

June 21, 2001

Ms. Eva Chu  
Hazardous Materials Specialist  
Alameda County Health Care Services Agency  
Environmental Health Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

JUL 12 2001

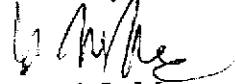
Re: property on 1970 Seminary Ave, Oakland CA

Dear Ms. Chu:

Enclosed is the groundwater sampling report for January 2001. Prepared by David Hoexter of Hoexter Consulting. After we spoke on Tuesday, I looked through my Great-Grandfathers records and found the letter I needed to submit to the Tank fund.

After speaking with Paul Hoffey at Erler & Kalinowski, he stated that the contractor had the 12<sup>th</sup> and 13<sup>th</sup> of July penciled in before he left on vacation. Paul said he will call him on Monday to confirm the dates and then we should be set. Thank you for your assistance. If you need further information please let me know.

Sincerely,



Angel LaMarca, (on behalf of Doyle, E. Gruit)  
945 S. Lehigh Dr.  
Anaheim Hills, CA 92807  
714-282-7475 home  
714-478-7475 cell phone, voicemail

**JUL 12 2001**

**JANUARY, 2001  
GROUND WATER SAMPLING REPORT  
FOR  
STD 553 - GRIMIT AUTO AND REPAIR  
1970 SEMINARY AVENUE  
OAKLAND, CALIFORNIA**

**May 28, 2001**

**Prepared by**

**HOEXTER CONSULTING, INC.**

**734 Torreya Court  
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**Geology / Engineering Geology / Environmental Studies**

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May 28, 2001

E-10-1E-391E  
HCQuartEnvrRpts:Sem.1970/14(1/01)

Mr. Doyle Gruit  
c/o Angel La Marca  
945 S. Lehigh St.  
Anaheim, California 92807

RE: **JANUARY, 2001  
GROUND WATER SAMPLING REPORT  
STID 553 - GRIMIT AUTO AND REPAIR  
1970 SEMINARY AVENUE  
OAKLAND, CALIFORNIA**

Dear Mr. Gruit:

Enclosed is our January, 2001 ground water sampling report for the property located at 1970 Seminary Avenue, corner of Harmon, in Oakland, California. Sampling at the site dates from August, 1990. The results of previous sampling events are included in the analytical results summary tables.

The results of this investigation indicate that the water samples from the nine on-site wells continue to range from relatively low to elevated levels of total petroleum hydrocarbons as gasoline (TPH-G); purgeable aromatic compounds (BTEX) and MTBE; oil (total recoverable petroleum hydrocarbons, TRPH); and halogenated volatile compounds (HVOC). The analyses indicate that all analyzed compounds remain at levels of the same order-of-magnitude as previous results, with an overall, averaged moderate although highly variable decline in contaminant levels since initiation of sampling.

Ground water levels increased from the previous July, 2000 sampling event. Ground water gradient directions, which differ between the "shallow" and "deep" wells, were similar to previous sampling events, although a localized "reverse" gradient appears to occur in the "deeper" wells (see text of report).

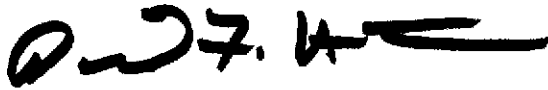
We recommend that copies of the enclosed report be submitted to the Alameda County Health Care Services Agency. The next round of sampling is currently scheduled to be conducted during July, 2001. We understand that a corrective action work plan to conduct site remediation is currently being prepared.

Mr. Doyle Gruit: E-10-1E-391E; May 28, 2001; Transmittal Letter Page 2

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.

A handwritten signature in black ink, appearing to read "D. F. Hoexter", with a long horizontal flourish extending to the right.

David F. Hoexter, RG/CEG/REA  
Principal Geologist

Copies: Addressee (5)

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JANUARY, 2001  
GROUND WATER SAMPLING REPORT

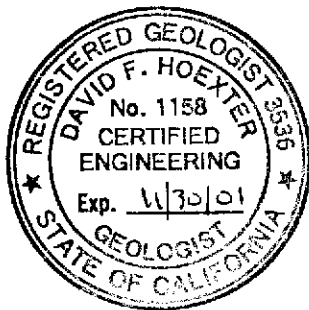
For

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

To

Mr. Doyle Gritmit  
c/o Angel La Marca  
945 S. Lehigh St.  
Anaheim, California 92807

May 28, 2001



David F. Hoexter

David F. Hoexter, RG/CEG/REA  
Principal Geologist

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**JANUARY, 2001  
GROUND WATER SAMPLING REPORT  
FOR  
STID 553 - GRIMIT AUTO AND REPAIR  
1970 SEMINARY  
OAKLAND, CALIFORNIA**

## **1.0 INTRODUCTION**

This report presents the results of the January, 2001 ground water sampling at 1970 Seminary Avenue, Oakland, California. The project location is shown on the Location Map, Figure 1. The scope of services provided during this investigation consisted primarily of collecting and analyzing ground water samples from nine on-site monitoring wells. Ground water samples were analyzed for petroleum hydrocarbons and halogenated volatile organic compounds. Well locations are shown on Figure 2, Site Plan.

## **2.0 FIELD INVESTIGATION**

The ground water monitoring wells were sampled January 29, 2001 by representatives of Hoexter Consulting, Inc. Due to past, very slow equilibration of ground water levels, the well caps were loosened on January 28, 2001 (approximately 24 hours prior to the planned water level measurement, purging and sampling). The wells were then secured with the caps sufficiently loose to allow venting, and left to equilibrate over the following approximately 24 hours. The wells were purged and sampled on the morning of January 29, 2001, following water level measurements.

As noted, the well caps were loosened prior to the water level measurement, to allow the water level in the wells to equilibrate. Following ground water level measurement (Table 1) at the time of purging, each well was checked for free-product with the bailer, and then three to four well-casing volumes of water were purged from the well (due to rapid draw-down of the water level, less than the customary four well volumes was withdrawn from two wells, MW-5 and MW-9; see individual Groundwater Sampling Field Logs). A dedicated polyethylene bailer was employed for each well. Ground water parameters, including temperature, pH and specific conductivity, were measured prior to and following each purge volume removal.

The samples were collected using the dedicated 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 "Alconox" 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 A.

Prior to purging, and following a period of one day for the wells to stabilize, ground water levels were measured in each well using the top of 2-inch PVC casing (north side) as reference point. The average ground water elevation increased in the five "deeper" and the four "shallow" wells, compared to the prior (July, 2000) sampling event. The five "deeper" wells averaged an elevation increase of 1.71 feet, with each of the five wells increasing in elevation; the four "shallow" wells increased an average of 1.98 feet, with all four wells increasing in elevation.

Well-top elevations, depth to water, and calculated water-surface elevations are presented in Table 1. These data have been used to generate the Ground Water Contour and Gradient Direction Maps, Figures 3A ("shallow wells") and 3B ("deep wells").

The ground water gradient direction and inclination are essentially consistent with the previous data. The data for the four "shallow" wells indicate a gradient direction towards Seminary Avenue. The apparent gradient varies across the site, but averages 0.30 foot per foot in the source area. The approximate gradient direction is N 47° W. This gradient direction is similar to previous sampling events. The data for the five "deeper" wells indicate an opposing gradient direction away from Seminary Avenue towards the southeast, on the west side of the site; and to the northwest at the northeast corner of the site. This results in an apparent "trough" in the vicinity of well MW-1, the most impacted well at the site. The apparent gradient varies across the site, but averages 0.30 foot per foot. The approximate gradient direction is South 65° East. Both the deeper gradient inclination and apparent direction are similar to previous events, although the apparent flow directions in the "deeper" wells is less consistent than during previous events.

The data appear to indicate a downward gradient from a relatively shallow (perched ?) zone represented by the four "shallow" wells, to the deeper zone represented by the five "deeper" wells, particularly in the source area. Based on the slow equilibration and recovery time following purging, we infer a relatively slow ground water flow rate, despite the unusually steep gradient.

### 3.0 ANALYTICAL RESULTS

#### 3.1 Laboratory Procedures

The ground water samples were analyzed by McCampbell Analytical, Inc. of Pacheco, California. McCampbell Analytical is certified by the State of California EPA/DTSC for the conducted analyses. The samples were analyzed as follows:

- Total petroleum hydrocarbons as gasoline (TPH-G) using EPA Method 5030/8015.
- Purgeable aromatic compounds (BTEX) and MTBE using EPA Method 8020.
- Oil and grease (total recoverable petroleum, TRPH) using SM 5520B/F, gravimetric with cleanup.
- Halogenated volatile organic compounds (HVOC) by EPA Method 8010.

#### 3.2 Observations and Analytical Results

A measurable thickness of free product was not observed in the initial sounding of the wells, although a thick sheen (floating film) of oil was observed in well MW-1 and lighter sheen was observed in wells MW- 4 and 5. The purge water from well MW-1 contained globules of "oil", this condition was observed in previous sampling rounds.

The results of the chemical analyses are presented on Tables 2, 3 and 4, and are attached to this report as a part of Appendix A. Analytical results of all previous testing are also included. The current analytical results indicate that TRPH, TPH-G, and BTEX compounds, as well as HVOCs, are present at elevated levels which are generally on the same order of magnitude as the most recent, previous analyses.



TPH-G, MTBE and BTEX levels variably rose and declined in all nine wells, although a slightly downward trend over the life of the wells was noted. Detected levels in wells MW-2 through 9, as during previous sampling events, are generally one to two orders of magnitude less than in MW-1. Oil/grease were detected in wells MW-1, 4, 5, 7, and 9. Various HVOCs were detected in each well; BTEX compound were also present at varying concentrations. See Table 3 for the presence and concentrations of particular HVOCs.

#### 4.0 CONCLUSIONS AND RECOMMENDATIONS

Overall contaminant levels remain elevated, with moderate average declines over the life of the wells. The Alameda County Health Care Services Agency has concurred with our previous recommendation that a corrective action plan (CAP) be prepared to address this condition. We understand that a CAP is currently being prepared by others.

#### 5.0 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. It should be recognized that certain limitations are inherent in the evaluation of subsurface conditions, and that certain conditions may not be detected during an investigation of this type. If you wish to reduce the level of uncertainty associated with this study, we should be contacted for additional consultation.

