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**Work Plan for  
Remedial Investigation/  
Remedial Action**

**1970 Seminary Avenue  
Oakland, California  
(EKI A10034.00)**

19 August 2002

Prepared for:

Grimit Family Trust

**Erler &  
Kalinowski, Inc.**

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Consulting Engineers and Scientists  
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**LETTER OF TRANSMITTAL**

**TO:** 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  
(510) 567-6700

**DATE:** 19 August 2002  
**PROJ. NO.** A10034.00  
**SUBJECT:** 1970 Seminary Ave.  
Oakland, CA

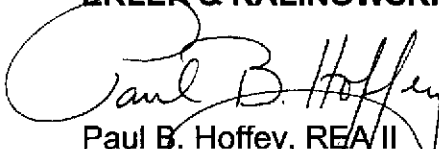
**WE ARE SENDING YOU THE FOLLOWING: (via Federal Express)**

One copy of *Work Plan for Remedial Investigation/Remedial Action, 1970 Seminary Avenue, Oakland, California*, prepared by EKI, dated 19 August 2002

**COPY TO:**

Grimit Family Trust (two copies)  
c/o Angel LaMarca  
945 S. Lehigh Dr.  
Anaheim Hills, CA 92807  
714-282-7475

**Very truly yours,**  
**ERLER & KALINOWSKI, INC.**

  
Paul B. Hoeffey, REA/II  
Project Manager

*If enclosures are not as noted, please advise us at once at (650) 292-9100*

19 August 2002

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

Subject: Remedial Investigation / Remedial Action Work Plan;  
1970 Seminary Avenue, Oakland, California  
(EKI A10034.00)

Dear Ms. Chu:

On behalf of our client, the Gritmit Family Trust, Erler & Kalinowski, Inc. ("EKI") is pleased to submit to the Alameda County Health Care Services Agency ("Alameda County") the enclosed Remedial Investigation / Remedial Action Work Plan for 1970 Seminary Avenue in Oakland, California (the "Site"), dated 19 August 2002.

The enclosed Work Plan proposes the investigation for impacted soil on the Site, as well as proposes soil and groundwater remedial activities. The proposed Work Plan approach requires that Site structures be demolished. It is our understanding that the Site owner, the Gritmit Family Trust, is currently pursuing Site demolition, which may occur in late September 2002.

Assuming Site demolition is completed in September 2002, the proposed Work Plan tasks can be implemented in October 2002.

Please call us with any questions or comments.

Very truly yours,

ERLER & KALINOWSKI, INC.

*Paul B. Hoffer*  
Paul B. Hoffer, REA II  
Project Manager

*Theodore G. Erler*  
Theodore G. Erler, P.E.  
Project Coordinator



cc: Ms. Angel LaMarca (Gritmit Family Trust)  
Ms. Peggy Garcia (Gritmit Family Trust)

## 1. INTRODUCTION

On behalf of its client, the Grit Family Trust, Erler & Kalinowski, Inc. ("EKI") presents to the Alameda County Health Services Agency (the "County") this Remedial Investigation/Remedial Action Work Plan for 1970 Seminary Avenue in Oakland, California (the "Site"; see Figure 1). The Site was formerly used as a gasoline service station and currently is used as an auto repair facility. The Site is approximately 5,000 square feet in size, and is currently occupied by a service bay, a car port, an office structure with a canopy over a former fuel island, and a small shed that total approximately 1,200 square feet.

Soil and groundwater on the Site are impacted by total petroleum hydrocarbons ("TPH") and volatile organic compounds ("VOCs"). The groundwater on the Site has been monitored since approximately 1990, with oversight from the County. The concentrations of TPH in groundwater have not decreased appreciably since 1990 (discussed further in Section 2.1). The concentrations of VOCs in groundwater are relatively low and appear to be undergoing natural degradation (see Section 2.1). The elevated concentrations of TPH in groundwater suggest that the source or sources for the groundwater contamination remain on-site (i.e., source soil continuing to introduce TPH to groundwater). The source or sources for the VOCs in groundwater may be from off-site, upgradient areas.

This Remedial Investigation/Remedial Action Work Plan proposes to investigate the Site for source soil and to excavate and remove off-Site any source soil discovered. Free hydrocarbon product in groundwater, if any, discovered during soil excavation will be extracted and removed from the Site. An oxygen release compound ("ORC") will be introduced into the excavations prior to backfill to accelerate the degradation of TPH and VOCs in the ground. The existing monitoring wells will be sampled on a more frequent basis (i.e., quarterly) to more closely monitor the effectiveness of the remedial actions.

Given the limited size of the Site and coverage of much of the Site by structures, demolition of the Site structures is necessary in order to implement the proposed Work Plan tasks described herein. It is our understanding that the Site owner is currently pursuing termination of the current tenant's lease, and is communicating with potential demolition contractors. The implementation of this Work Plan assumes that the Site is devoid of structures.

A summary of prior site investigations, remedial actions, and results is presented below, as well as the objectives and approach of this Work Plan.

## 2. SUMMARY OF PRIOR SITE INVESTIGATIONS AND REMEDIAL ACTIONS

In 1989, four (4) underground storage tanks (“USTs”) (three 550-gallon gasoline tanks and one 550-gallon waste oil tank) were removed from the Site (see Figure 2). The analytical results for confirmation soil samples collected from the tank excavations are summarized in Table 1.

### 2.1. Chemicals in Groundwater

Between approximately 1990 and 1997, nine (9) groundwater monitoring wells were installed on the Site. These wells have been sampled generally on a semi-annual basis by Hoexter Consulting, the results of which have been forward to the County in the form of semi-annual groundwater monitoring reports. The most recent well sampling event was conducted in July 2002 (result not yet available). The results of groundwater sampling indicate the presence of elevated concentrations of TPH as gasoline and motor oil in several wells on the Site, with recent concentrations as high as 43,000 micrograms per liter (“ug/l”) and 320,000 ug/l, respectively. Table 2 provides a summary of analytical results for TPH in groundwater samples collected from Site wells. The highest concentrations of TPH in groundwater on the Site have been detected in wells MW-1 and MW-4 in the eastern portion of the Site, and in wells MW-5 and MW-6 in the western portion of the Site (see Figure 2). The distribution of TPH in groundwater suggests two potential source areas, one source area in the eastern portion of the Site in the former UST areas, and another source area in the western portion of the Site, where no USTs have been reported. The elevated concentrations of TPH in groundwater samples from the western Site wells may be the result of surface releases of TPH impacting groundwater in this area.

Lower concentrations of chlorinated VOCs (i.e., perchloroethylene (“PCE”), trichloroethylene (“TCE”), cis 1,2-dichloroethylene (“cis 1,2-DCE”), and vinyl chloride have been detected in certain Site wells. Table 2 provides a summary of analytical results for VOCs in groundwater samples collected from Site wells. The distribution of VOCs in groundwater samples does not indicate any particular point source on the Site. The highest concentrations of VOCs in groundwater on the Site have been detected in well MW-4, which is located along the upgradient Site boundary. This suggests an off-site source for VOCs in groundwater on the Site.

