DECEMBER, 1994 QUARTERLY GROUND WATER SAMPLING REPORT FOR STID 553 - GRIMIT AUTO AND REPAIR 1970 SEMINARY AVENUE OAKLAND, CALIFORNIA

Prepared by

HOEXTER CONSULTING, INC.
734 Torreya Court
Palo Alto, California 94303

415-494-2505 (ph. & fax)

HOEXTER CONSULTING, INC.

734 Torreya Court
Palo Alto, California 94303

(415) 494-2505 (phone & fax)

ALCO HAZMAT
95 JAN 18 AM 7:53

TRANSMITTAL

TO Alameda County Env. Protection
1131 Harbor Bay Pkwy #250
Alameda CA 94502-6577

DATE 1/13/95
VIA US Mail
FAX NO. N/A

ATTENTION Thomas Peacock

PROJECT 1970 Seminary / Oakland
STID 553

JOB NO. E-10-1-019

DESCRIPTION 1/13/95 report of 12/94 Quarterly

Number of pages, including cover page, if FAX _____

COMMENTS Vastly "improved" results - I am currently working on a work plan for next phase investigation / remediation

ACTION

_____ As requested
__✓__ For your use
_____ Please return when finished
_____ Please review and comment
_____ Other_____

COPY TO _____

BY D. F. Hoexter
David F. Hoexter

If enclosures are not as noted, kindly notify us at once

Rev. 7/6/93

Geology / Engineering Geology / Environmental Studies

HOEXTER CONSULTING, INC.
DAVID F. HOEXTER, R.G./C.E.G./R.E.A.

734 Torreya Court
Palo Alto, California 94303

(415) 494-2505 (ph. & fax)

January 13, 1995

E-10-1-019
HCQuartEnvtRpts:Seminary1970/5

Mr. Doyle Grimit
14366 Lark Street
San Leandro, California 94578

RE: DECEMBER, 1994 QUARTERLY
GROUND WATER SAMPLING REPORT
STID 553 - GRIMIT AUTO AND REPAIR
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA

Dear Mr. Grimit:

Enclosed is our December, 1994 quarterly ground water sampling report for the property located at 1970 Seminary Avenue, corner of Harmon, in Oakland, California This sampling round is the fifth quarterly sampling performed by Hoexter Consulting at the site. The results of an initial sampling round by Kaldveer Associates, Inc, following well installation, and the previous Hoexter Consulting quarterly and sub-surface investigation sampling, are included in the analytical results summary table.

The results of this investigation indicate that the water samples from the three on-site wells contain elevated to very low levels of total petroleum hydrocarbons as gasoline (TPH-G), purgeable aromatic compounds (BTEX), and of oil (total recoverable petroleum hydrocarbons, TRPH). The water sample from well MW-1 indicates a very marked decrease in all analyzed compounds; the levels in wells MW-2 and MW-3 indicate, on the whole, a slight increase in the analyzed compounds.

We are currently reviewing the occurrence of petroleum hydrocarbons at the site, and will present a proposal for additional evaluation and remediation of the site.

We recommend that copies of this report be submitted to the California Regional Water Quality Control Board and the Alameda County Department of Environmental Health. The next round of sampling is scheduled for March or April, 1995, following installation of additional monitoring wells and additional site evaluation.

We appreciate the opportunity to provide services to you on this project and trust this report meets your needs at this time. If you have any questions, or require additional information, please do not hesitate to call.

Very truly yours,

HOEXTER CONSULTING, INC.

David F. Hoexter, RG/CEG/REA
Principal

Copies: Addressee (2)
Alameda County Health Care Services Agency (1)
Attention: Mr. Thomas F. Peacock

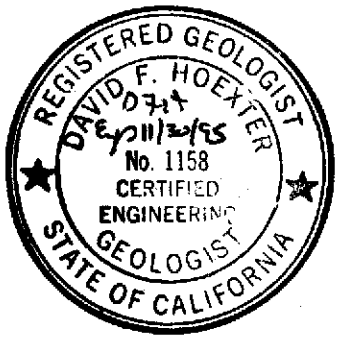
DECEMBER, 1994 QUARTERLY
GROUND WATER SAMPLING REPORT

For

STID 553 - Grimit Auto and Repair
1970 Seminary Avenue
Oakland, California

To

Mr. Doyle Grimit
14366 Lark Street
San Leandro, California 94578



January 13, 1995

David F. Hoexter, R.G./C.E.G./R.E.A.
Principal

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DECEMBER, 1994 QUARTERLY GROUND WATER SAMPLING REPORT FOR STID 553 - GRIMIT AUTO AND REPAIR 1970 SEMINARY OAKLAND, CALIFORNIA

I. INTRODUCTION

This report presents the results of the December, 1994 quarterly ground water sampling at 1970 Seminary, Oakland, California. The project location is shown on the Site Location Map, Figure 1. The scope of services provided during this investigation consisted of collecting and analyzing ground water samples from three on-site monitoring wells. Ground water samples were analyzed for total petroleum hydrocarbons as gasoline, for purgeable aromatic compounds, and for oil and grease. Well locations are shown on the Well Location Map, Figure 2.