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)

<b>Well Number and Date of Measurement</b>	<b>Reference Elevation (2)</b>	<b>Depth To Water</b>	<b>Relative Ground Water Elevation (2)</b>
<b>MW-1 ("deep")</b>			
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 (3)
2/28/94		13.85 (4)	23.15 (4)
9/9/94		20.19	16.81
12/28/94		14.91	22.09
4/13/95		14.18	22.82
11/1/95		20.90	16.10
3/8/96		11.82	25.18
3/25-26/96	36.97	13.54	23.43
10/7/96		21.41	15.59
1/15/97		13.34	23.63
6/23/97	36.99	19.91	17.08
10/6/97		21.55	15.44
12/12/98		16.24	20.75
4/24/99		14.21	22.78
12/18/99		19.28	17.71
7/22/00		21.93	15.93
1/29/01		19.49	17.50
<b>MW-2 ("deep")</b>			
2/11/94	36.40	14.16 (3)	22.24 (3)
2/28/94		16.01 (4)	20.39 (4)
9/9/94		18.96	17.44
12/28/94		21.42	14.98
4/13/95		19.69	16.71
11/1/95		21.91	14.49
3/8/96		14.56 (6)	21.84 (6)
3/25-26/96	36.39	10.84	25.55
10/7/96		18.41	17.98
1/15/97		10.07	26.32
6/23/97	36.40	13.73	22.67
10/6/97		17.03	19.37
12/12/98		11.39	25.01
4/24/99		10.45	25.95
12/18/99		13.22	23.18
7/22/00		13.73	22.67
1/29/01		12.25	24.15

Well Number and Date of Measurement	Reference Elevation (2)	Depth To Water	Relative Ground Water Elevation (2)
<b>MW-3 ("shallow")</b>			
2/11/94	36.94	6.97 (3)	29.97 (3)
2/28/94		7.74 (4)	29.20 (4)
9/9/94		9.68	27.26
12/28/94		8.15	28.79
4/13/95		8.05	28.89
11/1/95		7.82	29.12
3/8/96		5.69	31.25
3/25-26/96	36.94	6.91	30.03
10/7/96		9.51	27.43
1/15/97		6.23	30.71
6/23/97	36.94	9.65	27.29
10/6/97		10.53	26.41
12/12/98		7.12	29.82
4/24/99		7.17	29.77
12/18/99		8.51	28.43
7/22/00		9.41	27.53
1/29/01		7.23	29.71
<b>MW-4 ("deep")</b>			
3/25-26/96	36.46	14.14	22.32
10/7/96		22.31	14.15
1/15/97		13.78	22.68
6/23/97	36.47	20.90	15.57
10/6/97		22.77	13.60
12/12/98		17.16	19.31
4/24/99		14.55	21.92
12/18/99		20.46	16.01
7/22/00		20.67	15.80
1/29/01		18.06	18.41
<b>MW-5 ("deep")</b>			
3/25-26/96	36.77	15.63	21.14
10/7/96		22.86	13.91
1/15/97		17.33	19.44
6/23/97	36.77	21.91	14.86
10/6/97		24.26	12.51
12/12/98		20.66	16.11
4/24/99		17.19	19.58
12/18/99		22.71	14.06
7/22/00		21.42	15.35
1/29/01		20.79	15.98
<b>MW-6 ("shallow")</b>			
3/25-26/96	36.42	8.52	27.90
10/7/96		12.82	23.60
1/15/97		7.72	28.70
6/23/97	36.42	11.42	25.00
10/6/97		12.67	23.75
12/12/98		9.15	27.27

Well Number and Date of Measurement	Reference Elevation (2)	Depth To Water	Relative Ground Water Elevation (2)
<b>MW-6 ("shallow") cont.</b>			
4/24/99		8.56	27.86
12/18/99		10.53	25.89
7/22/00		11.50	24.92
1/29/01		9.34	27.08
<b>MW-7 ("deep")</b>			
6/23/97	36.83	19.93	16.90
10/6/97		21.43	15.40
12/12/98		16.56	20.27
4/24/99		14.48	22.35
12/18/99		19.40	17.43
7/22/00		19.85	16.98
1/29/01		17.59	19.24
<b>MW-8 ("shallow")</b>			
6/23/97	36.55	5.74	30.81
10/6/97		5.69	30.86
12/12/98		4.01	32.54
4/24/99		4.40	32.15
12/18/99		4.91	31.64
7/22/00		5.47	31.08
1/29/01		3.01	33.54
<b>MW-9 ("shallow")</b>			
6/23/97	36.70	17.04	19.66
10/6/97		19.17	20.53
12/12/98		14.18	22.52
4/24/99		12.33	24.37
12/18/99		16.14	20.56
7/22/00		15.78	20.92
1/29/01		14.65	22.05

**Notes to Table 1**

- (1) N/A = not applicable.
- (2) Elevations from a survey conducted by Andreas Deak, California Licensed Land Surveyor, March 21, 1996, 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 appear to be stabilized readings.
- (5) Surveyed elevations of wells MW 1 and MW-2 varied to 0.02 foot on March 21, 1996 survey as compared to February 11, 1994 survey; previously calculated measurements of elevation have **not** been modified to reflect the new survey data. Similar slight survey differences on June 20, 1997 have not been corrected.
- (6) Well not stabilized (water level rising).

**TABLE 2**  
**GROUND WATER**  
**SUMMARY OF ANALYTICAL TEST RESULTS -**  
**PETROLEUM HYDROCARBONS**  
(Results reported in parts per billion, ppb/ug/l) (1)

Well and Date	TPH Gasoline	MTBE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Oil & Grease HVOC (7)
<b>MW-1 ("deep")</b>							
8/6/90 (2)	54,000	NA	3,500	3,200	1,900	9,400	7,600
1/28/92	2,000,000	NA	7,400	17,000	28,000	120,000	7,500 (5)
4/27/92 (3)	500,000	NA	3,400	6,400	10,000	45,000	440,000 (6)
4/27/92 (4)	175,000	NA	4,200	4,400	3,200	14,600	N/A
8/10/92	170,000	NA	4,200	4,200	3,300	15,900	120,000 (6)
2/11/94	1,800,000	NA	ND	5,100	5,200	23,900	16,000 (6)
9/9/94	23,000,000	NA	56,000	61,000	9,100	137,000	880,000 (6)
12/28/94	55,000	NA	3,700	5,300	1,400	5,800	83,000 (6)
4/13/95	45,000	NA	2,800	3,400	1,200	5,100	50,000 (5)
11/1/95	44,000	NA	2,600	3,400	1,400	5,900	52,000 (5)
3/25/96	45,000	NA	3,000	4,100	1,600	6,800	46,000 (5) (7)
10/8/96	55,000	490	3,300	4,500	1,700	7,100	11,000 (5) (7)
1/16/97	48,000	310	2,600	3,200	1,300	5,300	110,000 (5) (7)
6/23/97	40,000	ND<100	2,300	3,500	1,500	6,300	190,000 (5) (7)
10/7/97	45,000	ND<680	2,500	3,600	1,700	6,800	150,000 (5) (7)
12/12/98	39,000	ND<1,500	3,000	100	1,400	5,800	67,000 (5) (7)
4/24/99	33,000	ND<200	2,300	3,300	1,100	4,100	140,000 (5) (7)
4/24/99 (8)	41,000	1,100	2,500	3,700	1,500	5,700	N/A
12/18/99	43,000	ND<200	2,600	3,800	1,400	5,800	110,000 (5) (7)
7/22/00	37,000	ND<200	2,200	2,600	1,300	5,200	320,000 (5) (7)
1/29/01	36,000	ND<200	2,100	2,300	1,200	4,500	76,000 (5) (7)
<b>MW-2 ("deep")</b>							
2/11/94	130	NA	22	1.1	5.2	7.3	ND (6)
9/9/94	1,000	NA	89	ND	ND	6.9	ND (6)
12/28/94	330	NA	100	3.8	5.4	4.7	5100 (6)
4/13/95	1,300	NA	280	6.9	33	23	ND (5)
11/1/95	100	NA	9.9	ND	ND	ND	ND (5)
3/25/96	4,500	NA	470	57	220	280	ND (5) (7)
10/8/96	710	41	1.9	0.54	1.0	1.0	ND (5) (7)
1/16/97	330	12	41	2.4	1.3	9.9	ND (5) (7)
6/23/97	280	10	12	0.69	ND	13	NA (7)
10/7/97	320	ND<35	4.5	ND	ND	ND	NA (7)
12/12/98	290	ND<11	21	0.76	10	19	ND (5) (7)
4/24/99	360	21	36	1.3	9.2	19	ND<5000 (5) (7)
12/18/99	210	ND<200	13	ND	2.9	7.7	ND<5000 (5) (7)
7/22/00	180	ND<5	10	ND	4.5	6.0	ND<5000 (5) (7)
1/29/01	130	ND<5	16	ND	1.9	3.8	ND<5000 (5) (7)
<b>MW-3 ("shallow")</b>							
2/11/94	ND	NA	ND	ND	ND	ND	ND (6)
9/9/94	710	NA	10	ND	ND	3.5	ND (6)
12/28/94	2,300	NA	7.8	ND	130	73	ND (6)
4/13/95	1,700	NA	2.9	ND	61	24	ND (5)
11/1/95	1,100	NA	4.4	ND	27	22	ND (5)
3/25/96	2,300	NA	4.0	0.96	120	65	ND (5) (7)
10/8/96	160	ND	ND	0.5	1.2	0.77	ND (5) (7)
1/16/97	1,800	7.1	2.8	0.68	48	66	ND<5000 (5) (7)

Well and Date	TPH Gasoline	MTBE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Oil & Grease HVOC (7)
<b>MW-3 ("shallow") (continued)</b>							
6/23/97	ND	ND	ND	ND	ND	ND	NA (7)
10/7/97	ND	ND	ND	ND	ND	ND	NA (7)
12/12/98	1,900	ND	1.8	0.78	78	42	ND (5) (7)
4/24/99	2,100	ND	1.5	0.85	79	43	ND<5000 (5) (7)
12/18/99	330	ND	0.51	ND	ND	ND	ND<5000 (5) (7)
7/22/00	230	ND	0.89	2.4	ND	ND	ND<5000 (5) (7)
1/29/01	450	ND<5	1.1	1.6	11	3.6	ND<5000 (5) (7)
<b>MW-4 ("deep")</b>							
3/26/96	9,900	NA	4,000	40	71	100	ND (5) (7)
10/8/96	7,800	140	3,900	33	31	40	ND (5) (7)
1/16/97	4,800	84	1,900	21	2.5	27	5,200 (5) (7)
6/23/97	6,200	160	2,800	20	20	23	ND (5) (7)
10/7/97	4,400	85	1,800	14	18	14	ND (5) (7)
12/12/98	3,500	110	1,500	13	39	14	ND (5) (7)
4/24/99	3,100	ND<10	1,700	22	67	21	7,500 (5) (7)
12/18/99	2,600	33	1,000	12	32	10	ND<5000 (5) (7)
7/22/00	2,700	60	940	14	31	12	7,000 (5) (7)
1/29/01	2,500	ND<5	980	11	35	5	ND<5000 (5) (7)
<b>MW-5 ("deep")</b>							
3/26/96	1,200	NA	43	8.2	83	95	ND (5) (7)
10/8/96	6,700	190	260	92	410	370	ND (5) (7)
1/16/97	3,000	90	150	68	190	180	ND (5) (7)
6/23/97	12,000	150	410	170	920	800	NA (7)
10/7/97	10,000	ND<480	310	62	530	500	NA (7)
12/12/98	11,000	ND<660	400	120	740	480	ND (5) (7)
4/24/99	9,300	ND<100	390	290	820	770	ND<5000 (5) (7)
12/18/99	7,000	ND<100	250	52	500	300	ND<5000 (5) (7)
7/22/00	14,000	ND<100	290	140	770	630	12,000 (5) (7)
1/29/01	8,200	ND<5	180	42	420	250	11,000 (5) (7)
<b>MW-6 ("shallow")</b>							
3/26/96	9,900	NA	1,000	150	470	720	ND (5) (7)
10/8/96	1,300	57	120	2.3	1.4	4.0	ND (5) (7)
1/15/97	6,500	220	570	65	170	630	ND (5) (7)
6/23/97	3,100	100	410	16	110	140	NA (7)
10/7/97	960	ND<74	78	3.4	1.8	5.8	NA (7)
12/12/98	2,500	ND<160	230	10	92	110	ND (5) (7)
4/24/99	2,900	ND<10	430	33	160	200	ND<5000 (5) (7)
12/18/99	2,300	ND<200	170	6.6	56	63	ND<5000 (5) (7)
7/22/00	2,200	ND<10	290	9.6	80	43	ND<5000 (5) (7)
1/29/01	2,500	ND<10	220	11	150	230	ND<5000 (5) (7)
<b>MW-7 (deep")</b>							
6/23/97	8,700	ND<20	950	260	520	380	ND (5) (7)
10/7/97	7,500	ND<310	1,100	86	280	150	ND (5) (7)
12/12/98	5,000	ND<190	640	43	200	55	ND (5) (7)
4/24/99	5,500	ND<10	640	180	290	210	ND<5000 (5) (7)
12/18/99	5,500	ND<10	570	27	91	31	ND<5000 (5) (7)
7/22/00	7,400	ND<80	620	180	240	180	10,000 (5) (7)

