

October 6, 1995

PROTECTION AL

QUARTERLY GROUNDWATER MONITORING REPORT SEPTEMBER 14, 1995 GROUNDWATER SAMPLING ASE JOB NO. 2545

at
Former Alameda Max's
1357 High Street
Alameda, California 94501

Prepared for: Mr. James A. Phillipsen 3111 Marina Drive Alameda, CA 94501

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

1.0 INTRODUCTION

Site Location (Site), See Figure 1
Former Alameda Max's
1357 High Street
Alameda, CA 94501

Property Owner
Mr. James A. Phillipsen
3111 Marina Drive
Alameda, CA 94501

Environmental Consulting Firm
Aqua Science Engineers, Inc. (ASE)
2411 Old Crow Canyon Road, #4
San Ramon, CA 94583
Contact: Robert Kitay, Project Manager
(510) 820-9391

Agency Review
Alameda County Health Care Services Agency (ACHCSA)
1131 Harbor Bay Parkway
Alameda, CA 94502
Contact: Ms. Juliet Shin
(510) 567-6700

California Regional Water Quality Control Board (RWQCB), San Francisco Bay Region 2101 Webster Street, Suite 500 Oakland, CA 94612 Contact: Mr. Kevin Graves (510) 286-4359

The following is a report detailing the results of the September 14, 1995, quarterly groundwater sampling at the above referenced site.

Alameda Max's Quarterly Monitoring Report - September 1995 Sampling

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2.0 GROUNDWATER FLOW DIRECTION AND GRADIENT

On September 14, 1995, ASE project geologist Robert Kitay measured the depth to water in each site well using an electric water level sounder. The surface of the groundwater was also checked for the presence of free-floating hydrocarbons or sheen. 0.04-feet of free-floating oil was on the surface of the groundwater in monitoring well MW-2. No free-floating hydrocarbons or sheen was present on the surface of water from monitoring wells MW-1, MW-3 or MW-4. Depths to groundwater are presented in Table One.

Groundwater elevation contours are presented on Figure 2. On September 14, 1995, groundwater flowed to the southeast beneath the site at a gradient of 0.008-feet/foot, which is consistent with previous findings.

3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS

Prior to sampling, monitoring wells MW-1, MW-3 and MW-4 were purged of four well casing volumes of water using a 12 volt electric PVC pump. Monitoring well MW-2 was not sampled because it contained 0.04-feet of free-floating hydrocarbons. Groundwater samples were then collected from monitoring wells MW-1, MW-3 and MW-4 using dedicated polyethylene bailers. The samples were decanted from the bailers into 40-ml volatile organic analysis (VOA) vials and 1-liter amber glass bottles. The samples were preserved with hydrochloric acid, capped, labeled and placed into an ice chest containing wet ice for transport to American Environmental Network (AEN) of Pleasant Hill, California (DOHS #1172) under chain-of-custody.

The analytical results for this and previous quarters are presented in Tables Two and Three, and the certified laboratory report and chain-of-custody form are included as Appendix A.

The well purge water was placed in 55-gallon steel DOT 17H drums, labeled, and left on-site for temporary storage.

The groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) by modified EPA Method 5030/8015, total petroleum hydrocarbons as diesel (TPH-D) by modified EPA Method 3510/8015, total and hydrocarbon oil and grease (O&G) by Standard Method 5520 C&F and benzene, toluene, ethylbenzene and total xylenes (BTEX) by EPA Method 8020. Analyses for volatile organic compounds (VOCs) was discontinued as approved by the ACHCSA.

4.0 CONCLUSIONS

0.04-feet of free-floating oil was present on the groundwater surface in monitoring well MW-2. Hydrocarbon concentrations in groundwater samples collected from monitoring wells MW-1 and MW-3 were consistent with previous quarters results. Hydrocarbon concentrations in groundwater samples collected from monitoring well MW-4 increased slightly this quarter, but were generally consistent with previous results. Benzene concentrations in the groundwater samples collected from monitoring wells MW-3 and MW-4 exceeded the California Department of Toxic Substances Control (DTSC) maximum contaminant level (MCL) for drinking water.

