sampling at the property located at 2425 Central Avenue in Alameda, California *(Figures 1 and 2).*

2.0 GROUNDWATER SAMPLING

On December 4, 1995, ASE environmental specialist Scott Ferriman measured the depth to groundwater in the site well using an electric water level sounder. The well was then purged of four well casing volumes of groundwater using a pre-cleaned PVC pump. The pH, temperature and conductivity of the purge water were monitored during evacuation, and groundwater samples were not collected until these parameters stabilized. Groundwater samples were then collected from the well with a disposable polyethylene bailer. The samples were decanted from the bailer into two (2) 40-ml volatile organic analysis (VOA) vials, preserved with hydrochloric acid, labeled, placed in protective foam sleeves, and stored on wet ice for transport to American Environmental Network (AEN) of Pleasant Hill, California (CSDHS #1172) under chain of custody. No odors were present in the groundwater at the time of the sampling.

Well sampling purge water was contained in DOT 17H drums and stored on-site for handling by the client at a later date. See Appendix A for a copy of the well sampling field log.

3.0 ANALYTICAL RESULTS FOR GROUNDWATER

The groundwater samples were analyzed by AEN for total petroleum hydrocarbons as gasoline (TPH-G) by modified EPA Method 5030/8015 and methyl t-butyl ether (MTBE), benzene, toluene, ethylbenzene and total xylenes (MBTEX) by EPA Method 8020. The analytical results are tabulated below in Table One, and the certified analytical report and chain of custody form are included in Appendix B. Only 2 parts per billion (ppb) toluene and 2 ppb total xylenes were detected in the groundwater samples collected from monitoring well MW-1 this quarter.

TABLE ONE
Summary of Chemical Analysis of **GROUNDWATER** Samples
All Results are in **parts per billion**

Date of Sampling	TPH Gasoline	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	Dissolved Lead
MW-1							
03-13-95	<50	0.6	2	<0.5	2	---	<40
06-02-95	<50	<0.5	<0.5	<0.5	<2	---	<40
09-14-95	<50	<0.5	1	<0.5	<2	---	---
12-04-95	<50	<0.5	2	<0.5	2	<50	---
EPA METHOD	5030/ 8015	8020	8020	8020	8020	8020	6010

4.0 CONCLUSIONS AND RECOMMENDATIONS

Only trace toluene and total xylenes were detected in the groundwater samples collected from monitoring well MW-1 this quarter. No TPH-G, benzene or ethylbenzene were detected. Since monitoring well MW-1 has been sampled for four consecutive quarters and only trace hydrocarbons, well below the California Department of Toxic Substances Control (DTSC) maximum contaminant levels (MCLs) for drinking water, have been detected in groundwater samples collected during this period, ASE feels that this site is suitable for site closure. **Please consider this report a formal request for site closure.**

5.0 REPORT LIMITATIONS

The results of this assessment represent conditions at the time of the groundwater sampling, at the specific locations at which the samples were collected, and for the specific parameters analyzed for by the laboratory.

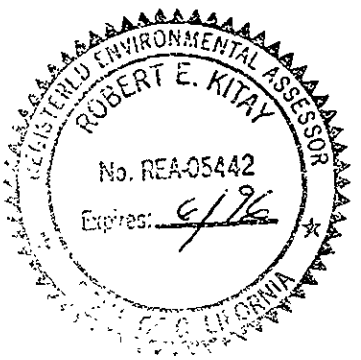
It does not fully characterize the site for contamination resulting from unknown sources, or for parameters not analyzed for by the laboratory. All of the laboratory work cited in this report was prepared under the direction of an independent CSDHS certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

Aqua Science Engineers appreciates the opportunity to assist you with your environmental needs. Should you have any questions or comments, please feel free to call us at (510) 820-9391.

