

January 7, 1993
SCI 554.007

Mr. Ronald W. Doll
Attorney at Law
c/o Mariner Square Associates
2236 Mariner Square
Alameda, California 94501

Quarterly Groundwater Monitoring Report
11/25/92 Sampling Event
Alameda Gateway
Alameda, California

Dear Mr. Doll:

This letter presents quarterly groundwater monitoring results for the referenced site. Groundwater monitoring has been performed at the site as per Alameda County Health Care Services Agency's (ACHCSA) request letter dated November 8, 1992. A groundwater investigation performed by SCI consisted of the installation and monitoring of five groundwater monitoring wells. The results of the groundwater investigation were recorded in a report dated November 4, 1992.

Only 3 wells

The latest groundwater monitoring event consisted of (1) measuring groundwater levels, (2) purging five gallons of water from each of the wells, and (3) sampling each well with a pre-cleaned disposable bailer. The samples were retained in glass containers and preserved with hydrochloric acid. The containers were placed in ice filled coolers and remained cooled until delivery to the analytical laboratory. Chain-of-Custody records accompanied the samples to the laboratory.

Analytical testing was performed by Curtis and Tompkins, Ltd., a State of California Department of Health Services (DHS) certified laboratory for hazardous waste and water testing. The analytical tests included:

1. Total volatile hydrocarbons (TVH), EPA method 8015 mod/5030,
2. Benzene, toluene, xylene and ethylbenzene (BTXE), EPA method 8020/5030,

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3. Total extractable hydrocarbons (TEH), EPA method 8015 mod/3510,
4. Total oil and grease (TOG), SMWW 17:5520B&F, and
6. Lead, EPA method 7421.

A summary of the current and previous analytical test results and groundwater elevation data are presented in Tables 1 and 2, respectively. Analytical test reports and Chain-of-Custody documents are attached.

Conclusions

The analytical test results indicate that during the latest sampling event, TVH, toluene, ethylbenzene, xylenes and lead were not detected in the wells. Oil and grease, TEH and benzene were detected in the wells at the concentrations presented on Table 1.

Groundwater monitoring will continue on a quarterly basis. If you have any questions, please call.

Yours very truly,

Subsurface Consultants, Inc.



R. William Rudolph
Geotechnical Engineer 741 (expires 12/31/96)

EBC:RWR:egh

2 copies submitted

Attachments: Table 1 - Contaminant Concentrations in Groundwater
Table 2 - Groundwater Elevations
Plate 1 - Site Plan
Analytical Test Reports
Chain-of-Custody Documents

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cc: Mr. Rich Hiatt
Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, California 94612

Ms. Juliet Shin
Alameda County Health Care Services Agency
80 Swan Way, Room 350
Oakland, California 94662-0901

Table 1.

Contaminant Concentrations in Groundwater

Well	Date	Oil and Grease mg/l	TEH ug/l	TVH ug/l	Benzene ug/l	Toluene ug/l	Ethyl-Benzene ug/l	Total Xylenes ug/l	Lead ug/l
MW-1	09/02/92	ND(5)	4800	--	0.6	ND(0.5)	ND(0.5)	ND(0.5)	9
	11/20/92	ND(5)	3900	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(3)
MW-2	09/02/92	ND(5)	820	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	10
	11/20/92	12	5600	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(3)
MW-3	09/02/92	ND(5)	4000	73	ND(1)	ND(1)	ND(1)	ND(1)	360
	11/20/92	ND(5)	14000	ND(50)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(3)

