

9-28-50

SOIL AND GROUND WATER
TESTING REPORT
FOR
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA



**Kaldveer Associates
Geoscience Consultants**

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September 28, 1990
KE1220-1-133, 17114

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

RE: SOIL AND GROUND WATER
TESTING REPORT
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA


Dear Mr. Gritmit:

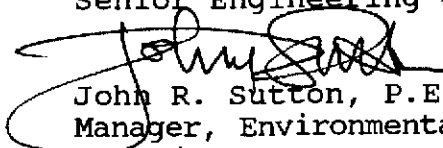
Kaldveer Associates is pleased to submit our soil and ground water testing report for the 1970 Seminary Avenue site, in Oakland, California. The enclosed report contains a description of our investigation and the results of soil and ground water sample analyses.

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 don't hesitate to call.

Very truly yours,

KALDVEER ASSOCIATES, INC.


Dennis Laduzinsky, C.E.G.
Senior Engineering Geologist


John R. Sutton, P.E./G.E.
Manager, Environmental/Geological
Services
Associate

JRS/DFH:ms
Copies: Addressee (4)

SOIL AND GROUND WATER
TESTING REPORT

For
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA

To
Mr. Doyle Gruit
San Leandro, California 94578

September, 1990

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Letter of Transmittal

TITLE PAGE

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SOIL AND GROUND WATER TESTING REPORT
FOR
1970 SEMINARY AVENUE
OAKLAND, CALIFORNIA

I. INTRODUCTION

This report presents the results of an investigation of soil and ground water quality at 1970 Seminary Avenue in Oakland, California. The site is located on Seminary Avenue at Harmon Avenue, as shown on the Site Vicinity Map, Figure 1.

The purpose of this investigation has been to collect shallow soil and ground water samples to evaluate site environmental quality following the removal of several underground storage tanks, in accordance with an investigation request issued by the Alameda County Health Department dated January 29, 1990. This investigation included the installation of one ground water monitoring well and three shallow soil borings, with analysis of soil and ground water samples for petroleum hydrocarbons.

It is understood that four storage tanks were removed from the site in December, 1989. Our review of the January 29, 1990 letter, issued by the Alameda County Health Department (ACHD), and the laboratory results from the closure samples collected during tank removal, indicated that relatively high levels (7,200 parts per million) of oil and grease were detected in the closure samples collected beneath the waste oil tank. Samples collected from beneath the gasoline tanks were found to contain up to 22 parts per million petroleum hydrocarbons as gasoline.

The scope of work for our investigation was designed to provide an evaluation of soil quality in the vicinity of the former waste oil tank, as well as an evaluation of ground water quality in the general down-gradient (westerly) direction from all of the former tanks. Our work plan for this investigation was approved by ACHD on July 20, 1990.

II. SCOPE OF SERVICES

The work performed during this investigation consisted of the following tasks:

1. Drilling three soil borings to depths of 16.5 feet to 26.5 feet for soil sample collection.

2. Installation of one ground water monitoring well to a depth of 35 feet.
3. Development and sampling of the ground water monitoring well.
5. Analysis of soil and ground water samples by a contract analytical laboratory.
6. Preparation of this report.

III. FIELD INVESTIGATION

A. Site Description

The site is located at the southwest corner of the intersection of Harmon and Seminary Avenues as shown on the Site Plan, Figure 2. The site is relatively level and is developed with a single-story structure used as an auto repair facility. The site has reportedly been used as a service station for approximately 40 years. At the time of our investigation, three gasoline storage tanks and one waste oil tank, as well as the pump island and associated piping, had been removed from the site.

B. Drilling and Soil Sampling

The field investigation was conducted between August 3, and 13 1990 and consisted of installing one ground water monitoring well and drilling three soil borings at the approximate locations shown on Figure 2. The monitoring well and Boring EB-1 were drilled with a truck-mounted drill rig equipped with 8-inch diameter hollow stem augers. Borings EB-2 and EB-3 were drilled using a Minute-Man drill rig equipped with 3-inch diameter solid stem augers. The monitoring well was installed to a depth of approximately 35 feet, and soil borings were advanced to depths of approximately 16.5 to 26.5 feet. Soils encountered during drilling were classified in the field by a Kaldveer geologist by visual examination in accordance with the Unified Soil Classification System (Figure A-1). Logs of the borings are presented in Appendix A.