II. FIELD INVESTIGATION

The ground water monitoring wells were sampled by a representative of Hoexter Consulting, Inc. on December 28, 1994. Following an initial ground water level measurement (Table 1), each well was checked for free-product with the bailer, and then four well-casing volumes of water were purged from the well. A dedicated teflon bailer was employed for each well. Water levels were measured twice in each well, on the order of 45 minutes apart, prior to purging. The second set of water levels is recorded on Table 1. The initial depth to ground water in well MW-1 was 5.28 feet higher than the previous, September, 1994 reading. Well MW-2 declined 2.46 feet; well MW-3 rose 1.53 feet. Note that wells MW-1 and MW-2 are identically completed; MW-3 is completed to a shallower depth. The apparent inconsistency in ground water level changes is not explained. It is possible that the water levels were not fully stabilized when measured.

Following purging, samples were collected using the teflon bailer, placed in appropriate sample containers supplied by the analytical laboratory, labeled, and placed in refrigerated storage for transport to the laboratory under chain-of-custody control. All sampling equipment was thoroughly cleaned with trisodium phosphate detergent and rinsed with distilled water prior to sampling the well. Monitoring well sampling logs and the chain of custody are attached to this report as a part of Appendix I. The laboratory is California Department of Health Services approved for the requested analyses.

Although three wells are present on the site, one of the wells (MW-3) is completed at a shallower depth than the other two wells. Thus, although ground water elevation data were obtained for this investigation and are presented in Table 1, the data are not plotted, as a true ground water flow direction cannot be determined from wells not similarly completed.

III. ANALYTICAL RESULTS

A. Laboratory Procedures

The ground water samples were analyzed by Sequoia Analytical of Redwood City, California. The samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) using EPA Method 5030/8015; for purgeable aromatic compounds (BTEX) using EPA Method 8020; and for oil and grease (total recoverable petroleum, TRPH) using EPA Method 418.1 (equivalent to SM 5520C/F).

B. Analytical Results

The results of the chemical analyses are presented on Table 2 and are attached to this report as a part of Appendix I. Analytical results of all previous testing, including the August, 1990 sampling by Kaldveer Associates, Inc, following installation of well MW-1, are also included. The current analytical results indicate that TRPH, TPH-G, and BTEX compounds are present at elevated but significantly decreased levels in monitoring well MW-1. Very low levels of TPH-G and BTEX were detected in wells MW-2 and MW-3; TRPH was detected in MW-2 for the first time, but was not detected in MW-3.

The test results for MW-1 indicate a marked decrease in levels of all detected compounds, particularly TPH-G. In particular, the levels of TPH-G decreased to nearly the lowest level detected, in August, 1990. BTEX and TRPH also decreased, by an order-of-magnitude, from the September 1994 sampling event. The levels of petroleum hydrocarbons in wells MW-2 and MW-3 are overall increased, although of the same order of magnitude as previous sampling events.

Free product was not observed in the initial sounding of the wells, although a sheen (floating film) of oil was observed in well MW-1. The purge water from well MW-1 during previous well sampling events has consistently contained globules of "oil", which were not present during this sampling round.

IV. RECOMMENDATIONS

Notwithstanding the apparent decline in MW-1 petroleum hydrocarbon detection, we recommend initiation of site remediation, as previously recommended.

V. LIMITATIONS

This report has been prepared according to generally accepted geologic and environmental practices. No other warranty, either expressed or implied as to the methods, results, conclusions or professional advice provided is made. The analysis, conclusions and recommendations contained in this report are based on site conditions as they existed at the time of our investigation; review of previous reports relevant to the site conditions; and laboratory results from an outside analytical laboratory.

Changes in the information or data gained from any of these sources could result in changes in our conclusions or recommendations. If such changes do occur, we should be advised so that we can review our report in light of those changes.