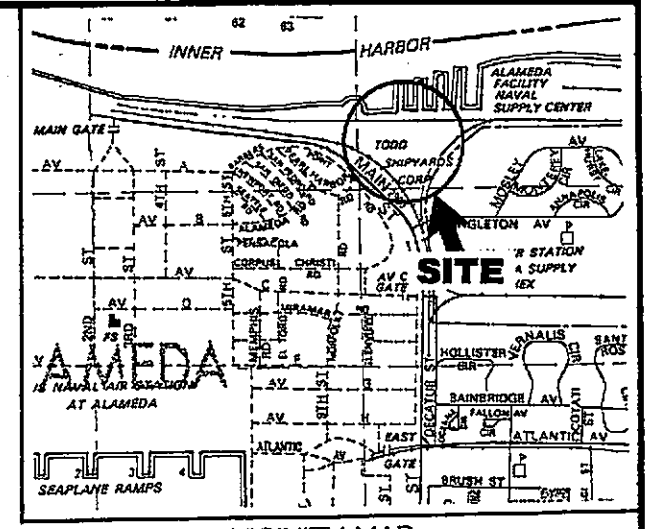
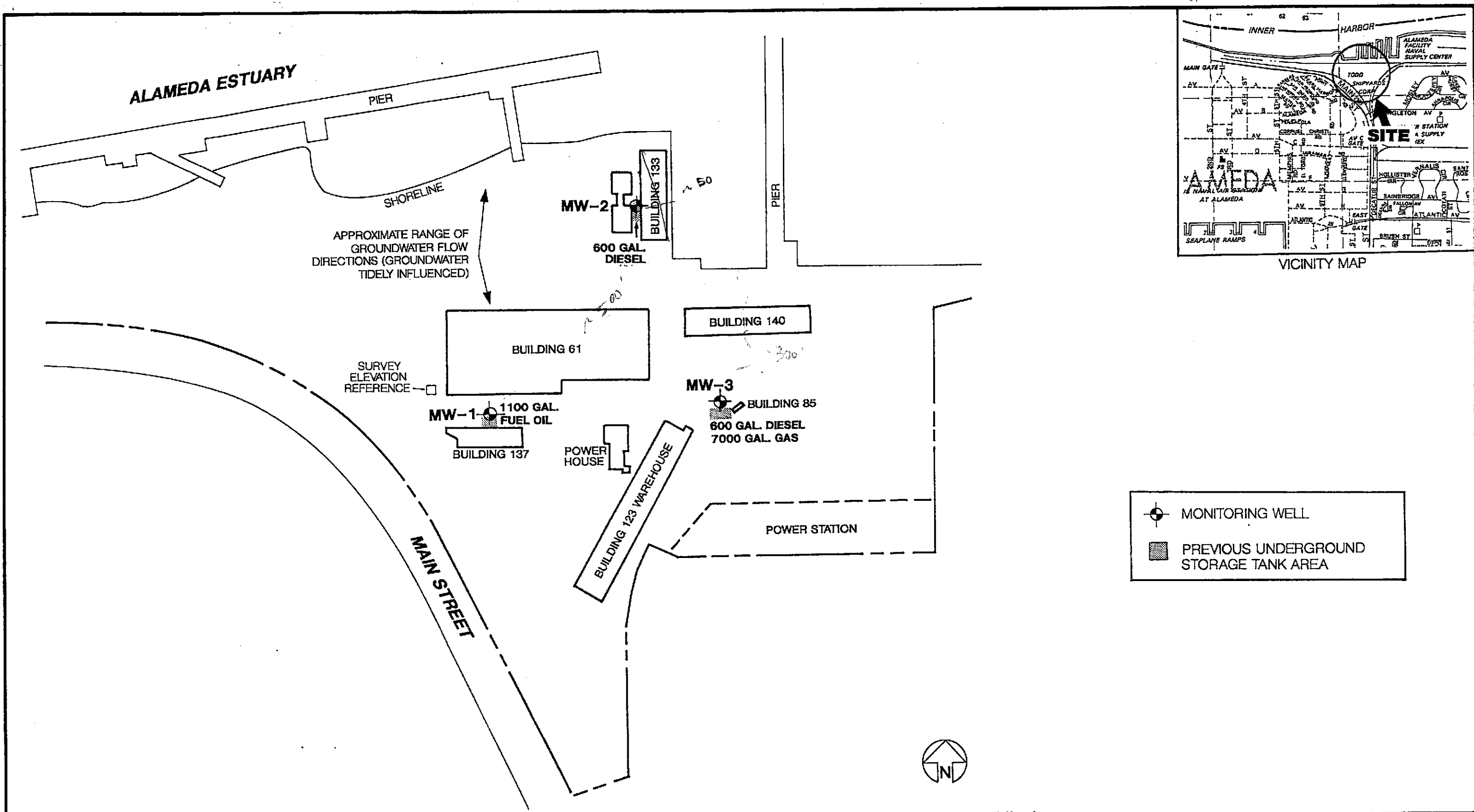
TEH = total extractable hydrocarbons, EPA 8015/3550
 TVH = total volatile hydrocarbons, EPA 8015 mod/5030
 mg/l = milligrams per liter or parts per billion (ppb)
 ug/l = micrograms per liter or parts per billion (ppb)
 ND = None detected above reporting limits indicated in parentheses

Table 2.