Soil samples were collected from the borings at approximate five foot intervals using either a 2-inch I.D. Modified California sampler containing thin brass liners, or a standard penetration split-spoon sampler. The sampler was driven with a 140-pound hammer falling 30 inches. The number of blows required to drive the sampler the last 12 inches of an 18-inch drive are recorded as the penetration resistance (blows/foot) on the boring logs. The augers were steam-cleaned prior to installation of the monitoring well, and the sampler and brass liners were thoroughly cleaned with

TSP (trisodium phosphate) detergent between samples to reduce the potential for cross-contamination. The shallow soil borings were backfilled with neat cement upon completion.

Samples collected for possible chemical analysis were collected in 2-inch diameter, 6-inch long, brass liners. These samples were examined for logging, sealed with aluminum foil-lined lids, labeled and immediately placed in refrigerated storage. A chain-of-custody form was initiated in the field and accompanied the samples to Med-Tox Associates of Pleasant Hill, California, a California Department of Health Services certified laboratory.

C. Subsurface Conditions

The surficial soils at the site consist of sandy to silty clay to a depth of about 20 feet. Below this depth, the borings encountered layers of clayey sand and sandy gravel. Ground water was encountered at a depth of approximately 24 feet at the time of drilling and a stabilized water level was measured in Monitoring Well MW-1 at a depth of approximately 21 feet three days later. A hydrocarbon product sheen was present on the sampler at a depth of 25 feet in the Boring MW-1.

The attached boring logs and related information (Appendix A) depict location-specific subsurface conditions encountered during our field investigation. The approximate locations of the borings were determined by pacing and should be considered accurate only to the degree implied by the method used. The passage of time could result in changes in the surface or subsurface conditions due to natural occurrences or human intervention.

D. Monitoring Well Construction

One ground water monitoring wells were installed under permit from the Alameda County Flood Control and Water Conservation District. The monitoring wells was completed to a depth of approximately 35 feet using 2-inch I.D. Schedule 40, threaded, PVC casing. A 0.020-inch slotted well screen was installed between the depths of approximately 18 and 35 feet. A filter pack consisting of washed #3 sand was placed in the annular space around the well casing to a level approximately three feet above the slotted screen section in each well. Two feet of bentonite above the sand pack, followed by neat cement to the ground surface, completed the well construction. A locking well cover was installed on the well. Specific well construction details are presented along with the respective boring logs in Appendix A.

E. Well Development and Sampling

Monitoring well sampling was conducted on August 6, 1990. Prior to sampling, the well was developed using a teflon bailer. Development consisted of the rapid removal of water from the well until physical parameters such as pH, temperature, and specific conductance had stabilized, and the water was relatively free of sand, silt and turbidity. Well development consisted of the removal of approximately 50 gallons of water from the well.

Following development, each well was sampled using a clean teflon bailer. Water samples from each well were collected and decanted into laboratory-supplied glassware, labeled and placed in refrigerated storage, and delivered to the laboratory under chain-of-custody control. The bailer was thoroughly washed with TSP and rinsed with distilled water before use. Well development and sampling logs are attached to this report as Appendix B.

IV. ANALYTICAL RESULTS

A. Laboratory Procedures

Soil and ground water samples were analyzed by Med-Tox Associates of Pleasant Hill, California. Med-Tox is certified by the California Department of Health Services for the analyses performed. Three soil samples collected from Boring EB-1 were analyzed for total petroleum, hydrocarbons (TPH) as gasoline using EPA Method 8015. Four soil samples collected from Borings EB-2 and EB-3 were analyzed for total oil and grease using Method SM503E.

The water sample collected from Monitoring Well MW-1 was analyzed for TPH as gasoline and purgeable aromatic compounds (BTXE) using EPA Methods 8015 and 8020, respectively. The water sample was also analyzed for total oil and grease using SM503E.

B. Analytical Results - Soil

Results of the soil sample analyses are presented in Table 1 and are attached to this report as Appendix C. Samples from the 16, 21, and 26 foot depths in Boring EB-1, used to evaluate soil quality in the vicinity of the former gasoline storage tanks, were found to contain 4, 0.5, and 50 parts per million (ppm) TPH as gasoline, respectively. The highest concentration of gasoline was detected in the sample collected immediately at the water table level.