Well and Date	TPH Gasoline	MTBE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Oil & Grease HVOC (7)
<b>MW-8 ("shallow")</b>							
6/23/97	610	5.9	25	1.4	4.3	2.4	ND (5) (7)
10/7/97	120	ND	6.9	ND	ND	ND	ND (5) (7)
12/12/98	ND	ND	ND	ND	ND	ND	ND (5) (7)
4/24/99	ND	ND	ND	ND	ND	ND	ND<5000 (5) (7)
12/18/99	ND	ND	ND	ND	ND	ND	ND<5000 (5) (7)
7/22/00	ND	ND	ND	ND	ND	ND	ND<5000 (5) (7)
1/29/01	ND	ND<5	0.87	ND	ND	ND	ND<5000 (5) (7)
<b>MW-9 ("shallow")</b>							
6/23/97	32,000	250	340	280	1,500	4,300	ND (5) (7)
10/7/97	33,000	ND<690	880	350	1900	4,700	ND (5) (7)
12/12/98	3,400	ND<78	160	14	220	210	ND (5) (7)
4/24/99	3,100	22	130	18	220	190	ND (5) (7)
12/18/99	7,500	100	220	44	440	650	ND<5000 (5) (7)
7/22/00	4,900	ND<10	93	15	240	250	71,000 (5) (7)
1/29/01	3,800	ND<10	160	35	260	310	5,000
<b>EB-4 ("grab" gw sample)</b>							
3/8/96	15,000	NA	780	840	1,300	590	7,500 (5) (7)
MCL	NA	35 (9)	1	150	700	1,750	NA

**Notes to Table 2**

- (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
- (7) **HVOC detected:** see Table 3
- (8) Free-phase product observed in bailer (additional sample)
- (9) MTBE concentration is proposed

TABLE 3

## GROUND WATER

**SUMMARY OF ANALYTICAL TEST RESULTS -  
 HALOGENATED VOLATILE ORGANIC COMPOUNDS (HVOC)**  
 (Results reported in parts per billion, ppb/ug/l) (1) (2)

Well and Date	CA	1,2 DCB	1,2 DCA	cis 1,2 DCE	trns 1,2 DCE	1,2 DCP	PCE	TCE	VCL
<b>MW-1 ("deep")</b>									
3/25/96	ND<5	7.2	5.3	82	ND<5	ND<5	ND<5	7.8	25
10/8/96	ND<20	ND<20	ND<20	45	ND<20	ND<20	ND<20	ND<20	26
1/16/97	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/23/97	ND<2	10	4.1	130	3.7	ND<2	5.0	23	54
10/7/97	3.5	7.4	2.2	82	3.8	ND<2	ND<3	9.5	68
12/12/98	ND<2.5	7.4	ND<2.5	26	ND<2.5	ND<2.5	ND<2.7	ND<2.5	7.3
4/24/99 (8)	2.1	9.9	3.5	61	2.8	2.0	ND<4.2	ND<1.5	22
12/18/99 (9)	3.3	8.0	1.2	12	2.8	1.2	ND<0.5	ND<0.5	7.2
7/22/00 (10)	ND<2.5	16.0	ND<2.5	15	ND<2.5	ND<2.5	ND<5.0	ND<2.5	8.2
1/29/01 (11)	ND<10	23.0	ND<10	23	ND<10	ND<10	ND<10	ND<10	ND<10
<b>MW-2 ("deep")</b>									
3/25/96	ND<0.5	ND<0.5	8.7	11	ND<0.5	1.0	ND<0.5	3.2	0.92
10/8/96	ND<0.5	ND<0.5	15	9.6	ND<0.5	1.1	ND<0.5	6.6	ND<0.5
1/16/97	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/23/97	ND<0.5	ND<0.5	9.7	8.0	ND<0.5	0.86	ND<0.5	9.6	ND<0.5
10/7/97	ND<0.5	ND<0.5	18	11	ND<0.5	1.2	ND<0.5	15	ND<0.5
12/12/98	ND<0.5	ND<0.5	16	9.4	ND<0.5	1.1	ND<1	7.5	ND<0.5
4/24/99	ND<0.5	ND<0.5	13	7.8	ND<0.5	0.92	ND<0.5	8.4	ND<0.5
12/18/99	ND<0.5	ND<0.5	15	9.0	ND<0.5	1.5	ND<0.5	ND<0.5	ND<0.5
7/22/00	ND<0.5	ND<0.5	17	10	ND<0.5	1.2	ND<1.0	12.0	ND<0.5
1/29/01	ND<0.5	ND<0.5	12	9.1	ND<0.5	0.9	ND<5.0	12.0	ND<0.5
<b>MW-3 ("shallow")</b>									
3/25/96	ND<0.5	ND<0.5	0.56	1.2	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
10/8/96	ND<0.5	ND<0.5	1.1	0.87	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1/16/97	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/23/97	ND<0.5	ND<0.5	0.54	0.76	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
10/7/97	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
12/12/98	ND<0.5	ND<0.5	0.51	0.82	ND<0.5	ND<0.5	ND<1	ND<0.5	ND<0.5
4/24/99	ND<0.5	ND<0.5	ND<0.5	0.65	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
12/18/99	ND<0.5	ND<0.5	0.72	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
7/22/00	ND<0.5	ND<0.5	0.52	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<0.5
1/29/01	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	ND<0.5
<b>MW-4 ("deep")</b>									
3/26/96	ND<8	22	ND<8	300	9.2	ND<8	38	150	44
10/8/96	ND<15	22	4.9	320	ND<15	ND<15	52	130	60
1/16/97	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/23/97 (5)	3.6	21	5.3	340	10	ND<3	11	110	83
10/7/97	ND<8	20	ND<8	380	9.9	ND<8	ND<12	56	56
12/12/98 (7)	ND<3.5	18	ND<3.5	150	12	ND<8	ND<4.5	12	57
4/24/99	ND<8.5	20	ND<8.5	390	12	ND<8.5	33	240	43
12/18/99	ND<10	27	ND<10	390	13	ND<10	ND<10	39	ND<10
7/22/00	ND<10	38	ND<10	620	ND<10	ND<10	ND<10	19	97
1/29/01	ND<5.0	35	ND<5.0	380	15	ND<5.0	ND<5.0	19	97



Well and Date	CA	1,2 DCB	1,2 DCA	cis 1,2 DCE	trans 1,2 DCE	1,2 DCP	PCE	TCE	VCL
<b>MW-5 ("deep")</b>									
3/26/96	1.4	ND<0.5	2.1	6.2	ND<0.5	ND<0.5	ND<0.5	ND<0.5	10
10/8/96	ND<2.5	ND<2.5	4.9	4.4	ND<2.5	ND<2.5	ND<2.5	ND<2.5	9.4
1/16/97	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/23/97 (5)	2.0	2.1	2.0	7.2	0.71	ND<0.5	ND<0.5	ND<0.5	13
10/7/97	1.9	1.4	2.8	3.4	ND<0.5	ND<0.5	ND<0.5	ND<0.5	10
12/12/98	1.4	2.0	1.1	3.7	ND<1	ND<1	ND<1.5	ND<1	5.8
4/24/99	ND<1	1.9	1.9	4.8	ND<1	ND<1	ND<1	ND<1	6.3
12/18/99	1.6	1.7	1.8	1.9	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.9
7/22/00	1.8	2.4	1.4	2.6	ND<1.0	ND<1.0	ND<1.0	ND<1.0	5.0
1/29/01	ND<1.0	2.2	2.6	2.2	ND<1.0	ND<1.0	ND<1.0	ND<1.0	2.2
<b>MW-6 ("shallow")</b>									
3/26/96	ND<0.5	ND<0.5	3.9	15	ND<0.5	1.9	0.77	2	ND<0.5
10/8/96	ND<0.5	ND<0.5	2.3	9.9	ND<0.5	ND<0.5	ND<0.5	0.57	ND<0.5
1/16/97	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/23/97	ND<0.5	ND<0.5	1.6	10	ND<0.5	ND<0.5	ND<0.5	0.63	0.50
10/7/97	ND<0.5	ND<0.5	3.4	7.9	ND<0.5	ND<0.5	ND<0.5	0.82	ND<0.5
12/12/98 (7)	ND<0.5	ND<0.5	1.5	8.4	ND<0.5	ND<0.5	ND<1	ND<0.5	ND<0.5
4/24/99	ND<0.5	ND<0.5	2.3	17	ND<0.5	0.89	ND<1	0.73	0.59
12/18/99	ND<0.5	ND<0.5	2.2	8.3	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.62
7/22/00	ND<0.5	ND<0.5	1.2	9.3	ND<0.5	ND<0.5	ND<1.0	ND<0.5	0.97
1/29/01	ND<0.5	ND<0.5	1.1	11	ND<0.5	ND<0.5	ND<5.0	ND<0.5	0.77
<b>MW-7 ("deep")</b>									
6/23/97	0.93	1.6	ND<0.5	2.4	1.2	ND<0.5	9.8	17	1.5
10/7/97	ND<2	ND<2	ND<2	8.5	2.4	ND<2	38	110	ND<2
12/12/98	ND<2	2.2	ND<2	97	ND<2	ND<2	ND<3.5	ND<2	ND<2
4/24/99	ND<2	2.4	ND<2	31	ND<2	ND<2	9.3	82	ND<2
12/18/99 (9)	ND<3	5.7	ND<3	120	ND<3	ND<3	ND<3	12	ND<3
7/22/00 (10)	ND<5	18	ND<5	170	ND<5	ND<5	ND<5	8	ND<5
1/29/01	ND<1.0	5.5	ND<1.0	78	1.0	ND<1.0	ND<1.0	2	2
<b>MW-8 ("shallow")</b>									
6/23/97	ND<1	5.4	ND<1	64	ND<1	ND<1	97	100	ND<1
10/7/97	ND<0.5	1.1	ND<0.5	16	ND<0.5	ND<0.5	30	27	ND<0.5
12/12/98	ND<0.5	ND<0.5	ND<0.5	3.4	ND<0.5	ND<0.5	4.8	4.7	ND<0.5
4/24/99	ND<0.5	ND<0.5	ND<0.5	1.9	ND<0.5	ND<0.5	3.4	3.4	ND<0.5
12/18/99	ND<0.5	ND<0.5	ND<0.5	5.3	ND<0.5	ND<0.5	5.9	6.4	ND<0.5
7/22/00	ND<0.5	ND<0.5	ND<0.5	1.7	ND<0.5	ND<0.5	2.4	1.6	ND<0.5
1/29/01	ND<0.5	ND<0.5	ND<0.5	10	ND<0.5	ND<0.5	ND<5.0	8.8	ND<0.5
<b>MW-9 (shallow")</b>									
6/23/97 (5)	ND<1	2.1	ND<1	7.4	ND<1	ND<1	3.5	1.4	ND<1
10/7/97 (6)	ND<0.5	1.6	2.1	21	ND<0.5	0.7	ND<2	0.53	2.7
12/12/98	ND<0.5	0.7	0.53	1.9	ND<0.5	ND<0.5	ND<1	ND<0.5	ND<0.5
4/24/99	ND<0.5	0.81	0.52	3.1	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
12/18/99	ND<0.5	1.1	0.67	3.7	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.63
7/22/00	ND<1	1.4	ND<1	1.6	ND<1	ND<1	ND<1	ND<1	ND<1
1/29/01	ND<0.5	1.2	0.71	ND<0.5	8.2	ND<0.5	ND<5.0	ND<0.5	0.53
<b>EB-4 (grab)</b>									
3/8/96	ND	ND	ND	42	ND	ND	130	340	ND
MCL	NA	600	0.5	6	10	5	7	5	0.5