5.0 RECOMMENDATIONS

An oil skimmer was installed in monitoring well MW-2 and began operation on September 15, 1995. As of October 4, 1995, only a thin oily sheen was still present on the groundwater surface of monitoring well MW-2. ASE suggests that the skimmer be allowed to operate through October 1995 to ensure that as much oil as possible is removed from the groundwater surface prior to overexcavating contaminated soil in this area. A workplan for the soil overexcavation will be prepared during the next quarter prior to beginning overexcavation activities.

The next quarterly groundwater sampling is scheduled for December 1995.

6.0 REPORT LIMITATIONS

The results of this report represent the conditions at the time of the groundwater sampling at the specific locations where the groundwater samples were collected, and for the specific parameters analyzed for by the laboratory. It does not fully characterize the site for contamination resulting from sources other than the former underground storage tanks and associated plumbing at the site, or for parameters not analyzed for by the laboratory. All of the laboratory work cited in this report was prepared under the direction of independent CSDHS certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

Alameda Max's Quarterly Monitoring Report - September 1995 Sampling

Aqua Science Engineers appreciates the opportunity to provide environmental consulting services to you, and trust that this report meets your needs. Please feel free to call us at (510) 820-9391 if you have any questions or comments.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

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

Attachments: Figures 1 and 2

Tables 1, 2 and 3 Appendices A and B

cc: Ms. Juliet Shin, Alameda County Health Care Services Agency Mr. Kevin Graves, RWQCB, San Francisco Bay Region