### 2.2. Hydraulic Lift and Soil Removal Actions

In July 2001, a sub-grade hydraulic lift was removed from the area between the office and the service bay (see Figure 2). Approximately 27 cubic yards of soil containing elevated concentrations of petroleum hydrocarbons around the lift cylinder were excavated and removed off-site. The excavation was backfilled with clean imported soil. The results of the hydraulic lift and soil removal project were forwarded to the County in a report entitled *Results of Hydraulic Lift Removal, 1970 Seminary Avenue, Oakland*,

California, prepared by EKI, dated 21 September 2001. Based on the results of excavation confirmation sampling, relatively low concentrations of motor oil remain in soil in the former lift area at concentrations up to 3,300 milligrams per kilogram ("mg/kg"). The analytical results associated with the hydraulic lift soil removal project are shown in Tables 3 and 4.

### **3. OBJECTIVES AND APPROACH TO REMEDIAL INVESTIGATION/ REMEDIAL ACTION**

The objectives of the proposed plan and general approach are outlined below. The proposed Work Plan tasks are described in greater detail in Section 4.

The distribution of TPH in groundwater on the Site suggest the possible presence of two source areas in soil: 1) the area of the former underground fuel/waste oil storage tanks and/or buried product pipelines in the eastern portion of the Site, and 2) the western portion of the Site where TPH historically may have been released to the ground surface or from a currently undiscovered underground storage tank (see Figure 2).

Prior to the initiation of field activities, the current Site structures will be demolished, and the surface paving (i.e., asphalt and concrete) will be removed. In accordance with the request of Alameda County for additional deeper-zone monitoring wells on the Site, two shallow-zone wells will be abandoned, as well as one deeper-zone well. Two wells will be replaced with deeper-zone wells. The remainder of the existing groundwater monitoring wells will remain in place. A geophysical survey of the Site will be conducted to screen for the possible presence of existing and currently undiscovered buried tanks or structures that may be contributing to groundwater contamination on the Site.

EKI proposes to investigate the two potential source soil areas with the use of an excavator. Impacted soil encountered during the investigation process will be stockpiled for subsequent off-site disposal. Soil that is not impacted will be returned to the excavations on Site, and compacted. The use of an excavator for investigation over a drilling rig is preferred in this particular project given that there will be no access constraints on the Site, and that an excavator will provide more subsurface information in a timely manner for possibly less overall expense than a drilling rig. In addition, if impacted soil is discovered during the investigation process, the excavator can immediately and effectively remove the impacted soil from the ground for subsequent off-site disposal. Therefore, this plan proposes to remediate newly discovered unsaturated zone soil containing elevated concentrations of TPH through excavation and off-site removal of soil to an appropriate disposal facility. On-site treatment of impacted soil through aeration is not considered feasible given the small size of the Site and the high molecular weight petroleum hydrocarbons present in soil (i.e., motor oil), which tend not to be amenable to aeration.

If free-phase hydrocarbons are present on the groundwater's surface at the base of either excavation, the groundwater will be extracted, to the extent feasible given the timing and other constraints of the project, and removed off-site for appropriate disposal.

Following soil and groundwater investigations and remedial actions, and prior to backfill of the excavations, oxygen release compound ("ORC") will be placed into the bottoms of the excavations, which will be at a depth near the groundwater table interface during the "dry season" (approximately 19 to 21 feet below ground surface). Depth to groundwater on the Site during the "wet season", based on historic depth to water measurements provided by Hoexter Consulting, ranges from approximately 13 to 18 feet below ground surface.

ORC produces a slow and sustained release of molecular oxygen when in contact with soil moisture or groundwater and, thus, may accelerate the degradation of petroleum hydrocarbons and VOCs in soil and groundwater. ORC emplacement is considered to be a cost-effective amendment to the natural degradation process of chemicals in groundwater.

In addition to the proposed soil investigation and soil and groundwater remedial actions, EKI proposed to abandon existing shallow monitoring well MW-9, and replace the well with a well that is screened in the deeper water bearing zone (i.e., approximately 15 to 32 feet below ground surface). The VOCs in groundwater on the Site are present primarily in the deeper water-bearing zone. Thus, the replacement of well MW-9 with a deeper well, will assist in providing better characterization of VOCs in the deeper zone. Also, depth to groundwater measurements made from an additional deeper zone well may provide a more accurate interpretation of groundwater gradient direction on the Site.

EKI also proposes to abandon existing monitoring well MW-1 prior to initiation of Site investigation activities. TPH concentrations in groundwater samples from well MW-1 have consistently been the highest of all the Site wells. Therefore, it is possible that source soil may exist in the immediate vicinity of well MW-1, thus, requiring excavation and removal. Following completion of Site investigation and remedial activities, well MW-1 will be replaced with a larger diameter well (4-inch diameter), that can be used in the future as an extraction well, if necessary, to further aid in the remediation of groundwater.

A more detailed discussion of the proposed investigations and remedial actions is presented below.

#### **4. PROPOSED INVESTIGATION / REMEDIAL ACTIONS**

The proposed soil investigation and soil and groundwater remedial actions for the Site are described below.

##### **4.1. Geophysical Survey for Underground Tanks or Structures**

Available groundwater data for the Site suggests that one or more source areas for TPH remain on the Site. Ongoing sources to TPH in groundwater, if any, may be related to underground tanks or structures, currently undiscovered, that are still present in the ground and are contributing chemicals to soil and groundwater. To screen for the presence of remaining underground tanks or other underground storage structures on the Site, EKI proposed to retain an underground utility locating firm to conduct subsurface screening of the Site. Methods employed may be one or a combination of the following techniques: magnetometer, ground penetrating radar, and/or metal detection. Anomalies noted will subsequently be investigated by excavation, in conjunction with the soil investigation activities described below.

##### **4.2. Abandonment of Well MW-1**

A licensed drilling company will be retained to abandon existing monitoring well MW-1 prior to initiation of Site investigation activities. TPH concentrations in groundwater samples from well MW-1 have consistently been the highest of all the Site wells. Source soil may exist in the immediate vicinity of well MW-1 that will require excavation and removal. The well will be abandoned in accordance with Alameda County Public Works Agency standards. Following completion of Site investigation and remedial activities, well MW-1 will be replaced with a larger diameter well (4-inch diameter), that can be used in the future as an extraction well, if necessary, to further aid in the remediation of groundwater.

##### **4.3. Abandonment of Shallow Zone Well MW-9**

Well MW-9, a shallow zone well, which is screened from approximately 5 feet to 20 feet below ground surface will also be abandoned prior to Site investigation activities. Following completion of Site investigation activities, the well will be replaced with a deeper zone well with a screen interval from approximately 15 feet to 32 feet below ground surface, which is consistent with other deeper zone wells on the Site.