Respectfully submitted,

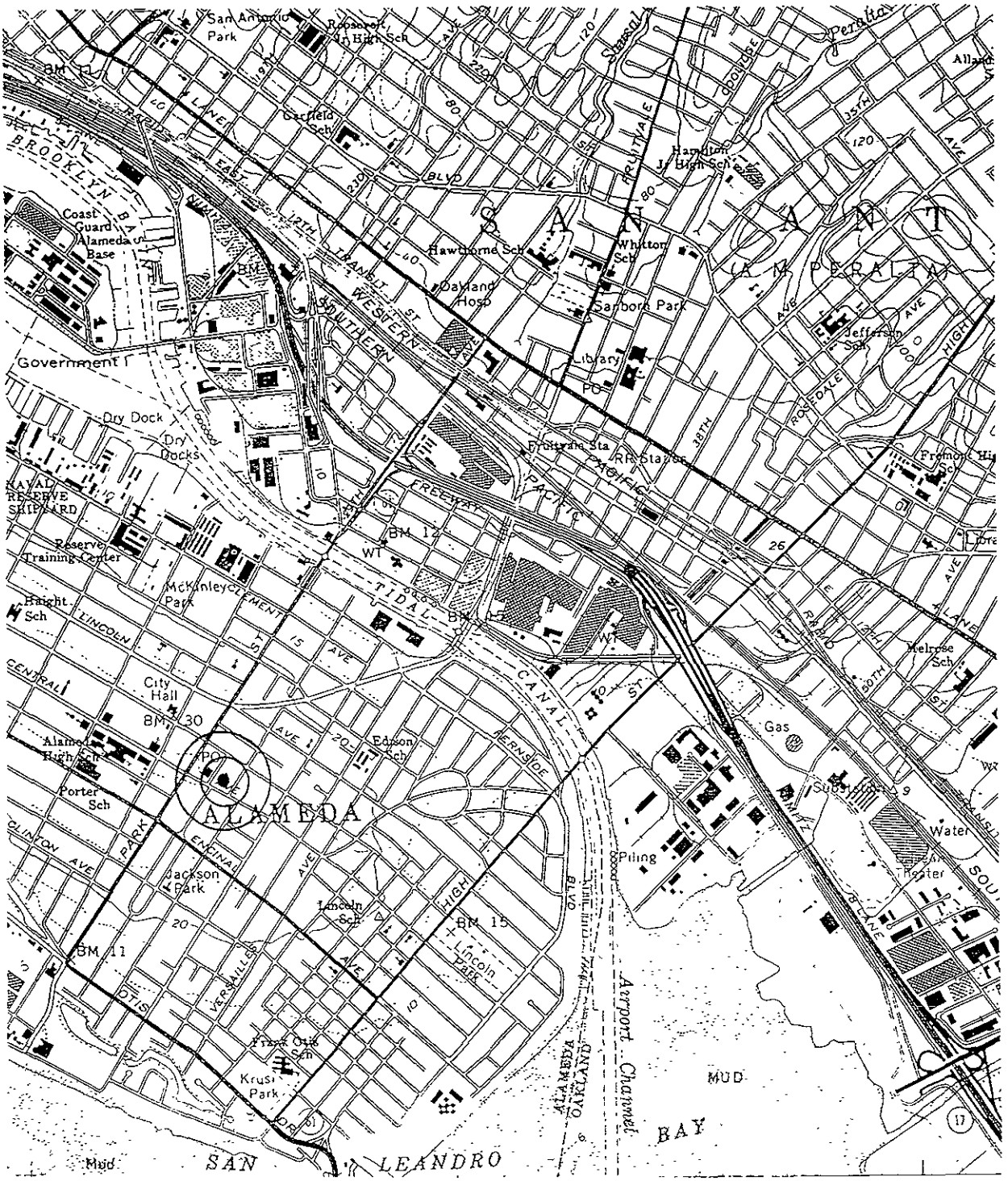
AQUA SCIENCE ENGINEERS, INC.