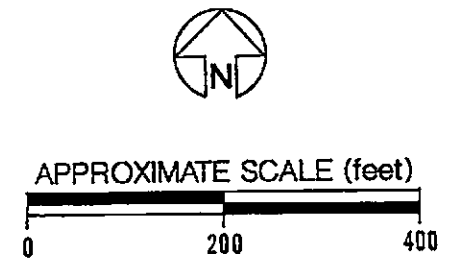
Groundwater Elevation Data

<u>Tank Area</u>	<u>Well</u>	<u>TOC Elev (ft)</u>	<u>Date</u>	<u>Time</u>	<u>Groundwater Depth (ft)</u>	<u>Groundwater Elevation (ft)</u>
133	MW-1	9.16	8/19/92	1525	3.45	5.71
			9/01/92	0915	3.48	5.68
			9/01/92	1615	3.48	5.68
			9/16/92	1115	3.65	5.51
			11/25/92	1325	3.48	5.68
137	MW-2	9.73	8/19/92	1515	4.36	5.37
			9/01/92	0905	5.27	4.46
			9/01/92	1605	3.29	6.44
			9/16/92	1105	5.42	4.31
			11/25/92	1339	3.59	6.14
85A and B	MW-3	7.67	8/19/92	1520	2.32	5.35
			9/01/92	0910	2.16	5.51
			9/01/92	1610	2.15	5.52
			9/16/92	1110	2.32	5.35
			11/25/92	1331	1.82	5.85

TOC = Top of Casing
Elevation with respect to Mean Lower Low Water (MLLW) datum



MONITORING WELL
 PREVIOUS UNDERGROUND STORAGE TANK AREA



SITE PLAN		
2900 MAIN STREET - ALAMEDA, CA		
JOB NUMBER 554.007	DATE 1/8/93	APPROVED <i>CC</i>
Subsurface Consultants		PLATE 1



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

DATE RECEIVED: 11/30/92
DATE REPORTED: 12/07/92

LABORATORY NUMBER: 109373

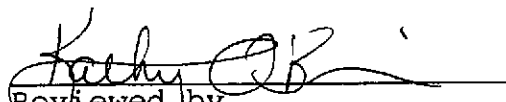
CLIENT: SUBSURFACE CONSULTANTS

PROJECT ID: 554.007

LOCATION: 2900 MAIN ST. ALAMEDA

RESULTS: SEE ATTACHED


Reviewed by


Reviewed by

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LABORATORY NUMBER: 109373
 CLIENT: SUBSURFACE CONSULTANTS
 PROJECT ID: 554.007
 LOCATION: 2900 MAIN ST. ALAMEDA

DATE SAMPLED: 11/25/92
 DATE RECEIVED: 11/30/92
 DATE EXTRACTED: 12/03/92
 DATE ANALYZED: 12/05/92
 DATE REPORTED: 12/07/92

Extractable Petroleum Hydrocarbons in Aqueous Solutions
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (ug/L)	DIESEL RANGE (ug/L)	REPORTING LIMIT* (ug/L)
109373-1	MW-1	**	3,900	50
109373-2	MW-2	**	5,600	50
109373-3	MW-3	**	14,000	50

**Kerosene range not reported. Quantitated as diesel range.

* Reporting limit applies to all analytes.

QA/QC SUMMARY

=====
 RPD, % 1
 RECOVERY, % 98
 =====

LABORATORY NUMBER: 109373
 CLIENT: SUBSURFACE CONSULTANTS
 PROJECT ID: 554.007
 LOCATION: ALAMEDA GATEWAY

DATE SAMPLED: 11/25/92
 DATE RECEIVED: 11/30/92
 DATE ANALYZED: 12/03/92
 DATE REPORTED: 12/07/92

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)	REPORTING LIMIT * (ug/L)
109373-1	MW-1	ND	ND	ND	ND	0.5
109373-2	MW-2	ND	ND	ND	ND	0.5

ND = Not detected at or above reporting limit.

* Reporting Limit applies to all analytes.

QA/QC SUMMARY

=====
 RPD, % 5
 RECOVERY, % 100
 =====

LABORATORY NUMBER: 109373
 CLIENT: SUBSURFACE CONSULTANTS
 PROJECT ID: 554.007
 LOCATION: ALAMEDA GATEWAY

DATE SAMPLED: 11/25/92
 DATE RECEIVED: 11/30/92
 DATE ANALYZED: 12/03/92
 DATE REPORTED: 12/07/92

Total Volatile Hydrocarbons with BTXE in Aqueous Solutions
 TVH by California DOHS Method/LUFT Manual October 1989
 BTXE by EPA 5030/8020

LAB ID	SAMPLE ID	TVH AS GASOLINE (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)
109373-3	MW-3	ND(50)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)

ND = Not detected at or above reporting limit; Reporting limit
 indicated in parentheses.

QA/QC SUMMARY

=====
 RPD, % 7
 RECOVERY, % 105
 =====

LABORATORY NUMBER: 109373
 CLIENT: SUBSURFACE CONSULTANTS
 PROJECT: 554.007
 LOCATION: ALAMEDA GATEWAY

DATE SAMPLED: 11/25/92
 DATE RECEIVED: 11/30/92
 DATE ANALYZED: 12/01/92
 DATE REPORTED: 12/07/92

=====
 ANALYSIS: LEAD
 ANALYSIS METHOD: EPA 7421
 =====

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
109373-1	MW-1	ND	ug/L	3
109373-2	MW-2	ND	ug/L	3
109373-3	MW-3	ND	ug/L	3

ND = Not detected at or above reporting limit.

QA/QC SUMMARY:

=====
 RPD, % 3
 RECOVERY, % 89
 =====

Client: Subsurface Consultants

Laboratory Login Number: 109373

 Project Name: Alameda Gateway
 Project Number: 554.007

Report Date: 07 December 92

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) METHOD: SMWW 17:5520BF

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
109373-001	MW-1	Water	25-NOV-92	30-NOV-92	02-DEC-92	ND	mg/L	5	TR	7605
109373-002	MW-2	Water	25-NOV-92	30-NOV-92	02-DEC-92	12.	mg/L	5	TR	7605
109373-003	MW-3	Water	25-NOV-92	30-NOV-92	02-DEC-92	ND	mg/L	5	TR	7605

ND = Not Detected at or above Reporting Limit (RL).

Q C B a t c h R e p o r t

Client: Subsurface Consultants
 Project Name: Alameda Gateway
 Project Number: 554.007

Laboratory Login Number: 109373
 Report Date: 07 December 92

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric)

QC Batch Number: 7605

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
BLANK	ND	5	mg/L	SMWW 17:5520BF	02-DEC-92

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	87%	SMWW 17:5520BF	02-DEC-92
BSD	86%	SMWW 17:5520BF	02-DEC-92

		Control Limits
Average Spike Recovery	86%	80% - 120%
Relative Percent Difference	1.2%	< 20%

CHAIN OF CUSTODY FORM

PAGE _____ OF _____

PROJECT NAME: 2900 Main St. Alameda
 JOB NUMBER: 554.007 LAB: Curtis + Tompkins
 PROJECT CONTACT: Sean Carson TURNAROUND: Normal
 SAMPLED BY: E. CHANG REQUESTED BY: Sean Carson

ANALYSIS REQUESTED					
TVH	BTXE	TEH	O+G	SMW	17.55200
XX	XX	XX	XX	XX	XX

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX				CONTAINERS				METHOD PRESERVED					SAMPLING DATE				NOTES					
		WATER	SOIL	WASTE	AIR	4	4	LITER	PINT	TUBE	HCL	H2SO4	HNO3	ICE	NONE	MONTH	DAY	YEAR		TIME				
																				HH	MM			
109373-1	MW-1	XX				4	4	2	1		XX			XX		11	1	25	9	2	1	5	0	0
↓ -2	MW-2	XX				4	2	1			XX			XX		11	1	25	9	2	1	4	0	0
↓ -3	MW-3	XX				4	2	1			XX			XX		1	1	25	9	2	1	6	0	0

COMMENTS & NOTES:

CHAIN OF CUSTODY RECORD			
RELEASED BY: (Signature) <i>Gene H. ...</i>	DATE/TIME 11/21/92	RECEIVED BY: (Signature)	DATE/TIME
RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature) <i>Tom ...</i>	DATE/TIME 11/22/92

Subsurface Consultants, Inc.
 171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607