##### **4.4. Soil Investigation / Remedial Actions**

EKI proposes to investigate the presence of impacted soil on the Site through the use of an excavator. Two potential source soil areas have been identified: 1) the former underground storage tanks area in the eastern portion of the Site (referred to as Investigation Area A), and 2) the western portion of the Site where elevated concentrations of TPH have been detected in groundwater samples from well in that



portion of the Site (referred to as Investigation Area B). The approximate locations and extents of the two soil investigation areas are shown on Figure 2.

EKI will utilize the services of a licensed contracting firm using an excavator to perform the soil investigation. Each of the two investigation areas will be excavated to a total maximum depth of approximately 20 feet below ground surface (which is the approximate depth of the dry season water table). Given the small size of the Site, the excavating and backfilling operations may proceed in a phased approach, that is, Area A may be investigated first and then backfilled, followed by investigation of Area B.

Impacted soil encountered during the investigative process, as determined by visual observation and/or organic vapor meter ("OVM") response, will be placed on plastic sheeting and stockpiled separately from excavated soil that is determined not to be impacted. The investigative and soil removal process will continue until no obvious significantly impacted soil is noted in the excavation and/or the excavation cannot be enlarged due to constraints imposed by the small size of the Site and proximity to the sidewalks.

#### 4.4.1. Destruction of Monitoring Well MW-8

As shown on Figure 2, Investigation Area A encompasses the current location of monitoring well MW-8, which is a shallow zone well (i.e., screened from 5 to 20 feet below ground surface). Monitoring well MW-8 will be removed as part of the excavation process. The removal of the well will be performed in accordance with Alameda County Public Works Agency standards, and a permit for well abandonment will be acquired from the County. The well will not be replaced following completion of soil investigation and remediation activities. Groundwater samples collected from well MW-8 in the last several years have been reported not to contain detectable concentrations of TPH and only low concentrations of certain VOCs, according to data provided by Hoexter Consulting.

#### 4.4.2. Confirmation Soil Sampling

Following completion of soil investigation and removal activities in each of the two investigation areas, confirmation soil samples will be collected. Two to four soil samples will be collected from the bottom of each excavation, assuming groundwater is not present at the bottom of the excavation. If groundwater is present at the bottom of either excavation, and is visibly impacted by free-phase hydrocarbon product, groundwater extraction will be conducted, as described in greater detail in Section 4.2.3, below. In addition, two soil samples will be collected from each sidewall of the excavations (one sample at approximately 8 feet bgs and the other sample at approximately 16 feet bgs). The confirmation soil samples will be collected by EKI with assistance from the contractor's personnel using the excavator bucket. The soil samples will be collected in stainless steel or brass liners. The ends of the sample liners will be covered with Teflon sheets and capped with plastic end caps. The samples will be labeled and placed in a

cooler with ice for transport to the analytical laboratory. The samples will be transported to the analytical laboratory under chain of custody control.

The confirmation soil samples will be analyzed for the following chemical constituents:

- Total petroleum hydrocarbons as gasoline, diesel fuel, and motor oil using EPA Method 8015M (with silica gel cleanup); and
- Volatile organic compounds using EPA Method 8260.

The soil samples will be analyzed by Severn-Trent ("STL") Laboratory in Pleasanton, California.

#### 4.4.3. Groundwater Extraction

If groundwater is encountered in either excavation, and free-phase hydrocarbon product is observed on the groundwater's surface, extraction of groundwater from the excavation will be performed. Groundwater will be extracted by pumping the water directly into a vacuum pump tanker truck. The volume of groundwater extracted cannot be known at this time. The extraction process will continue at the discretion of EKI field staff in consultation with Alameda County, and/or until no additional groundwater enters the excavation within a reasonable period of time. The objective of the groundwater extraction process is to remove as much visibly impacted groundwater during the excavation process to the extent practical and feasible. The extracted groundwater will be removed and disposed off-site at an appropriately-regulated disposal facility.

#### 4.4.4. Oxygen Release Compound ("ORC") Emplacement

As discussed in Section 3, above, prior to backfilling the excavations, an ORC slurry will be placed into the bottom of each excavation. The quantity of ORC used will be determined based on discussions with Regensis Bioremediation Products, Inc., the provider of the ORC, and the dimensions of the final excavations. The ORC slurry will be mixed in with soil at the groundwater interface at the bottom of the excavation (approximately 20 feet below ground surface). Based on historic depth to water measurements provided by Hoexter Consulting, the groundwater table should rise to a depth ranging from approximately 13 to 18 feet below ground surface during the wet season, thus, resulting in a slow, sustained release of molecular oxygen into the groundwater.

#### 4.4.5. Stockpile Soil Sampling

Visibly impacted soil removed from each excavation will be placed in a stockpile separate from the excavated soil not exhibiting outward signs of contamination. Both stockpiles will be sampled by EKI for purposes of either 1) re-introduction into the excavation or 2) off-Site disposal. Soil containing less than 1,000 milligrams per kilograms of oil & grease will be placed back into the excavation. Soil containing greater

than 1,000 milligrams per kilogram of oil & grease will be removed off-Site and disposed of at an appropriately-regulated disposal facility.

#### 4.4.6. Backfill of Excavations

Following completion of confirmation sampling and emplacement of ORC in the excavations, each excavation area will be backfilled in the manner described below. Approximately 3 to 5 feet of pea gravel will be placed in the bottom of each excavation and compacted. Stockpiled soil that meets the clean-up criteria presented above will be returned to the excavations and compacted. Any remaining excavation areas will be backfilled with clean, imported fill material to the original ground surface, and compacted. Observation of the backfill operations and compaction testing will be performed by a licensed geotechnical engineer.

#### **4.5. Installation of Stove-Pipe Well Housings**

Steel stove-pipe well housings will be installed on each of the monitoring wells remaining on the Site. The Site will remain unpaved following the implementation of this Work Plan, thus, the stove pipes will allow for ease of locating each well and will prevent surface water runoff from entering each well.

#### **4.6. Re-Surveying of Well Elevations and Sampling**

Following installation of the stove-pipe well housings, the vertical elevation for each well, as well as horizontal position on the Site, will be surveyed by a licensed land surveyor.

Each well will be sampled in accordance with the procedures established as part of prior sampling events. The groundwater samples will be analyzed for the following chemical constituents:

- TPH as gasoline using U.S. EPA Method 8015m;
- VOCs, including BTEX and MTBE using U.S. EPA Method 8260; and
- Oil & grease ("TRPH") using SM 5520 BF.

It is proposed that well sampling be performed on a quarterly basis for a minimum of one year to monitor the effectiveness of the remedial actions implemented (i.e., soil excavation, groundwater extraction, and ORC emplacement) as part of this Work Plan.

### **5. REPORTING**

Following completion of the above tasks and receipt of analytical results for the soil confirmation samples and the monitoring well samples, EKI will prepare a written report of observations and findings. The report will describe the investigation methods used, results of soil and groundwater remedial actions, observations made by EKI during the

field work, well boring logs and construction details, and the analytical results of confirmation soil and groundwater samples. The report will also document the removal and off-site disposal of soil and extracted groundwater, if generated.