**Notes to Table 3**

(1) ND = non-detect; reporting limit 0.5 ug/l (ppb) unless otherwise stated

(2) N/A = not applicable

(3) Composite

(4) Abbreviations as follows:

CA	Chloroethane	1,2 DCP	1,2 Dichloropropane
1,2 DCB	1,2 Dichlorobenzene	PCE	Tetrachloroethene (perchloroethen
1,2 DCA	1,2 Dichloroethane	TCE	trichloroethene
cis 1,2 DCE	cis 1,2 Dichloroethene	VCL	vinyl chloride
trans 1,2 DCE	trans 1,2 Dichloroethene		

(5) 6/23/97 additional detections:

MW-4: 4.8 ppb 1,4-Dichlorobenzene

MW-5: 0.53 ppb 1,4-Dichlorobenzene

MW-9: 2.1 ppb chloroform (tetrachloromethane)

(6) 10/7/97 additional detections:

MW-9: 0.65 chloroform (tetrachloromethane)

(7) 12/12/98 additional detections:

MW-4: 6.2 ppb 1,3-Dichlorobenzene

MW-4: 4.8 ppb 1,4-Dichlorobenzene

MW-6: 8.9 ppb 1,1,1-Trichloroethane

(8) 4/24/99 additional detections:

MW-1: 1.6 ppb Chloroform

MW-1: 2.5 ppb 1,4-Dichlorobenzene

(9) 12/18/99 additional detections:

MW-1: 1.3 ppb Dibromochloromethane

MW-1: 1.2 ppb 1,3-Dichlorobenzene

MW-1: 2.2 ppb 1,4-Dichlorobenzene

MW-1: 9.9 ppb 1,4-Dichlorobenzene

(10) 7/22/00 additional detections:

MW-1: 5.0 ppb 1,4 Dichlorobenzene

MW-7: 6.1 ppb 1,4 Dichlorobenzene

(11) 1/29/01 additional detections:

MW-1: 23.0 ppb 1,3 Dichlorobenzene

MW-4: 6.3 ppb 1,3 Dichlorobenzene

MW-4: 9.0 ppb 1,4 Dichlorobenzene

**TABLE 4**

**GROUND WATER**

**SUMMARY OF ANALYTICAL TEST RESULTS -  
POLYNUCLEAR AROMATIC HYDROCARBONS (PNA, PAH)  
(Results reported in parts per billion, ppb/ug/l) (1) (2) (3)**

<b>Well and Date</b>	<b>Phenanthrene</b>	<b>Naphthalene</b>
<b>MW-1 ("deep")</b>		
6/23/97	12	2200
10/7/97	ND<100	810
12/12/98	N/A	N/A
<b>MCL</b>	N/A	N/A

**Notes to Table 4**

- (1) ND = non-detect
- (2) N/A = not applicable
- (3) Detected compounds only

TABLE 5

## GROUND WATER

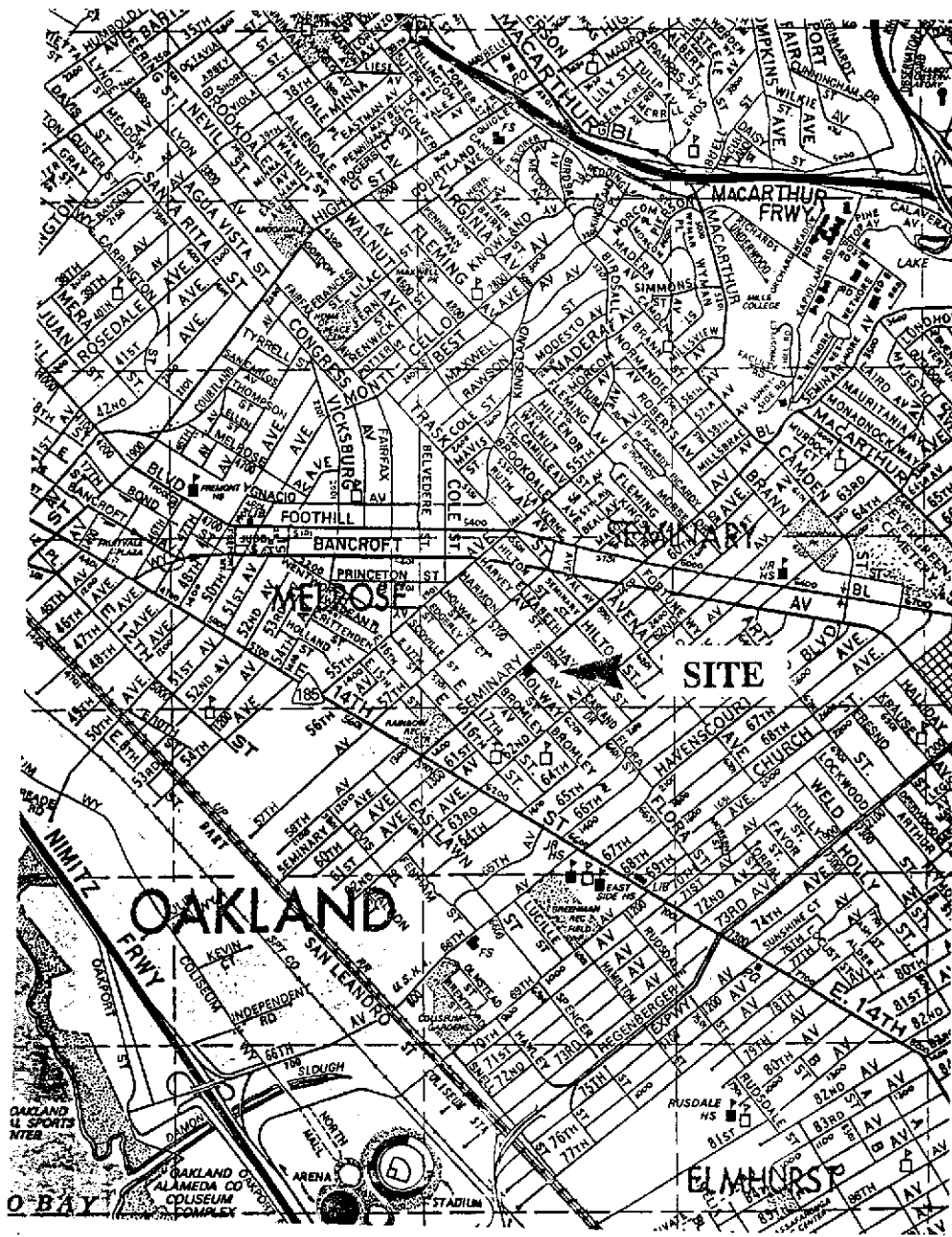
SUMMARY OF ANALYTICAL TEST RESULTS -  
ADDITIONAL CHEMICAL PARAMETERS  
(Results reported in parts per million, mg/l) (1)

Well and Date	Dissolved Oxygen	Ferrous Iron	Nitrate	Sulfate
<b>MW-1 ("deep")</b>				
10/8/96	1.5	ND	ND	ND
1/16/97	1.4	3.6	ND	ND
6/23/97	N/A	N/A	N/A	N/A
10/7/97	N/A	N/A	N/A	N/A
12/12/98	N/A	N/A	N/A	N/A
4/24/99	N/A	N/A	N/A	N/A
12/18/99	N/A	N/A	N/A	N/A
7/22/00	N/A	N/A	N/A	N/A
1/29/01	N/A	N/A	N/A	N/A
<b>MW-2 ("deep")</b>				
10/8/96	3.7	ND	3	25
1/16/97	5.4	0.28	3	25
6/23/97	N/A	N/A	N/A	N/A
10/7/97	N/A	N/A	N/A	N/A
12/12/98	N/A	N/A	N/A	N/A
4/24/99	N/A	N/A	N/A	N/A
12/18/99	N/A	N/A	N/A	N/A
7/22/00	N/A	N/A	N/A	N/A
1/29/01	N/A	N/A	N/A	N/A
<b>MW-3 ("shallow")</b>				
10/8/96	3.8	ND	ND	5
1/16/97	5.2	ND	ND	5
6/23/97	N/A	N/A	N/A	N/A
10/7/97	N/A	N/A	N/A	N/A
12/12/98	N/A	N/A	N/A	N/A
4/24/99	N/A	N/A	N/A	N/A
12/18/99	N/A	N/A	N/A	N/A
7/22/00	N/A	N/A	N/A	N/A
1/29/01	N/A	N/A	N/A	N/A
<b>MW-4 ("deep")</b>				
10/8/96	3.0	ND	ND	ND
1/16/97	4.7	0.75	ND	5
6/23/97	N/A	N/A	N/A	N/A
10/7/97	N/A	N/A	N/A	N/A
12/12/98	N/A	N/A	N/A	N/A
4/24/99	N/A	N/A	N/A	N/A
12/18/99	N/A	N/A	N/A	N/A
7/22/00	N/A	N/A	N/A	N/A
1/29/01	N/A	N/A	N/A	N/A

Well and Date	Dissolved Oxygen	Ferrous Iron	Nitrate	Sulfate
<b>MW-5 ("deep")</b>				
10/8/96	2.8	ND	ND	8
1/16/97	3.4	0.38	ND	9
6/23/97	N/A	N/A	N/A	N/A
10/7/97	N/A	N/A	N/A	N/A
12/12/98	N/A	N/A	N/A	N/A
4/24/99	N/A	N/A	N/A	N/A
12/18/99	N/A	N/A	N/A	N/A
7/22/00	N/A	N/A	N/A	N/A
1/29/01	N/A	N/A	N/A	N/A
<b>MW-6 ("shallow")</b>				
10/8/96	2.7	ND	ND	6
1/16/97	2.7	0.28	ND	8
6/23/97	N/A	N/A	N/A	N/A
10/7/97	N/A	N/A	N/A	N/A
12/12/98	N/A	N/A	N/A	N/A
4/24/99	N/A	N/A	N/A	N/A
12/18/99	N/A	N/A	N/A	N/A
7/22/00	N/A	N/A	N/A	N/A
1/29/01	N/A	N/A	N/A	N/A
<b>MW-7 ("deep")</b>				
6/23/97	N/A	N/A	N/A	N/A
10/7/97	N/A	N/A	N/A	N/A
12/12/98	N/A	N/A	N/A	N/A
4/24/99	N/A	N/A	N/A	N/A
12/18/99	N/A	N/A	N/A	N/A
7/22/00	N/A	N/A	N/A	N/A
1/29/01	N/A	N/A	N/A	N/A
<b>MW-8 ("shallow")</b>				
6/23/97	N/A	N/A	N/A	N/A
10/7/97	N/A	N/A	N/A	N/A
12/12/98	N/A	N/A	N/A	N/A
4/24/99	N/A	N/A	N/A	N/A
12/18/99	N/A	N/A	N/A	N/A
7/22/00	N/A	N/A	N/A	N/A
1/29/01	N/A	N/A	N/A	N/A
<b>MW-9 ("shallow")</b>				
6/23/97	N/A	N/A	N/A	N/A
10/7/97	N/A	N/A	N/A	N/A
12/12/98	N/A	N/A	N/A	N/A
4/24/99	N/A	N/A	N/A	N/A
12/18/99	N/A	N/A	N/A	N/A
7/22/00	N/A	N/A	N/A	N/A
1/29/01	N/A	N/A	N/A	N/A

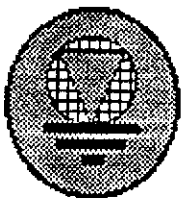
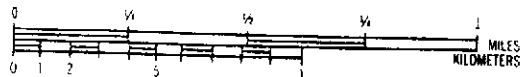
**Notes to Table 5**

- (1) ND = non-detect
- (2) N/A = not applicable



# ALAMEDA COUNTY

1991 *Thomas Guide*.



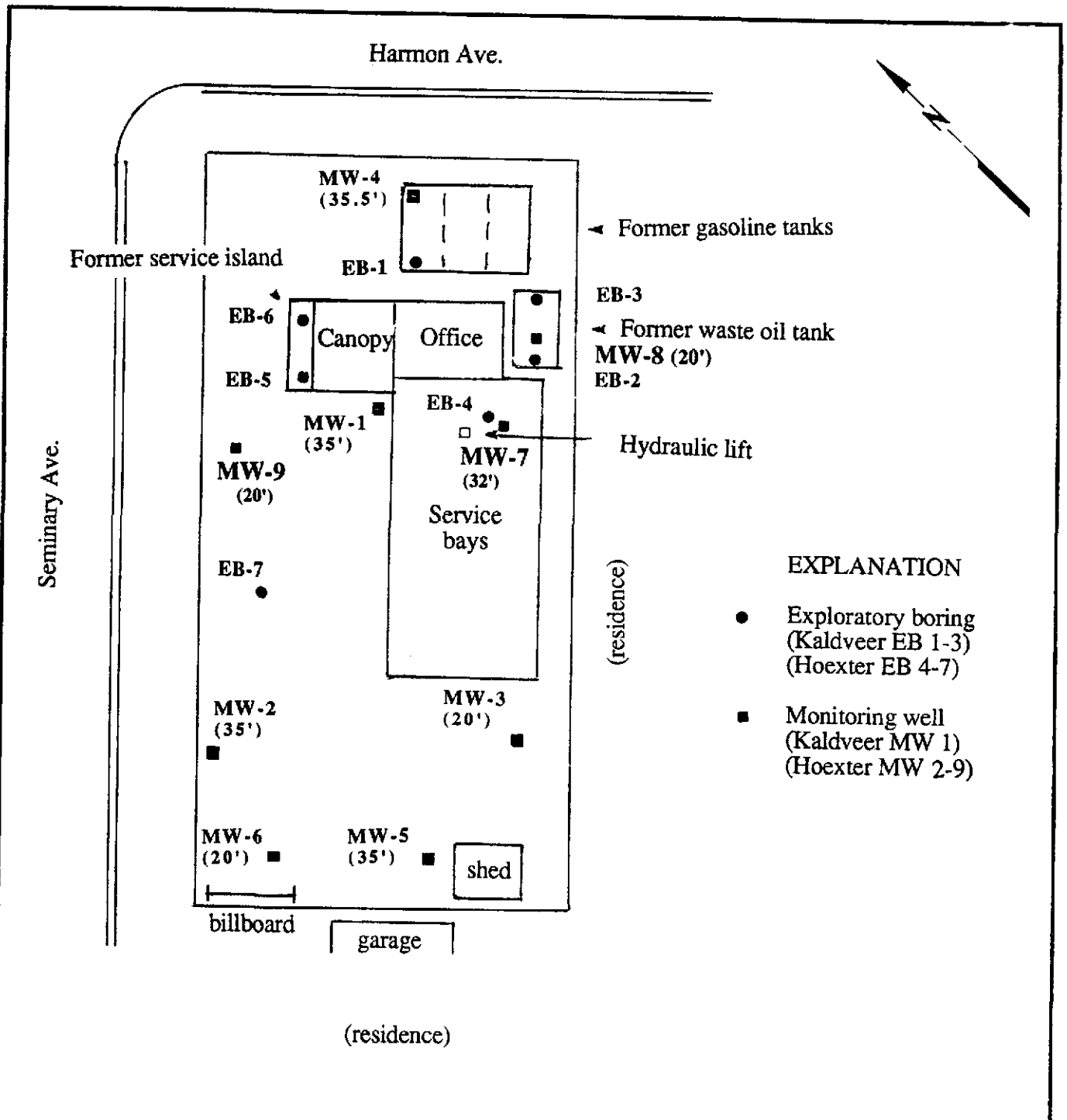
**HOEXTER CONSULTING**

**Geology  
Engineering Geology  
Environmental Studies**

**LOCATION MAP**

1970 Seminary Ave.  
Oakland, California

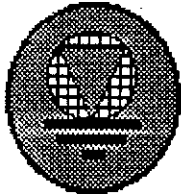
Project No.	Date	Figure 1
E-10-1E-391E	May, 2001	

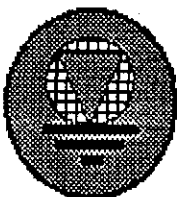
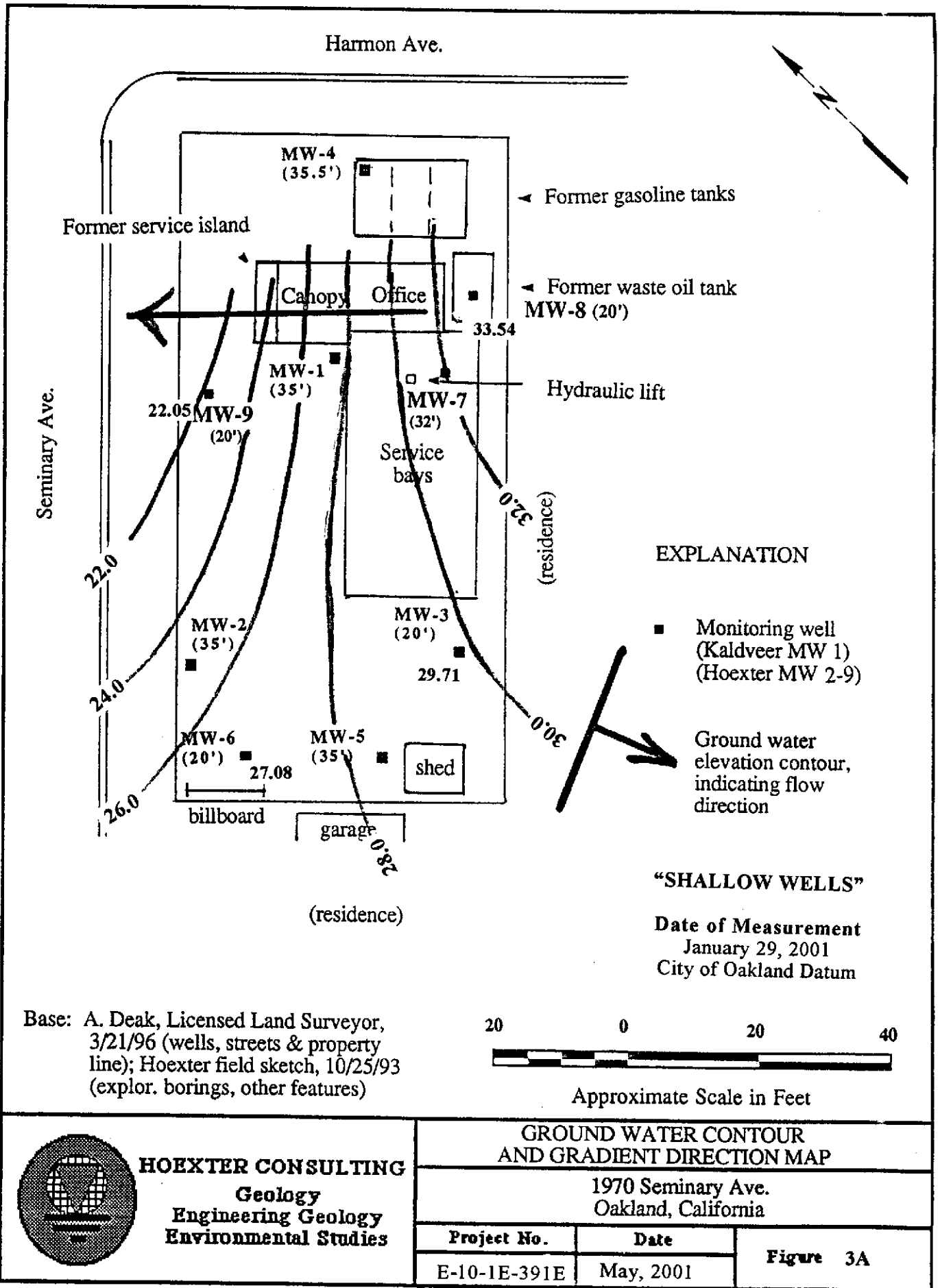


Base: A. Deak, Licensed Land Surveyor, 3/21/96 (wells, streets & property line); Hoexter field sketch, 10/25/93 (explor. borings, other features)



Approximate Scale in Feet

 <p><b>HOEXTER CONSULTING</b> Geology Engineering Geology Environmental Studies</p>	<b>SITE PLAN</b>		
	1970 Seminary Ave. Oakland, California		
	<b>Project No.</b>	<b>Date</b>	<b>Figure 2</b>
	E-10-1E-391E	May, 2001	



**HOEXTER CONSULTING**  
**Geology**  
**Engineering Geology**  
**Environmental Studies**

**GROUND WATER CONTOUR  
AND GRADIENT DIRECTION MAP**

1970 Seminary Ave.  
Oakland, California

**Project No.**

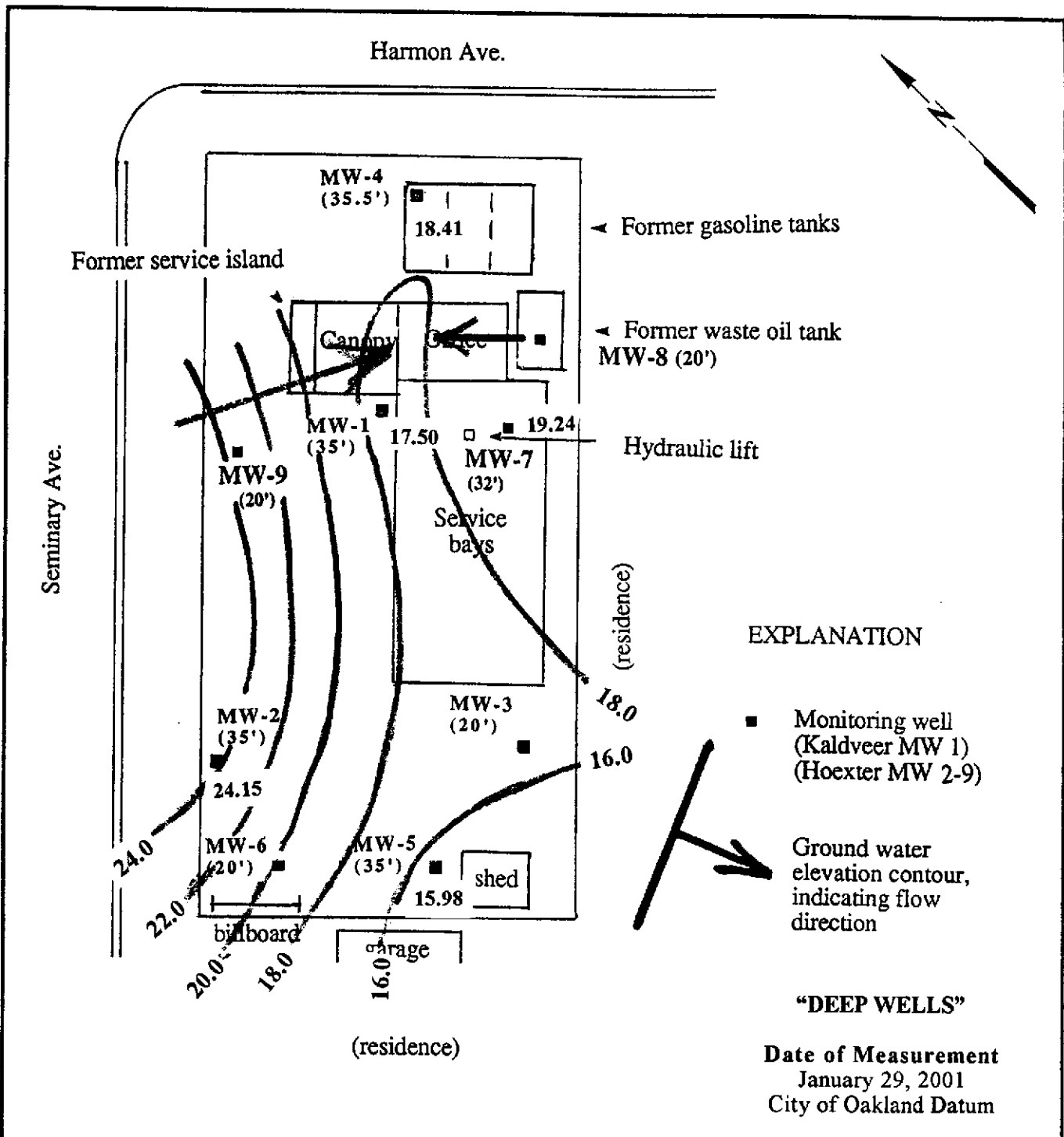
**Date**

**Figure 3A**

E-10-1E-391E

May, 2001

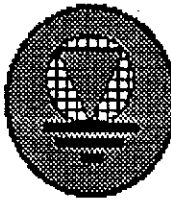




Base: A. Deak, Licensed Land Surveyor,  
3/21/96 (wells, streets & property  
line); Hoexter field sketch, 10/25/93  
(explor. borings, other features)



Approximate Scale in Feet

 <p><b>HOEXTER CONSULTING</b> Geology Engineering Geology Environmental Studies</p>	<b>GROUND WATER CONTOUR AND GRADIENT DIRECTION MAP</b>	
	1970 Seminary Ave. Oakland, California	
	Project No.	Date
	E-10-1E-391E	May, 2001
		<b>Figure 3B</b>

**APPENDIX A**  
**WATER SAMPLE LOGS**  
**CHAIN OF CUSTODY**  
**ANALYTICAL TEST RESULTS**

# HOEXTER CONSULTING

## Groundwater Sampling Field Log

Project Name/No: 1970 Seminary, Calicut/CA  
 Client: D. Gromet  
 Project Manager: D.F. Hoexter  
 Sampler: J. Forsythe, D.F. Hoexter  
 Casing Diameter: 2 inch X 3 inch \_\_\_\_\_ 4 inch \_\_\_\_\_ 6 inch \_\_\_\_\_ Other: \_\_\_\_\_

Lab I.D.: \_\_\_\_\_  
 Date: 1/29/01  
 Sample Location/I.D.: MW-1  
 Start Time: \_\_\_\_\_  
 6 inch \_\_\_\_\_ Other: \_\_\_\_\_

Depth of Well (feet): 35  
 Depth to Water (feet): 19.49  
 Sample Depth (feet): \_\_\_\_\_

Calculated Purged Volume: 10.1  
 Actual Purged Volume 10.5

### Field Measurements

Time	Cum	Volume (gal.)	pH (units)	E.C. (umhos/cm)	Temperature Degrees F	Color (visual)	Other
<u>1410</u>	<u>2.5</u>	<u>2.5</u>	<u>6.60</u>	<u>977</u>	<u>60.0</u>	_____	_____
<u>1422</u>	<u>5</u>	<u>2.5</u>	<u>6.49</u>	<u>955</u>	<u>59.9</u>	_____	_____
<u>1430</u>	<u>7.5</u>	<u>2.5</u>	<u>6.51</u>	<u>967</u>	<u>60.5</u>	_____	_____
<u>1439</u>	<u>10.5</u>	<u>3</u>	<u>6.47</u>	<u>964</u>	<u>61.0</u>	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

### Purge Method

\_\_\_\_\_ 2" Bladder Pump  Bailer \_\_\_\_\_ Well Wizard  Dedicated  
 \_\_\_\_\_ Submersible Pump \_\_\_\_\_ Centrifugal Pump \_\_\_\_\_ Dipper \_\_\_\_\_ Other  
 \_\_\_\_\_ Pneumatic Displacement Pump \_\_\_\_\_

### Sample Method

\_\_\_\_\_ 2" Bladder Pump  Bailer \_\_\_\_\_ Well Wizard  Dedicated  
 \_\_\_\_\_ Surface Sampler \_\_\_\_\_ Dipper \_\_\_\_\_ Fultz Pump \_\_\_\_\_ Other

Well Integrity: OK

Remarks: < 1/8" product initial bail; strong petrol-odor; oil globules in purge water; sampled 2 vials 1 amber at 11:50

Signature: [Signature]

#### 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	<del>0.1635</del>	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: 1970 Seminary, Ocala, FL  
 Client: D. Grunt  
 Project Manager: D.F. Hoexter  
 Sampler: J. Forsythe, D.F. Hoexter  
 Casing Diameter: 2 inch X 3 inch \_\_\_\_\_ 4 inch \_\_\_\_\_ 6 inch \_\_\_\_\_ Other: \_\_\_\_\_

Lab I.D.: \_\_\_\_\_  
 Date: 1/29/01  
 Sample Location/I.D.: MW-2  
 Start Time: \_\_\_\_\_

Depth of Well (feet): 35  
 Depth to Water (feet): 12.25  
 Sample Depth (feet): \_\_\_\_\_

Calculated Purged Volume: 14.8  
 Actual Purged Volume: 16

### Field Measurements

Time	Cum	Volume (gal.)	pH (units)	E.C. (umhos/cm)	Temperature Degrees F	Color (visual)	Other
<u>1241</u>	<u>4</u>	<u>4</u>	<u>6.55</u>	<u>950</u>	<u>60.8</u>	<u>clear</u>	_____
<u>1255</u>	<u>8</u>	<u>4</u>	<u>6.56</u>	<u>892</u>	<u>59.4</u>		_____
<u>1308</u>	<u>12</u>	<u>4</u>	<u>6.56</u>	<u>855</u>	<u>59.1</u>		_____
<u>1345</u>	<u>16</u>	<u>4</u>	<u>6.57</u>	<u>904</u>	<u>59.5</u>	↓	_____

### Purge Method

\_\_\_\_\_ 2" Bladder Pump  Bailer \_\_\_\_\_ Well Wizard  Dedicated  
 \_\_\_\_\_ Submersible Pump \_\_\_\_\_ Centrifugal Pump \_\_\_\_\_ Dipper \_\_\_\_\_ Other  
 \_\_\_\_\_ Pneumatic Displacement Pump \_\_\_\_\_

### Sample Method

\_\_\_\_\_ 2" Bladder Pump  Bailer \_\_\_\_\_ Well Wizard  Dedicated  
 \_\_\_\_\_ Surface Sampler \_\_\_\_\_ Dipper \_\_\_\_\_ Fultz Pump \_\_\_\_\_ Other

Well Integrity: OK/Fair

Remarks: No show, slight odor initial extraction. Sampled 2 VOA  
1 Amber 15:10.

Signature: [Handwritten Signature]

#### 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	<del>0.1635</del>	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: 1970 Saminary, Calicut  
 Client: D. Grimet  
 Project Manager: D.F. Hoexter  
 Sampler: J. Forsythe, D.F. Hoexter  
 Casing Diameter: 2 inch X 3 inch \_\_\_\_\_ 4 inch \_\_\_\_\_ 6 inch \_\_\_\_\_ Other: \_\_\_\_\_

Lab I.D.: \_\_\_\_\_  
 Date: 1/29/01  
 Sample Location/I.D.: MW-3  
 Start Time: \_\_\_\_\_

Depth of Well (feet): 20  
 Depth to Water (feet): 7.23  
 Sample Depth (feet): \_\_\_\_\_

Calculated Purged Volume: 8.32  
 Actual Purged Volume: 8

### Field Measurements

Time	Cum	Volume (gal.)	pH (units)	E.C. (umhos/cm)	Temperature (Degrees F)	Color (visual)	Other
<u>1202</u>	<u>2</u>	<u>2</u>	<u>6.48</u>	<u>565</u>	<u>58.6</u>	<u>cloudy</u>	_____
<u>1214</u>	<u>4</u>	<u>2</u>	<u>6.51</u>	<u>576</u>	<u>58.5</u>	_____	_____
<u>1222</u>	<u>6</u>	<u>2</u>	<u>6.46</u>	<u>576</u>	<u>57.9</u>	_____	_____
<u>1230</u>	<u>8</u>	<u>2</u>	<u>6.51</u>	<u>564</u>	<u>57.7</u>	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

### Purge Method

\_\_\_\_\_ 2" Bladder Pump  Bailer \_\_\_\_\_ Well Wizard  Dedicated  
 \_\_\_\_\_ Submersible Pump \_\_\_\_\_ Centrifugal Pump \_\_\_\_\_ Dipper \_\_\_\_\_ Other  
 \_\_\_\_\_ Pneumatic Displacement Pump \_\_\_\_\_

### Sample Method

\_\_\_\_\_ 2" Bladder Pump  Bailer \_\_\_\_\_ Well Wizard  Dedicated  
 \_\_\_\_\_ Surface Sampler \_\_\_\_\_ Dipper \_\_\_\_\_ Fultz Pump \_\_\_\_\_ Other

Well Integrity: OK / Fair

Remarks: No screen, slight odor initial extraction. Sampled 2 VOA  
1 amber 15:20

Signature: [Handwritten Signature]

#### 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	<u>0.1632</u>	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	0.3048
Inches	Centimeters	2.5400

# HOEXTER CONSULTING

## Groundwater Sampling Field Log

Project Name/ No: 1970 Saminary, Calicut/CA  
 Client: D. Grinet  
 Project Manager: D.F. Hoexter  
 Sampler: J. Ferryho, D.F. Hoexter  
 Casing Diameter: 2 inch  3 inch \_\_\_\_\_ 4 inch \_\_\_\_\_ 6 inch \_\_\_\_\_ Other: \_\_\_\_\_

Lab I.D.: \_\_\_\_\_  
 Date: 1/29/01  
 Sample Location/I.D.: MW-4  
 Start Time: \_\_\_\_\_

Depth of Well (feet): 35.5  
 Depth to Water (feet): 18.06  
 Sample Depth (feet): \_\_\_\_\_

Calculated Purged Volume: 11.4  
 Actual Purged Volume 11

### Field Measurements

Time	Cum	Volume (gal.)	pH (units)	E.C. (umhos/cm)	Temperature Degrees F	Color (visual)	Other
1200	3	3	6.51	918	61.1	clear - no shoen	
1209	6	3	6.51	902	59.7	-sl. shoen	
1223	9	3	6.54	944	61.1		
1228	11	2	6.57	936	61.3		↓

### Purge Method

2" Bladder Pump  Bailer  Well Wizard  Dedicated  
 Submersible Pump  Centrifugal Pump  Dipper  Other  
 Pneumatic Displacement Pump

### Sample Method

2" Bladder Pump  Bailer  Well Wizard  Dedicated  
 Surface Sampler  Dipper  Fultz Pump  Other

Well Integrity: OK

Remarks: no product or shoen, partial. over initial extraction. Subsequent shoen. Partial drawdown ± 5', Sampled 2 VOA +

Signature: [Signature]

1 amber 15:37.