A soil sample collected from a depth of 11 feet in Boring EB-2, drilled to the west of the former waste oil tank, contained 4,200 ppm total oil and grease. The sample from the 16 foot depth in

Boring EB-2 did not contain detectable quantities of hydrocarbons. Samples collected from the 11 and 16 foot depths in Boring EB-3, drilled to the east of the former waste oil tank, were found to contain 2,800 ppm and 150 ppm total oil and grease, respectively.

C. Analytical Results - Water

Results of the water sample analyses are presented in Table 2 and are attached to this report as Appendix C. The ground water sample collected from Monitoring Well MW-1 was found to contain 54 ppm TPH as gasoline, and 7.6 ppm total oil and grease. Benzene, toluene, xylene and ethylbenzene (BTXE) levels were measured at 3.5 ppm, 3.2 ppm, 9.4 ppm, and 1.9 ppm, respectively. A slight hydrocarbon product sheen was present on the samples bailed from the well, but free-floating produce was not detected.

V. LIMITATIONS

Our services have been performed in accordance with generally accepted engineering and environmental principles and practices within the area at the time of our investigation. No other warranty, either expressed or implied as to the 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 and conclusions contained in this report are based on the site conditions as they existed at the time of our reconnaissance. Changes in the information or the data obtained or in the proposed land use could result in changes in our conclusions. If such changes do occur, we should be advised so that we can review our report in light of those changes.

* * * * *

TABLE 1

SOIL SAMPLE ANALYTICAL RESULTS
(reported in parts per million,, mg/kg)

Sample Location and Depth	Total Petroleum Hydrocarbons	
	Gasoline	Oil and Grease
EB1-16	4	- -
EB1-21	0.5	- -
EB1-26	50	- -
EB2-11	- -	4200
EB2-16	- -	ND
EB3-11	- -	2800
EB3-16	- -	150
Detection Limit	0.2	10

ND - Not Detected at or above stated detection limit.