* *

TABLE 1

GROUND WATER ELEVATION DATA
(All Measurements in Feet)

Well Number		Well Top Elevation (2)	Depth to Water	Relative Ground Water Elevation (2)
MW-1				
	8/6/90	37.0	21.5	15.5
	1/28/92		21.0	16.0
	4/27/92		20.95	16.05
	8/10/92		22.20	14.8
	2/11/94		15.93 (3)	21.07
	2/28/94		13.85 (4)	23.15
	9/9/94		20.19	16.81
	12/28/94		14.91	22.09
MW-2				
	2/11/94	36.40	14.16 (3)	22.24
	2/28/94		16.01 (4)	20.39
	9/9/94		18.96	17.44
	12/28/94		21.42	14.98
MW-3				
	2/11/94	36.94	6.97 (3)	29.97
	2/28/94		7.74 (4)	29.20
	9/9/94		9.68	27.26
	12/28/94		8.15	28.79

Notes:

(1) N/A = Not applicable
(2) City of Oakland datum
(3) Well under pressure when locking cap removed; water level may not have been stabilized
(4) Depth to water was measured over a 120 minute period; indicated depths are final, stabilized readings

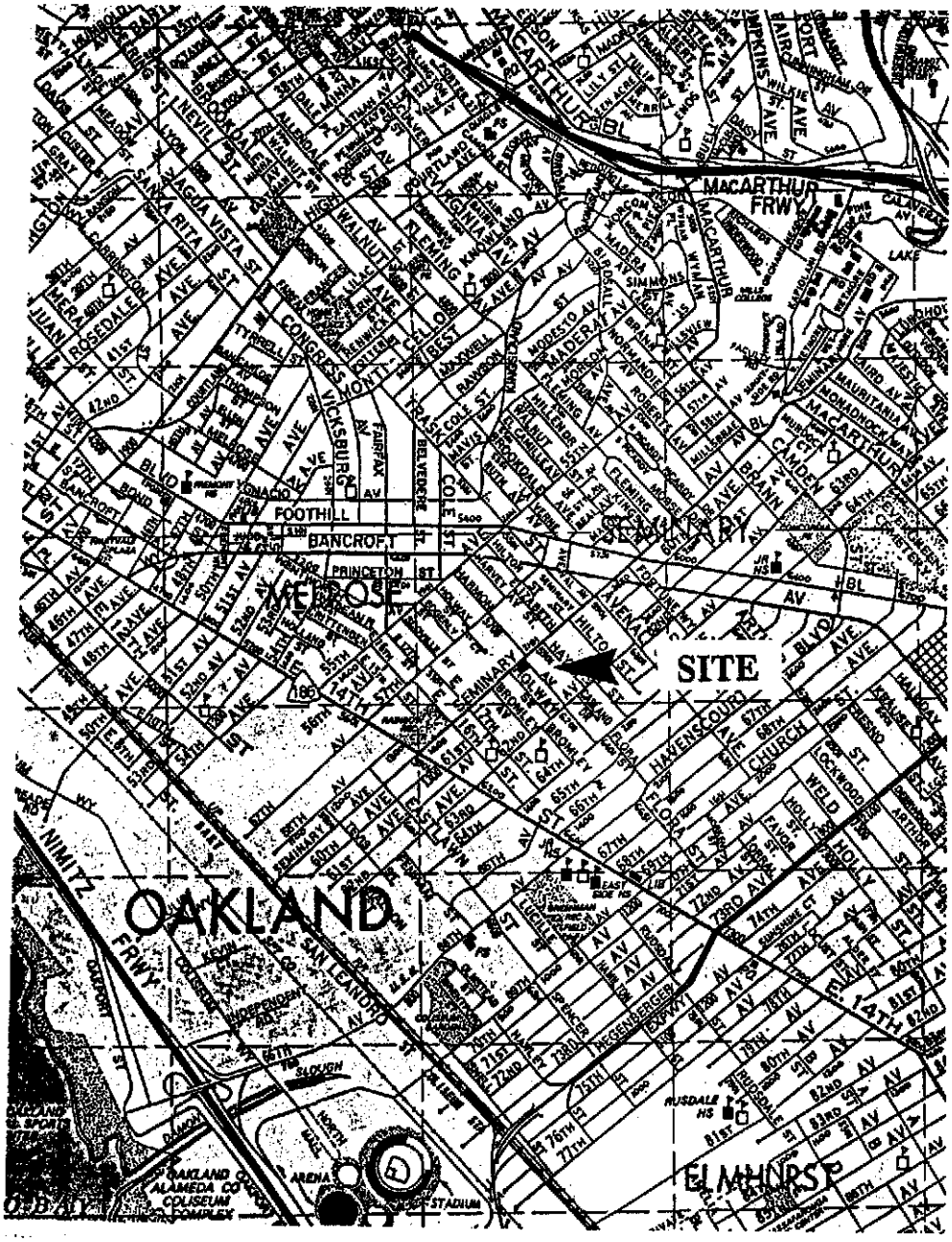
TABLE 2

SUMMARY OF ANALYTICAL TEST RESULTS - GROUND WATER
(Results reported in parts per *million*, mg/l) (1)