Robert E. Kitay, R.E.A.
Project Geologist



Attachments: Figures 1 and 2
Appendices A and B

cc: Ms. Erma Delucchi
Ms. Juliet Shin, ACHCSA
Mr. Kevin Graves, RWQCB, San Francisco Bay Region

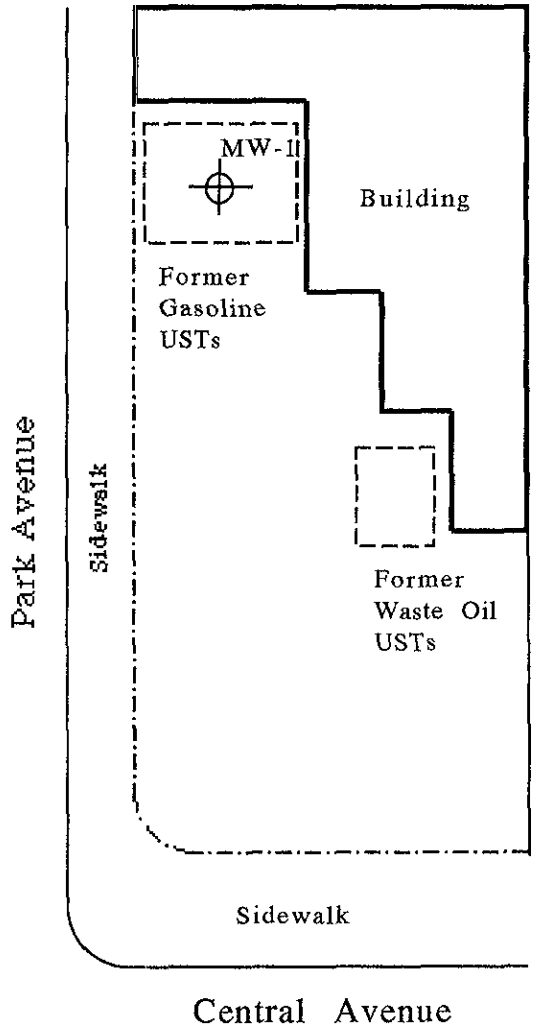


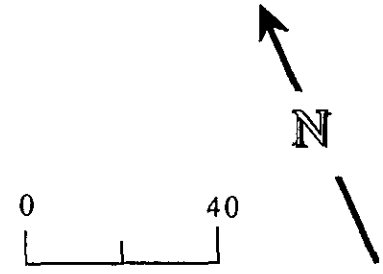
BASE: USGS Oakland East 7.5 minute quadrangle topographic map, dated 1980, scale 1:24,000.

SITE LOCATION MAP

Delluchi Property
2425 Central Avenue
Alameda, California

Aqua Science Engineers | Figure 1





Scale 1" = 40'

Monitoring Well Location Map

DELLUCHI PROPERTY
2425 CENTRAL AVENUE
ALAMEDA, CALIFORNIA

AQUA SCIENCE ENGINEERS | Figure 2

APPENDIX A

Well Sampling Field Log

aqua science engineers inc.

WELL SAMPLING FIELD LOG

Project Name and Address: Delluchi Property, Alameda
Job #: 2750
Well Name: MW-1
Date of sampling: 12-4-95
Sampled by: SE
Total depth of well (feet): 18.90
Well diameter (inches): 2"
Depth to water before sampling (feet): 9.08
Thickness of floating product if any: none
Depth of well casing in water (feet): 9.82
Number of gallons per well casing volume (gallons): 1.7
Number of well casing volumes to be removed: 4
Req'd volume of groundwater to be purged before sampling (gallons): 6.7
Equipment used to purge the well: 12 volt PVC Pump
Time Evacuation Began: 11:55
Time Evacuation Finished: 12:08
Approximate volume of groundwater purged: 7 gal.
Did the well go dry?: no
After how many gallons: —
Time samples were collected: 12:15
Depth to water at time of sampling: 9.72
Percent recovery at time of sampling: ~~99%~~ 93%
Samples collected with: Dedicated Bailer
Sample color: none
Odor: none
Description of sediment in sample: small amount of Brown silt

CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	68.2	7.24	785
2	68.5	7.27	650
3	68.8	7.28	690
4	69.1	7.19	735

SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-1	3	40 ml vials	HCl	Yes	TPHg/BTEX

APPENDIX B

Analytical Report and Chain of Custody Form

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

AQUA SCIENCE ENGINEERS, INC
2411 OLD CROW CANYON RD. #4
SAN RAMON, CA 94583

ATTN: SCOTT FERRIMAN
CLIENT PROJ. ID: 2750
CLIENT PROJ. NAME: DELLUCHI PROP.