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	<u>0.1633</u>	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: 1970 Seminary, Oakland CA  
 Client: D. Grimet  
 Project Manager: D.F. Hoexter  
 Sampler: J. Forsythe, D.F. Hoexter  
 Casing Diameter: 2 inch X 3 inch \_\_\_\_\_ 4 inch \_\_\_\_\_ 6 inch \_\_\_\_\_ Other: \_\_\_\_\_

Lab I.D.: \_\_\_\_\_  
 Date: 1/29/01  
 Sample Location/I.D.: MW-5  
 Start Time: \_\_\_\_\_

Depth of Well (feet): 35  
 Depth to Water (feet): 70.79  
 Sample Depth (feet): \_\_\_\_\_

Calculated Purged Volume: 9.28  
 Actual Purged Volume 7.5

### Field Measurements

Time	Cum	Volume (gal.)	pH (units)	E.C. (umhos/cm)	Temperature (Degrees F)	Color (visual)	Other
1127	2.5	2.5	6.51	762	58.0	cloudy	sl. stream + odor
1136	5	2.5	6.53	874	58.9	↓	↓
1146	7.5	2.5	6.59	973	58.6	↓	↓
<u>Water level declined - purging discontinued -</u>							

### Purge Method

2" Bladder Pump     Bailer     Well Wizard     Dedicated  
 Submersible Pump     Centrifugal Pump     Dipper     Other  
 Pneumatic Displacement Pump

### Sample Method

2" Bladder Pump     Bailer     Well Wizard     Dedicated  
 Surface Sampler     Dipper     Fultz Pump     Other

Well Integrity: OK  
 Remarks: slight stream + odor initial extraction, Sampled 2/18/01 + 1 amber 1545

Signature: [Handwritten Signature]

### 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	<u>0.1632</u>	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: 1970 Seminary, Calicut CA  
 Client: D. Grinet  
 Project Manager: D.F. Hoexter  
 Sampler: J. Forsythe, D.F. Hoexter  
 Casing Diameter: 2 inch X 3 inch \_\_\_\_\_ 4 inch \_\_\_\_\_ 6 inch \_\_\_\_\_ Other: \_\_\_\_\_

Lab I.D.: \_\_\_\_\_  
 Date: 1/29/01  
 Sample Location/I.D.: MW-6  
 Start Time: \_\_\_\_\_

Depth of Well (feet): 20  
 Depth to Water (feet): 9.34  
 Sample Depth (feet): \_\_\_\_\_

Calculated Purged Volume: 6.96  
 Actual Purged Volume: 8

### Field Measurements

Time	Cum	Volume (gal.)	pH (units)	E.C. (umhos/cm)	Temperature Degrees F	Color (visual)	Other
<u>1320</u>	<u>2</u>	<u>2</u>	<u>6.50</u>	<u>735</u>	<u>57.4</u>	<u>clear</u>	<u>NO shear,</u>
<u>1350</u>	<u>4</u>	<u>2</u>	<u>6.55</u>	<u>825</u>	<u>58.0</u>	<u>↓</u>	<u>st-odor</u>
<u>1357</u>	<u>6</u>	<u>2</u>	<u>6.54</u>	<u>855</u>	<u>59.1</u>	<u>↓</u>	<u>↓</u>
<u>1407</u>	<u>8</u>	<u>2</u>	<u>6.54</u>	<u>840</u>	<u>58.3</u>	<u>↓</u>	<u>↓</u>

### Purge Method

2" Bladder Pump      Bailer      Well Wizard      Dedicated  
 Submersible Pump      Centrifugal Pump      Dipper      Other  
 Pneumatic Displacement Pump

### Sample Method

2" Bladder Pump      Bailer      Well Wizard      Dedicated  
 Surface Sampler      Dipper      Fultz Pump      Other

Well Integrity: OK

Remarks: NO shear, st-odor initial extraction. Sampled 2 VOA + 1 amber 16:00-

Signature: [Handwritten Signature]

#### 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	<del>0.1632</del>	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: 1970 Seminary, Oakland CA  
 Client: D. Grimes  
 Project Manager: D.F. Hoexter  
 Sampler: J. Forsythe, D.F. Hoexter  
 Casing Diameter: 2 inch X 3 inch \_\_\_\_\_ 4 inch \_\_\_\_\_ 6 inch \_\_\_\_\_ Other: \_\_\_\_\_  
 Lab I.D.: \_\_\_\_\_  
 Date: 1/29/01  
 Sample Location/I.D.: MW-7  
 Start Time: \_\_\_\_\_  
 Depth of Well (feet): 32  
 Depth to Water (feet): 17.59  
 Sample Depth (feet): \_\_\_\_\_  
 Calculated Purged Volume: 9.4  
 Actual Purged Volume: 10

### Field Measurements

Time	Cum	Volume (gal.)	pH (units)	E.C. (umhos/cm)	Temperature Degrees F	Color (visual)	Other
<u>1320</u>	<u>2.5</u>	<u>2.5</u>	<u>6.48</u>	<u>929</u>	<u>60.3</u>	<u>51.5 gray</u>	
<u>1338</u>	<u>5.5</u>	<u>3</u>	<u>6.52</u>	<u>887</u>	<u>60.1</u>		
<u>1345</u>	<u>7.5</u>	<u>2</u>	<u>6.59</u>	<u>854</u>	<u>61.5</u>		
<u>1352</u>	<u>10</u>	<u>2.5</u>	<u>6.37</u>	<u>805</u>	<u>60.6</u>		

### Purge Method

2" Bladder Pump     Bailer     Well Wizard     Dedicated  
 Submersible Pump     Centrifugal Pump     Dipper     Other  
 Pneumatic Displacement Pump

### Sample Method

2" Bladder Pump     Bailer     Well Wizard     Dedicated  
 Surface Sampler     Dipper     Fultz Pump     Other

Well Integrity: OK

Remarks: No product, show after initial extraction sampled  
2 VOA 1 on bag 1615.

Signature: [Signature]

### 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	<del>0.1532</del>	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.: 1970 Seminary, Calicut CA  
 Client: D. Grimet  
 Project Manager: D.F. Hoexter  
 Sampler: J. Forsythe, D.F. Hoexter  
 Casing Diameter: 2 inch X 3 inch \_\_\_\_\_ 4 inch \_\_\_\_\_ 6 inch \_\_\_\_\_ Other: \_\_\_\_\_

Lab I.D.: \_\_\_\_\_  
 Date: 1/29/01  
 Sample Location/I.D.: MW-8  
 Start Time: \_\_\_\_\_  
 6 inch \_\_\_\_\_ Other: \_\_\_\_\_

Depth of Well (feet): 20  
 Depth to Water (feet): 3.0'  
 Sample Depth (feet): \_\_\_\_\_

Calculated Purged Volume: 11.08  
 Actual Purged Volume 12

### Field Measurements

Time	Cum	Volume (gal.)	pH (units)	E.C. (umhos/cm)	Temperature Degrees F	Color (visual)	Other
<u>1114</u>	<u>3</u>	<u>3</u>	<u>6.44</u>	<u>562</u>	<u>54.9</u>	<u>Lgt. tan</u>	
<u>1122</u>	<u>6</u>	<u>3</u>	<u>6.43</u>	<u>554</u>	<u>55.3</u>	<u>clear</u>	
<u>1135</u>	<u>9</u>	<u>3</u>	<u>6.42</u>	<u>553</u>	<u>55.1</u>		
<u>1147</u>	<u>12</u>	<u>3</u>	<u>6.58</u>	<u>590</u>	<u>55.6</u>		

### Purge Method

2" Bladder Pump     Bailer     Well Wizard     Dedicated  
 Submersible Pump     Centrifugal Pump     Dipper     Other  
 Pneumatic Displacement Pump

### Sample Method

2" Bladder Pump     Bailer     Well Wizard     Dedicated  
 Surface Sampler     Dipper     Fultz Pump     Other

Well Integrity: OK

Remarks: NO product, steam, odor initial extraction. Sampled 2 VOA 1 amber 1625.

Signature: [Handwritten Signature]

#### 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	<u>0.1632</u>	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: 1970 Seminary, Oakland CA  
 Client: D. Grinet  
 Project Manager: D.F. Hoexter  
 Sampler: J. Forsythe, D.F. Hoexter  
 Casing Diameter: 2 inch X 3 inch \_\_\_\_\_ 4 inch \_\_\_\_\_ 6 inch \_\_\_\_\_ Other: \_\_\_\_\_

Lab I.D.: \_\_\_\_\_  
 Date: 1/29/01  
 Sample Location/I.D.: MW-9  
 Start Time: \_\_\_\_\_

Depth of Well (feet): 20  
 Depth to Water (feet): 14.65  
 Sample Depth (feet): \_\_\_\_\_

Calculated Purged Volume: 3.48  
 Actual Purged Volume: 3

### Field Measurements

Time	Cum	Volume (gal.)	pH (units)	E.C. (umhos/cm)	Temperature Degrees F	Color (visual)	Other
<u>1240</u>	<u>1</u>	<u>1</u>	<u>6.62</u>	<u>1128</u>	<u>62.0</u>	<u>Lgt. grey</u>	
<u>-</u>	<u>2</u>	<u>1</u>	<u>-</u>	<u>-</u>	<u>-</u>		
<u>1446</u>	<u>3</u>	<u>1</u>	<u>6.64</u>	<u>1143</u>	<u>62.1</u>	<u>sl-color?</u>	
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

### Purge Method

\_\_\_\_\_ 2" Bladder Pump  Bailer \_\_\_\_\_ Well Wizard  Dedicated  
 \_\_\_\_\_ Submersible Pump \_\_\_\_\_ Centrifugal Pump \_\_\_\_\_ Dipper \_\_\_\_\_ Other  
 \_\_\_\_\_ Pneumatic Displacement Pump \_\_\_\_\_

### Sample Method

\_\_\_\_\_ 2" Bladder Pump  Bailer \_\_\_\_\_ Well Wizard  Dedicated  
 \_\_\_\_\_ Surface Sampler \_\_\_\_\_ Dipper \_\_\_\_\_ Fultz Pump \_\_\_\_\_ Other

Well Integrity: OK

Remarks: no product seen, odor initial extracting sample  
2 VOA + 1 amber 1635-

Signature: [Signature]

#### 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	<u>0.1632</u>	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



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<http://www.mccampbell.com> E-mail: [main@mccampbell.com](mailto:main@mccampbell.com)

Hoexter Consulting Engineering Geology 734 Torrey Court Palo Alto, CA 94303	Client Project ID: #E-10-1E-391E; 1970 Seminary Ave	Date Sampled: 01/29/01
		Date Received: 01/30/01
	Client Contact: David Hoexter	Date Extracted: 01/30/01
	Client P.O:	Date Analyzed: 01/30/01

02/06/01

Dear David:

Enclosed are:

- 1). the results of 9 samples from your #E-10-1E-391E; 1970 Seminary Ave project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director







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	Client Contact: David Hoexter	Date Received: 01/30/01
	Client P.O:	Date Extracted: 01/30-02/01/01
		Date Analyzed: 01/30-02/01/01

**Volatile Halocarbons**


EPA method 601 or 8010

Lab ID	58970	58971	58972	58973
Client ID	MW-1	MW-2	MW-3	MW-4
Matrix	W	W	W	W
Compound	Concentration			
Bromodichloromethane	ND<10	ND	ND	ND<5.0
Bromoform <sup>(b)</sup>	ND<10	ND	ND	ND<5.0
Bromomethane	ND<10	ND	ND	ND<5.0
Carbon Tetrachloride <sup>(c)</sup>	ND<10	ND	ND	ND<5.0
Chlorobenzene	ND<10	ND	ND	ND<5.0
Chloroethane	ND<10	ND	ND	ND<5.0
2-Chloroethyl Vinyl Ether <sup>(d)</sup>	ND<10	ND	ND	ND<5.0
Chloroform <sup>(e)</sup>	ND<10	ND	ND	ND<5.0
Chloromethane	ND<10	ND	ND	ND<5.0
Dibromochloromethane	ND<10	ND	ND	ND<5.0
1,2-Dichlorobenzene	23	ND	ND	35
1,3-Dichlorobenzene	23	ND	ND	6.3
1,4-Dichlorobenzene	ND<10	ND	ND	9.0
Dichlorodifluoromethane	ND<10	ND	ND	ND<5.0
1,1-Dichloroethane	ND<10	ND	ND	ND<5.0
1,2-Dichloroethane	ND<10	12	ND	ND<5.0
1,1-Dichloroethene	ND<10	ND	ND	ND<5.0
cis 1,2-Dichloroethene	23	9.1	ND	380
trans 1,2-Dichloroethene	ND<10	ND	ND	15
1,2-Dichloropropane	ND<10	0.90	ND	ND<5.0
cis 1,3-Dichloropropene	ND<10	ND	ND	ND<5.0
trans 1,3-Dichloropropene	ND<10	ND	ND	ND<5.0
Methylene Chloride <sup>(f)</sup>	ND<15	ND	ND	ND<5.0
1,1,2,2-Tetrachloroethane	ND<10	ND	ND	ND<5.0
Tetrachloroethene	ND<10	ND<5.0	ND<5.0	ND<5.0
1,1,1-Trichloroethane	ND<10	ND	ND	ND<5.0
1,1,2-Trichloroethane	ND<10	ND	ND	ND<5.0
Trichloroethene	ND<10	12	ND	ND<15
Trichlorofluoromethane	ND<10	ND	ND	ND<5.0
Vinyl Chloride <sup>(g)</sup>	ND<10	ND	ND	110
% Recovery Surrogate	97	104	97	110
Comments	h,j			

\* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe  
 Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe  
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.