Well and Date	TPH Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene	Oil & Grease
MW-1						
8/6/90 (2)	54	3.5	3.2	9.4	1.9	7.6
1/28/92 (3)	2,000	7.4	17.0	120.0	28.0	75 (5)
4/27/92 (3)	500	3.4	6.4	45.0	10.0	440 (6)
4/27/92 (4)	175	4.2	4.4	14.6	3.2	N/A
8/10/92 (3)	170	4.2	4.2	15.0	3.3	120 (6)
2/11/94 (3)	[illegible]	ND	5.1	23.0	5.2	16 (6)
9/9/94 (3)	[illegible]	[illegible]	61	137	9.1	880 (6)
12/28/94 (3)	[illegible]	[illegible]	5.3	5.8	1.4	83 (6)
MW-2						
2/11/94 (3)	0.130	0.022	0.0011	0.0073	0.0052	ND (6)
9/9/94 (3)	1.0	0.089	ND	0.00069	ND	ND (6)
12/28/94 (3)	0.330	0.100	0.0038	0.0047	0.0054	5.1 (6)
MW-3						
2/11/94 (3)	ND	ND	ND	ND	ND	ND (6)
9/9/94 (3)	0.710	0.010	ND	0.0035	ND	ND (6)
12/28/94 (3)	2.300	0.0078	ND	0.073	0.130	ND (6)

Notes:

(1) ND - non-detect; N/A - not applicable
(2) Kaldveer Associates report, September, 1990
(3) Sequoia Analytical Laboratory
(4) Applied Remediation Laboratory
(5) Gravimetric Method
(6) Infrared Method



ALAMEDA COUNTY

1991 *Thomas Guide*

0 1/4 1/2 1/4 MILES
0 .1 .2 .5 1 KILOMETERS

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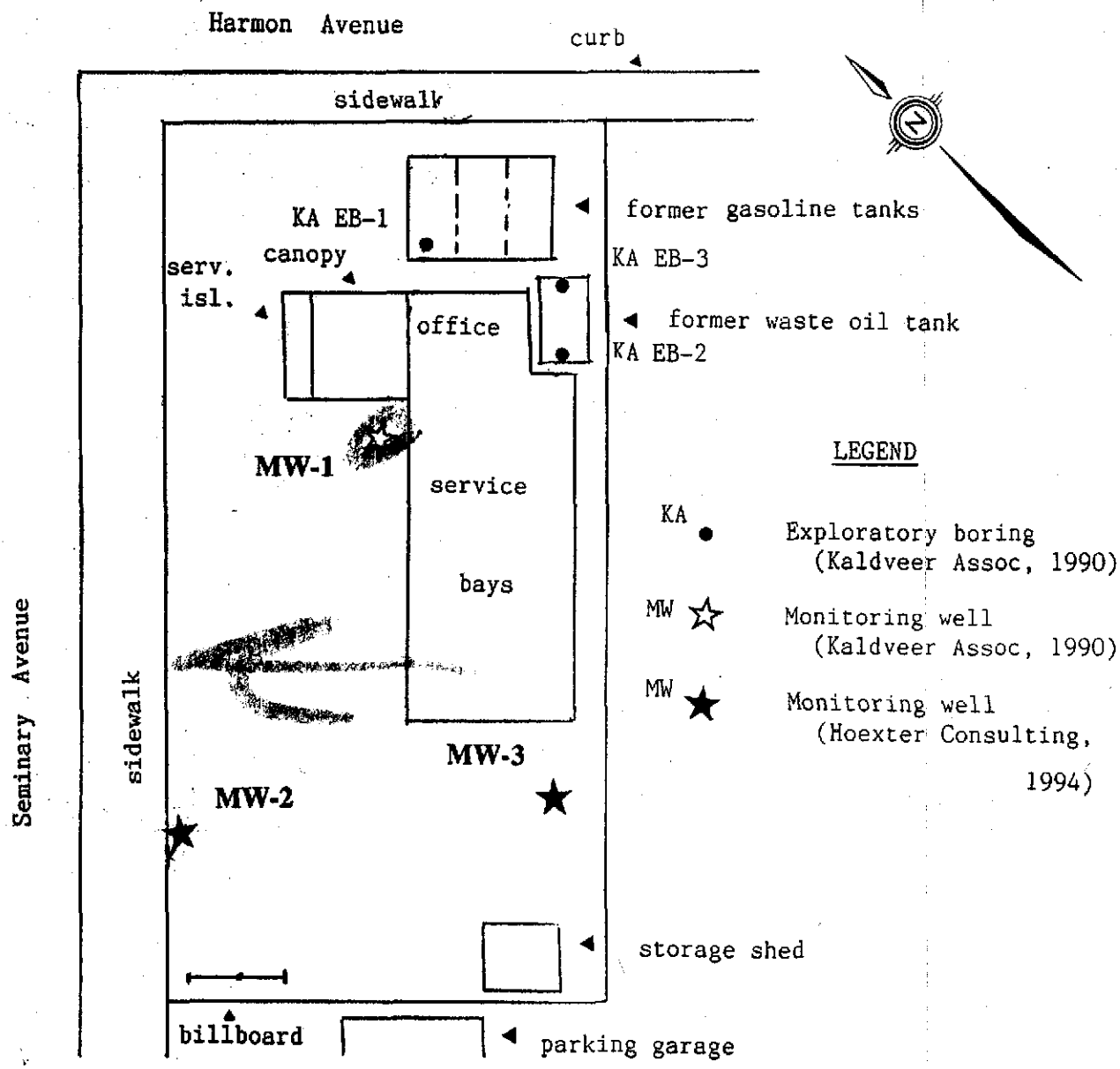
LOCATION MAP