REPORT DATE: 12/15/95

DATE(S) SAMPLED: 12/04/95

DATE RECEIVED: 12/05/95

AEN WORK ORDER: 9512036

PROJECT SUMMARY:

On December 5, 1995, this laboratory received 1 water sample(s).

Client requested sample(s) be analyzed for organic parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein
Laboratory Director

AQUA SCIENCE ENGINEERS, INC.

AEN JOB NO: 9512036
DATE SAMPLED: 12/04/95
DATE RECEIVED: 12/05/95
CLIENT PROJ. ID: 2750

Client Sample Id	AEN Lab Id	Purgeable Hydrocarbons as Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	Methyl t-Butyl Ether (ug/L)
MW-1	01	ND	ND	2	ND	2	ND
Reporting Limit		50	0.5	0.5	0.5	2	50
EPA Method:		5030 GCFID	8020	8020	8020	8020	8020

Instrument: H

Date Analyzed: 12/11/95

NA = Not Applicable
ND = Not Detected

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9512036

CLIENT PROJECT ID: 2750

Quality Control and Project Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spike(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analysis.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrumental performance.

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9512036
INSTRUMENT: H
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
12/11/95	MW-1	01	99
QC Limits:			70-130

DATE ANALYZED: 12/10/95
SAMPLE SPIKED: 9512039-01
INSTRUMENT: H

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Benzene	46.4	102	3	85-109	17
Toluene	109	103	2	87-111	16
Hydrocarbons as Gasoline	1000	111	3	66-117	19

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

*** END OF REPORT ***

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Aqua Science Engineers, Inc.
2411 Old Crow Canyon Road, #4,
San Ramon, CA 94583
(510) 820-9391 - FAX (510) 837-4853

Chain of Custody

DATE 12-4-95 PAGE 1 OF 1

SAMPLERS (SIGNATURE) (PHONE NO.)
Scott T. [signature] 510-820-9391

PROJECT NAME Delluchi Property NO. 2750
ADDRESS Alameda

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

SAMPLE ID	DATE	TIME	MATRIX	NO OF SAMPLES	TPH-GASOLINE (EPA 5030/8015)	TPH-GASOLINE/BTEX (EPA 5030/8015-8020)	TPH-DIESEL (EPA 3510/8015)	PURGABLE AROMATICS (EPA 602/C020)	PURGABLE HALOCARBONS (EPA 601/8010)	VOLATILE ORGANICS (EPA 624/8240)	BASE/NUETRALS, ACIDS (EPA 625/8270)	OIL & GREASE (EPA 5520 E&F or B&F)	LUFT METALS (5) (EPA 6010+7000)	TITLE 22 (CAM 17) (EPA 6010+7000)	TCLP (EPA 1311/1310)	STLC- CAM WET (EPA 1311/1310)	REACTIVITY CORROSIVITY IGNITABILITY	MTBE
1 A-C MW-1	12-4-95	12:15	water	3		X												X

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY LABORATORY:	COMMENTS.
Scott T. [signature] 11:45 (signature) (time)	[signature] 11:40 (signature) (time)	[signature] 11:40 (signature) (time)	11:40 Ronald C. Jensen (signature) (time) 12/15/95	Normal TAT
Scott T. Ferriman 12-5-95 (printed name) (date)	L. HERRICK 12-5-95 (printed name) (date)	N. HERRICK 12-5-95 (printed name) (date)	RON JENSEN (printed name) (date)	
Company- ASE	Company- AEN	Company- AEN	Company- AEN	