## 6. SCHEDULE

Demolition of Site structures is currently planned by the current Site owner. The anticipated demolition date is not known at this time, but may be conducted in late September 2002.

For purposes of establishing a tentative schedule, it is anticipated that abandonment of wells MW-1 and MW-9 can occur within two weeks of completion of Site demolition activities. The geophysical survey can be performed within several days of completion of the well destructions. The soil investigation activities can occur within one week of receipt of the results of the geophysical survey. Approximately one week will be required to complete the soil investigation and remedial action activities. The soil stockpiles can be removed from the Site within several weeks of the completion of the soil excavation activities.

The replacement of wells MW-1 and MW-9 can occur shortly following the removal of soil stockpiles. The addition of stove-pipe housings to the existing monitoring wells can occur concurrently with the well installations.

The surveying of the well casings and performance of well sampling can occur within one week following completion of the well replacements and the construction of the stove-pipe surface housings.

The report of observations and findings of the remedial investigation and remedial action program can be prepared and submitted to Alameda County within two weeks of receipt of analytical results for the monitoring well groundwater samples.

Thus, following demolition of Site structures, approximately 12 weeks will be required to complete the above scope of work. EKI will keep Alameda County informed of the schedule for Site activities, and will provide the appropriate advanced notification for pertinent activities performed at the Site.

**TABLE 1**  
**ANALYTICAL RESULTS FOR SOIL SAMPLES**  
**COLLECTED IN FORMER UNDERGROUND STORAGE TANK LOCATIONS**

1970 Seminary Avenue, Oakland, CA

EKI A10034.00

May 2001

Sample Location/ Sample ID	TPH Gasoline	Benzene	Toluene	Ethyl Benzene	Xylenes	Oil & Grease	Motor Oil	HVOCs
<b>Former Gasoline Underground Storage Tanks</b>								
<i>Excavation Confirmation Sampling (Nov. 1989)</i>								
South Tank 1	22	nd	nd	nd	nd	-	-	-
South Tank 2	nd	nd	nd	nd	nd	-	-	-
Center Tank	20	nd	nd	nd	nd	-	-	-
North Tank 1	nd	0.068	nd	nd	nd	-	-	-
North Tank 2	21	2.4	2.9	0.32	1.7	-	-	-
<i>Soil Boring (August 1990)</i>								
EB-1 (16 ft bgs)	4	-	-	-	-	-	-	-
EB-1 (21 ft bgs)	0.5	-	-	-	-	-	-	-
EB-1 (26 ft bgs)	50	-	-	-	-	-	-	-
<i>Monitoring Well (March 1996)</i>								
MW-4 (16.5 ft bgs)	13	0.038	0.015	nd	0.023	-	-	-
MW-4 (31.5 ft bgs)	68	0.21	0.092	0.15	0.39	190	-	-
MW-4 (36.5 ft bgs)	5.4	nd	0.008	0.015	0.011	-	-	-
<b>Former Underground Waste Oil Tank</b>								
<i>Initial Excavation (Nov. 1989)</i>								
1	-	0.093	0.51	0.48	1.7	5500	760	nd
2	-	0.16	0.4	0.81	2.4	7200	460	nd
<i>Overexcavation (May 1991)</i>								
1 (south side)	190	nd	nd	0.58	1.3	15,000	2,700	-
2 (west side)	nd	nd	nd	nd	nd	1,200	61	-
3 (east side)	4.4	nd	nd	0.0083	0.021	11,000	4,400	-
4 (north side)	12	0.0042	nd	0.0091	0.021	410	250	-
5 (west floor)	270	nd	3.5	1.3	nd	5,500	670	-
6 (east floor)	260	nd	nd	1.2	2.5	3,500	680	-
<i>Soil Borings (Aug. 1990)</i>								
EB-2 (10 ft bgs)	-	-	-	-	-	4,200	-	-
EB-2 (16 ft bgs)	-	-	-	-	-	nd	-	-
EB-3 (10 ft bgs)	-	-	-	-	-	2,800	-	-
EB-3 (16 ft bgs)	-	-	-	-	-	150	-	-

**Notes:**

All results in milligrams per kilogram ("mg/kg")

Soil sampling data obtained from *Preliminary Evaluation of Remedial Action Alternative for Former Gruit Auto and Repair Site*  
 STID #553, 1970 Seminary Avenue, Oakland, California, prepared by Hoexter Consulting, Inc., dated 28 July 1996.

ft bgs = feet below ground surface

- = not analyzed

nd = not detected above analytical method reporting limits.

## ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

1970 Seminary Avenue, Oakland, CA

EKI A10034.00

August 2002

Date Sampled	TPH Gasoline	MTBE	Benzene	Toluene	Ethyl Benzene	Xylenes	Oil & Grease	CA	1,2-DCB	1,2-DCA	cis 1,2-DCE	trans 1,2-DCE	1,2-DCP	PCE	TCE	VCL
MW-1																
8/6/90	54,000	-	3,500	3,200	1,900	9,400	7,600	-	-	-	-	-	-	-	-	-
1/28/92	2,000,000	-	7,400	17,000	28,000	120,000	7,500	-	-	-	-	-	-	-	-	-
4/27/92	500,000	-	3,400	6,400	10,000	45,000	440,000	-	-	-	-	-	-	-	-	-
4/24/92	175,000	-	4,200	4,400	3,200	14,600	-	-	-	-	-	-	-	-	-	-
8/10/92	170,000	-	4,200	4,200	3,300	15,900	120,000	-	-	-	-	-	-	-	-	-
2/11/94	1,800,000	-	nd	5,100	5,200	23,900	16,000	-	-	-	-	-	-	-	-	-
9/9/94	23,000,000	-	56,000	61,000	9,100	137,000	880,000	-	-	-	-	-	-	-	-	-
12/28/94	55,000	-	3,700	5,300	1,400	5,800	83,000	-	-	-	-	-	-	-	-	-
4/13/95	45,000	-	2,800	3,400	1,200	5,100	50,000	-	-	-	-	-	-	-	-	-
11/1/95	44,000	-	2,600	3,400	1,400	5,900	52,000	-	-	-	-	-	-	-	-	-
3/25/96	45,000	-	3,000	4,100	1,600	6,800	46,000	<5	7.2	5.3	82	<5	<5	<5	7.8	25
10/8/96	55,000	490	3,300	4,500	1,700	7,100	11,000	<20	<20	<20	45	<20	<20	<20	<20	26
1/16/97	48,000	310	2,600	3,200	1,300	5,300	110,000	-	-	-	-	-	-	-	-	-
6/23/97	40,000	<100	2,300	3,500	1,500	6,300	190,000	<2	10	4.1	130	3.7	<2	5	23	54
10/7/97	45,000	<680	2,500	3,600	1,700	6,800	150,000	3.5	7.4	2.2	82	3.8	<2	<3	9.5	68
12/12/98	39,000	<1,500	3,000	100	1,400	5,800	67,000	<2.5	7.4	<2.5	26	<2.5	<2.5	<2.7	<2.5	7.3
4/24/99	33,000	<200	2,300	3,300	1,100	4,100	140,000	2.1	9.9	3.5	61	2.8	2	<1.2	<1.5	22
4/24/99	41,000	1,100	2,500	3,700	1,500	5,700	-	-	-	-	-	-	-	-	-	-
12/18/99	43,000	<200	2,600	3,800	1,400	5,800	110,000	3.3	8	1.2	12	2.8	1.2	<0.5	<0.5	7.2
7/22/00	37,000	<200	2,200	2,600	1,300	5,200	320,000	<2.5	16	<2.5	15	<2.5	<2.5	<5.0	<2.5	8.2
1/29/01	36,000	<200	2,100	2,300	1,200	4,500	76,000	<10	23	<10	23	<10	<10	<10	<10	<10
7/28/01	99,000	<250	1,500	2,300	1,700	6,600	86,000	7.4	9	0.97	14	6.4	0.95	<0.5	<0.5	15
2/3/02	42,000	<500	1,200	1,300	1,100	3,900	42,000	5.5	10	1.4	23	5.5	0.59	<0.5	<0.5	7.4
7/23/02	53,000	<1000	1,700	2,800	1,500	5,100	170,000	<10	2.5	<10	15	<10	<10	<10	<10	<10

## ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

1970 Seminary Avenue, Oakland, CA

EKI A10034.00

August 2002

Date Sampled	TPH Gasoline	MTBE	Benzene	Toluene	Ethyl Benzene	Xylenes	Oil & Grease	CA	1,2-DCB	1,2-DCA	cis 1,2-DCE	trans 1,2-DCE	1,2-DCP	PCE	TCE	VCL
MW-2																
2/11/94	130	-	22	1.1	5.2	7.3	nd	-	-	-	-	-	-	-	-	-
9/9/94	1,000	-	89	nd	nd	6.9	nd	-	-	-	-	-	-	-	-	-
12/28/94	330	-	100	3.8	5.4	4.7	5100	-	-	-	-	-	-	-	-	-
4/13/95	1,300	-	280	6.9	33	23	nd	-	-	-	-	-	-	-	-	-
11/1/95	100	-	9.9	nd	nd	nd	nd	-	-	-	-	-	-	-	-	-
3/25/96	4,500	-	470	57	220	280	nd	<0.5	<0.5	8.7	11	<0.5	1	<0.5	3.2	0.92
10/8/96	710	41	1.9	0.54	1	1	nd	<0.5	<0.5	15	9.6	<0.5	1.1	<0.5	6.6	<0.5
1/16/97	330	12	41	2.4	1.3	9.9	nd	-	-	-	-	-	-	-	-	-
6/23/97	280	10	12	0.69	nd	13	-	<0.5	<0.5	9.7	8	<0.5	0.86	<0.5	9.6	<0.5
10/7/97	320	<35	4.5	nd	nd	nd	-	<0.5	<0.5	18	11	<0.5	1.2	<0.5	15	<0.5
12/12/98	290	<11	21	0.76	10	19	nd	<0.5	<0.5	16	9.4	<0.5	1.1	<1	7.5	<0.5
4/24/99	360	21	36	1.3	9.2	19	<5000	<0.5	<0.5	13	7.8	<0.5	0.92	<0.5	8.4	<0.5
12/18/99	210	<200	13	nd	2.9	7.7	<5000	<0.5	<0.5	15	9	<0.5	1.5	<0.5	<0.5	<0.5
7/22/00	180	<5	10	nd	4.5	6	<5000	<0.5	<0.5	17	10	<0.5	1.2	<1	12	<0.5
1/29/01	130	<5	16	nd	1.9	3.8	<5000	<0.5	<0.5	12	9.1	<0.5	0.9	<5	12	<0.5
7/28/01	<50	<5	2.7	nd	0.64	0.69	<5000	<0.5	<0.5	9.7	7.8	<0.5	0.95	<5	12	<0.5
2/3/02	140	<5	5.5	<0.5	9	12	<5000	<0.5	<0.5	7.1	6.7	<0.5	0.72	<0.5	9	<0.5
7/23/02	780	<15	52	2	44	6.2	<5000	<0.5	<0.5	1.7	2.1	<0.5	<0.5	<0.5	0.97	<0.5

**TABLE 2 (cont.)**  
**ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES**  
**1970 Seminary Avenue, Oakland, CA**  
**EKI A10034.00**  
**August 2002**

Date Sampled	TPH Gasoline	MTBE	Benzene	Toluene	Ethyl Benzene	Xylenes	Oil & Grease	CA	1,2-DCB	1,2-DCA	cis 1,2-DCE	trans 1,2-DCE	1,2-DCP	PCE	TCE	VCL
<b>MW-3</b>																
2/11/94	nd		nd	nd	nd	nd	nd	-	-	-	-	-	-	-	-	-
9/9/94	710	-	10	nd	nd	3.5	nd	-	-	-	-	-	-	-	-	-
12/28/94	2,300	-	7.8	nd	130	73	nd	-	-	-	-	-	-	-	-	-
4/13/95	1,700	-	2.9	nd	61	24	nd	-	-	-	-	-	-	-	-	-
11/1/95	1,100	-	4.4	nd	27	22	nd	-	-	-	-	-	-	-	-	-
3/25/96	2,300	-	4	0.96	120	65	nd	<0.5	<0.5	0.56	1.2	<0.5	<0.5	<0.5	<0.5	<0.5
10/8/96	160	-	nd	0.5	1.2	0.77	nd	<0.5	<0.5	1.1	0.87	<0.5	<0.5	<0.5	<0.5	<0.5
1/16/97	1,800	7.1	2.8	0.68	48	66	<5000	-	-	-	-	-	-	-	-	-
6/23/97	nd	nd	nd	nd	nd	nd	-	<0.5	<0.5	0.54	0.76	<0.5	<0.5	<0.5	<0.5	<0.5
10/7/97	nd	nd	nd	nd	nd	nd	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
12/12/98	1,900	nd	1.8	0.78	78	42	nd	<0.5	<0.5	0.51	0.82	<0.5	<0.5	<1	<0.5	<0.5
4/24/99	2,100	nd	1.5	0.85	79	43	<5000	<0.5	<0.5	>0.5	0.65	<0.5	<0.5	<0.5	<0.5	<0.5
12/18/99	330	nd	0.51	nd	nd	nd	<5000	<0.5	<0.5	0.72	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
7/22/00	230	nd	0.89	2.4	nd	nd	<5000	<0.5	<0.5	0.52	<0.5	<0.5	<0.5	<1	<0.5	<0.5
1/29/01	450	<5	1.1	1.6	11	3.6	<5000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5
7/28/01	<50	<5	<0.5	nd	nd	nd	<5000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2/3/02	98	<5	<0.5	<0.5	<0.5	<0.5	<5000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
7/23/02	<50	<5	<0.5	<0.5	<0.5	<0.5	<5000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
<b>MW-4</b>																
3/26/96	9,900	-	4,000	40	71	100	nd	<8	22	<8	300	9.2	<8	38	150	44
10/8/96	7,800	140	3,900	33	31	40	nd	<15	22	4.9	320	<15	<15	52	130	60
1/16/97	4,800	84	1,900	21	2.5	27	5,200	-	-	-	-	-	-	-	-	-
6/23/97	6,200	160	2,800	20	20	23	nd	3.6	21	5.3	340	10	<3	11	110	83
10/7/97	4,400	85	1,800	14	18	14	nd	<8	20	<8	380	9.9	<8	<12	56	56
12/12/98	3,500	110	1,500	13	39	14	nd	<3.5	18	<3.5	150	12	<8	<4.5	12	57
4/24/99	3,100	<10	1,700	22	67	21	7,500	<8.5	20	<8.5	390	12	<8.5	33	240	43
12/18/99	2,600	33	1,000	12	32	10	<5000	<10	27	<10	390	13	<10	<10	39	<10
7/22/00	2,700	60	940	14	31	12	7,000	<10	38	<10	620	<10	<10	<10	19	97
1/29/01	2,500	<5	980	11	35	5	<5000	<5	35	<5	380	15	<5	<5	19	97
7/28/01	1,100	27	250	6.3	19	4.8	90,000	<7.5	29	<5	310	18	<5	<5	8.4	150
2/3/02	2,100	<25	890	23	41	20	7,400	<7	22	<7	310	16	<7	<7	20	120
7/23/02	1,200	<17	490	11	22	8.8	<5000	<0.5	30	<0.5	240	17	<0.5	<0.5	<0.5	230



TABLE 2 (cont.)  
 ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES  
 1970 Seminary Avenue, Oakland, CA  
 EKI A10034.00  
 August 2002

Date Sampled	TPH Gasoline	MTBE	Benzene	Toluene	Ethyl Benzene	Xylenes	Oil & Grease	CA	1,2-DCB	1,2-DCA	cis 1,2-DCE	trans 1,2-DCE	1,2-DCP	PCE	TCE	VCL
<b>MW-5</b>																
3/26/96	1,200	-	43	8.2	83	95	nd	1.4	<0.5	2.1	6.2	<0.5	<0.5	<0.5	<0.5	10
10/8/96	6,700	190	260	92	410	370	nd	<2.5	<2.5	4.9	4.4	<2.5	<2.5	<2.5	<2.5	9.4
1/16/97	3,000	90	150	68	190	180	nd	-	-	-	-	-	-	-	-	-
6/23/97	12,000	150	410	170	920	800	-	2	2.1	2	7.2	0.71	<0.5	<0.5	<0.5	13
10/7/97	10,000	<480	310	62	530	500	-	1.9	1.4	2.8	3.4	<0.5	<0.5	<0.5	<0.5	10
12/12/98	11,000	<660	400	120	740	480	nd	1.4	2	1.1	3.7	<1	<1	<1.5	<1	5.8
4/24/99	9,300	<100	390	290	820	770	<5000	<1	1.9	1.9	4.8	<1	<1	<1	<1	6.3
12/18/99	7,000	<100	250	52	500	300	<5000	1.6	1.7	1.8	1.9	<0.5	<0.5	<0.5	<0.5	2.9
7/22/00	14,000	<100	290	140	770	630	12,000	1.8	2.4	1.4	2.6	<1	<1	<1.0	<1.0	5
1/29/01	8,200	<5	180	42	420	250	11,000	<1	2.2	2.6	2.2	<1	<1	<1	<1	2.2
7/28/01	9,100	<70	190	67	540	430	<5000	1.4	1.3	1.7	1.4	<1	<1	<1	<1	2.6
2/3/02	11,000	<100	250	160	730	540	<5000	1.8	2	2.1	3.9	0.95	<0.5	<0.5	<0.5	4.6
7/23/02	6,400	<110	160	67	540	390	<5000	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
<b>MW-6</b>																
3/26/96	9,900	-	1,000	150	470	720	nd	<0.5	<0.5	3.9	15	<0.5	1.9	0.77	2	<0.5
10/8/96	1,300	57	120	2.3	1.4	4	nd	<0.5	<0.5	2.3	9.9	<0.5	<0.5	<0.5	0.57	<0.5
1/16/97	6,500	220	570	65	170	630	nd	-	-	-	-	-	-	-	-	-
6/23/97	3,100	100	410	16	110	140	-	<0.5	<0.5	1.6	10	<0.5	<0.5	<0.5	0.63	0.5
10/7/97	960	<74	78	3.4	1.8	5.8	-	<0.5	<0.5	3.4	7.9	<0.5	<0.5	<0.5	0.82	<0.5
12/12/98	2,500	<160	230	10	92	110	nd	<0.5	<0.5	1.5	8.4	<0.5	<0.5	<1	<0.5	<0.5
4/24/99	2,900	<10	430	33	160	200	<5000	<0.5	<0.5	2.3	17	<0.5	0.89	<1	0.73	0.59
12/18/99	2,300	<200	170	6.6	56	63	<5000	<0.5	<0.5	2.2	8.3	<0.5	<0.5	<0.5	<0.5	0.62
7/22/00	2,200	<10	290	9.6	80	43	<5000	<0.5	<0.5	1.2	9.3	<0.5	<0.5	<1.0	<0.5	0.97
1/29/01	2,500	<10	220	11	150	230	<5000	<0.5	<0.5	1.1	11	<0.5	<0.5	<5	<0.5	0.77
7/28/01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/3/02	2,500	<50	290	18	88	130	<5000	<0.5	<0.5	1.5	13	<0.5	<0.5	<0.5	<0.5	<0.5
7/23/02	1,100	<20	160	6.5	54	35	<5000	<1	<1	<1	9.3	<1	<1	<1	<1	<1

## ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

1970 Seminary Avenue, Oakland, CA

EKI A10034.00

August 2002

Date Sampled	TPH Gasoline	MTBE	Benzene	Toluene	Ethyl Benzene	Xylenes	Oil & Grease	CA	1,2-DCB	1,2-DCA	cis 1,2-DCE	trans 1,2-DCE	1,2-DCP	PCE	TCE	VCL
<b>MW-7</b>																
6/23/97	8,700	<20	950	260	520	380	nd	0.93	1.6	<0.5	2.4	1.2	<0.5	9.8	17	1.5
10/7/97	7,500	<310	1,100	86	280	150	nd	<2	<2	<2	8.5	2.4	<2	38	110	<2
12/12/98	5,000	<190	640	43	200	55	nd	<2	2.2	<2	97	<2	<2	<3.5	<2	<2
4/24/99	5,500	<10	640	180	290	210	<5000	<2	2.4	<2	31	<2	<2	9.3	82	<2
12/18/99	5,500	<10	570	27	91	31	<5000	<3	5.7	<3	120	<3	<3	<3	12	<3
7/22/00	7,400	<80	620	180	240	180	10,000	<5	18	<5	170	<5	<5	<5	8	<5
1/29/01	4,000	<10	410	21	22	21	7,000	<5	5.5	<5	78	1	<1	<1	2	2
7/28/01	4,200	<70	540	120	110	110	<5000	<5	11	<5	170	<5	<5	<5	6.9	6.1
2/3/02	6,300	<25	560	110	190	140	<5000	<5	<5	<5	94	<5	<5	<5	30	<5
7/23/02	3,400	<50	440	6.3	87	61	<5000	<10	12	<10	180	<10	<10	<10	<10	<10
<b>MW-8</b>																
6/23/97	610	5.9	25	1.4	4.3	2.4	nd	<1	5.4	<1	64	<1	<1	97	100	<1
10/7/97	120	nd	6.9	nd	nd	nd	nd	<0.5	1.1	<0.5	16	<0.5	<0.5	30	27	<0.5
12/12/98	nd	nd	nd	nd	nd	nd	nd	<0.5	<0.5	<0.5	3.4	<0.5	<0.5	4.8	4.7	<0.5
4/24/99	nd	nd	nd	nd	nd	nd	<5000	<0.5	<0.5	<0.5	1.9	<0.5	<0.5	3.4	3.4	<0.5
12/18/99	nd	nd	nd	nd	nd	nd	<5000	<0.5	<0.5	<0.5	5.3	<0.5	<0.5	5.9	6.4	<0.5
7/22/00	nd	nd	nd	nd	nd	nd	<5000	<0.5	<0.5	<0.5	1.7	<0.5	<0.5	2.4	1.6	<0.5
1/29/01	nd	<5	0.87	nd	nd	nd	<5000	<0.5	<0.5	<0.5	10	<0.5	<0.5	<5	8.8	<0.5
7/28/01	nd	<5	nd	nd	nd	nd	<5000	<0.5	<0.5	<0.5	2.6	<0.5	<0.5	<1.5	2.1	<0.5
2/3/02	<50	16	<0.5	<0.5	<0.5	<0.5	<5000	<0.5	<0.5	<0.5	6.6	<0.5	<0.5	3.3	4.6	<0.5
7/23/02	<50	<5	0.87	<0.5	<0.5	<0.5	<5000	<0.5	<0.5	<0.5	8.4	<0.5	<0.5	3.5	5.2	<0.5

## ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

1970 Seminary Avenue, Oakland, CA

EKI A10034.00

August 2002

Date Sampled	TPH Gasoline	MTBE	Benzene	Toluene	Ethyl Benzene	Xylenes	Oil & Grease	CA	1,2-DCB	1,2-DCA	cis 1,2-DCE	trans 1,2-DCE	1,2-DCP	PCE	TCE	VCL
<b>MW-9</b>																
6/23/97	32,000	250	340	280	1,500	4,300	nd	<1	2.1	<1	7.4	<1	<1	3.5	1.4	<1
10/7/97	33,000	<690	880	350	1,900	4,700	nd	<0.5	1.6	2.1	21	<0.5	0.7	<2	0.53	2.7
12/12/98	3,400	<78	160	14	220	210	nd	<0.5	0.7	0.53	1.9	<0.5	<0.5	<1	<0.5	<0.5
4/24/99	3,100	22	130	18	220	190	nd	<0.5	0.81	0.52	3.1	<0.5	<0.5	<0.5	<0.5	<0.5
12/18/99	7,500	100	220	44	440	650	<5000	<0.5	1.1	0.67	3.7	<0.5	<0.5	<0.5	<0.5	0.63
7/22/00	4,900	<10	93	15	240	250	7,100	<1	1.4	<1	1.6	<1	<1	<1	<1	<1
1/29/01	3,800	<10	160	35	260	310	5,000	<0.5	1.2	0.71	<0.5	8.2	<0.5	<5	<0.5	0.53
7/28/01	5,700	<20	43	27	210	420	<5000	<0.5	0.87	<0.5	0.92	<0.5	<0.5	<5	2.5	<0.5
2/3/02	7,800	<50	98	51	450	640	<5000	<0.5	1.2	<0.5	2.4	<0.5	<0.5	<0.5	<0.5	<0.5
7/23/02	2,300	<50	29	14	120	96	<5000	<2.5	3.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
<b>EB-4</b>																
3/8/96	15,000	-	780	840	1,300	590	7,500	nd	nd	nd	42	nd	nd	130	340	nd

**Notes:**

All groundwater results in micrograms per liter ("ug/l")

Groundwater sample data obtained from Hoexter Consulting, Inc. semi-annual groundwater sampling reports.

See Hoexter Consulting, Inc. reports for complete data set including additional parameters and detection limits.

CA = chloroethane

1,2-DCB = 1,2-dichlorobenzene

1,2-DCA = 1,2-dichloroethane

cis 1,2-DCE = cis 1,2-dichloroethene

trans 1,2-DCE = trans 1,2-dichloroethene

1,2-DCP = 1,2-dichloropropane

PCE = perchloroethylene (or tetrachloroethylene)

TCE = trichloroethylene

VCL - vinyl chloride

- = not analyzed

nd = not detected above analytical method reporting limits.

**TABLE 3**  
**ANALYTICAL RESULTS FOR**  
**EXCAVATION AND STOCKPILE SOIL SAMPLES**

1970 Seminary Avenue, Oakland, California

EKI A10034.00

September 2001

Sample ID	Sample Depth (ft bgs)	ANALYTICAL RESULTS IN MG/KG															
		Petroleum Hydrocarbons				Aromatic Compounds											PCBs
		Gasoline	Diesel	Motor Oil	Hydraulic Oil	Benzene	Ethyl benzene	Naphthalene	T. Xylenes	Isopropyl benzene	1,2,4-TMB	1,3,5-TMB	n-Butyl benzene	n-Propyl benzene	p-Isopropyl toluene	sec-Butyl benzene	
NW 8.5	8.5	82(1)	160(2)	490	<250	<0.25	0.79	0.51	0.53	0.35	1.2	0.66	0.85	1.5	<0.25	0.31	na
NE 8.5	8.5	110(1)	74(2)	310	<250	2.4	<0.25	1.4	3	0.32	6.8	2	1.3	1.4	<0.25	<0.25	na
SW 8.0	8	47(1)	200(2)	790	<500	<0.25	<0.25	<0.5	<0.5	<0.25	0.34	0.36	0.37	0.46	<0.25	<0.25	na
SE 9.0	9	490(1)	1,100(2)	3,300	<2,500	<0.5	2.4	5.3	4.4	2.5	6.4	4.1	<0.5	10	0.52	1.8	na
BOTTOM 9.5	9.5	<1	2.1(2)	<50	<50	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	na
SP-WEST	na	na	240(2)	na	na	<0.12	0.055	0.17	0.14	0.023	0.31	0.099	0.047	0.095	<0.012	0.033	<0.05
SP-EAST	na	na	73(2)	na	na	<0.005	0.0092	<0.01	0.021	0.0058	0.065	0.024	0.01	0.02	<0.005	0.0087	<0.05

**Notes:**

(1) Analytical laboratory indicates that chromatogram pattern does not match gasoline standard

(2) Analytical laboratory indicates that chromatogram pattern does not match diesel standard

Petroleum hydrocarbons using US EPA Method 8015m

Aromatic Compounds by US EPA Method 8260B

PCBs (polychlorinated biphenyls) using US EPA Method 8082

1,2,4-TMB = 1,2,4-trimethylbenzene

1,3,5-TMB = 1,3,5-trimethylbenzene

mg/kg = milligrams per kilogram

ft bgs = feet below ground surface

na = not analyzed/not applicable

Samples SP-WEST and SP-EAST are stockpile soil samples.