1970 Seminary Avenue
Oakland, California

Project No.	Date	Figure
E-10-1-019	January, 1995	1



Base: Field sketch, 10/25/93

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SITE PLAN

1970 Seminary Avenue
Oakland, California

Project No.	Date	Figure
E-10-1-019	January, 1995	2

APPENDIX I

WATER SAMPLE LOG
CHAIN OF CUSTODY
ANALYTICAL TEST RESULTS

HOEXTER CONSULTING

Groundwater Sampling Field Log

Project Name/ No.: Seminary / E-10-1-019
Client: D. Grimit
Project Manager: D.F. Hoexter
Sampler: J. Forsythe
Casing Diameter: 2 inch X 3 inch ____ 4 inch ____ 6 inch ____ Other: ____

Lab I.D.: 9412G68-01
Date: 12/28/94
Sample Location/I.D.: MW-1
Start Time: ____

Depth of Well (feet): 35
Depth to Water (feet): 14.91 (12:41) 15.49 (11:56)
Sample Depth (feet): ____

Calculated Purged Volume: 13.1 gal
Actual Purged Volume 14
(35 - 14.91)(0.1632) = 3.3 gal/vol.

Field Measurements

Time	Cum	Volume (gal.)	pH (units)	E.C. (umhos/cm)	Temperature Degrees F	Color (visual)	Other
15:29	35	3.5	6.45	807	59.4	cloudy	
15:41	7	3.5	6.74	910	62.4	↓	
15:50	10.5	3.5	6.75	899	63.6	↓	
16:02	14.0	3.5	6.72	913	62.9	↓	

Purge Method

____ 2" Bladder Pump X Bailer - dedicated disp polyethylene ____ Well Wizard ✓ Dedicated
____ Submersible Pump ____ Cenetrifugal Pump ____ Dipper ____ Other
____ Pneumatic Displacement Pump

Sample Method

____ 2" Bladder Pump X Bailer (same) ____ Well Wizard ✓ Dedicated
____ Surface Sampler ____ Dipper ____ Fultz Pump ____ Other

Well Integrity: OK - water in box but cap tight (pressure relief upon removal)
Remarks: Moderate odor + sheen on initial bail

Signature: Jack Forsythe / DFH

Volumes Per Unit Length Selected Well Casing Diameters

Well Casing I.D. (inches)	Volume Per Unit Length Gal/ft	Cubic Ft/ft	L/M	L/Ft
1.5	0.0918	0.0123	1.140	0.3475
2.0	0.1632	0.0218	2.027	0.6178
3.0	0.3672	0.0491	4.560	1.3900
4.0	0.6528	0.0873	8.107	2.4710
6.0	1.4690	0.1963	18.240	5.5600