DHS Certification No. 1644

 Edward Hamilton, Lab Director



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	Client Contact: David Hoexter	Date Received: 01/30/01
	Client P.O:	Date Extracted: 01/30-02/01/01
		Date Analyzed: 01/30-02/01/01


**Volatile Halocarbons**

EPA method 601 or 8010				
Lab ID	58974	58975	58976	58977
Client ID	MW-5	MW-6	MW-7	MW-8
Matrix	W	W	W	W
Compound	Concentration*			
Bromodichloromethane	ND<1.0	ND	ND<1.0	ND
Bromoform <sup>(b)</sup>	ND<1.0	ND	ND<1.0	ND
Bromomethane	ND<1.0	ND	ND<1.0	ND
Carbon Tetrachloride <sup>(c)</sup>	ND<1.0	ND	ND<1.0	ND
Chlorobenzene	ND<1.0	ND	ND<1.0	ND
Chloroethane	ND<1.0	ND	ND<1.0	ND
2-Chloroethyl Vinyl Ether <sup>(d)</sup>	ND<1.0	ND	ND<1.0	ND
Chloroform <sup>(e)</sup>	ND<1.0	ND	ND<1.0	ND
Chloromethane	ND<1.0	ND	ND<1.0	ND
Dibromochloromethane	ND<1.0	ND	ND<1.0	ND
1,2-Dichlorobenzene	2.2	ND	5.5	ND
1,3-Dichlorobenzene	ND<1.0	ND	ND<1.0	ND
1,4-Dichlorobenzene	ND<1.0	ND	ND<1.0	ND
Dichlorodifluoromethane	ND<1.0	ND	ND<1.0	ND
1,1-Dichloroethane	ND<1.0	ND	ND<1.0	ND
1,2-Dichloroethane	2.6	1.1	ND<1.0	ND
1,1-Dichloroethene	ND<1.0	ND	ND<1.0	ND
cis 1,2-Dichloroethene	2.2	11	78	10
trans 1,2-Dichloroethene	ND<1.0	ND	1.0	ND
1,2-Dichloropropane	ND<1.0	ND	ND<1.0	ND
cis 1,3-Dichloropropene	ND<1.0	ND	ND<1.0	ND
trans 1,3-Dichloropropene	ND<1.0	ND	ND<1.0	ND
Methylene Chloride <sup>(f)</sup>	ND<1.0	ND	ND<1.0	ND
1,1,2,2-Tetrachloroethane	ND<1.0	ND	ND<1.0	ND
Tetrachloroethene	ND<1.0	ND<5.0	ND<1.0	ND<5.0
1,1,1-Trichloroethane	ND<1.0	ND	ND<1.0	ND
1,1,2-Trichloroethane	ND<1.0	ND	ND<1.0	ND
Trichloroethene	ND<1.0	ND	2.0	8.8
Trichlorofluoromethane	ND<1.0	ND	ND<1.0	ND
Vinyl Chloride <sup>(g)</sup>	2.2	0.77	2.0	ND
% Recovery Surrogate	108	90	106	106
Comments	j			

\* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe  
 Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe  
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.

DHS Certification No. 1644

 Edward Hamilton, Lab Director





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Hoexter Consulting Engineering Geology 734 Torrey Court Palo Alto, CA 94303	Client Project ID: #E-10-1E-391E; 1970 Seminary Ave	Date Sampled: 01/29/01
	Client Contact: David Hoexter	Date Received: 01/30/01
	Client P.O:	Date Extracted: 01/30-02/01/01
		Date Analyzed: 01/30-02/01/01

**Volatile Halocarbons**


EPA method 601 or 8010

Lab ID	58978		
Client ID	MW-9		
Matrix	W		
Compound	Concentration		
Bromodichloromethane	ND		
Bromoform <sup>(b)</sup>	ND		
Bromomethane	ND		
Carbon Tetrachloride <sup>(c)</sup>	ND		
Chlorobenzene	ND		
Chloroethane	ND		
2-Chloroethyl Vinyl Ether <sup>(d)</sup>	ND		
Chloroform <sup>(e)</sup>	ND		
Chloromethane	ND		
Dibromochloromethane	ND		
1,2-Dichlorobenzene	1.2		
1,3-Dichlorobenzene	ND		
1,4-Dichlorobenzene	ND		
Dichlorodifluoromethane	ND		
1,1-Dichloroethane	ND		
1,2-Dichloroethane	0.71		
1,1-Dichloroethene	ND		
cis 1,2-Dichloroethene	8.2		
trans 1,2-Dichloroethene	ND		
1,2-Dichloropropane	ND		
cis 1,3-Dichloropropene	ND		
trans 1,3-Dichloropropene	ND		
Methylene Chloride <sup>(f)</sup>	ND		
1,1,2,2-Tetrachloroethane	ND		
Tetrachloroethene	ND<5.0		
1,1,1-Trichloroethane	ND		
1,1,2-Trichloroethane	ND		
Trichloroethene	ND		
Trichlorofluoromethane	ND		
Vinyl Chloride <sup>(g)</sup>	0.53		
% Recovery Surrogate	105		
Comments			

\* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe  
 Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe  
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.

DHS Certification No. 1644

 Edward Hamilton, Lab Director



## QC REPORT

Date: 02/04/01-02/05/01 Matrix: Water

Extraction: TTLC

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	

SampleID: 20501

Instrument: GC-7

Surrogate1	0.000	101.0	96.0	100.00	101	96	5.1
Xylenes	0.000	30.7	30.0	30.00	102	100	2.3
Ethyl Benzene	0.000	10.0	9.7	10.00	100	97	3.0
Toluene	0.000	10.0	9.4	10.00	100	94	6.2
Benzene	0.000	9.4	8.8	10.00	94	88	6.6
MTBE	0.000	9.4	9.0	10.00	94	90	4.3
GAS	0.000	96.5	94.6	100.00	97	95	2.0

SampleID: 20801

Instrument: MB-1

Oil & Grease	0.000	18.4	18.6	23.70	78	78	1.1
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SampleID: 20801

Instrument: GC-11 A

Surrogate1	0.000	111.0	103.0	100.00	111	103	7.5
TPH (diesel)	0.000	8175.0	8000.0	7500.00	109	107	2.2

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation



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# QC REPORT

## EPA 8010/8020/EDB

Date: 01/30/01-01/31/01 Matrix: Water

Extraction: N/A

Compound	Concentration: ug/L			%Recovery		RPD	
	Sample	MS	MSD	Amount Spiked	MS		MSD
SampleID: 20201		Instrument: GC-10					
Surrogate1	0.000	97.0	97.0	100.00	97	97	0.0
Chlorobenzene	0.000	92.0	89.0	100.00	92	89	3.3
Trichloroethane	0.000	84.0	68.0	100.00	84	68	21.1
1,1-DCE	0.000	79.0	73.0	100.00	79	73	7.9

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 100$$

RPD means Relative Percent Deviation

24267 ZHC35

CHAIN-OF-CUSTODY RECORD

1 of 2

Project Number		Project Name					Number / Type of Containers	Analytical Tests				Remarks
E-10-1E-391E		1970 Seminary Ave. Oakland CA						TPH-G/BBX/INTBE MUC-SCLO SMSSZO B/F oil * Petroleum HCL				
Sampler's Name (printed)												
J. Foyth, D. Hoexter												
Boring Number	Date	Time	Soil	Water	Sample Location or Depth	Sample Number						
(+) MW-1	1/29/01	1450				2 WA	X	X			58970	
✓ 2		1510				1-L			X		58971	
(+) 3		1520				2 WA	X	X			58972	
(+) 4		1537				1-L			X		58973	
(+) 5		1545				2 WA	X	X			58974	
(+) 6		1600				1-L			X		58975	
(+) 7		1615				2 WA	X	X			58976	
						1-L			X			

Relinquished by: (Signature) D. J. Foyth	Date/Time 1/30/01 0830	Received by: (Signature) Annie #140
Relinquished by: (Signature) Dad #140	Date/Time 1/30/01 1025	Received by: (Signature) Ken Brown
Relinquished by: (Signature) Ken Brown	Date/Time	Received for Laboratory by: (Signature) Annie #140

Ship To: Mc Campbell Ave -  
Pacheco CA  
Attention: \_\_\_\_\_  
Phone No: \_\_\_\_\_

Requested Turnaround Time: Normal Contact: David Hoexter Phone: 650-494-2505  
Remarks: contents in cooler

ICE ✓  
GOOD CONDITION ✓  
HEAD SPACE ABSENT ✓  
PRESERVATION APPROPRIATE ✓  
VOAS ✓  
B&G METALS OTHER ✓  
pH/far ✓

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

CHAIN-OF-CUSTODY RECORD

282

Project Number <b>E-10-1E-391E</b>		Project Name <b>1970 Seminary Ave - Oakland CA</b>				Number/Type of Containers	Analytical Tests <b>PH-G/BZ/MTX SRID HUR SM570 B/F col P...</b>					Remarks
Sampler's Name (printed) <b>J. Forsythe, D. Hoexter</b>												
Boring Number	Date	Time	Soil	Water	Sample Location or Depth							
(H) 8	1/29/81	1625		↓		2WA	X	X				58977
(H) 9	↓	1635		↓		1-L			X			
						2WA	X	X				58978
						1-L			X			

Relinquished by: (Signature) <b>D. Forsythe</b>	Date/Time <b>1/30/81 0813</b>	Received by: (Signature) <b>Procell #140</b>
Relinquished by: (Signature) <b>Procell</b>	Date/Time <b>1/30/81 1025</b>	Received by: (Signature) <b>Kon Brown</b>
Relinquished by: (Signature) <b>Kon Brown</b>	Date/Time <b>1</b>	Received for Laboratory by: (Signature) <b>When VMA 1/30 @ 12pm</b>

Ship To: **Mc Campbell Aved.**  
**Pacheco CA**

Attention: \_\_\_\_\_  
Phone No: \_\_\_\_\_

Requested Turnaround Time: **Normal**

Contact: **David F. Hoexter**

Phone **650-494-2505**

Remarks:

ICEM  PRESERVATION   
GOOD CONDITION  APPROPRIATE CONTAINERS   
HEAD SPACE ABSENT

VOAS  G&G  METALS  OTHER

**Hoexter Consulting  
Engineering Geology  
734 Torrey Court  
Palo Alto, CA 94303**