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FIGURES



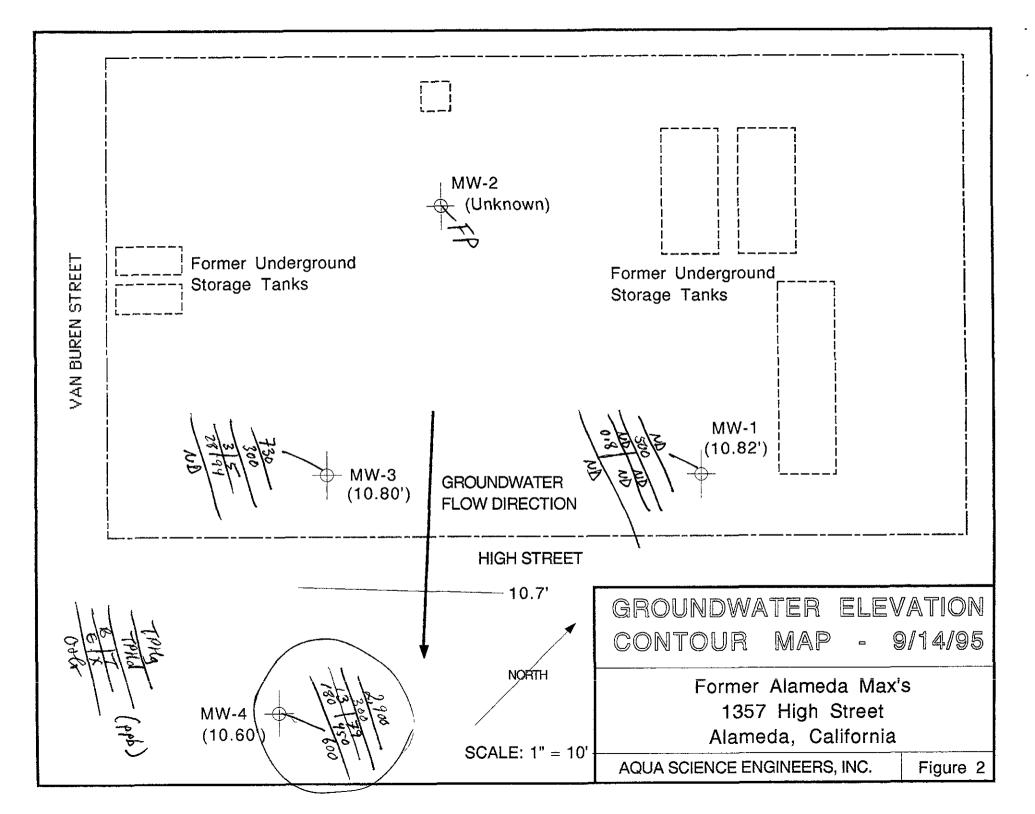
SITE LOCATION MAP

Alameda Max's 1357 High Street Alameda, California

Aqua Science Engineers

Figure 1

BASE. Oakland East and Oakland West 7.5 mmnute quadrangle topographic map, dated 1980, scale 1.24,000



TABLES

TABLE ONE
Summary of Groundwater Well Survey Data

Well I.D.	Date of Measurement	Top of Casing Elevation (relative to project datum	Water	Elevation
MW-1	04-06-94	15.00	3.92	11.08
• • • • • •	08-02-94		4.10	10.90
	10-04-94		4.42	10.58
	12-14-94		3.42	11.58
	03-16-95		3.21	11.79
	06-06-95		3.84	11.16
	09-14-95		4.18	10.82
MW-2	04-06-94	14.37	3.02	11.35
,,	08-02-94		3.32	11.18*
	12-14-94		2.90	11.52*
	03-16-95		Unknown	Unknown
	06-06-95		Unknown	Unknown
	09-14-95		Unknown	Unknown
MW-3	04-06-94	14.56	3.51	11.05
	08-02-94		3.68	10.88
	10-04-94		3.97	10.59
	12-14-94		3.04	11,52
	03-16-95		2.84	11.72
	06-06-95		3.44	11.12
	09-14-95		3.76	10.80
MW-4	10-04-94	14.70	4.31	10.39
	12-14-94		3.62	11.08
	03-16-95		3.48	11.22
	06-06-95		3.86	10.84
	09-14-95		4.10	10.60

^{*} = Adjusted for the presence of free-floating oil by the equation: Adjusted Groundwater Elevation = Top of Casing Elevation - Depth to Groundwater + (0.8 x Floating Hydrocarbon Thickness)

TABLE TWO Summary of Chemical Analysis of GROUNDWATER Samples
All results are in parts per billion

Sample I.D.	TPH Gasoline	TPH Diesel	Oil & Grease	Benzene	Toluene	Ethyl Benzene	Total Xylenes	
MW-1 04/04/94 08/02/94 12/14/94 03/16/95 06/06/95 09/14/95	80 60 200 200 <50 <50	<50 500 1,500 1,600 680 500	<500 <1,000 <1,000 <500 <500 <500	<0.5 <0.5 <0.5 <0.5 <0.5 <0.5	<0.5 <0.5 <0.5 <0.5 <0.5 <0.5	0.5 <0.5 6 3 <0.5 0.8	2 2 2 2 2 2 2	
MW-2 04/04/94 08/02/94 12/14/94 03/16/95 06/06/95 09/14/95	NOT SA NOT SA NOT SA	AMPLED DU AMPLED DU AMPLED DU	JE TO FREI JE TO FREI JE TO FREI	0.6 E-FLOATING E-FLOATING E-FLOATING E-FLOATING	G HYDROCA G HYDROCA G HYDROCA	ARBONS ARBONS ARBONS	6	
MW-3 04/04/94 08/02/94 12/14/94 03/16/95 06/06/95 09/14/95	1,200 2,700 2,600 1,200 500 730	180 <50 80 300 300 300	<500 <1,000 <1,000 <500 <500 <500	3 6 9 4 2 3	27 16 30 16 1	44 70 78 38 13 28	230 470 430 270 61 94	
MW-4 10/04/94 12/14/94 03/16/95 06/06/95 09/14/95	500 1,500 500 1,600 2,900	200 200 300 620 300	<1,000 <1,000 <500 <500 600	2 8 3 5.9 13	19 37 5 48 79	14 68 23 83 180	70 190 41 240 450 G	inducatur of overeign might tion Was all of weed?
EPA METHOD	5030/ 8015	3510/ 8015	5520 B&F	8020	8020	8020	8020 Ga	Was all of Was all of Sounce

removed

TABLE THREE
Summary of Chemical Analysis of GROUNDWATER Samples
Volatile Organic Compounds
All results in parts per billion