Conversion Factors

To Convert	Into	Mulitply
Ft. of Water	Lbs/sq.in.	0.4335
Lbs/Sq. inch	Ft. of Water	2.3070
Cubic feet	Gallons	7.4800
Gallons	Liters	3.7850
Feet	Meters	0.30048
Inches	Centimeters	2.5400

HOEXTER CONSULTING

Groundwater Sampling Field Log

Project Name/ No.: Seminary / E-10-1-019
Client: D. Gramit
Project Manager: D.F. Hoexter
Sampler: J. Forsythe
Casing Diameter: 2 inch ✓ 3 inch ____ 4 inch ____ 6 inch ____ Other: ____

Lab I.D.: 9412G68-02
Date: 12/28/94
Sample Location/I.D.: MW-2
Start Time: ____

Depth of Well (feet): 35
Depth to Water (feet): 21.42 (12:35) 22.24 (11:46)
Sample Depth (feet): ____

Calculated Purged Volume: 8.9 gal
Actual Purged Volume 10

(35 - 21.42)(0.1632) = 2.2 gal/vol.

Field Measurements

Time	Cum	Volume (gal.)	pH (units)	E.C. (umhos/cm)	Temperature Degrees F	Color (visual)	Other
14:13	2.5	2.5	6.56	761	58.6	clear	
14:30	5.0	2.5	6.64	714	60.8	↓	
14:44	7.5	2.5	6.74	712	62.1	↓	
15:01	10.0	2.5	6.68	715	61.8	↓	

Purge Method

____ 2" Bladder Pump ____ Bailer - disp. polyethylene (dedicated) ____ Well Wizard ____ Dedicated
____ Submersible Pump ____ Cenetrifugal Pump ____ Dipper ____ Other
____ Pneumatic Displacement Pump

Sample Method

____ 2" Bladder Pump ____ Bailer (same) ____ Well Wizard ✓ Dedicated
____ Surface Sampler ____ Dipper ____ Fultz Pump ____ Other

Well Integrity: OK
Remarks: slight odor, no sheen on initial bail

Signature: Jack Forsythe / D-27 HC

Volumes Per Unit Length Selected Well Casing Diameters

Well Casing I.D. (inches)	Volume Per Unit Length Gal/ft	Cubic Ft/ft	L/M	L/Ft
1.5	0.0918	0.0123	1.140	0.3475
2.0	0.1632	0.0218	2.027	0.6178
3.0	0.3672	0.0491	4.560	1.3900
4.0	0.6528	0.0873	8.107	2.4710
6.0	1.4690	0.1963	18.240	5.5600

Conversion Factors

To Convert	Into	Multiply
Ft. of Water	Lbs/sq.in.	0.4335
Lbs/Sq. inch	Ft. of Water	2.3070
Cubic feet	Gallons	7.4800
Gallons	Liters	3.7850
Feet	Meters	0.30048
Inches	Centimeters	2.5400

HOEXTER CONSULTING

Groundwater Sampling Field Log

Project Name/ No.: Seminary / E-10-1-019
Client: D. Cramit
Project Manager: D.E. Hoexter
Sampler: J. Forsythe
Casing Diameter: 2 inch X 3 inch ____ 4 inch ____ 6 inch ____ Other: ____

Lab I.D.: 9412G68-03
Date: 12/28/94
Sample Location/I.D.: MW-3
Start Time: ____

Depth of Well (feet): 20
Depth to Water (feet): 8.15 (12:37) 8.49 (11:50)
Sample Depth (feet): ____

Calculated Purged Volume: 7.7 gal
Actual Purged Volume 8.0 gal
(20 - 8.15)(0.1632) = 1.9 gal/vol

Field Measurements

Time	Cum	Volume (gal.)	pH (units)	E.C. (umhos/cm)	Temperature Degrees F	Color (visual)	Other
13:20	2.0	2.0	6.90	697	62.2	sl. cloudy	
13:35	4.0	2.0	6.68	659	59.9	↓	
13:41	6.0	2.0	6.62	700	61.7	↓	
13:51	8.0	2.0	6.65	650	56.3	↓	

Purge Method

____ 2" Bladder Pump ✓ Bailer - Dedicated with leader Well Wizard ✓ Dedicated
____ Submersible Pump ____ Cenetrifugal Pump ____ Dipper ____ Other
____ Pneumatic Displacement Pump

Sample Method

____ 2" Bladder Pump ✓ Bailer (same) ____ Well Wizard ✓ Dedicated
____ Surface Sampler ____ Dipper ____ Fultz Pump ____ Other