Samples collected by EKI on 13 July 2001

Samples analyzed by STL ChromaLab in Pleasanton, California

**TABLE 4**  
**METALS ANALYTICAL RESULTS FOR**  
**EXCAVATION SOIL SAMPLES**

1970 Seminary Avenue, Oakland, California  
EKI A10034.00

September 2001

Sample ID	Sample Depth (ft bgs)	Analytical Results in mg/kg				
		Cadmium	Chromium	Lead	Nickel	Zinc
NW 8.5	8.5	<0.5	27	4.9	46	51
NE 8.5	8.5	<0.5	34	5.3	58	38
SW 8.0	8	<0.5	25	5.3	57	47
SE 9.0	9	0.55	46	13	99	64
BOTTOM 9.5	9.5	<0.5	31	3.1	47	22
SP-WEST	na	na	na	na	na	na
SP-EAST	na	na	na	na	na	na

Notes:

Samples analyzed using US EPA Method 6010B

mg/kg = milligrams per kilogram

ft bgs = feet below ground surface

na = not analyzed/not applicable

Samples SP-WEST and SP-EAST are stockpile soil samples.

Samples collected by EKI on 13 July 2001

Samples analyzed by STL ChromaLab in Pleasanton, California



Reference: U.S.G.S. 7.5 Minute Series Topographic Map, Oakland East, California.

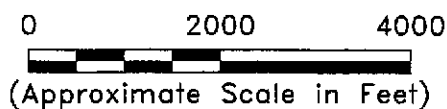
**Note:**

1. All locations are approximate.

**Erler & Kalinowski, Inc.**

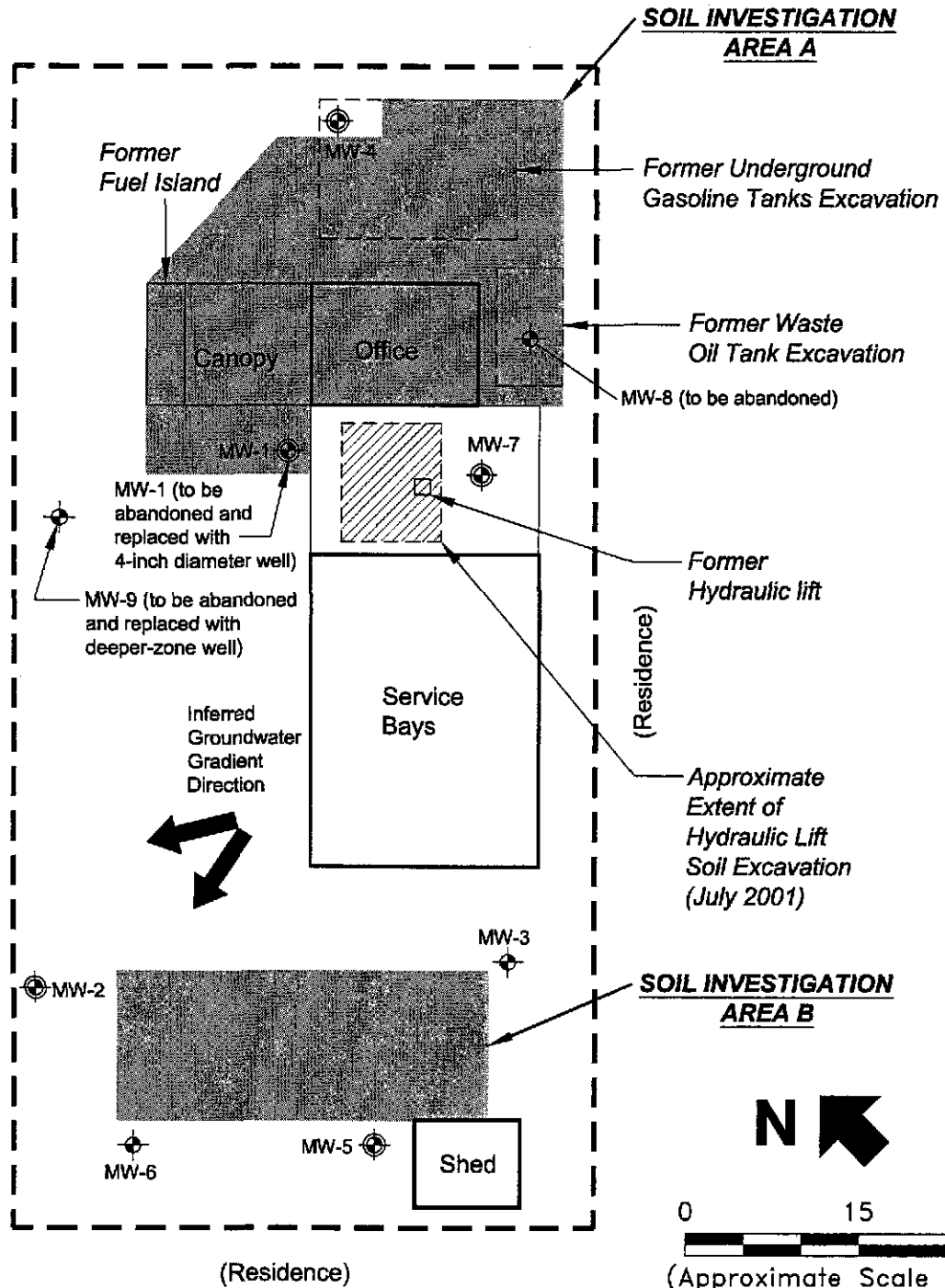
Approximate Site Location

1970 Seminary Avenue  
 Oakland, CA  
 August 2002  
 EKI A10034.00  
 Figure 1



Harmon Avenue

Seminary Avenue



**LEGEND:**

- Approximate Site Boundary
- Shallow-Zone Monitoring Well (Approximate 5-20' bgs Screen Interval)
- Deeper-Zone Monitoring Well (Approximate 15-35' bgs Screen Interval)
- Proposed Soil Investigation Areas (Approximate)
- Below Ground Surface

**Notes:**

1. All locations are approximate.
2. Basemap Source: Hoexter Consulting, Inc. (Nov. 2000).

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Proposed Soil Investigation Areas

1970 Seminary Avenue  
Oakland, CA  
August 2002  
EKI A10034.00  
Figure 2