Sample I.D.	Date of Sampling	TCE	Other VOCs	
MW-1	08-02-94 12-14-94 03-16-95 06-06-95	<0.5 <0.5 <0.5 <0.5	<0.5 <0.5 <0.5 <0.5	
MW-2	04-04-94 08-02-94 12-14-94 03-16-95 06-06-95	NOT SAMPLED DUE TO NOT SAMPLED DUE TO	<0.5 FLOATING HYDROCARBONS FLOATING HYDROCARBONS FLOATING HYDROCARBONS FLOATING HYDROCARBONS	S S
MW-3	08-02-94 12-14-94 03-16-95 06-06-95	<0.5 <0.5 <0.5 <0.5	<0.5 <0.5 <0.5 <0.5	
MW-4	10-04-94 12-14-94 03-16-95 06-06-95	<0.5 <0.5 <0.5 <0.5	<0.5 <0.5 <0.5 <0.5	
EPA METHOD		8010	8010	

TCE = Trichloroethene

VOCs = volatile organic compounds

APPENDIX A

California EPA Certified Laboratory Report of Groundwater Samples

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

PAGE 1

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

ATTN: ROBERT KITAY CLIENT PROJ. ID: 2545

CLIENT PROJ. NAME: FORMER MAX'S

REPORT DATE: 10/01/95

DATE(S) SAMPLED: 09/14/95

DATE RECEIVED: 09/15/95

AEN WORK ORDER: 9509224

PROJECT SUMMARY:

On September 15, 1995, this laboratory received 3 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: 9509224 DATE SAMPLED: 09/14/95 DATE RECEIVED: 09/15/95 CLIENT PROJ. ID: 2545

Client Sample Id	AEN Lab Id	Purgeable Hydrocarbons as Gasoline (ug/L)	Extractable Hydrocarbons as Diesel (ug/L)	Oil & Grease (ug/L)	Hydrocarbons (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)
MW-1	01	ND	500	ND	ND	ND	ND	0.8	ND
MW-3	02	730	300	ND	ND	3	5	28	94
MW-4	03	2,900	300	600	ND	13	79	180	450
Reporting	Limit	50	50	500	500	0.5	0.5	0.5	2
EPA Method	:	5030 GCFID	3510 GCFID	5520C	5520F	8020	8020	8020	8020
Date Extra	cted:	NA	09/21/95	09/25/95	09/25/95	NA	NA	NA	NA
Date Analy	zed:	09/21/95	09/23/95	09/26/95	09/26/95	09/21/95	09/21/95	09/21/95	09/21/95

NA = Not Applicable ND = Not Detected

AEN (CALIFORNIA) QUALITY CONTROL REPORT

AEN JOB NUMBER: 9509224

CLIENT PROJECT ID: 2545

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 3510 GCFID

AEN JOB NO: 9509224 DATE(S) EXTRACTED: 09/21/95

INSTRUMENT: C MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
09/23/95 09/23/95 09/23/95	MW-1 MW-3 MW-4	01 02 03	78 79 86
QC Limits:			59-118

DATE EXTRACTED: 09/21/95
DATE ANALYZED: 09/21/95
SAMPLE SPIKED: DI WATER
INSTRUMENT: C

Method Spike Recovery Summary

				QC Limi	ts
Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	Percent Recovery	RPD
Diesel	2.07	90	<1	58-107	15

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

QUALITY CONTROL DATA

METHOD: SM 5520

AEN JOB NO: 9509224

DATE EXTRACTED: 09/25/95
DATE ANALYZED: 09/26/95
SAMPLE SPIKED: DI WATER

INSTRUMENT: IR MATRIX: WATER

Method Spike Recovery Summary

				QC Lim	its
Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	Percent Recovery	RPD
Oil	7.65	88	<1	80-109	5

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9509224

INSTRUMENT: F MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
09/21/95 09/21/95 09/21/95	MW-1 MW-3 MW-4	01 02 03	94 94 96
QC Limits:			92-109

DATE ANALYZED: 09/20/95 SAMPLE SPIKED: 9509213-08 INSTRUMENT: F

Matrix Spike Recovery Summary

				QC Limi	ts
Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	Percent Recovery	RPD
Benzene Toluene	20.3 60.2	95 1 0 2	2 2	85-109 87-111	17 16
Hydrocarbons as Gasoline	500	102	2	66-117	19

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

DATE 9-14-95 PAGE _ OF _/

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

Chain of Custody

PROJECT NAME Former Alamada Maxis NO. 2545 (PHONE NO.) SAMPLERS (SIGNATURE) ANALYSIS REQUEST ADDRESS 1357 High Street Alamedon Cot PURGABLE HALOCARBONS (EPA 601/8010) PURGABLE AROPATICS (EPA 602/C020) TPH-GASOLINE/BTEX (EPA 5030/8015-8020) TITLE 22 (CAM 17) (EPA 6010+7000) SPECIAL INSTRUCTIONS: TPH- DIESEL (EPA 3510/8015) LUFT METALS (5) (EPA 6010+7000) BASE/NUETRALS, (EPA 625/8270) REACTIVITY CORROSIVITY IGITTABILITY NO. OF DATE TIME MATRIX SAMPLES SAMPLE ID. 5 8/14 13:00 Water × MW-1 × X × MW-3 13:30 9.50 X 176-4 RELINQUISHER BY: RECEIVED BY // COMMENTS: RECEIVED BY LABORATORY: RELINQUISHED BY. Relatery 10:35 Medital 10:45 Medital 13:00 M Company- AEU Company- ASE Company-

APPENDIX B

Well Sampling Field Logs



WELL SAMPLING FIELD LOG

Project Name and Address: Alameda Mars, 1357 Migh 34725 Alameda
Project Name and Address: Marie 19-14-95 Date of sampling: 9-14-95 Well Name: MW-1 Sampled by: Pk Well diameter (inches): 4
Well. Name: MW-1 Sampled by: De Sampled by: Well. Name: MW-1
- I for complying [Feet]
Thickness of floating product it any.
Death of wall cooled in Water (Teell: 12/19
Number of gallons per Well Casing Volume (ganons). /
ar it is a sing volumes to be removed.
Deligrations of groundwater to be purged before sampling (gamons).
The sand to pirae the well. 12 volt roce four
Time Evacuation Regan: 1150 11me Evacuation 11ms inco. 1-1
Approximate volume of groundwater purged: 3T gallens
Did the well go dry? Ale After how many gallons:
Time samples were collected:
Depth to water at time of Sambing, 41/
of compliant 9/7
Samples collected with: Dedicated polyethylmer boiler Sample color: None (cheer) Odor: None Sample color: Acres Odor: None Sample color: None Odor: None Od
Sample color: None (cheur) Odor: None
Description of sediment in sample: Small amount of fine brown sitt
CHEMICAL DATA
Volume Purged Temp pH Conductivity
Initial 68.6 7.22 762
9.2.gals 72.6 7.20 566
18.4 sals 73.6 7.15 659.
27.6 gals 72.8 7.19 623
37 gals 728 7:20 622
SAMPLES COLLECTED
· · · · · · · · · · · · · · · · · · ·
Sample # of containers Volume & type container Pres Iced? Analysis
MW-1 2 40-m/ VOA VIGIS HUY YES TPHTY/BTEX
1 2 1-11ter amber 5/933 1 TPH-D
V V 046
·

aqua science Esta engineers inc.

WELL SAMPLING FIELD LOG

	<u>-</u> .		357 HW	Straint Alam	and a
Project Name and Ad Job #:	dress: Alama	da Maxs,	199 + 1142	9-14-95	200, -1 1
Job #:2545		Date of	samping	6	
*Well Name: MW-3		Sampico	Well diame	ter (inches):	4
*Well Name: MID-3 Total depth of well (fe	et): <u>16.0</u>	<u> </u>	776 and 10		/
					•
Depth to water before Thickness of floating Depth of well casing	product if a	ny:	08		
· Depth of well casing	in water (le	Cl)l=	(dallons).	8.6	·
					
Number of gallons per Number of well casin Req'd volume of grou	g volumes, t	o oc rome	hefore samp	ling (gallons):	34.5
Req'd volume of grou	nowater to t	ne purgou	It. PUC Our	L C	
Req'd volume of grou Equipment used to pro- Time Evacuation Beg	irge the we	II: 10 00	me Evacuation	on Finished: 1	7-55
The analysis Hea	an. 10.2	7.7	IIIO Diadam	V	
Approximate volume Did the well go dry?:	NO	12:30	tor now ma	ry garrons	
Time samples were	collectea:	<u> 12</u>			
Depth to water at tir	ne of sampli	ing: 7-13			
Percent recovery at	ime or sam	ping:	170 hailer		
Samples collected wi	th: Dedicate	0 10192722	don chi	1	
Sample color: None	(clior)		COL. STrong	· bours silt	
Description of sedim	ent in samp	16: <u>Small a</u>	amount of tin	B Divari	
CHEMICAL DATA					
	_	**	Canductiv	its	
Volume Purged	Temp	p <u>H</u> つ, 00	Conductive 21	1	
<u>Toitinl</u>	720	7,00 7,00	<u></u> -	15	
8.6 9615	<u>73,7</u> 73.3	7,01		7 3	
17.2 galo		7.00	31		
25.8 9915	733	7.01		78	
34.5 97/3	73.3			· · ·	
0 1 X 4 D Y D D D D O Y Y D C'	רומיי				
SAMPLES COLLEC	I ED				
	s Volume & ty	container	Pres Iced?	<u>Analysis</u>	
	40-ml VOA		HY YX	TPH-6/BTEX	<u></u>
$\frac{M\omega-3}{2}$			1 1	TPH-D	
J	1-liter amb	W GIND	1 1	. 046	
	- · <u>v</u>		<u> </u>	<u>~_</u>	
				<u>,,</u>	

aqua science Esta engineers inc.

WELL SAMPLING FIELD LOG

	1 a 1257 Hall Strate Alamada Id
Project Name and Add	Iress: Alameda Max, 1357 High Straat, Alamada, cd Date of sampling: 9-14-95 Sampled by: PK Well diameter (inches): 2
Job #:2545	Date of sampling.
Well Name: MU-4	Sampled by
	00mm1100 (1PP) P(0)
Thickness of floating I	product if any:
	- Frotar Itaati 160
ar the of collogs per	well casing volume (ganons).
	was valuence to be folloyed.
- · · · · · · · · · · · · · · · · · · ·	advictor to he hillord holded sampling (farious).
D	
Approximate volume	of groundwater purged. Yes After how many gallons: 5.5
Time samples were of	ie of sampling: 5.90
ئىمىد	- of compling: XII/
Percent recovery at the	the District of advertibles beiler
Samples collected with	th: Badicated polyetylene bailer (clear) Odor: maderate he
Sample color:	- Copins - Odol. 11
Description of sedime	ent in sample: None
CHEMICAL DATA	
Volume Purged	Temp pH Conductivity
_ Initial_	66-8 7.12 405
1-5 92/	70.6 7.11 403
3.0 gal	70.8 7.07 403
4.5ga/	70.8 7.05 40.3
5.5 gals	70.6 7.06 403
SAMPLES COLLECT	ED
Sample # of containers	Volume & type container Pres Iced? Analysis
MW-4 2	40-ml VOA vials HUL YES TPH-6/BTEX
1 2	1-liter amber 9/125 TPH-D
	V V 046