Well Integrity: OK
Remarks: No odor or sheen on initial bail

Signature: Jack Forsythe / DEH

Volumes Per Unit Length Selected Well Casing Diameters

Well Casing I.D. (inches)	Volume Per Unit Length Gal/ft	Cubic Ft/ft	L/M	L/Ft
1.5	0.0918	0.0123	1.140	0.3475
2.0	0.1632	0.0218	2.027	0.6178
3.0	0.3672	0.0491	4.560	1.3900
4.0	0.6528	0.0873	8.107	2.4710
6.0	1.4690	0.1963	18.240	5.5600

Conversion Factors

To Convert	Into	Mulitply
Ft. of Water	Lbs/sq.in.	0.4335
Lbs/Sq. inch	Ft. of Water	2.3070
Cubic feet	Gallons	7.4800
Gallons	Liters	3.7850
Feet	Meters	0.30048
Inches	Centimeters	2.5400

CHAIN-OF-CUSTODY RECORD

Project Number	Project Name
E-10-1-019	SEMINARY

Sampler's Name (printed): J. FORSYTHE

Boring Number	Date	Time	Soil	Water	Sample Location or Depth	Sample Number	Number/Type of Containers	Analytical Tests: TPH-G/BTEX *	Analytical Tests: SM5520 C/F *	Remarks
MW-1	12/28/94	17:00		↓			3-40 ml	X		
	↓						1-1000 ml		X	
MW-2		16:40					3-40 ml	X		
							1-1000 ml		X	
MW-3		16:30					3-40 ml	X		
							1-1000 ml		X	
										10°C

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
J. Forsythe	12/28/94 18:10	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
	12/28/94 18:10	

Ship To: SEQUOIA ANALYTICAL
680 CHESAPEAKE DR.
REDWOOD CITY, CA 94063

Attention: RECEIVING
Phone No: 415-364-9600

Requested Turnaround Time: NORMAL

Contact: DAVID F. HOEXTER

Phone: 415-494-2505 PH/FAX

Remarks: * ANALYZE PER RWQCB LUFT GUIDELINES

Hoexter Consulting
Engineering Geology
734 Torreya Court
Palo Alto, CA 94303

CHAIN-OF-CUSTODY RECORD

Project Number	Project Name
E-10-1-019	SEMINARY

Sampler's Name (printed): J. FORSYTHE

9412G68

Boring Number	Date	Time	Soil	Water	Sample Location or Depth	Sample Number	Number/Type of Containers	Analytical Tests: TPH-G/BTEX *	Analytical Tests: SM5520 O/G *	Remarks
MW-1	12/28/94	17:00					3-40 ml	X		1 A,D
							1-1000 ml		X	
MW-2		16:40					3-40 ml	X		2
							1-1000 ml		X	
MW-3		16:30					3-40 ml	X		3
							1-1000 ml		X	

10°C

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
J. Forsythe	12/28/94 18:10	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
	12/28/94 1810	

Ship To: SEQUOIA ANALYTICAL
680 CHESAPEAKE DR.
REDWOOD CITY, CA 94063

Attention: RECEIVING
Phone No: 415-364-9600

Requested turnaround Time: NORMAL

Contact: DAVID F. HOEXTER

Phone: 415-494-2505 PH/FAX

Remarks: * ANALYZE PER RWQCB LUFT GUIDELINES

Hoexter Consulting
Engineering Geology
734 Torreya Court
Palo Alto, CA 94303

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Hoexter Consulting Eng'g Geo
734 Torreya Court
Palo Alto, CA 94303

Attention: David F. Hoexter

Client Proj. ID: E-10-1-019, Seminary

Lab Proj. ID: 9412G68

Sampled: 12/28/94
Received: 12/28/94
Analyzed: see below

Reported: 01/10/95

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9412G68-01 Sample Desc : **LIQUID,MW-1**				
TRPH (EPA 418.1)	**mg/L**	**01/06/95**	**50**	**83**
Lab No: 9412G68-02 Sample Desc : **LIQUID,MW-2**				
TRPH (EPA 418.1)	**mg/L**	**01/06/95**	**5.0**	**5.1**
Lab No: 9412G68-03 Sample Desc : **LIQUID,MW-3**				
TRPH (EPA 418.1)	mg/L		5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Suzanne Chin
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Hoexter Consulting Eng'g Geo	Client Proj. ID: E-10-1-019, Seminary	Sampled: 12/28/94
734 Torreya Court	Sample Descript: MW-1	Received: 12/28/94
Palo Alto, CA 94303	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 01/06/95
Attention: David F. Hoexter	Lab Number: 9412G68-01	Reported: 01/10/95