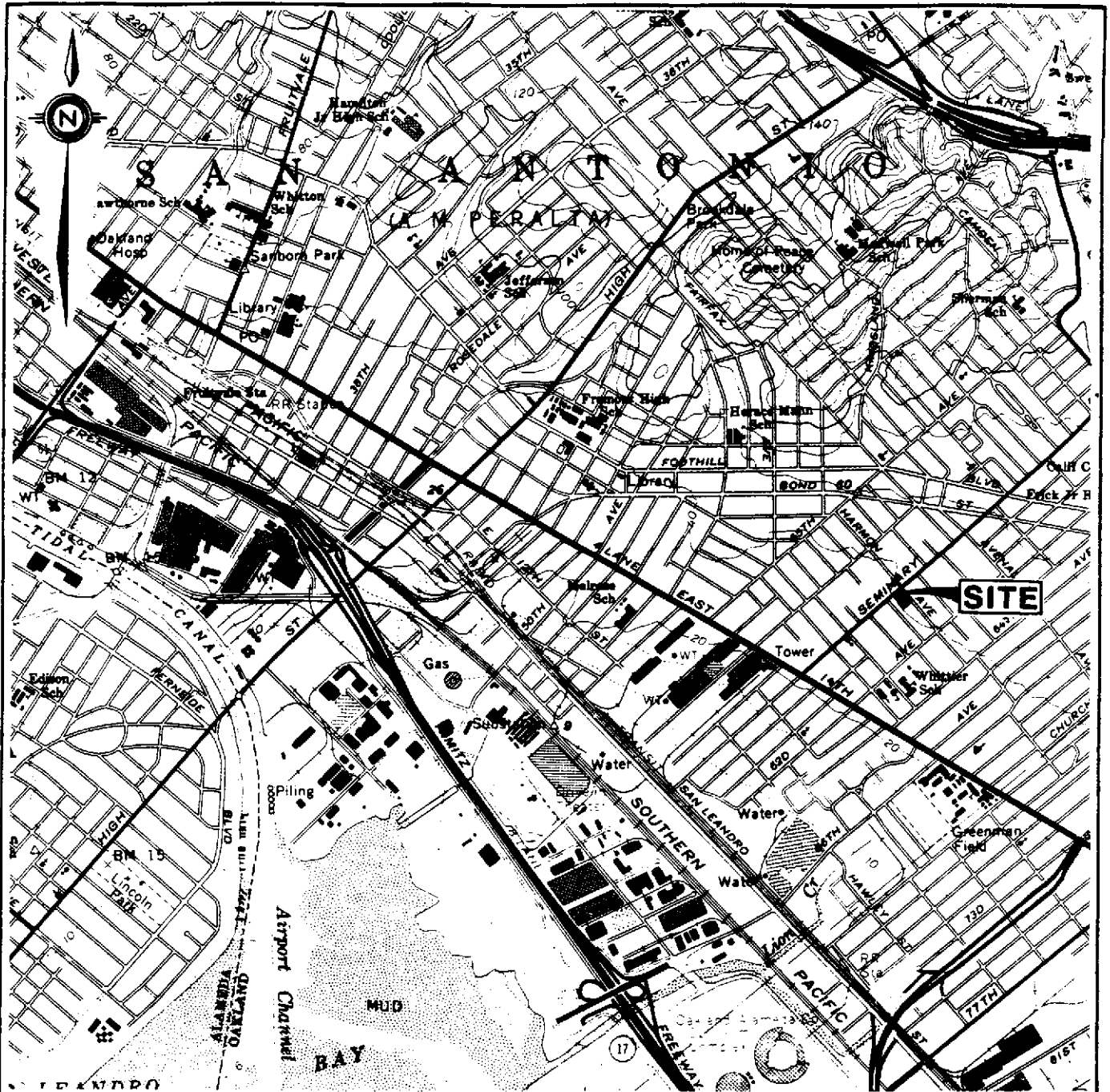
- - Not Analyzed

TABLE 2

WATER SAMPLE ANALYTICAL RESULTS
(Reported in parts per million, mg/l)

<u>Constituent</u>	<u>MW-1</u>
TPH Gasoline	54
Oil and Grease	7.6
Benzene	3.5
Toluene	3.2
Xylene	9.4
Ethylbenzene	1.9

TPH = Total Petroleum Hydrocarbons



Approximate Scale in Feet



Base: USGS Oakland East 7.5' Quadrangle.



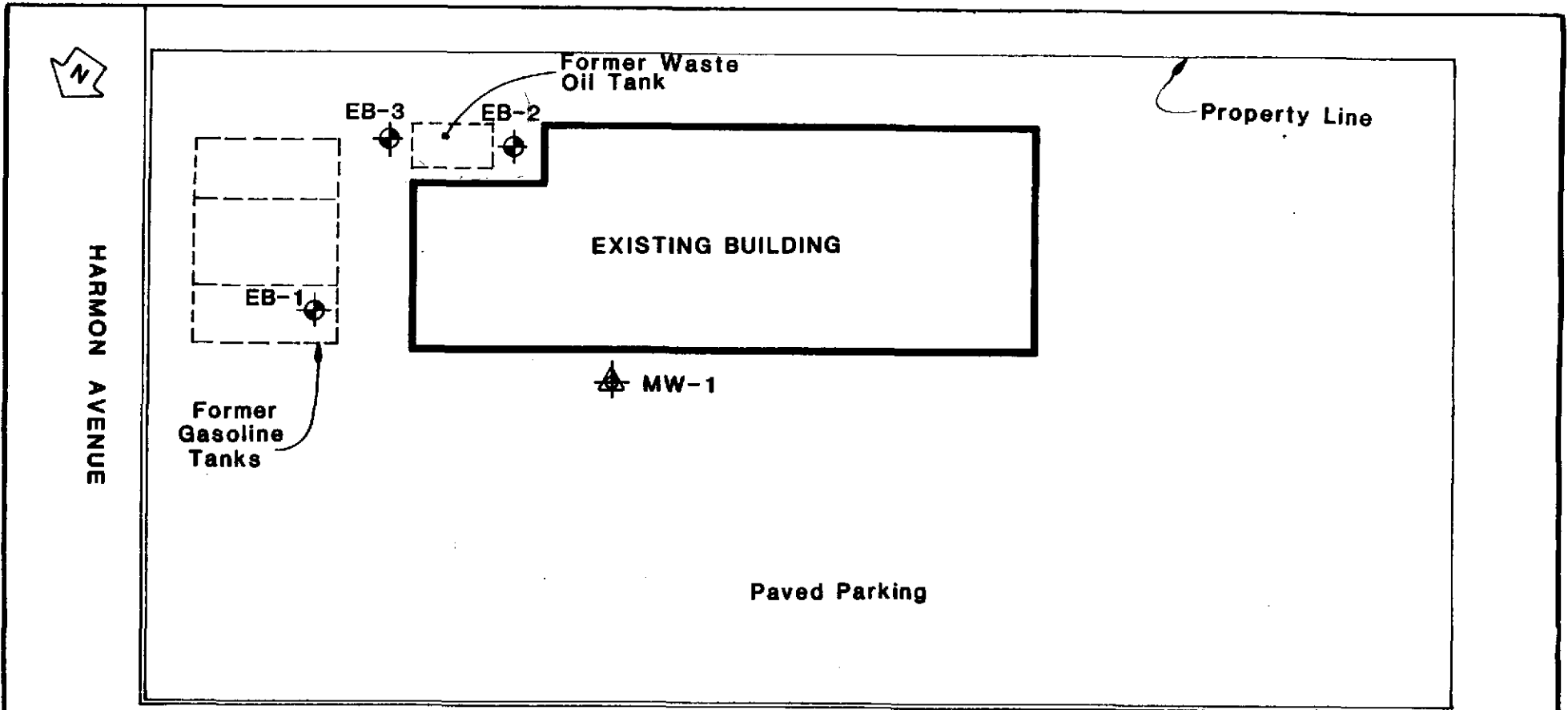
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SITE VICINITY MAP


1970 SEMINARY AVENUE
Oakland, California

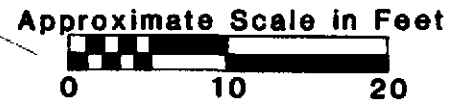
PROJECT NO.	DATE
KE1220-1-133	September 1990

Figure 1



LEGEND

- MW-1  Approximate Location of Monitoring Well
- EB-3  Approximate Location of Exploratory Boring



Base: Measurement Provided by Doyle Gruit.



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SITE PLAN

1970 SEMINARY AVENUE
Oakland, California

PROJECT NO	DATE	Figure 2
KE1220-1-133	September 1990	











APPENDIX A

BORING LOGS AND WELL
CONSTRUCTION DETAILS

UNIFIED SOIL CLASSIFICATION SYSTEM

Major Divisions		grf	ltr	Description	Major Divisions		grf	ltr	Description			
Coarse Grained Soils	Gravel And Gravely Soils	grf	ltr	Well-graded gravels or gravel sand mixtures, little or no fines	Fine Grained Soils	grf	ltr	SILTS AND CLAYS LL < 50	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity			
				Poorly-graded gravels or gravel sand mixture, little or no fines					SILTS AND CLAYS LL > 50	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays		
				Silty gravels, gravel-sand-silt mixtures						Organic silts and organic silt-clays of low plasticity		
				Clayey gravels, gravel-sand-clay mixtures						Inorganic silts, micaceous or diatomaceous fine or silty soils, elastic silts		
	Sand And Sandy Soils	sw	ltr	Well-graded sands or gravely sands, little or no fines				SILTS AND CLAYS LL > 50		SILTS AND CLAYS LL > 50	ltr	SILTS AND CLAYS LL > 50
				Poorly-graded sands or gravely sands, little or no fines					Organic clays of medium to high plasticity			
				Silty sands, sand-silt mixtures					Peat and other highly organic soils			
	Highly Organic Soils	sc	ltr	Clayey sands, and-clay mixtures				Highly Organic Soils	Highly Organic Soils	Highly Organic Soils	Highly Organic Soils	Highly Organic Soils

SYMBOLS

	Standard penetration split spoon sample		Blank casing
	Modified California (Porter) sample		Screened Casing
	Shelby tube sample		Cement grout
	Water level observed in boring		Bentonite
	Stable Water level in monitoring well		Filter Pack

Visual Relative Moisture Content Increasing Moisture Content



Note(1): Penetration resistance values are recorded as the number of blows of a 140-pound hammer falling 30-inches required to drive a sampler through the last 12 inches of an 18-inch drive. Blow count for samples obtained using a Modified California sampler (indicated by an asterisk) should be multiplied by a factor of 0.8 to obtain equivalent standard penetration resistance values.

Note(2): The lines separating strata on the logs represent approximate boundaries only. No warranty is provided as to the continuity of soil strata between borings. Logs represent the soil section observed at the boring location on the date of drilling only.



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BORING LOG LEGEND

1970 SEMINARY AVENUE
 Oakland, California

PROJECT NO.

DATE

FIGURE
NO

KE1220-1-133

SEPTEMBER, 1990

A-1

DRILL RIG	Hollow Stem Auger	SURFACE ELEVATION	-	LOGGED BY	LAG
DEPTH TO GROUNDWATER	24.0 -feet	BORING DIAMETER	8-inch	DATE DRILLED	8/3/90

DESCRIPTION AND CLASSIFICATION		DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT)	PID READING	REMARKS	WELL CONSTRUCTION
DESCRIPTION AND REMARKS	SOIL TYPE						
ASPHALT (2") SANDY GRAVEL (GP) , light brown, dry, angular gravel upto 1/2" diameter, fine to medium grained sand, NOSC large sandstone cobbles							
SANDY CLAY (SC) , light brown, dry, very stiff, patches of red, yellow, black, some fine to coarse angular gravel upto 1/4" diameter, medium to coarse grained sand, some asphalt and chert fragments, NOSC		5		31*			
grading to damp		10		52*			
grading more gravel		15		30*			
SILTY CLAY (CL) , reddish brown, gray mottled, damp, very stiff, some coarse grained sand, NOSC							
CLAYEY SILTY SAND (ML) , light brown, black mottled, moist, stiff, fine grained sand, some fine angular gravel, NOSC		20		16*			
SANDY GRAVEL (GP) , grayish-green, some brown, saturated, dense, fine to							



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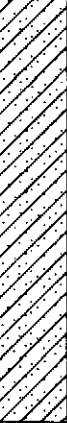






EXPLORATORY BORING LOG

1970 SEMINARY AVENUE
Oakland, California

PROJECT NO.	DATE	BORING NO.	MW-1
KE1220-1-133	SEPTEMBER, 1990		

DRILL RIG	Hollow Stem Auger	SURFACE ELEVATION	-	LOGGED BY	LAG		
DEPTH TO GROUNDWATER	24.0 -feet	BORING DIAMETER	8-inch	DATE DRILLED	8/3/90		
DESCRIPTION AND CLASSIFICATION		DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT)	PID READING	REMARKS	WELL CONSTRUCTION
DESCRIPTION AND REMARKS	SOIL TYPE						
coarse angular gravel upto 1/4" diameter, fine to coarse grained sand, some clay binder, strong petroleum hydrocarbon odor				56*		product sheen on sampler	
CLAYEY SILTY SAND (ML) , brown, saturated to moist, hard, fine grained sand, water travels along fractures, NOSC		30		46			
SANDY SILTY CLAY (ML) , brown, damp, stiff, some fine grained sand, NOSC		35		18			
Total Depth = 36.5 Feet Notes: 1) The stratigraphy is approximate. 2) Well Construction Details - 2-inch PVC, Schedule 40 solid and slotted (0.020-inch) casing - 2/12 washed sand filter pack - bentonite pellets plug - cement grout surface seal with steel stovepipe locking cover 3) Ground water was encountered at 24 feet at the time of drilling. 4) NOSC = No odor on sample cuttings.							
Kaldveer Associates Geoscience Consultants A California Corporation			EXPLORATORY BORING LOG				
			1970 SEMINARY AVENUE Oakland, California				
			PROJECT NO.	DATE	BORING NO.	MW-1	
			KE1220-1-133	SEPTEMBER, 1990			

DRILL RIG	Minute Man	SURFACE ELEVATION	-	LOGGED BY	LAG
DEPTH TO GROUNDWATER	Not Enc.	BORING DIAMETER	3-inch	DATE DRILLED	8/13/90

DESCRIPTION AND CLASSIFICATION		DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT)	PID READING	REMARKS	WELL CONSTRUCTION
DESCRIPTION AND REMARKS	SOIL TYPE						
ASPHALT (2")							
SANDY GRAVEL (GP), light brown, dry, angular gravel upto 2" diameter, fine to coarse grained sand, NOSC							
SILTY CLAY (ML), grayish-black, dry, some gravel upto 1" diameter, NOSC							
SANDY GRAVEL (GP), grayish-black, dry, angular gravel upto 3/4" diameter, fine to coarse grained sand, NOSC		5					
SANDY CLAY (CL), grayish-black, dry, fine to medium grained sand, some angular gravel, oil staining on cuttings, moderate petroleum hydrocarbon odor							
GRAVELLY SANDY CLAY (SC), light brown with red, orange, and black mottling, dry fine to coarse grained sand, angular gravel upto 1" diameter, oil staining along fractures, slight petroleum hydrocarbon odor		10					
grading more gravel		15					
SILTY CLAY (ML), light brown with black mottling, damp, trace fine grained sand, some angular gravel, slight petroleum hydrocarbon odor							
Bottom of Boring = 16.5 Feet							
Notes:							
1. NOSC = No odor on soil cuttings.							
2. N/E = Ground water was not encountered at time of drilling.							
3. Blow counts followed by an asterisk (*) should be multiplied by a factor of 0.8 to obtain standard penetration resistance.							
4. The stratigraphy is approximate.							



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EXPLORATORY BORING LOG

1970 SEMINARY AVENUE
 Oakland, California

PROJECT NO.	DATE	BORING NO.	EB-3
KE1220-1-133	SEPTEMBER, 1990		

APPENDIX B

WELL DEVELOPMENT AND SAMPLING LOGS

WATER SAMPLE LOG

Project Name: 1970 Seminary Avenue Date: 8/6/90
 Project Number: KE1220-1-133 Sampler: LAG
 Well Number: MW-1 Weather: P/cloudy
 Well Location: In front of Service Bay

Well Construction:

Date Completed: 8/3/90
 Total Depth of Well: 35 feet
 Diameter: 2 inches
 Well Elevation & Reference: _____

Groundwater Levels:

Initial: 21.5 feet
 Final: 31.9 feet
 Reference Point: Northside (marked)
 Well Volume of Water: 3.5 gallons

Sampling Equipment & Cleaning

Sampler Type: Telfon Bailer
 Method of Cleaning: TSP & Rinse
 Pump or Bailer Type: Well Wizard
 Method of Cleaning: TSP & Rinse
 pH Meter: Hydac
 Conductivity Meter: Hydac
 Comments: _____

SAMPLING MEASUREMENTS

Time	Discharge (gal.)		pH	Temp (°C)	Spec. Conductance (umhos/cm)		Color/Turbidity	Odor
	Per Time Period	Cummulative			Field	@ 25°C		
11:15		5	7.85	20.8	1980		brown/high	slight
11:20		10	7.45	19.5	2210		" "	"
11:25		15	7.37	20.3	1880		" "	"
11:33		20	7.54	21.0	1710		" "	"
11:40		25	7.66	21.5	1490		brown/mod.	"
11:45		30	7.75	21.7	1390		clear/mod.	"
11:53		35	7.78	22.0	1350		" "	"
12:02		40	7.84	22.2	1310		clear/none	"
12:09		45	7.89	21.5	1260		" "	"
12:17		50	7.91	22.0	1260		" "	"

Total Discharge: 50 gallons
 Casing Volumes Removed: 14.2
 Method of Disposal: Drain

Comments: Product sheen was observed on all samples.



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WELL DEVELOPMENT LOG

1970 SEMINARY AVENUE
 Oakland, California

PROJECT NO.	DATE	Figure B-1
KE1220-1-133	August 1990	

APPENDIX C
LABORATORY REPORTS

ENVIRONMENTAL & OCCUPATIONAL HEALTH SERVICES

3440 Vincent Road Pleasant Hill, CA 94523 • (415) 930-9090 • FAX# (415) 930-0256

LABORATORY ANALYSIS REPORT

KALDVEER ASSOCIATES, INC.
425 POLAND WAY
OAKLAND, CA 94621

REPORT DATE: 08/22/90

DATE SAMPLED: 08/03/90

DATE RECEIVED: 08/03/90

DATE ANALYZED: 08/09/90

ATTN: DENNIS LADUZINSKY

CLIENT JOB NO: KE1220-1-133

MED-TOX JOB NO: 9008020

ANALYSIS OF: SOIL SAMPLES

Sample Identification		Purgeable Hydrocarbons as Gasoline (mg/kg)
Client Id.	Lab No.	
EB-1-16	01A	4*
EB-1-21	02A	0.5*
EB-1-26	03A	50
Detection limit		0.2
Method		Modified 8015
Instrument: 9		

* Sample contains weathered gasoline.

REC'D
AUG 24 1990

Michael Lynch
Michael Lynch, Manager
Organic Laboratory

Results FAXed to Dennis Laduzinsky 08/20/90

CHAIN-OF-CUSTODY RECORD

Project Number KE1220-1-133		Project Name <u> </u>				Analytical Tests Method 8015 - TPH as Gasoline Method 8015 - TPH as Diesel Method 8240 - Volatile Organics Method 8270 - Semi-Volatile Organics Method 8010 - Halogenated Volatile Organics Method 8080 - Organochlorine Pesticides & PCB's Waste Oil - Metals -	Remarks
Sampler's Name (printed) Art Gust		Location Oakland, Ca.					
KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container		
EB-1-16		8/3/90	X		1/6" Brass	X	
EB-1-21		↓	↓		↓	X	
EB-1-26		↓	↓		↓	X	

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature) <i>[Signature]</i>	Date/Time 8/3/90 1730	Received for Laboratory by: (Signature) <i>[Signature]</i>

Ship To: Med-Tex
3740 Vincent Rd.
Pleasant Hill Ca.
 Attention: Robin Lyons 94523
 Phone No: 415-930-9090

Requested Turnaround Time: Normal, 8/17/90
 Kaldveer Assoc. Contact: Dennis Ludzinski

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
 425 Roland Way
 Oakland, California 94621
 (415) 568-4001



Remarks:

ENVIRONMENTAL & OCCUPATIONAL HEALTH SERVICES

3440 Vincent Road Pleasant Hill, CA 94523 • (415) 930-9090 • FAX# (415) 930-0256

LABORATORY ANALYSIS REPORT

KALDVEER ASSOCIATES, INC.
425 ROLAND WAY
OAKLAND, CA 94621

REPORT DATE: 08/30/90

DATE SAMPLED: 08/13/90
DATE RECEIVED: 08/13/90

ATTN: DENNIS LADUZINSKY

DATE EXTRACTED: 08/16/90
DATE ANALYZED: 08/20-21/90

CLIENT PROJECT NO: KE1220-1-133

MED-TOX JOB NO: 9008075

ANALYSIS OF: SOIL SAMPLES

Sample Identification		Hydrocarbons (mg/kg)
Client Id.	Lab No.	
EB-2-11	01A	4,200
EB-2-16	02A	ND
EB-3-11	03A	2,800
EB-3-16	04A	150

Detection Limit 10

Method: SM503E

Instrument: IR

ND = Not Detected

Michael Lynch
Michael Lynch, Manager
Organic Laboratory

SEP 4 1990

Results FAXed to Dennis Laduzinsky 08/27/90

ENVIRONMENTAL & OCCUPATIONAL HEALTH SERVICES

3440 Vincent Road Pleasant Hill, CA 94523 • (415) 930-9090 • FAX# (415) 930-0256

LABORATORY ANALYSIS REPORT

KALDVEER ASSOCIATES, INC.
425 ROLAND WAY
OAKLAND, CA 94621

REPORT DATE: 08/24/90

DATE SAMPLED: 08/06/90
DATE RECEIVED: 08/06/90

ATTN: DENNIS LADUZINSKY

DATE EXTRACTED: 08/17/90
DATE ANALYZED: 08/21/90

CLIENT JOB NO: KE1220-1-133

MED-TOX JOB NO: 9008031

ANALYSIS OF: WATER SAMPLE


Sample Identification		Hydrocarbons
Client Id.	Lab No.	(mg/L)

MW-1	01E	7.6
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Detection limit 0.5

Method: SM503E

Instrument: IR


Michael Lynch, Manager
Organic Laboratory

Results FAXed to Dennis Laduzinsky 08/22/90

KALDVEER ASSOCIATES, INC.

CLIENT ID: MW-1
 CLIENT JOB NO: KE1220-1-133
 DATE SAMPLED: 08/06/90
 DATE RECEIVED: 08/06/90

MED-TOX LAB NO: 9008031-01A
 MED-TOX JOB NO: 9008031
 DATE EXTRACTED: 08/09/90
 DATE ANALYZED: 08/13-20/90
 INSTRUMENT: 9,3

REPORT DATE: 08/24/90

BTXE AND HYDROCARBONS

METHOD: EPA 8020, 8015 MODIFIED (PURGE & TRAP AND EXTRACTION)

	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Benzene	3,500	0.3
Toluene	3,200	0.3
Ethylbenzene.	1,900	0.3
Total Xylenes	9,400	1

PURGEABLE HYDROCARBONS AS:

Gasoline 54 mg/L 0.05 mg/L

EXTRACTABLE HYDROCARBONS AS:

LAB NO: 01C

Diesel ND mg/L 10 mg/L

Oil 5.1 mg/L 0.2 mg/L

ND = Not Detected