QC Batch Number: GC010695BTEX06A
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10000	55000
Benzene	100	3700
Toluene	100	5300
Ethyl Benzene	100	1400
Xylenes (Total)	100	5800
Chromatogram Pattern:		Gas

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	109

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Suzanne Chin
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Hoexter Consulting Eng'g Geo	Client Proj. ID: E-10-1-019, Seminary	Sampled: 12/28/94
734 Torreya Court	Sample Descript: MW-2	Received: 12/28/94
Palo Alto, CA 94303	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 01/06/95
Attention: David F. Hoexter	Lab Number: 9412G68-02	Reported: 01/10/95

QC Batch Number: GC010695BTEX06A
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**100**	**330**
Benzene	**1.0**	**100**
Toluene	**1.0**	**3.8**
Ethyl Benzene	**1.0**	**5.4**
Xylenes (Total)	**1.0**	**4.7**
Chromatogram Pattern:		**Gas+**
Discrete Peak		**C6**

Surrogates	**Control Limits %**		**% Recovery**
Trifluorotoluene	70	130	119

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Suzanne Chin
Project Manager

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Hoexter Consulting Eng'g Geo	Client Proj. ID: E-10-1-019, Seminary	Sampled: 12/28/94
734 Torreya Court	Sample Descript: MW-3	Received: 12/28/94
Palo Alto, CA 94303	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 01/06/95
Attention: David F. Hoexter	Lab Number: 9412G68-03	Reported: 01/10/95

QC Batch Number: GC010695BTEX06A
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**500**	**2300**
Benzene	**5.0**	**7.8**
Toluene	5.0	N.D.
Ethyl Benzene	**5.0**	**130**
Xylenes (Total)	**5.0**	**73**
Chromatogram Pattern:		
Weathered Gas		**C8-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	101

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Suzanne Chin
Project Manager

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Hoexter Consulting Engrg. Geol.	Client Project ID:	E-10-1-019, Seminary	
734 Torreya Court	Matrix:	Liquid	
Palo Alto, CA 94303			
Attention: David F. Hoexter	Work Order #:	9412G68 -01-03	Reported: Jan 10, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Total Recoverable Petroleum Hydrocarbons
QC Batch#:	IN0106954181FTA
Analy. Method:	EPA 418.1
Prep. Method:	N/A
Analyst:	K. Hynes
MS/MSD #:	BLK010695
Sample Conc.:	N.D.
Prepared Date:	1/6/95
Analyzed Date:	1/6/95
Instrument I.D.#:	FTIR1
Conc. Spiked:	7.0 mg/L
Result:	6.9
MS % Recovery:	99
Dup. Result:	7.1
MSD % Recov.:	101
RPD:	2.9
RPD Limit:	0-30

LCS #:	-
Prepared Date:	-
Analyzed Date:	-
Instrument I.D.#:	-
Conc. Spiked:	-
LCS Result:	-
LCS % Recov.:	-

MS/MSD LCS Control Limits	70-130

SEQUOIA ANALYTICAL

Suzanne Chin
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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Hoexter Consulting Engrg. Geol.	Client Project ID:	E-10-1-019, Seminary	
734 Torreya Court	Matrix:	Liquid	
Palo Alto, CA 94303			
Attention: David F. Hoexter	Work Order #:	9412G68-01-03	Reported: Jan 10, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC010695BTEX06A	GC010695BTEX06A	GC010695BTEX06A	GC010695BTEX06A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	N/A	N/A	N/A	N/A
Analyst:	C. Donohue	C. Donohue	C. Donohue	C. Donohue
MS/MSD #:	9412I3501	9412I3501	9412I3501	9412I3501
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	N/A	N/A	N/A	N/A
Analyzed Date:	1/6/95	1/6/95	1/6/95	1/6/95
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	11	10	11	31
MS % Recovery:	110	100	110	103
Dup. Result:	9.0	8.6	8.7	25
MSD % Recov.:	90	86	87	83
RPD:	20	15	23	21
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	BLK010594	BLK010594	BLK010594	BLK010594
Prepared Date:	1/6/95	1/6/95	1/6/95	1/6/95
Analyzed Date:	1/6/95	1/6/95	1/6/95	1/6/95
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	10	10	10	31
LCS % Recov.:	100	100	100	103
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

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Project Manager

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** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference